

# APPENDIX

---

## Background

---

The Unsewered Communities project sponsored by The Miami Valley Regional Planning Commission (MVRPC) is a formal Feasibility Study looking at five small communities in the Miami Valley area that are served by septic systems that no longer provide adequate wastewater treatment. Environmental and health agencies are concerned about potential for pollution from these systems to harm the environment and human health. MVRPC is partnering with Ohio EPA and Public Health Districts in the Miami Valley to conduct a feasibility Study for each of these 5 high priority communities experiencing environmental and public health concerns due to large concentrations of failing or underperforming home sewage treatment systems. This public involvement summary reflects the public activity, Steering Committee input and responses from the Village of Wayne Lakes.

---

## Public Involvement Summary

---

### **Steering Committee Meeting #1**

The project was spearheaded with a kickoff meeting held Nov. 3, 2014 at the Community Bldg. 100 Community Dr. Wayne Lakes to explain the goals of the project to a group of Steering Committee members. Those in attendance can be found on the sign-in sheet attached to this summary. Discussion topics included: What the Village wanted to see as an outcome of the Study, What is important to them, and how does the Village feel about having a public sewer system. Areas included in the study were discussed as well as types of sewer systems considered, types of treatment systems considered and funding source possibilities. Next steps in the process, and a schedule for the next Steering Committee meetings as well as discussing a date for the upcoming public meeting were discussed. Many questions were asked by the Steering Committee members. The questions and responses are included in the attached meeting minutes.

### **Steering Committee Meeting #2**

The next Steering Committee Meeting was held on Feb. 2, 2015 at the Wayne Lakes Community Bldg. 100 Community Dr. Wayne Lakes. Those in attendance can be found on the attached sign-in sheet. The goals of the meeting were: To go over the preliminary work that IBI Group had developed up to that point which had generated additional questions for the Steering Committee; to answer any questions from the Steering Committee; to discuss possibilities for regionalizing the system (the project team reached out to Greenville) and Palestine/Hollansburg); and to set future meeting dates. The Mayor (Young) was in favor of a regional system. The Steering Committee completed an alternative priority exercise to help guide the selection of alternatives. The questions from the Steering Committee as well as responses can be found in the attached Steering Committee meeting minutes. Sewer systems, treatment systems, and finance options were discussed in depth. The dates for the next Steering Committee and Public meeting were discussed and established.

### **Steering Committee Meeting #3**

The final Steering Committee meeting was held on April 13, 2015 at the Wayne Lakes Community Bldg. 100 Community Dr. Wayne Lakes. A Draft Final Plan was introduced to the Steering Committee with the findings and a recommendation. The committee had been given the opportunity to review, comment, and ask questions on the report recommendations. The review and discussion was in preparation for the upcoming public meeting which was scheduled for May 30, 2015. The Report was also put on line

# Unsewered Communities Project Public Involvement Summary Wayne Lakes



and could be reached via the MVRPC website. The project area was discussed, sewer systems and treatment systems considered were discussed. Many questions were asked with responses included in the attached meeting minutes.

The recommendation as stated in the Study is: After considering the economic cost effective analysis and the environmental conditions, the following regional solution is recommended: The Village of Wayne Lakes should install a Grinder pump collection system with necessary force mains to a new Mechanical Treatment Plant (Extended Aeration) facility stationed just outside of the Village of Wayne Lakes. A table was developed summarizing the project costs with realistic funding plans for the project and included in the report as well as the meeting handout to each attendee. The bottom line of each option showed the typical average cost per month for each of the 319 customers.

## **Public Meeting – May 30, 2015**

The Public Meeting for the Village of Wayne Lakes – Unsewered Communities project was held on May 30, 2015 at Wayne Lakes Community Bldg. 100 Community Dr. Wayne Lakes. An overview of the project was given after the meeting purpose and agenda. All attendees were given an opportunity to provide written comments to the project team, leaving them as they left the meeting or mailing them to IBI Group. Matt L. of MVRPC stated that the Study produced by IBI Group was not a decision making document but was information to help the leaders of the Village to make decisions going forward with a potential sewer project. The goal was to have the final report wrapped up and delivered to the Village Council within a month. The meeting was turned over to Roberta Mangen and Dr. Terrance Holman of the Darke County Health District. They explained the reasons for concern in terms of the individual sewer system issue in the Village as well as an explanation of the new rules for sewage management/maintenance. Keith D. – IBI Group presented the sewer systems and treatment systems considered for the Study, why the team came to the recommendation in the report, and discussed the possible funding options available. The many questions and answers can be found in the Public meeting minutes attached.

Six copies of the Study were provided for the public to review and financing possibilities were discussed in depth. Announcements and public notices for the May 30th public meeting are attached.

## **Next Steps**

The next steps should the Village of Wayne Lakes decide to pursue a sewer project are:

1. Mayor Young was in favor of a Village vote. Council recognizes the growing problem and the potential for people losing their properties. Should that vote be for a sewer system:
2. Hire an Engineering firm to coordinate with Funding Agencies, survey the area, design the project, and secure EPA permits.

**Unsewered Communities Project  
Kick-Off Meeting Agenda**

**Village of Wayne Lakes, Darke County, Ohio  
November 3, 2014 6:00 pm**



Thank you for allowing us the opportunity to meet with you and discuss the development of a report for wastewater collection and treatment planning for your community.

As you may know, the Village of Wayne Lakes has been identified as a Localized Area of Concern through the Darke County Health District, Darke County Soil and Water Conservation District and Ohio EPA and is noted in the MVRPC *Areawide Water Quality Management Plan* as such.

The Miami Valley Regional Planning Commission (MVRPC) is partnering with OEPA and public health districts in the Miami Valley to conduct feasibility studies for high priority communities experiencing environmental and public health concerns due to large concentrations of failing or underperforming home sewage treatment systems.

The “Unsewered Communities Project,” will provide the results of these vital wastewater treatment feasibility studies to participating communities that choose to take part in the study process. MVRPC has contracted with IBI Group in the development of a General Plan for your community. IBI Group (formerly M•E/IBI Group) has worked closely with numerous communities like yours guiding them through the rigors of developing a cost-effective plan and implementing the plan through construction and start-up. The development of a General Plan does not commit you to installing with a public sewer system. It does, however, provide you with potential alternatives, cost estimates, a funding plan, and schedule should you decide as a community that a sewer system is in its best interest and want to proceed further with engineering design and funding applications.

**Introductions/Steering Committee Members:**

**IBI Group / Burton Planning Services:**

Keith Doll, P.E., Project Manager 635 Brooksedge Blvd. Westerville, OH 43081 (614) 818-4900 <a href="mailto:keith.doll@ibigroup.com">keith.doll@ibigroup.com</a>	Nicole Clune, P.E., Planning Director Burton Planning Services 252 Electric Avenue Westerville, OH 43081 <a href="mailto:nclune@burtonplanning.com">nclune@burtonplanning.com</a>
--	---

**MVRPC:**

Matthew Lindsay, Manager of Environmental Planning 10 N. Ludlow St., Suite 700 Dayton, OH 45402 (937) 531-6548 <a href="mailto:mlindsay@mvrpc.org">mlindsay@mvrpc.org</a>	Kjirsten Frank Hoppe, Regional Planner II 10 N. Ludlow St., Suite 700 Dayton, OH 45402 (937) 531-6548
---	--

**Wayne Lakes:**

Gary Young, Mayor 100 Community Drive Greenville, OH 45331 <a href="mailto:squire60@embarqmail.com">squire60@embarqmail.com</a>	<p><i>Council Members</i></p> <table> <tr> <td>Michael Bland</td> <td>Roy Cardone</td> </tr> <tr> <td>John McRoberts</td> <td>Rita Robinett</td> </tr> <tr> <td>Robert Tuco</td> <td></td> </tr> </table>	Michael Bland	Roy Cardone	John McRoberts	Rita Robinett	Robert Tuco	
Michael Bland	Roy Cardone						
John McRoberts	Rita Robinett						
Robert Tuco							

**Regulatory Agencies:**

Joe Miller Ohio EPA 401 E. Fifth Street Dayton, OH 45402 (937) 285-6109 <a href="mailto:joseph.miller@epa.state.oh.us">joseph.miller@epa.state.oh.us</a>	Glen Vonderembse Ohio EPA 401 E. Fifth Street Dayton, OH 45402 (937) 285-6357
Roberta Mangen Darke County General Health District 300 Garst Avenue Greenville, OH 45331	

**Questions to assist us:**

The following is a list of general questions to help us get started with the study:

- What would you want to see as an outcome to this study / what is important to you? How do you feel about a public sewer system in the Wayne Lakes area?
- Have there been any previous projects in the area where mapping or plans are available for review? Waterline projects / Roadway projects?
- Have there been any previous studies for providing sanitary sewers? Are these available for review?
- Does the Village currently have public water? If so, who is the provider?
- Does the Village currently have a billing system for its customers? i.e. water & storm sewer.
- Are there any future growth areas identified within the area? i.e. future residential community or commercial project.
- Are there any isolated problem areas or pockets of concern that you can discuss? i.e. sewage smell on a particular street.
- How often would the Steering Committee prefer to meet? Dates & Times?

**Next Steps?**

- We will be coordinating with Ohio EPA, Darke County Health District, Darke County Sanitary Engineer, Darke County Soil & Water, and MVRPC, to collect as much data as we can.
- We will make several field visits to take notes and gather information
- Monthly (or as necessary) Steering Committee meetings to update progress
- A draft General Plan will be provided for review and comment
- Public meeting (at your discretion) to present to residents
- Final General Plan Developed
- Submit final plan to EPA

**What does a General Plan Consist of?**

The following is a draft outline of what may be included in your General Plan:

<p><b>1. Executive Summary</b>          Alternatives Considered          Conclusions          Implementation</p> <p><b>2. Introduction</b>          Background/Objective          Scope/Planning Area          Methodology</p> <p><b>3. Existing Conditions</b>          Planning Area          Existing Wastewater/Water Systems          Environmental: Geology &amp; Hydrology, Soils,          Topo, Water Quality, Wetlands, Flood          Hazard Area          Land Use &amp; Zoning          Populations</p>	<p><b>4. Future Conditions</b>          Land Use / Development          Population Projections          Projected Wastewater Flow and Loadings</p> <p><b>5. Wastewater System Alternatives</b>          Alternative 1: Cost / Layout          Alternative 2 (if necessary): Cost / Layout          Alternative 3 (if necessary): Cost / Layout</p> <p><b>6. Selected Plan</b>          Cost Summary</p> <p><b>7. Implementation</b>          Funding          Schedule</p>
--	--

## Unsewered Communities Project Kick-Off Meeting Agenda

Village of Wayne Lakes, Darke County, Ohio  
November 3, 2014 @ 6:00 pm



**Attending:** See attached sign-in sheet.

### Meeting Minutes:

Prior to opening, a village councilor stated for the project, "This is going to be a challenge. Lots of sand and water."

Mayor Young was unable to attend.

Opening by Mr. Matthew Lindsay. Mr. Lindsay has met some of attendees when he and Roberta Mangen (Darke County Health District) came to a council meeting to introduce the project. This meeting serves as a kick-off meeting for the steering committee and the project.

MVRPC has a special contract with OEPA to do preliminary sewer planning through their 5-county region and is pleased that Wayne Lakes has elected to be part of this project. The purpose of this meeting is to kick off this project with Wayne Lakes and to gain input from residents and council members to put together a plan that meet the village's expectations and needs. Mr. Lindsay then turned the meeting over to Mr. Keith Doll with IBI Group.

Mr. Doll: Mr. Doll had an opportunity to take a drive through the community. Very interesting community. Good sized community, counting 330+ homes. Wayne Lakes is an incorporated village. They do not currently have a public sewage system. Properties rely on aeration tanks with subsurface discharge. The OEPA 208 Water Quality Management Plan indicates problems with failing septic systems.

Because the area has lots of topography, we can probably rule out a gravity sewer system because it is not a viable option for the village. More appropriate for this area may be a low-pressure sewer system – a step (septic tank) system with effluent pump that pumps the effluent into a collection system that goes to one treatment facility. Another possible option is a grinder system. IBI will develop a plan that will lay out alternatives with construction estimates for these system options. As for treatment, there are options as well. IBI generally likes to look at regionalizing the system with adjacent communities. Greenville, Arcanum, New Madison are all options to research. IBI will make contact with those cities and villages to determine whether they are receptive to the idea. If so, IBI will develop preliminary sketch and cost alternatives. They will also consider on-site treatment systems / package systems. De-centralized treatment systems will be investigated as well.

In the end, the plan will have benefit-cost evaluations and present-worth analyses for alternatives and recommend what IBI feels is in the best interest of the village. They will also offer options for low-cost loans. IBI wants to provide a good report that the Village can use and move forward with.

Mr. Doll opened the meeting to questions and comments.

- IBI: *What would you want to see as an outcome to this study / what is important to you? How do you feel about a public sewer system in the Wayne Lakes area?*
  - Village response: It's state mandated, isn't it? The EPA is not saying it at this point, but for a community of this size, the systems, conditions age... when systems fail, what are we going to replace them with?
  - Ms. Mangen (Darke County Health District): Can't use dry wells any more. With such small lots, there's nowhere to go.
  - Resident: We heard that EPA is going to mandate us, so we want to be proactive about it, to establish our own timeline. We want to do the right thing for our residents, community, for our Earth. Whatever it takes is what we need to do.
- Q: *There are dwellings outside of Wayne Lakes, outside of village. If we get a sewer system, can they be included?*
  - Health Department: It would make sense to include them and possibly other local communities.
  - IBI: Generally the cost is less per customer with more customers. IBI would include other potential customers to have ability to connect into the system and design so that it can be expanded into those areas.

- Health Department: Fort Jefferson has a similar problem. Would like to see them be a part of a plan. This will be Wayne Lake's system and would be under their control. It's been done (making an effort for other communities and burgs to tie into it).
- Council: *For the county's sake, would it make sense to include Palestine and Hollansburg?*
  - IBI: Palestine and Hollansburg have developed their own plan.
  - OEPA: They have not completed their design yet. They have been through an application and a loan, but the detail design has not started yet. Controlled discharge planned on the west side of Hollansburg. The design firm for that project is Mote and Associates.
  - Sources say they are willing to talk about being part of this plan. In the long run, it will save these communities money to include more. Palestine/Hollansburg would be open to it if they can benefit from it – what's the most cost-benefit option.
- *Have there been any previous projects in the area where mapping or plans are available for review? Waterline projects / Roadway projects?* No public water system (no drawings).
- *Have there been any previous studies for providing sanitary sewers? Are these available for review?* Not to the village's knowledge.
- *Does the Village currently have a billing system for its customers? i.e. water & storm sewer. Are there any other community payments system established?* Answer: No.
- *Are there any future growth areas identified within the area? i.e. future residential community or commercial project.* There is some open land, not for sale yet. Could possibly be incorporated into Wayne Lakes. On the east side of Wayne Lakes, west of SR 121. All around, to a certain extent. IBI will size the plan for a moderate growth. A lot of times the lots are empty because they can't build on them.
- *Q. How will you come up with a price for each resident?* IBI: there's a construction cost, and depending on the grant money received, there's a debt payment with different terms and interest rates. IBI will do these calculations on a per-customer basis. What they won't calculate is future growth, because that will only help the cost go down. There's a debt portion, operation and maintenance portion, and replacement portion. All anticipated costs for billing (down to postage) will be included. This will be a rough number to move forward on. Because when the project is brought to residents, the first question they will want to ask is the cost to them. Want to make is as low as possible, will be a monthly bill.

When you go to the public, you will have this information so you can prepare and be ahead of the ball to look at options, look for money to help do this, which will help our residents with their costs. IBI has been successful with helping clients find grants to help them with their projects.

- *Q. Does this go on the ballot and residents vote? After the study and the council decides to move forward, will they put this on the ballot for residents?* Council: the problem is the residents need to become aware that they have almost no alternative if they have a septic problem and stay within the state guidelines. One septic system is down, their house is basically unlivable.
- Fees can be included, e.g. tap-in fees, which could go toward the debt of the project. IBI can run through different scenarios to help Village consider fee options.
- *Q. Would we have to have grinder pits throughout?* IBI: One option for the new system would have a new septic tank installed and small pump installed (primary treatment is still done in the tank). Effluent would go into the public collection system that is under pressure, so no gravity sewage concerns. Every house, under a step system, would be on a septic tank. Can have shared tanks in some systems, but can create problems with billing.
  - Other option is a Grinder system – 4' diameter bit with no primary tank system. This creates problems with having electric going to them, but grinders are shared so splitting the billing becomes complicated. But talking only a few dollars a month to operate that system. This is a point to be addressed later.
  - IBI will probably assume every house has its own system to get the worst-case system. Anything we can do to consolidate later will just save money on the project as a whole
- *Q. Once we decide on a system, everyone will be obligated to tap into the system – not wait until their system fails.*
  - IBI: Typically yes. It's in the best interest of the community to have everyone pay their share.
  - Health Dept.: Some people have recently paid a lot of money for new systems, and it's like, "here we go again". This occurs with every community. In Pittsburg, the Mayor had put in the most recent system. But this approach is needed in order to make the cost as low as possible,

- Q. *What will be your time frame to come up with a plan?*
  - IBI's contract with MVRPC is May 2015, but IBI wants to hit the ground running and be proactive with this. Hope to have a good draft to the Village by early 2015. IBI wants to move forward as quickly as they can. Would like to set up an ongoing committee to discuss the plans as they develop. And eventually MVRPC suggests a meeting for all residents to attend and make comments.
  - Village wants to explain to the residents why they are looking into this... in the long run, trying to save the residents money.
  - IBI will be providing preliminary conceptual sketches of what the sewer system could look like. If the Village wants to move forward, would have an engineer come out/ surveyor locate the details of every home, utilities, etc. The IBI plan will just hug the edge of the road, not identify right-of-way, etc. The plan is planning-level.
- Q. *When you come out to the road with a step system, where does the pressure come from?* IBI: The pump in each septic tank. That's enough to push the system, no additional pumps- a benefit to the system. IBI is leaning toward a step or grinder system over a gravity sewer. Village maintenance would be lower, but each grinder/septic system would need to be maintained.
- Q. *Who would maintain grinder/septic tank?* Typically the village will need to take care of this – the home owner isn't going to be able to maintain this. The Village could contract that operation/maintenance out. Benefit of the step system is that there is storage capacity if electricity is out.
- Q. *Would there be a yearly county/health department inspection fee?* Health Department: The health department would not be involved with the proposed systems.
- Q. *If things go forward at a normal rate, when will they start hook-up?* IBI: It depends on the funding. Up to a year for design/permitting, a year for construction... but it's the funding component that can really push it out. For some communities it took 6-7 years from start to completion, depending on funding. IBI doesn't know the median household income for Wayne Lakes, but feels they would be eligible for lower interest loans through the OEPA. Principal Forgiveness (grant) – income will dictate where they fall. Ohio Public Works Commission, Ohio Water Authority... other options.
- Q. *Would the village have to hire someone to oversee this?*
  - IBI: Yes, the village would be responsible to maintain.
  - Health Dept.: Could contract it out. The County has people who can operate the system. There are options.

Village – no underground gas. Electric is overhead. Some propane is underground.

- *How often would the Steering Committee prefer to meet? Dates & Times?* IBI would like to have a couple months to develop some plans. Sometime in January/February would be a good time. Set the first Monday in February. **Monday, February 2, 2015. Same location, at 6:00pm.** No need to have the public there yet (there will be a meeting in the future for the public/residents to be involved). This will be a working meeting. This meeting will offer treatment alternatives, conceptual sketches, identify the service area (Wayne Lakes, Fort Jefferson, include other locations, e.g. a farmhouse outside the village, etc.).
- Q. *Will some of the houses that are isolated... will they be required to hook into the septic system?* Health department: If they are within 300' of the system, they could be obligated. So it depends on exactly where the lines get installed.
- County Commissioner: Stated that she is interested in what will happen. Here as an observer.

IBI (Mr. Doll): If you have any questions, give me a call. You all have my business card.

Meeting minutes and sign-in sheet will be e-mailed to:

- Roberta Mangen, Darke County Health District
- Mayor Gary Young

The Village thanks everyone for coming.





Project Name: MVRPC Unsewered Communities Project

Meeting Date: November 3, 2014, Steering Committee #1

Project Number: Village of Wayne Lakes, Darke County

Meeting Time: 6:00 PM

Meeting Location: Community Hall, 100 Community Drive, Wayne Lakes

PLEASE SIGN IN

NAME	TITLE / ORGANIZATION	E-MAIL / PHONE	INITIAL
1. Matthew Lindsay	Manager of Environmental Planning, MVRPC	<a href="mailto:mlindsay@mvrpc.org">mlindsay@mvrpc.org</a> / (937) 531-6548	M
2. Kjiirsten Frank Hoppe	Regional Planner II, MVRPC	<a href="mailto:kfrank_hoppe@mvrpc.org">kfrank_hoppe@mvrpc.org</a> / (937) 531-6548	
3. Keith Doll, P.E.	Project Manager, IBI Group	<a href="mailto:Keith.doll@ibigroup.com">Keith.doll@ibigroup.com</a> / (614) 818-4900	KD
4. Nicole Clune, P.E.	Planning Director, Burton Planning Services	<a href="mailto:nclune@burtonplanning.com">nclune@burtonplanning.com</a> / (419)305-0144	NAC
5. Glen Vonderembse	OEPA Surface Water	<a href="mailto:Glen.vonderembse@epa.ohio.gov">Glen.vonderembse@epa.ohio.gov</a> / (937) 285-6033	GAV
6. Geoff Holmes	OEPA Surface Water	<a href="mailto:Geoff.holmes@epa.ohio.gov">Geoff.holmes@epa.ohio.gov</a> /	
7. Roberta Mangen	Darke County Health District	ROBERTA.MANGEN@dh.ohio.gov 937-548-4196 ext 203	RJM
8. Gary Lee Young	Mayor, Village of Wayne Lakes	<a href="mailto:Squire60@comcast.net">Squire60@comcast.net</a> / (937) 548-8832	
9. Bob Tuco	Team Leader, Village Council	Bob Tuco / (937) 548-8427	
10. John McRoberts	Village Council	John E. McRoberts / (937) 547-9317	
11. Mike Bland	Village Council	MBLAND57@GMAIL.COM / (937) 459-8282	MB
12. Roy Cardone	Village Council		



NAME	TITLE / ORGANIZATION	E-MAIL / PHONE	INITIAL
13. Rita Robinett	Village Council	rita robinett@hotmail.com 937-548-5873	RR
14. Sharon Lecklider	Resident	sharonleckli@centurylink.net / (937) 548-7832	sl
15. Chuck Gray	Resident	/ (937) 239-6258	
16. Maria Borchers	Project Eng. IBI group	(614) 818-4900 maria.borchers@ibigroup	MB
17. Rod mcNULT	RESIDENT	RodmcEwon.RR.COM 937-548-7678 RM	
18. Joe Miller	O EPA	joe.miller@epa.chio.gov	
19. Kerry Howard	Health Dept	terrence.holman@odh.chio.gov	
20. Margaret Hays	Asst. Pres.	mhays@co.darke.chio.us	mrstH
21. Diane Dalaplany	DC Commissioner	dldaplany@co.darke.chio.us	dlg.
22.			
23.			
24.			
25.			

**Unsewered Communities Project  
Steering Committee Meeting Agenda #2**

**Village of Wayne Lakes, Darke County, Ohio  
February 2, 2015 6:00 pm**



**Introductions/Steering Committee Members:**

**IBI Group / Burton Planning Services:**

Keith Doll, P.E., Project Manager 635 Brooksedge Blvd. Westerville, OH 43081 (614) 818-4900 <a href="mailto:keith.doll@ibigroup.com">keith.doll@ibigroup.com</a>	Nicole Clune, P.E., Planning Director Burton Planning Services 252 Electric Avenue Westerville, OH 43081 <a href="mailto:nclune@burtonplanning.com">nclune@burtonplanning.com</a>
--	---

**MVRPC:**

Matthew Lindsay, Manager of Environmental Planning 10 N. Ludlow St., Suite 700 Dayton, OH 45402 (937) 531-6548 <a href="mailto:mlindsay@mvrpc.org">mlindsay@mvrpc.org</a>	Kjirsten Frank Hoppe, Regional Planner II 10 N. Ludlow St., Suite 700 Dayton, OH 45402 (937) 531-6548
---	--

**Wayne Lakes:**

Gary Young, Mayor 100 Community Drive Greenville, OH 45331 <a href="mailto:squire60@embarqmail.com">squire60@embarqmail.com</a>	<i>Council Members</i> Michael Bland John McRoberts Robert Tuco Roy Cardone Rita Robinett
--	--

**Regulatory Agencies:**

Joe Miller Ohio EPA 401 E. Fifth Street Dayton, OH 45402 (937) 285-6109 <a href="mailto:joseph.miller@epa.state.oh.us">joseph.miller@epa.state.oh.us</a>	Glen Vonderembse Ohio EPA 401 E. Fifth Street Dayton, OH 45402 (937) 285-6357 <a href="mailto:Glen.vonderembse@epa.state.oh.us">Glen.vonderembse@epa.state.oh.us</a>
Roberta Mangen Darke County General Health District 300 Garst Avenue Greenville, OH 45331 (937) 548-4196 ext. 203 <a href="mailto:Roberta.mangen@odh.ohio.gov">Roberta.mangen@odh.ohio.gov</a>	Joe Miller Ohio EPA 401 E. Fifth Street Dayton, OH 45402 <a href="mailto:Joe.miller@epa.ohio.gov">Joe.miller@epa.ohio.gov</a>

**Project Updates:**

We are continuing to evaluate collection and treatment alternatives for the Area. At this time, we do not have final cost estimates to present or a recommended plan.

Have reached out to the City of Greenville to determine their interest in accepting wastewater flows from Wayne Lakes, but have not heard back from them. Same for the Palestine/Hollansburg system.

We are investigating two different collection alternatives (STEP Sewers and Grinder Sewers), and three different treatment alternatives (New WWTP, Transport to Greenville, and Transport to Palestine/Hollansburg).

There are a couple different options when selecting the collection and treatment alternatives. We intend to present overall project costs, operational & maintenance costs, and present worth evaluations on multiple scenarios for the purpose of selecting a recommended plan.

We would like to go through the attached Decision Matrix exercise to help us understand Wayne Lakes' priorities beyond cost. This includes concerns regarding operation & maintenance, regulatory compliance, control of the system, and schedule.

As mentioned, we do not have hard numbers (estimates) for alternatives. We have, however, prepared a PRELIMINARY funding scenario for a couple alternatives – New WWTP and pump wastewater to an adjacent community. We show worst case and best case based on an approximate construction cost and operational cost for different funding scenarios. This is very rough at this time but may give you an idea of what you might expect as the study proceeds.

**Other Discussion Items:**

Potential treatment facility discharge locations – we are looking at Mud Creek to the Northwest of Wayne Lakes.

Potential property identification for potential treatment facility – We've identified a number of large parcels and would like your input on preliminary site selection for facility. Size would need to vary based on treatment type.

Typical property costs per acre in the Wayne Lakes vicinity for estimating purposes? \$X/acre

Any further developments or potential?

**Next Steps:**

We would like to have a final draft plan with estimates and recommendations for the next Steering Committee meeting and then follow up with a public meeting at your discretion.

Date for next Steering Committee meeting? \_\_\_\_\_

## Unsewered Communities Project Steering Committee Meeting #2

Village of Wayne Lakes, Darke County, Ohio  
February 2, 2015 @ 6:00 pm



**Attending:** See attached sign-in sheet.

### Meeting Minutes:

Mr. Matt Lindsay (project manager with MVRPC) opened the meeting. The purpose of this meeting is to:

- Review the preliminary findings that IBI Group has developed since the last meeting;
- Address questions that have been generated by these findings;
- Conduct an exercise using the Collection & Treatment System Decision Matrix (in packet provided)
- Set the next meeting and the public meeting.

-Round the table introductions-

Mr. Lindsay turned the meeting over to Mr. Keith Doll, with IBI Group, who opened with a review of the current project status:

- This is an interim meeting to discuss what has been found so far and discuss the direction of moving forward. IBI group (referencing agenda/project updates) has no cost estimates or recommended plans as of now.
- They reached out to Greenville, but have not had a chance to meet with them in person (considering them for a regional system).
- Palestine and Hollansburg are in a process of developing a collection/treatment system, but have not been able to meet with them in person. This would be another regionalizing option.

The Mayor has concerns with missing the chance of having a regional facility with Palestine and Hollansburg. Mr. Doll: It sounds like they are proceeding as a joint system. IBI will make an attempt in contacting them as a possibility to bring in another 350 customers. The mayor would like to have the regional option.

New Madison is a regionalizing option as well and they understand that New Madison had the capability.

Ms. Hayes: She spoke with the attorney who is developing all three communities. They are interested in combining to save money, but they are further ahead than anticipated and it may no longer be feasible. She would like Mr. Doll's phone number to reach out to this attorney.

- Mr. Doll provided his contact information. He added that the Palestine/Hollansburg treatment system is a lagoon and may be placed in the area of Richmond-Palestine and Hollansburg-Arcanum roads. The funds for the Palestine/Hollansburg treatment system are a WPCLF construction loan through OEPA.

Treatment is still a big question. In the meantime, IBI has been able to develop a couple of collection alternatives.

- A gravity sewer is ruled out with the topography the way it is.
- IBI will be looking at a STEP system. It is a pressure sewer and each house (2"-3" line from each house) would have a preliminary treatment septic tank with a small pump that would go into the force main that ranges from 3" to 4" in diameter. The force main follows topography like a water line.
- Also considering a grinder sewer system, similar to a STEP. The only real difference between this and a STEP is no individual septic tanks; instead, a grinder at each house pumps everything into the system.

As part of the final study, IBI will develop a table to discuss the pros and cons of each system.

Mayor: What are the closest examples nearby?

- IBI: There is a STEP system finishing construction in Christiansburg (in the county just east of Miami County); also at Amesville in SE Ohio. Grinder systems are more common: Lake Choctaw (Madison County) is similar; also Shawnee Lake in Greene County. IBI will develop a list of examples.

Council Member: Question about wastewater coming out and needing a sewage system. A council member stated he understood that if the system is not big enough, it needs some solids to be balanced. So, just effluent may not be accepted?

- Mr. Doll: It's complicated. One of the things he will look at is a pack bed media filter system with the STEP system. This is similar to the system in Amesville (see OEPA's decentralized web page for their pilot study). That's one of the systems being considered. The benefit of this system is its very low operation maintenance (applicable if Wayne Lakes installed their own treatment system). We would need to weigh the cost of collection, the system, and many other considerations.

STEP system installs a new tank?

- Yes. Mr. Doll would prefer a concrete tank, about the size of a 4x8 sheet of plywood. That reduces the treatment component. Over time the solids need to be pumped out in the range of every 10 years.

Price of the tank/pump/wiring: How will this be priced out?

- IBI will include it as part of the capital cost of the project. Then when identifying homeowner cost vs. project cost, there is a range of possibilities. The public's #1 question will be, "what's it going to cost me?"

Mayor: Is it mandatory that public connect in?

- IBI: With a general sewer system people are typically required to connect in.

Mr. Doll: Looking at essentially the entire village (a lot of pipe). In our last meeting, Fort Jefferson was asked about this issue. IBI is looking at including those customers as well, although it is not certain they will want to connect in.

- Committee: Why give them an option not to?
- Mr. Doll: If the sewer is installed in front of their home, they will not be given an option. Right now he is making some assumptions that they will want to be included and is looking at what makes sense from a bigger picture.
- Health Dept. District: Fort Jefferson represents an area of concern. The point of this study is to figure out if it's cost effective to bring them in.
- OEPA would require them to connect in if there were hazardous conditions. Until then, they can only encourage.

Mayor: Where will the pipe go?

- Mr. Doll: This is only a conceptual design, so right now they are showing pipe going down the middle of the road. Not aware of utilities yet. Installation can utilize a trenchless method (no manholes, only clean-outs). A trenching method or directional drilling vs. bulldozers and backhoes. This would be much less invasive.

Mr. Doll: Wayne Lakes lends itself very well to the pressure sewer vs. gravity sewer. With a gravity sewer there would have to be pump stations all over the area.

Mr. Doll: With a STEP or grinder system, each pump would have to have an electric power source, on the homeowners' side.

Mayor: Do most of the villages have someone on staff to help with the maintenance of grinders?

- Mr. Doll: Yes, it can be contracted (need to have a Class 1 Water Treatment Certification).

IBI would like to look at potential locations for a treatment system: currently looking along the northern side adjacent to Mud Creek (would want to be near the creek). General cost per acre: a little over \$10,000.

Mayor: Would a treatment system require a full time operator?

- Mr. Doll: A packed bed media filter system would need an operator, but not a full time position. O & M costs are considerably less.

Mr. Doll next asked to run through the Collection & Treatment System Decision Matrix (included in the agenda package). This helps IBI understand what is important to the committee. The committee was asked to number priorities from 1- 6 (1 being the most important and 6 being the least important):

- **Low Cost to Customers:** #1 (Very important)
- **Future O&M Cost and Staff Involvement:** If you do develop a system, would you have to identify a person to maintain it? #2 Ranking.
- **Local Control of System:** Considers regionalizing. Would have less control with rate structure. #3 Ranking. (No local control)
- **Future Growth of Service Area:** Local growth potential would be at the end of Chippewa and maybe a little along the western roads, but not much. #5 Ranking.
- **Timeframe for Completing the Project:** Not a big issue. The Council would rather make sure they have all their ducks in a row for the people of Wayne Lakes. They want to make sure that when they start this project, the Health Dept. District and Wayne Lakes will be pleased. #6 Ranking.
- **Minimal Disruption to Customers During Construction:** People will have their yards torn up to install the septic tanks. Customers will want to know who will restore their yards. #4 Ranking.

Mr. Doll: This gives us a better feel for what is important in how to precede with the project.

Council: They know that Arcanum's sewer cost is outrageous. They don't want to have to force big bills on the Wayne Lakes residents.

Public Meeting: IBI wants to be able to provide the committee with draft final report for their review and for addressing questions. After that, there can be a public meeting. The committee wants to be on the same page.

- Mayor: When presenting the alternatives, the public needs to understand that if something happens to their existing septic system, it could cost them \$12,000-\$13,000. So, the public needs to understand the alternatives. Basically, Wayne Lakes has no other alternative other than expensive NPDES discharge permits.
- What the public needs to realize is that the committee is looking out for them.

Mr. Doll: The last exhibit is a general approximation of what costs residents may be seeing with the project. These numbers are very rough and not finalized. He has made many assumptions on rates adjacent communities may be charging, O&M costs, etc.:

- New collection & treatment system within Wayne Lakes: \$4.6 million for collection, \$2.6 million for treatment, 100,000 gallons per day for treatment on about 1 acre of land. Total payment per month:
  - Worst case – all loans (no grant money) ~\$87 per household per month
  - Best case – as many grants as possible. ~\$52 per household per month
- Regionalizing with another community. Lower O&M costs, but do have other costs
  - Worst case- all loans (no grant money) ~\$91 per household per month
  - Best case – as many grants as possible ~\$56 per household per month

IBI wants to later provide much better numbers to help them with assessing the most realistic treatment options.

Mayor: When will we start to incur costs?

- Mr. Doll. This study is at no costs to you. You will be provided the results of this study to help choose how to move forward. At that point, you would want pursue a planning loan to begin development of a system. OEPA would try to help with grants as much as they can. They would like to see this done. IBI could be hired to help in assisting with funding and applying for applications and such.

Council: If everything moves forward, will we have to open this up to contractors for bid?

- Yes. That is at least a couple years down the road before construction can begin. As long as we're moving forward, that is a plus.

Mayor: If the force main goes down the center of the road, would part of the construction be repaving?

- That is up to how it is designed for the contractor. If not in the center of the road, there are many other obstructions to consider (trees, fences, etc.). It would be a benefit to have the road fully paved as part of the project.

Minimal Utilities: There is nothing in the center of the road.

Mr. Doll: Keep in mind, when considering water in the future, we may want to consider where a future water line (or gas line) would be placed. Need separation between water and sewer.

Mr. Lindsay asked if the Mayor has any additional questions.

Mayor: The billing side, how will this work?

- Health Department: If regionalizing, the county or one of the Villages could run the billing. If there is on-site treatment, the county could still do the billing. It would be up to Wayne Lakes.

Mayor: How is a tap connected? Is the pipe fused?

- Most polyethylene pipes are going to be fused. That is stronger than the pipe itself. If there is a PVC system, there will be a gasket-type connection.
- IBI: The new septic tank would be installed and then the main line would be installed. From the septic tank to the house is typically the homeowner's cost. We would recommend against having the residence intercept because this could incur unwelcome infiltration.

Would the tank be toward the road?

- IBI: It is better if we get it close to the road. However, the line going from the house to the tank is a gravity line and topography will make the difference. For maintenance, we would want the tank closer to the road for access. A lot of people would want to take out their old tank and put it in the same spot.

If doing away with the old septic tank, it won't work to put it back in the same place. IBI typically prefers to install a new tank adjacent to the existing septic tank. Then once new tank is installed, the old tank would be pumped out and crushed in.

If there is a lot where someone builds in the future, can they tie in?

- Health Department: All they have to do is come in and connect after-the-fact. This is a benefit to mention to the community, because it will open a number of building lots along the backside of Wayne Lakes.

Will a homeowner be charged for two if they have two lots, even if only one is developed?

- Mr. Doll: He recommends that all existing customers be connected into the sewer and that they may be charged a tap-in fee at the time or they might not be charged anything. Then future customers he recommends having a tap fee. The intent is to take care of the people that are there now. For those who will benefit later, they should pay (incentive to tap in now). However, for a vacant lot, would want to provide an option to tap in. IBI could help run the numbers to determine a reasonable tap in fee. Ultimately, it would be the Village's decision on what the fee might be. May need to decide between: Low up-front cost and high monthly costs vs. high up-front cost and low monthly.

**Next committee meeting: Monday April 13<sup>th</sup>. 6:00, same location.**

**Public Involvement Meeting: 2-4 pm on May 30<sup>th</sup> at current location. *Please note this was changed from the date set at the meeting.***

- The committee confirmed the building's availability.
- An open house style meeting is suggested. One-on-one is better for everyone.
- The committee would like a handout developed with "frequently asked questions".





Project Name: MVRPC Unsewered Communities Project Meeting Date: February 2, 2015, Steering Committee #2  
 Project Number: Village of Wayne Lakes, Darke County Meeting Time: 6:00 PM  
 Meeting Location: Community Hall, 100 Community Drive, Wayne Lakes

**PLEASE SIGN IN**

NAME	TITLE / ORGANIZATION	E-MAIL / PHONE	INITIAL
1. Matthew Lindsay	Manager of Environmental Planning, MVRPC	<a href="mailto:mindsay@mvrpc.org">mindsay@mvrpc.org</a> / (937) 531-6548	M
2. Keith Doll, P.E.	Project Manager, IBI Group	<a href="mailto:Keith.doll@ibigroup.com">Keith.doll@ibigroup.com</a> / (614) 818-4900	
3. Maria Borchers	Project Engineer, IBI Group	<a href="mailto:Maria.Borchers@ibigroup.com">Maria.Borchers@ibigroup.com</a> / (614)818-4900	MB
4. Nicole Clune, P.E.	Planning Director, Burton Planning Services	<a href="mailto:nclune@burtonplanning.com">nclune@burtonplanning.com</a> / (419)305-0144	NCA
5. Glen Vonderembse	OEPA Surface Water	<a href="mailto:Glen.vonderembse@epa.ohio.gov">Glen.vonderembse@epa.ohio.gov</a> / (937) 285-6033	
6. Geoff Holmes	OEPA Surface Water	<a href="mailto:Geoff.holmes@epa.ohio.gov">Geoff.holmes@epa.ohio.gov</a> 937-285-6464	G-H
7. Joe Miller	OEPA Surface Water	<a href="mailto:Joe.miller@epa.ohio.gov">Joe.miller@epa.ohio.gov</a>	
8. James P. Surber, P.E., P.S.	Darke County Engineer	<a href="mailto:dce@earthlink.net">dce@earthlink.net</a>	
9. Roberta Mangen	Darke County Health District	<a href="mailto:Roberta.mangen@odh.ohio.gov">Roberta.mangen@odh.ohio.gov</a> / (937) 548-4196 x 203	RJM
10. Terry Holman	Darke County Health District	<a href="mailto:Terrence.Holman@odh.ohio.gov">Terrence.Holman@odh.ohio.gov</a>	
11. Gary Lee Young	Mayor, Village of Wayne Lakes	<a href="mailto:Squire60@embarqmail.com">Squire60@embarqmail.com</a> / (937) 548-8832	
12. Bob Tuco	Team Leader, Village Council	/ (937) 548-8427	



NAME	TITLE / ORGANIZATION	E-MAIL / PHONE	INITIAL
13. John McRoberts	Village Council	/ (937) 547-9317	
14. Mike Bland	Village Council	Mbland57@gmail.com / (937) 459-8282	MB
15. Roy Cardone	Village Council		
16. Rita Robinett	Village Council	ritarobinett@hotmail.com / (937) 548-3878	RR
17. Sharon Lecklider	Resident	sharonlecklider@centruylink.net / (937) 548-7832	
18. Chuck Gray	Resident	/ (937) 239-6268	
19. Rod McNutt	Resident	rodmc@woh.rr.com / (937) 548-1678	
20. Margaret Hayes	Darke County Assistant Prosecutor	mhayes@co.darke.oh.us	MGH
21. Diane Delaplaine	Darke County Commissioner	ddelaplaine@co.darke.oh.us	
22. Joan Falkner	Village Council	FalknerFamily@hotmail.com	
23.			
24.			
25.			

**Unsewered Communities Project  
Steering Committee Meeting Agenda #3**

**Village of Wayne Lakes, Darke County, Ohio  
April 13, 2015 6:00 pm**



**Introductions/Steering Committee Members:**

**IBI Group / Burton Planning Services:**

Keith Doll, P.E., Project Manager 635 Brooksedge Blvd. Westerville, OH 43081 (614) 818-4900 <a href="mailto:keith.doll@ibigroup.com">keith.doll@ibigroup.com</a>	Elvin Pinckney Burton Planning Services 252 Electric Avenue Westerville, OH 43081 <a href="mailto:nclune@burtonplanning.com">nclune@burtonplanning.com</a>
--	--

**MVRPC:**

Matthew Lindsay, Manager of Environmental Planning 10 N. Ludlow St., Suite 700 Dayton, OH 45402 (937) 531-6548 <a href="mailto:mlindsay@mvrpc.org">mlindsay@mvrpc.org</a>	
---	--

**Wayne Lakes:**

Gary Young, Mayor 100 Community Drive Greenville, OH 45331 <a href="mailto:squire60@embarqmail.com">squire60@embarqmail.com</a>	<i>Council Members</i> Michael Bland John McRoberts Robert Tuco	Roy Cardone Rita Robinett Joan Falknor
--	--	--

**Regulatory Agencies:**

Joe Miller Ohio EPA 401 E. Fifth Street Dayton, OH 45402 (937) 285-6109 <a href="mailto:joseph.miller@epa.state.oh.us">joseph.miller@epa.state.oh.us</a>	Glen Vonderembse Ohio EPA 401 E. Fifth Street Dayton, OH 45402 (937) 285-6357 <a href="mailto:Glen.vonderembse@epa.state.oh.us">Glen.vonderembse@epa.state.oh.us</a>
Roberta Mangen Darke County General Health District 300 Garst Avenue Greenville, OH 45331 (937) 548-4196 ext. 203 <a href="mailto:Roberta.mangen@odh.ohio.gov">Roberta.mangen@odh.ohio.gov</a>	Geoff Holmes Ohio EPA 401 E. Fifth Street Dayton, OH 45402 <a href="mailto:Geoffrey.Holmes@epa.ohio.gov">Geoffrey.Holmes@epa.ohio.gov</a>

**Darke County:**

Margaret Hayes Darke County Assistant Prosecutor <a href="mailto:mhayes@co.darke.oh.us">mhayes@co.darke.oh.us</a>	Terry Holman Darke County General Health District <a href="mailto:Terrance.Holman@ODH.Ohio.Gov">Terrance.Holman@ODH.Ohio.Gov</a>
---	--

### **Project Updates:**

- We posted a copy of the Final Draft Sewer Feasibility Study online on April 6, 2015 and have brought several copies to tonight's meeting as well. The document can be found online at <http://mvrpc.org/environment/water/unsewered>.
- Hopefully, everyone has had an opportunity to review and develop a list of questions for discussion tonight.
- If revisions are necessary after tonight's meeting, we will address them quickly in preparation of holding a public meeting for presenting to residents.

### **General Summary of Report and Findings:**

- We had evaluated several collection system alternatives including:
  - STEP Sewers
  - Grinder Pump Sewers
  - Vacuum Sewers
- We had also evaluated several treatment system alternatives including:
  - Extended Aeration Treatment Plant
  - Lagoon Treatment System
  - Packed Bed Media Treatment System
  - Transporting wastewater to Greenville for treatment
  - Transporting wastewater to Palestine/Hollansburg for treatment
  - Transporting wastewater to New Madison for treatment
- Construction costs and Operation and Maintenance (O&M) costs were developed for each collection and treatment alternative. We then developed a 20-year present value for each possible scenario. Present values are widely used in engineering economics to provide a way to compare costs at different times on a "like to like" basis. It is a present value for a future series of payments which are the O&M costs.
- The alternative with the lowest present value and an adequate amount of land is the construction of a grinder sewer system with a new mechanical extended aeration plant.

### **Next Steps:**

- Public Meeting
- Upon holding a public meeting and presenting a final report to Wayne Lakes, MVRPC, and Ohio EPA, our portion of the project will be complete. It will then be up to the Village of Wayne Lakes to decide whether or not to pursue funding opportunities and begin engineering design work.
- IBI Group can certainly assist Wayne Lakes in these services should you decide to continue moving forward

Three potential scenarios are presented below based on the recommended grinder collection system and extended aeration treatment facility. The upper portion is constant between all three options showing the total number of customers, construction cost, and annual O,M&R costs.

			Option #1 Using OWDA Loan	Option #2 Using Ohio EPA Loan	Option #3 Using RD Grant/Loan
<b>CUSTOMERS/EDUs</b>			319	319	319
<b>PROJECT COST- Collection System</b>			\$5,530,818	\$5,530,818	\$5,530,818
<b>PROJECT COST- Treatment System</b>			\$1,816,320	\$1,816,320	\$1,816,320
<b>TOTAL PROJECT COST</b>			\$7,347,138	\$7,347,138	\$7,347,138
<b>ANNUAL O,M&amp;R</b>			\$91,000	\$91,000	\$91,000
<b>FINANCING</b>					
CDBG Formula Grant			\$50,000	\$50,000	\$50,000
Residential Public Infrastructure Grant			\$480,000	\$480,000	\$480,000
OPWC Grant			\$400,000	\$400,000	\$400,000
Unsewered Area Assistance Program			\$250,000	\$250,000	\$250,000
Local Funds - Capacity Fee \$3,000/Customer			\$957,000	\$957,000	\$957,000
Rural Development Grant (up to 35% of Project Cost)			\$ -	\$ -	\$2,571,498
OPWC Loan	30	0.00%	\$800,000	\$800,000	\$800,000
OWDA Loan	30	2.00%	\$4,410,138	\$ -	\$ -
OEPA WPCLF Loan	30	0.00%	\$ -	\$4,410,138	\$ -
Rural Development Loan	40	2.75%	\$ -	\$ -	\$1,838,640
<b>Total Financing</b>			<b>\$7,347,138</b>	<b>\$7,347,138</b>	<b>\$7,347,138</b>
<b>ANNUAL DEBT</b>					
Annual OPWC Payment			\$26,667	\$26,667	\$26,667
Annual OWDA Payment			\$196,912	\$ -	\$ -
Annual OEPA WPCLF Payment			\$ -	\$147,005	\$ -
Annual Rural Development Payment			\$ -	\$ -	\$ 76,361
<b>ANNUAL DEBT PAYMENT</b>			<b>\$223,579</b>	<b>\$173,671</b>	<b>\$103,028</b>
<b>DEBT PAYMENT PER MONTH PER EDU</b>			<b>\$58.41</b>	<b>\$45.37</b>	<b>\$ 26.91</b>
<b>O,M&amp;R PAYMENT PER MONTH PER EDU</b>			<b>\$23.77</b>	<b>\$ 23.77</b>	<b>\$23.77</b>
<b>TOTAL PAYMENT PER MONTH PER EDU</b>			<b>\$82.18</b>	<b>\$ 69.14</b>	<b>\$50.69</b>

## Steering Committee Meeting #3

Village of Wayne Lakes, Darke County, Ohio  
100 Community Dr. Greenville Ohio  
April 13, 2015 @ 6:00 pm



**Attending:** See attached sign-in sheet .

### Meeting Minutes:

Matt Lindsay- MVRPC opened the meeting with a few remarks and goals of the meeting.

- Feedback from the Draft Final report by the steering committee.
- To discuss the steps between now and the public meeting which is scheduled for May 30<sup>th</sup>.
- Any Items or issues the committee thinks should be added in regard to the Draft Report.

The committee comments are to be incorporated and MVRPC will be promoting that the report will be on the web for the public to review. The Greenville paper and The Early Bird will be the advertising media.

Matt L. then turned the meeting over to Keith Doll-IBI Group.

Keith presented the draft report. He stated that the goal was to give a summary of the report findings. The discussion will include any omissions or additions the committee thought should be addressed in the report.

All will be done to complete the report in an effort to be ready for the upcoming public meeting. The report shows approximately 818 sewer customers. 25 year projections were done. A 950 customer base was assumed from a conservative growth rate of approximately 5% / 5 years. Approximately 120,000 gals/day is expected from the estimated number of residents.

Types of Collection systems looked at were:

STEP-Pressurized and Grinder

Treatment systems looked at were:

Mechanical Plant-Lagoon System and packed Bed Media system.

The Report looked at regionalizing alternatives:

With Greenville, with Palistine Hollansburg, with New Madison

Very preliminary plans were discussed with the above communities.

Keith stated that Greenville indicated that a review committee was to be formed.

Mayor Young questioned what would be the default treatment system if all possibilities of regionalization do not work out.

Keith's response: a mechanical plant was the recommended alternative vs. a lagoon system.

Mayor Young asked about the number of hours a mechanical plant needed someone on duty.

Keith's response: An operator is needed but not a full time operator. The position could be contracted with another community. Operation and maintenance costs estimated in the draft report included the cost of an operator. Numbers were pointed out in draft report.

The lagoon system has the lowest present worth followed by the mechanical plant.

Keith doesn't think the amount of land needed for a lagoon system exists in the area of Wayne Lakes. Page 38 of report shows 30 acres would be needed.

Mayor Young thought that more people were in favor of the lagoon system because control over rates for treatment from another community was a concern.

Keith stated that there were pros and cons for each scenario. The report looked at operation, maintenance and replacement costs. The report shows a present worth analysis for each alternative with a comparison for each. The grinder sewer was found to have the lowest present worth.

Each home would have its own lateral with a tank. When the tank fills, the pump kicks on and pushes the effluent to the pressurized sewer system. The size of the pipe is similar to a water line.

Mayor Young: Is the Vacuum System fairly new?

Keith's response: The system is not new, just not as common.

The committee thought that McCartyville has a vacuum system.

Mayor Young: Is the pipe a continuous coiled pipe?

Keith's response: Generally high density polyethylene pipe that is fused at the joint would be used.

Mike Bland, Council Member, questions if the pipe can be coiled or straight.

Keith's response: It can be either depending on the diameter.

In the draft report estimate, a percentage (maybe 40%) of the pipe for the system was assumed to be under pavement. The larger part of the system was assumed to be in a grassy area away from the pavement.

Mike Bland questioned the depth of the pipes.

Keith's response: Approximately 4' deep...just like a water line.

Mayor Young noted that it's important to know this info for it's effect on village pavement budget.

Mike Bland questioned the type of tie-ins to the main.

Keith's response: Fused T or a saddle connection.

Mayor Young: If one elects to not tie-in now, is there a substantial fee to tie-in later?

Keith's response: That would be up to the village. The village would set the fee amount.

Keith would recommend that a fee schedule be set for existing vs. future homes.

Mayor Young: what is the capacity fee based on in other communities?

Keith's response: EDU-Equivalent Domestic Unit (One EDU=single family house) typically EPA assesses commercial properties based on EDU equivalents.

Water consumption based would be difficult for Wayne Lakes because they have no public water utility. Adding meters to wells would just add costs to the village.

Mike Bland: Question on providing a tap-in for an empty lot. Does that property owner get billed for the tap-in?

Keith's response: It could be set up that way.

Matt's response: Connection fee could be set up for property owner to pay.

Mayor Young: thought that the connection shouldn't be billed to property owner until it's actually used.

Mike Bland: Would property owner need a new septic system?

Keith's response: With a Grinder System, that septic tank would be abandoned.

Reference was made to the report p. 45, figure 5-2.

Mayor Young: How easy is it to remove/replace a pump?

Keith's response: It would take a crew that knew what they were doing. Pumps weigh approximately 80 pounds.

Mike Bland: Is there a shut off valve in system for maintenance work?

Keith's response: STEP System pumps are much smaller but needs the existing septic tank for waste storage. Keith's personal choice would be the STEP System.

Reference to pages 61-62 of the report General costs of systems are compared. Present worth cost of grinder system is lowest but not by much.

Mayor Young: Does the report presently recommend extended aeration?

Keith's response: Yes, Grinder Sewer with extended aeration, Lagoon system is not an option based on land needs.

Estimate based on 1000 gallon fiberglass tanks. Tanks for STEP System have a footprint Approximately 4'X8'.

Grinder System tank is roughly 3' in diameter.

Mayor Young: Question on Power Outages?

Keith's response: More of a concern with a Grinder System than the STEP system. The STEP System has the extra capacity of the individual septic tank that is left in place.

Mike Bland question: Does a STEP System have a need for a pump?

Keith's response: Yes, a much smaller pump inside the septic tank.

Rodney McNutt: Question on maintenance of tanks?

Keith's response: STEP System would need tank maintenance. STEP System tank needs approximately 7 year maintenance intervals for emptying tank. Grinder System has a routine maintenance but no sludge pumping is necessary. Reference to page 48—estimates for full system maintenance costs.

Mike Bland: Question on who is responsible for restoring yard after installation?

Keith's response: A contract obligation to restore property back to original condition is recommended. Of course mature trees removed would have to be replaced with much smaller trees.

Maintenance Access would be needed for pumps on private property.

Legal Council should be involved when setting up easements for pump maintenance.

System pipe lines should be kept as close to property lines as possible.

Keith recommends that the home owner replace the septic line from house to the collection point. No matter which system is constructed, a damaged sewer lateral can cause problems for any system.

Mayor Young had a comment on the insurance for the contractor.

Keith's response (as well as others): Contractors should be bonded with proof to the village.

Keith refers to page 66 of report—costs of the systems.

He went over funding sources and grant possibilities. Report estimates assumed a maximum grant usage depending on village eligibility.

Keith referred to the mapping exhibit to point out a 19 acre property that is privately owned. He stated that the possibility does exist where qualifying home owners can get financial assistance for their sewer bill through a special grant. This was not included in the report assumptions.

The individual homeowner would have to apply for these funds.

Geoff Holmes: OEPA was asked about OEPA preferences in terms of systems.

His response was that the Lagoon System was not their favorite. They favored the mechanical plant.

Mayor Young is in favor of putting in a slightly oversized system to accommodate future growth. Possibly to accept another community tie-in in the future.

Mayor Young questioned the need for 1 or 2 units for a duplex.

Keith suggested that the duplex have a system for each residential unit.

Matt L. stated that in the public meeting we would emphasize that the council has not decided to build a system. The council has asked for a study.

Upcoming public meeting particulars were discussed.

Mayor Young: Will completed repaving be a part of the project cost?

Keith's response: A trench repair was included in the costs of the project. He didn't know if street resurfacing could be lumped in and approved.

Mayor Young: Should we go with the mechanical system how is the billing to be handled?

Keith's response: the billing would have to come through the village or whoever they contract with.

Matt L.: Would the committee like to see the \$3000/customer cost lowered in the final report?



The committee agreed to keep the \$3000/customer cost unchanged for the public meeting but would like to have alternate cost scenarios for higher and lower initial costs/customers.

Matt L. stated that the meeting notice would be posted in the Greenville Paper and The Early Bird with posters distributed.

Meeting adjourned approx.. 7:15 p.m.



Project Name:

MVRPC Unsewered Communities Project

Meeting Date:

April 13, 2015

Project Number:

Wayne Lakes, Darke County

Meeting Time:

6:00 p.m.

Meeting Location:

Wayne Lakes Club House 100 Community Dr. Greenville Ohio

PLEASE SIGN IN

NAME	TITLE / ORGANIZATION	E-MAIL / PHONE	INITIAL
1. MATT LINDSAY	MVRPC	mlindsay@mvrpc.org	m
2. KEM DELL	ISI Group	Kem.Dell@ISIgroup.com	KD
3. ROBERTA MURPHY	Darke Co. Health Dept.	ROBERTA.MURPHY@dc.h.chio.gov	BJR
4. RODNEY MESSUT		Rodme@wsh.rr.com	RM
5. MICHAEL BLAND	Council member	MIBLAND57@G-mail.com	MB
6. GARY LEE YOUNG	Mayor	SQUIRE60@kmsnc@mail.com	GLY
7. RITA ROBINETT	Council member	ritarobinett@hotmail.com	
8. BRIAN MAY	Village Engineers / Access Eng	bmm@accessengllc.com	BMM
9. TERRY HOLMAN	Health Dept	terrence.holman@coll.ohio.gov	PH
10. GRAFT HOLMES	Ohio EPA	graftrey.holmes@epa.ohio.gov	G-H
11. ELVIN PICKAWAY	Burton Planning Servs.	EPickaway@BurtonPlanning.com	EMP
12. MARGARET HAYES	Asst. Pres	mhayes@co.darke.chio.us	MPH



## WAYNE LAKES, OHIO

# GENERAL PLAN / SANITARY SEWER FEASIBILITY STUDY

## OPEN HOUSE MEETING

MAY 30<sup>TH</sup>, 2015 2:00pm – 4:00pm

## WELCOME!!!

Thank you for attending today’s public meeting. This meeting is being held to review the draft General Plan Report for the “Unsewered Communities Project” for Wayne Lakes, Ohio. In locations where on-lot treatment systems (septic systems) no longer provide adequate wastewater treatment, environmental and health agencies are concerned about the potential for pollution from these systems to harm the environment and human health. The Miami Valley Regional Planning Commission (MVRPC) realizes these communities face real challenges in planning solutions for future wastewater treatment. As such, MVRPC has funded a study through an Ohio EPA grant to examine and report on options for Wayne Lakes. IBI Group was hired to complete the study. **Wayne Lakes is NOT required to act on this report or install a public sewer system at this time as there are NO mandates from the Ohio EPA currently.** Moving forward would be voluntary and proactive on the community’s part as septic systems in the community are past their life expectancy with replacement virtually impossible or extremely expensive with current design standards.

### Study Summary:

IBI Group has completed an evaluation comparing four different sewer collection alternatives and six different wastewater treatment alternatives for Wayne Lakes. These systems include:

#### Collection Alternatives

- Gravity Sewers
- Septic Tank Effluent Pumps (STEP)
- Grinder Sewers
- Vacuum Sewers

#### Treatment Alternatives

- Extended Aeration Treatment
- Lagoon Treatment
- Packed Bed Media Filter Treatment
- Connect to Greenville
- Connect to New Madison
- Connect to proposed Palestine/Hollansburg

We identified preliminary sewer routes to serve the Village and immediate surrounding area; developing construction estimates, Operation & Maintenance cost estimates, and comparing all scenario alternatives based on their Present Worth.

What we find and recommend is constructing a Grinder Pump Sewer System and transporting wastewater to a new Mechanical Extended Aeration treatment facility for treatment is the best alternative.

The total project cost for constructing grinder pump sewers and a new Mechanical Extended Aeration treatment facility in the Village of Wayne Lakes is estimated at approximately \$7,400,000.

## What are the benefits to me?

- First and foremost, a public sewer system eliminates health risks caused by failing septic systems.
- Cleaning the environment – streams and drainage ways free from pollution
- Eliminating your existing septic tank will provide more usable space in your yard for recreation or building purposes
- Odor elimination
- Cost of future repairs or replacement to your septic system – pumping, blocked leach field tile
- Worry free operation
- Property values increase

## If the Village constructs a sewer system, will my home have to connect? How much would it cost me?

Generally, if a public sewer is constructed with the ability to serve your property, yes, you would be required to connect. Each homeowner would be required to construct a new sewer lateral or pipe extending from your home to the connection point to the sewer line (typically at the property line) and abandon the existing septic system. This cost will vary from property to property depending on the distance, depth, restoration, and plumbing reconfiguration.

Based on the financial constraints of the Village, we feel that Wayne Lakes is in a good position to receive grants from State and Federal agencies to cover a portion of the construction cost. There may also be funding available on an individual basis to residents meeting income eligibility requirements to help cover the cost of connecting into the sewer. In some cases, this could mean zero dollars out of pocket for some residents.

After each resident makes their initial connection to the sewer system, they would then pay a monthly fee for sewer treatment service. Based on the preliminary funding scenario identified, the average monthly cost per customer would be around \$51.

## What are the next steps?

If the community decides to move forward, there are many items that would need to be addressed, including:

- Hire engineering firm to coordinate with funding agencies, survey the area, design the project, and secure EPA permits.
- Continue to keep the public informed
- It may be possible to have the entire system in place and operational by the end of 2019

**Unsewered Communities Project  
General Plan/Feasibility Study  
Public Meeting**



**Village of Wayne Lakes, Darke County, Ohio  
May 30, 2015 @ 2:00 – 4:00 pm**

**Attending:** See attached sign-in sheet.

**Meeting Minutes:**

Matt L. – MVRPC opened the meeting with a welcome and introduction of the project team. Matt L. presented the meeting agenda and purpose. Project team would respond to general questions during the presentations and answer more specific questions at various stations around the perimeter of the room. Attendees were invited to fill out comment sheets provided to them as they entered the meeting room. Attendees could fill out the comment sheets and leave them or take them home and send them in to IBI Group (address printed on the back of the sheets). Matt then presented an overview and purpose of the entire five village project. Reference was made to the hard copies of the draft report prepared by the IBI Group which were available for the attendees to review. It was also mentioned that the report was available on line via the MVRPC website. The goal was to have the final report wrapped up and delivered to the Village Council within a month.

The meeting was then turned over to Roberta Mangen – Darke County Health District. She and Dr. Terrance Holman, Darke County Health Commissioner started with an introduction of an info brochure produced by the Health District entitled “Importance of Sanitary Sewer for the Village of Wayne Lakes”. She explained the present condition of the septic systems in Wayne Lakes and the need for a more efficient system. On site system upgrades are not possible due to the small lot sizes. 45% of the septic systems are discharging improperly and are not up to EPA standards. The Health District is authorized to permit all septic systems within Darke County, so they want to know what the Village is planning in terms of addressing sewer management in the Village of Wayne Lakes. The Health District is required to inspect and make recommendations on the on-site systems in the Village. They do not want to recommend individual upgrading when a possible Village-wide sewer system is forthcoming.

Q. From Mayor Young for the group – What is the space requirement for a new septic system?

A. Approximately 1.5 Acres. Leech area must also have a certain length under the new regulations. The design is now more complicated than in the past.

Q. How do you know what you have? (system)

A. Files are available in the Office of the Health Dept. Permit info goes back to 1953.

Q. When did EPA change the standards regarding the maintenance and replacement of the present septic systems? 2yrs ago 5yrs?

A. EPA has learned what works and what doesn't from current technologies over the past years. The fact that the present systems have far outlasted their expected design life raises the most concern. OEPA wants to take what they have learned over the past years and steer communities toward healthier living in terms of sewer treatment.

Mayor Young – Septic system rule changes started in Jan. 2015 for the State of Ohio. Many non-working septic systems would have to be replaced under the new rule. However, 1.5 acres would be needed for a new system. What would a homeowner do that couldn't afford a fix? This

scenario would affect 90% of Wayne Lakes in terms of homeowners that don't have 1.5 acres for a new septic system.

Q. What does the Health Dept. do if a homeowner doesn't have 1.5 acres for a new system?

A. Roberta M. – It's a challenging situation for the Health District. Offsite high tech collection systems are available for individual homes but are very expensive to maintain. On site systems are much more reasonable.

The meeting was turned over to Keith D. – IBI Group. Keith talked about the boundaries of the planning area which was Wayne Lakes and the unincorporated area of Fort Jefferson. There were approximately 36 homes outside of Wayne Lakes which makes a total of 319 homes and businesses in the study area.

Collection systems considered were: Gravity (which wasn't recommended because of terrain), pressurized systems – STEP, Grinder, and Vacuum sewer systems.

Treatment systems studied were: A new mechanical treatment plant, Extended aeration, a Lagoon system, and Packed Bed Media. Regionalization with wastewater transport to Greenville, to Palestine/Hollansburg, or to New Madison was also considered. Costs of the systems ranged from \$1.8 mil to \$2.3 mil. Details are in the report. Operation and Maintenance costs were estimated for each system. A Grinder sewer and Mechanical plant treatment facility had the lowest Present Worth. Estimates were stated in the meeting handout.

Q. Does the report cost include the land acquisition costs for the treatment facility?

A. Report estimates did include some land acquisition costs. Costs are only reasonable estimates.

Keith D. went through the financing, funding estimates and Loan/Grant possibilities.

Q. Could a homeowner hook-up to the system themselves?

A. It would be a homeowner responsibility to hookup to the sewer system.

Q. Who's responsibility is the maintenance of the system?

A. The Village.

Q. How did Wayne Lakes get on the list with the other Villages?

A. Wayne Lakes made the list because of the age of the septic systems and the number of small lots.

Q. When did the new standards come into being?

A. From Mayor Young – Jan. 2015.

Q. Are you telling us that we will have to sell our property if we don't approve a new sewer system?

A. Dr. Holman – We don't want it to get to that point. The septic systems have an expected life. We have record of many improper discharges and low to no maintenance of the systems. What goes into a drywell could end up in a well supplying drinking water. The problem is not getting better. These issues have to be looked at. The Health District suggests that something be considered now vs later.

Mayor Young statement – There was no reason for the Council to say no to the sewer study. He and Council considered it to be proactive to have it done and it was free to the Village. The Council would consider a bond beginning in 2017 to help defray the \$3000/person estimate for hooking up to the sewer system. Council would also consider looking into the CHIPS program to also help defray costs to the residents who would qualify. Keith D. reiterated the possibility of a fund through the Public Infrastructure Grant program that could be used to assist qualifying residents with sewer costs. It could mean in some cases, zero dollars out-of-pocket for some customers.

Q. Would each house have a Grinder Pump?

A. Yes. Pipe from the house would go to a reservoir with a pump in it. See the image in the report.

Q. Is homeowner responsible for the pump cost?

A. Homeowner would have the electric cost. The Village would be responsible for the maintenance costs. The O&M estimated costs are in the report.

Q. What is the life expectancy of the Grinder pumps?

A Typically 10 yrs. Some get a little more some a little less.

Q. Does the \$3000/customer cost cover a project contractor installation or doing it yourself?

A. A capacity fee would be based on the Villages rules and regulations.

Q. Can a homeowner hook-up his own home?

A. Yes, but the work would have to be inspected and tested by the Health Dept.

Q. If the contractor damages my property during the installation, who is responsible for restoring it?

A. Generally the contractor is held responsible for restoring property back to its original condition.

Q. Who gets rid of the existing tank and leech field?

A. The septic tank would have to be properly abandoned. Tank pumped, top crushed and filled in with gravel at homeowner cost.

Q. What are we paying for?

A. From the Grinder pump to the house.

Q. How would the elderly/low income residents pay for their hook-up?

A. Mayor Young – That's what the CHIPS program could be used for if residents qualify.

S. Roberta M. – Anyone getting money for a sewer installation (hookup) for a friend/neighbor must be certified by the Health Dept.

S. Resident – Many septic system problems are brought about by improper or no maintenance. People need to know what they have and properly maintaining their systems.

Mayor Young would like to have an in-Village contractor do home hook-ups. He hopes that someone from the Village gets trained/certified to operate and maintain the system.

Q. To Mayor Young – Are we looking at possible time line for this project?

A. 2 – 3 yrs This project can't happen overnight. Keith D. – 3 to 5 yrs considering funding application process time.

Dr. Holman stated that the Health Dept. would help those with a septic system problem to get by until a pending sewer system project is constructed.

Q. Has there been any testing of the Lake waters for contamination?

A. Swimming hole has just been tested. The other lakes have been tested by the University of Dayton and was found to be OK about 5 yrs ago.

Q. Have any wells been tested?

A. Wells should be tested once a year but residents don't usually follow that schedule. We (Health Dept.) have little data.

3:20 p.m. Matt L. invited all attendees to ask specific questions to individual team members at stations.

Q. Did cost estimate in report assume all residents are year-round residents?

A. Keith D. Estimates in the report are for a cost/resident with no metering. The estimate could be done with metering as a consideration if the Village wanted.

S. Resident was in support of doing project sooner rather than later because of growing problem scope and rising costs.

Q. Do we have to decide where we are going to discharge or where we will regionalize before applying for loan or grant funds?

A. Keith D. recommended that the study be used as a stepping block. The recommendation from the study suggests Wayne Lakes build their own treatment facility.

Q. If we (Wayne Lakes) did connect with Greenville or New Madison, would the residents along that line have to connect to the sewer?

A. They theoretically could connect if the hydraulics were correct. Would they **have** to connect? It's hard to say.

Q. If Wayne Lakes had their own system, could other residents hook into the system?

A. Yes they could. However, nearby communities are seeking their own systems – Palestine-Hallsburg. The Wayne Lakes system could be designed for minor or major expansion.

Q. Should Wayne Lakes build their own system, is there any guarantee that OEPA won't change their regs and demand a new system?

A. Matt. L. Presently there are 319 individual septic system permits. With a sewer system there is one permit with OEPA at the discharge location. The requirements for that treatment plant may change over time, but Ohio EPA has not in the past disallowed treatment plant designs.

Q. Next steps?

A. Mayor Young is in support of a Village vote. Council recognizes the growing problem and the potential for people losing their property.

Q. When will we know the final finance numbers?

A. After the project goes to construction the numbers will be much more firm. A true final number will not be known until after the project is built.

Session ended at 4:00 p.m.





**MIAMI VALLEY**  
Regional Planning Commission



Project Name: General Plan/Sanitary Sewer Feasibility Study - Village of Wayne Lakes

Meeting Date: May 30, 2015

Project Number: \_\_\_\_\_  
Meeting Location: Wayne Lakes Club House 100 Community Dr. Greenville Ohio

Meeting Time: 2:00 - 4:00 p.m.

**PLEASE SIGN IN**

NAME	ORGANIZATION	STREET ADDRESS
1. Rita Robinett	Council	3515 Cross Dr Wayne Lakes
2. GARY Lee Young	Wayne Lakes	3685 West Dr,
3. Eileen Eckstein		3642 South Creek Dr.
4. Sharon Keckliger	Wayne Lakes	1185 N. Middle Wayne Lakes
5. James Patterson		3580 Center Dr
6. Geoff Holmes	Ohio EPA	401 East Fifth St. Dayton OH 45402
7. Ken Deil	IBI Group	635 Brossard Rd. Wadsworth OH 43281
8. Grace Schaeff		3785 Hickory Ln. Wayne Lakes
9. Danielle Stark		1221 Main Drive
10. Kaylea Stark		1221 main drive
11. LORAYNE WILT		3777 WEST PRIOTE
12. Tracy Conklin		3514 CROSS DRIVE, WAYNE LAKES



Project Name: General Plan/Sanitary Sewer Feasibility Study - Village of Wayne Lakes

Meeting Date: May 30, 2015

Project Number:

Meeting Time: 2:00 - 4:00 p.m.

Meeting Location: Wayne Lakes Club House 100 Community Dr. Greenville Ohio

PLEASE SIGN IN

NAME	ORGANIZATION	STREET ADDRESS
1. MATT LINDSAY	MVRPC	10 N. Ludlow St. 700, Dayton, OH
2. Doug Barger		3655 North Dr, Greenville, OH
3. George Dickman		3488 North Dr. Greenville
4. Scott Howell		3567 Center Dr. Greenville
5. Roger + Lalah Kline		1180 N. Middle Dr. Greenville,
6. Joyce Munchel	Dwight County Health Dept.	300 Court Ave Greenville OH
7. Robert Nagy		3638 S. Crestline Dr. W.G.
8. Marlene J. Durbey		1152 S. SHARON DR
9. SWANOLER		3648 North Drive
10. Chris Fry		3729 HILWIND RD.
11. EARL SWINOLER		3545 Patton Way
12. Jerry Kirchner		Hilliard OH. 43026



**MIAMI VALLEY**  
Regional Planning Commission



NAME	ORGANIZATION	STREET ADDRESS
13. Joe Amett		3512 St Rt 121 Greenville W.V.
14. Denise Wetzel		3612 N. Drive.
15. Lanny Rayer	OPWC	2746 Holly - Pine Rd New Providence, Ohio
16. Kevin Wood	ISI	635 BLOSSOM BLVD WHEELING OH 43084
17. M Bowen		3873 S. Lane
18. E. Boyer		3873 S. Lane
19. [Signature]		3789 West A
20. [Signature]		3820 West Dr
21. Diane Morey		1150 N. Middle Dr. Wayne Lakes 45394
22. Jeremy Bump		3065 North Pe Wl
23. Brian May	Access Engineering	
24. Justin D Swick		
25. [Signature]		1721 [Signature]
26. [Signature]	Health Dept	
27. [Signature]		



	NAME	ORGANIZATION	STREET ADDRESS
28.	SPAR ROBINS	Home owner	3515 GROSS DR W/L
29.	Jane Burke		1232 Main Dr
30.	William Baker	Home owner	3750 West Fr.
31.	Capps		1099 E Engagem Dr
32.	Jan Fiallan	Council	3747 West Dr
33.	J. Sible Kaeth		3795 West Dr
34.	Elvin Frickney	Burton Planning Svs.	252 Electric Ave. Westerville Oh.
35.	Andrew Fork	Home owner	3815 West Dr.
36.	Mark McEwen	Home owner	3776 West Dr.
37.			
38.			
39.			
40.			
41.			
42.			

# Wayne Lakes

---

## Online Comments

Received: May 19, 2015

From: James M. Thomas  
1170 Evergreen Drive  
Greenville, OH 45331

We built a house on 2.5 acres in 1998 at the far northern area of Wayne Lakes. In order to build, we were mandated to have double leach fields with switching capabilities. Our house is far from the lakes and far from the main road. We should not be subject to the same rules as the homes built close to water. We already paid the extra to protect the water. Thank you for the consideration.

Received: June 5, 2015

From: Denise Wetzel  
3612 North Drive on Ess Lake

The Village of Wayne Lakes will have just one chance to make a good decision regarding a sewer system that is efficient, cost effective, and least harmful to the lakes. Since this is a lakes community, I think the health of the lakes and environment should be a key consideration for this decision process.

For an informed decision to be made, inclusion of additional information in the final report such that the community conversations will be based on a more comprehensive understanding of the grinder pump versus STEP collection methods specifically, as well as the extended aerator versus packed bed treatment methods seems warranted. After reading through the descriptions and cost analyses for the alternatives, these seem good choices for the village to focus on for further discussion. Having a final recommendation and complete cost/funding analyses for only the grinder pump/aerator facility combination may effectively dictate what the village will understand to be as “the best choice” and limit discussions.

I request a more in-depth look at the STEP system and more information included in the final report for this option. Knowing that 45% of the 319 properties (~143) currently have either no septic system (24) or a system that does not meet standards (119), should I think prompt consideration of having a collection method that is as user-independent as possible. A concern about the grinder pump method is an anticipated number of mechanical issues when random items that are not intended to be flushed (think watches, razors, etc.). Given a choice, I would much prefer that the volume of waste that is being pumped all through the community be the primarily treated effluent off of septic tanks rather than the whole sewage from a grinder pump system. When pipes leak, which would you rather have go into your yard or the lakes? It also seems that pumping water would increase the efficiency of both the pumping and treatment mechanisms (less or no thickness or solids to cause clogging).

The current cost analysis provided for the STEP system includes \$5700 each for installation of 319 new septic tanks with pumps. I understand this to be the “worst-case scenario” and it may seem best to start with all new, but considering that 55% of the current septic systems (~176) do meet standards and that many of those that don’t may still have an intact tank (failures of septic systems are not always due to a compromised tank), it seems important for the final report to include information regarding the “about half” cost (~\$2850) for retro-fitting of the STEP pumps into existing tanks. Granted, not all of the “meets standards” tanks and maybe none of the other existing tanks may be viable for use if they are actually compromised. However, if only 100 of the existing 295 tanks could be used, that would be a cost savings of approximately \$285,000, which could cover the cost of tank cleanouts (at \$950 each, from the report) for ~300 tanks. This could cover the initial cleanouts needed to install the pumps and abandon the other tanks that couldn’t be re-used without cost for that being the responsibility of the property owners. Cleanouts of all 319 tanks on an average of every 5 years could be included in the cost analysis (~\$15 per month per property;  $319 \text{ tanks} \times \$950/\text{cleanout} \div 5 \text{ years} \div 12 \text{ months} \div 319 \text{ properties}$ ) and rolled into the overall monthly cost to the property owners. It seems difficult to try to enforce cleanouts on an individual basis. Again, the STEP system would allow for pretreatment of waste being pumped and processed and would collect solids (including sewer-undesirable items) with less damage to the pumps for regular disposal with cleanouts done only as needed based on the annual tank/pump inspections.

The STEP collection system could be used in conjunction with either the packed bed treatment method or the extended aerator facility. The packed bed is pricier to install, but it would require less energy to run it and less personnel cost to manage it than the aerator facility (~\$15 per month per property versus ~\$24, from the report). This ~\$9 per month cost savings is almost \$35,000 a year (maybe personnel salary or toward STEP tank regular cleanout cost = 36 tanks per year).

Regarding funding: cost is presented as worst case, funding is presented as best case. I think this may lull people into thinking that the presented bottom-line monthly cost for them is a maximum amount when in fact it might be a minimal amount. In addition, removing the inclusion of the up-front \$3000 per property in the funding analysis seems more realistic and may provide a more clear idea of actual cost per month.

I write this with interest in supporting a sewer system install for the Village of Wayne Lakes and advocating for the STEP collection method in conjunction with the packed bed treatment method based on the reasons given. I’m interested in the health of our lakes (BS in Wildlife Management) and I offer my support for the grants/loans application process, if there is interest for me to do so. (30+ years of experience including federal grant applications, science writing, understanding of microbiology)

This also will be shared with Mayor Young and the Village Council at the upcoming council meeting (June 15).

Thank you.

# PUBLIC PARTICIPATION MEETING

TO REVIEW THE *GENERAL PLAN REPORT* FOR “UNSEWERED COMMUNITIES PROJECT” FOR WAYNE LAKES, OHIO

## WHEN:

Saturday, May 30, 2015

## WHERE:

Wayne Lakes Community Building  
100 Community Drive  
Greenville, Ohio 45331

## TIME:

2:00 p.m. - 4:00 p.m.

The meeting will be held to review the *General Plan Report* for the “Unsewered Communities Project” for Wayne Lakes, Ohio. In locations where these systems no longer provide adequate wastewater treatment, environmental and health agencies are concerned about the potential for pollution from these systems to harm the environment and human health.

The Miami Valley Regional Planning Commission (MVRPC) realizes these communities face real challenges in planning solutions for future wastewater treatment. Therefore, MVRPC is spearheading the “Unsewered Communities Project” to examine and report on the options for these communities to improve wastewater systems and protect the environment. A public meeting will provide the residents and property owners in Wayne Lakes an opportunity to review the *General Plan Report*.



**MIAMI VALLEY**

Regional Planning Commission



For additional information, contact Matt Lindsay, Manager of Environmental Planning, at 937.223.6323 or [mlindsay@mvrpc.org](mailto:mlindsay@mvrpc.org)



# SESIÓN DE PARTICIPACIÓN PÚBLICA

PARA ANALIZAR EL INFORME DEL PLAN GENERAL DEL PROYECTO PARA COMUNIDADES SIN ALCANTARILLADO (UNSEWERED COMMUNITIES PROJECT) EN WAYNE LAKES, OHIO

## CUANDO:

Sábado, 30 de Mayo, 2015

## DONDE:

Wayne Lakes Community Building  
100 Community Drive  
Greenville, Ohio 45331

## HORA:

2:00 p.m. - 4:00 p.m.

Se realizará una reunión para revisar el informe del plan general para el “proyecto de las comunidades sin alcantarillado” para Wayne Lakes, Ohio. Hay lugares donde estos sistemas ya no le proporcionan el tratamiento adecuado a las aguas residuales y las autoridades de salud y del medio ambiente temen que la polución de estos sistemas pueda perjudicar el medio ambiente o la salud pública.

Miami Valley Regional Planning Commission sabe y entiende que estas comunidades enfrentan verdaderos retos preparando soluciones para el tratamiento de aguas residuales en el futuro. Por lo tanto, MVRPC está en la vanguardia al dirigir el “Proyecto para Comunidades Sin Alcantarillado” para examinar y presentar un informe sobre las opciones que estas comunidades tienen para mejorar los sistemas de tratamiento de aguas residuales y proteger el medio ambiente. El informe del Plan General identificará soluciones factibles y se usará para empezar a identificar y facilitar los proyectos del futuro.



**MIAMI VALLEY**

Regional Planning Commission



Para más información, contacte a Matt Lindsay, Manager of Environmental Planning, [mlindsay@mvrpc.org](mailto:mlindsay@mvrpc.org) o llame al (937) 223-6323







## NEWS RELEASE

### For Immediate Release

**Date:** May 8, 2015

**Contact:** Laura A. Loges  
Miami Valley Regional Planning Commission  
937.223.6323, Extension 6535  
lloges@mvrpc.org

**Subject:** Public Participation Meeting to be Held to review the General Plan Report for Unsewered Communities Project for Wayne Lakes.

**Dayton OH** – The Miami Valley is dotted with small communities with pockets of areas served by septic systems. In locations where these systems no longer provide adequate wastewater treatment, environmental and health agencies are concerned about the potential for pollution from these systems to harm the environment and human health.

The Miami Valley Regional Planning Commission (MVRPC) realizes these communities face real challenges in planning solutions for future wastewater treatment. Therefore, MVRPC is spearheading the “Unsewered Communities Project” to examine and report on the options for these communities to improve wastewater systems and protect the environment. The General Plan report will identify actionable solutions and lay the groundwork for future projects.

A public meeting will provide the residents and property owners in Wayne Lakes an opportunity to review the General Plan report.

The meeting will be held as follows:

**Saturday, May 30, 2015**

**Wayne Lakes Community Building**

**100 Community Drive**

**Greenville, Ohio 45331**

**2:00 p.m. – 4:00 p.m.**

“The "Unsewered Communities Project" will evaluate the specific problems and needs of each participating community to develop customized wastewater treatment options in the form of a General Plan,” said MVRPC’s Executive Director, Brian O. Martin, AICP.

If you are unable to attend the meeting, the General Plan report will also be available for public review on MVRPC’s web site at [www.mvrpc.org/environment/WaterQualityManagement/](http://www.mvrpc.org/environment/WaterQualityManagement/) on or before May 8, 2015. You can also review the list at the MVRPC offices, 10 N. Ludlow Street, Suite 700, Dayton, OH, 45402, during regular business hours (8:00 a.m. – 5:00 p.m., Monday through Friday). Written comments will be accepted through June 8, 2015 at the above address or via e-mail to Matt Lindsay, Manager of Environmental Planning, at [mlindsay@mvrpc.org](mailto:mlindsay@mvrpc.org).

At all MVRPC public participation meetings, interpreters for hearing impaired individuals or bi-lingual interpreters are available upon request. Requests should be made at least one week prior to the meeting date. Contact MVRPC at (937) 223-6323 or 1-800-750-0750 TTY/TDD to request an interpreter.

Established in 1964, the Miami Valley Regional Planning Commission promotes collaboration among communities, stakeholders, and residents to advance regional priorities. MVRPC is a forum and resource where the Board of Directors identifies priorities, develops public policy and collaborative strategies to improve quality of life throughout the Miami Valley Region. MVRPC performs various regional planning activities, including air quality, water quality, transportation, land use, research and GIS. As the designated Metropolitan Planning Organization (MPO), MVRPC is responsible for transportation planning in Greene, Miami and

Montgomery Counties and parts of northern Warren County. MVRPC's area wide water quality planning designation encompasses five (5) counties: Darke, Preble plus the three MPO counties.

For additional information, contact Matt Lindsay, Manager of Environmental Planning, at (937) 223-6323 or via the e-mail address listed above.

###

**Affidavit of Publication**

RECEIVED  
MAY 19 2015  
BY: TRB

STATE OF OHIO } SS  
COUNTY OF DARKE }

Diana Sleppy, being duly sworn, says:

That she is of the Daily Advocate, a daily newspaper of general circulation, printed and published in Greenville, DARKE County, OHIO; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following dates:

May 15, 2015

That said newspaper was regularly issued and circulated on those dates.

SIGNED:

Diana Sleppy  
Diana Sleppy

Subscribed to and sworn to me this 15<sup>TH</sup> day of May, 2015.

Teresa S. Ketrting

Teresa S. Ketrting, Notary Public,  
State of Ohio,  
DARKE County, OHIO  
My commission expires: April 1, 2019.



Teresa S. Ketrting  
Notary Public-State of Ohio  
My Comm. Exp. Apr. 1, 2019

40000705 40733165 9375316528

LAURA HENRY  
MIAMI VALLEY REGIONAL PLAN COMM  
10 NORTH LUDLOW ST, SUITE 700  
DAYTON, OH 45402

\$201.00

**PUBLIC NOTICE**  
**Public Participation Meeting to be Held to Review the General Plan Report for Unsewered Communities Project for Wayne Lakes.**

The Miami Valley is dotted with small communities with pockets of areas served by septic systems. In locations where these systems no longer provide adequate wastewater treatment, environmental and health agencies are concerned about the potential for pollution from these systems to harm the environment and human health.

The Miami Valley Regional Planning Commission (MVRPC) realizes these communities face real challenges in planning solutions for future wastewater treatment. Therefore, MVRPC is spearheading the "Unsewered Communities Project" to examine and report on the options for these communities to improve wastewater systems and protect the environment. The General Plan report will identify actionable solutions and lay the groundwork for future projects.

A public meeting will provide the residents and property owners in Wayne Lakes an opportunity to review the General Plan report. The meeting will be held as follows:

**Saturday, May 30, 2015**  
**Wayne Lakes Community Building**  
**100 Community Drive**  
**Greenville, Ohio 45331**  
**2:00 p.m. - 4:00 p.m.**

"The "Unsewered Communities Project" will evaluate the specific problems and needs of each participating community to develop customized wastewater treatment options in the form of a General Plan," said MVRPC's Executive Director, Brian O. Martin, AICP.

If you are unable to attend the meeting, the General Plan report will also be available for public review on MVRPC's web site at [www.mvrpc.org/environment/WaterQualityManagement/](http://www.mvrpc.org/environment/WaterQualityManagement/) on or before May 8, 2015. You can also review the list at the MVRPC offices, 10 N. Ludlow Street, Suite 700, Dayton, OH, 45402, during regular business hours (8:00 a.m. - 5:00 p.m., Monday through Friday). Written comments will be accepted through June 8, 2015, at the above address or via e-mail to Matt Lindsay, Manager of Environmental Planning, at [mlindsay@mvrpc.org](mailto:mlindsay@mvrpc.org).

At all MVRPC public participation meetings, interpreters for hearing impaired individuals or bi-lingual interpreters are available upon request. Requests should be made at least one week prior to the meeting date. Contact MVRPC at (937) 223-6323 or 1-800-750-0750 TTY/TDD to request an interpreter. For additional information, contact Matt Lindsay, Manager of Environmental Planning, at (937) 223-6323 or via e-mail address listed above.

40733165  
5/15/15 1T

# FEE LAW GROUP LLC

## ABOGADOS



Atendemos casos de:

- Inmigración: solicitudes de visas, Defensa de Deportación, DACA, y víctimas de crímenes (visas U y T)
- Defensa Criminal e Infracciones de Tránsito, DUI
- Formación de Entidades de Negocio
- Derecho de familia
- Testamentos, Contratos, y Poderes

**Hablamos Español**  
*Estamos aquí para defender sus derechos*

Oficina ubicada en Sharonville  
11438 Lebanon Rd. (Route 42)  
Unit K  
Cincinnati, OH 45241

Attorneys / Abogados  
George Fee  
Elizabeth Clapp

www.feelawgroup.com  
email: info@feelawgroup.com

Tel: 513-792-9322  
Fax: 513-955-9322

### ¡Tú tienes el derecho de vivir donde tú elijas!



Estos son algunos signos claros de discriminación en la vivienda:

- "Solo aceptamos a personas que hablan inglés."
- "No aceptamos a niños ni adolescentes."
- "No puedo asignar estacionamiento a personas discapacitadas."
- "El apartamento del cual le hablé por teléfono ya fue alquilado."

Si usted siente que fue discriminado, comuníquese con  
Teresita Lewis, Oportunidades de Viviendas Hechas Iguales.

**Es Gratis: 513-977-2630**



Funded by a grant from the U.S. Department of Housing and Urban Development.  
HOME is solely responsible for the contents, which do not necessarily reflect the views of the Federal Government.

#### AVISO PÚBLICO

### Se realizará una Reunión de Participación Pública para analizar el Informe del Plan General del Proyecto para Comunidades Sin Alcantarillado (Unsewered Communities Project) en Wayne Lakes, Ohio.

El Miami Valley tiene muchas comunidades aisladas pequeñas que tienen áreas apartadas donde se usan los sistemas sépticos. Hay lugares donde estos sistemas ya no le proporcionan el tratamiento adecuado a las aguas residuales y las autoridades de salud y del medio ambiente temen que la polución de estos sistemas pueda perjudicar el medio ambiente o la salud pública.

Miami Valley Regional Planning Commission (MVRPC, por sus siglas en inglés) sabe y entiende que estas comunidades enfrentan verdaderos retos preparando soluciones para el tratamiento de aguas residuales en el futuro. Por lo tanto, MVRPC está en la vanguardia al dirigir el "Proyecto para Comunidades Sin Alcantarillado" para examinar y presentar un informe sobre las opciones que estas comunidades tienen para mejorar los sistemas de tratamiento de aguas residuales y proteger el medio ambiente. El informe del Plan General identificará soluciones factibles y se usará para empezar a identificar y facilitar los proyectos del futuro.

Una reunión pública le brindará a los residentes y propietarios de Wayne Lakes la oportunidad de ver y revisar el informe del Plan general.

La reunión se realizará el:  
**sábado, 30 de Mayo, 2015**  
Wayne Lakes Community Building  
100 Community Drive, Greenville, Ohio 45331  
2:00 p.m. - 4:00 p.m.

"El "Proyecto para Comunidades Sin Alcantarillado" evaluará las necesidades y problemas específicos de cada comunidad participante para desarrollar opciones de tratamiento de aguas residuales que estén diseñadas específicamente para cada comunidad y que se presentarán en un Plan General," dijo el Director Ejecutivo, Brian O. Martin, AICP.

Si usted no puede asistir a la reunión, el informe del Plan General también estará disponible al público en el sitio Web de MVRPC en [www.mvrpc.org/environment/WaterQualityManagement/](http://www.mvrpc.org/environment/WaterQualityManagement/) el o antes del 8 de mayo, 2015. También encontrará la lista en las oficinas de MVRPC, 10 N. Ludlow Street, Suite 700, Dayton, OH, 45402, durante el horario regular de oficina (8:00 a.m. - 5:00 p.m., lunes a viernes). Se aceptarán comentarios por escrito hasta el 8 de junio, enviados a la dirección anterior o por correo electrónico a Matt Lindsay, Manager of Environmental Planning, [mlindsay@mvrpc.org](mailto:mlindsay@mvrpc.org).

En todas las reuniones de participación pública de MVRPC, se pueden solicitar intérpretes para las personas con dificultades auditivas o para las personas que no hablan inglés. Las solicitudes se deben hacer por lo menos una semana antes de la fecha de la reunión. Comuníquese con MVRPC al (937) 223-6323 o 1-800-750-0750 TTY/TDD para solicitar un intérprete.

Para más información, comuníquese con Matt Lindsay, Manager of Environmental Planning, al (937) 223-6323 o al correo electrónico listado anteriormente.



**MIAMI VALLEY**  
Regional Planning Commission

#### PUBLIC NOTICE

### Public Participation Meeting to be Held to review the General Plan Report for Unsewered Communities Project for Wayne Lakes.

The Miami Valley is dotted with small communities with pockets of areas served by septic systems. In locations where these systems no longer provide adequate wastewater treatment, environmental and health agencies are concerned about the potential for pollution from these systems to harm the environment and human health.

The Miami Valley Regional Planning Commission (MVRPC) realizes these communities face real challenges in planning solutions for future wastewater treatment. Therefore, MVRPC is spearheading the "Unsewered Communities Project" to examine and report on the options for these communities to improve wastewater systems and protect the environment. The General Plan report will identify actionable solutions and lay the groundwork for future projects.

A public meeting will provide the residents and property owners in Wayne Lakes an opportunity to review the General Plan report.

The meeting will be held as follows:  
**Saturday, May 30, 2015**  
Wayne Lakes Community Building  
100 Community Drive, Greenville, Ohio 45331  
2:00 p.m. - 4:00 p.m.

"The "Unsewered Communities Project" will evaluate the specific problems and needs of each participating community to develop customized wastewater treatment options in the form of a General Plan," said MVRPC's Executive Director, Brian O. Martin, AICP.

If you are unable to attend the meeting, the General Plan report will also be available for public review on MVRPC's web site at [www.mvrpc.org/environment/WaterQualityManagement/](http://www.mvrpc.org/environment/WaterQualityManagement/) on or before May 8, 2015. You can also review the list at the MVRPC offices, 10 N. Ludlow Street, Suite 700, Dayton, OH, 45402, during regular business hours (8:00 a.m. - 5:00 p.m., Monday through Friday). Written comments will be accepted through June 8, 2015 at the above address or via e-mail to Matt Lindsay, Manager of Environmental Planning, at [mlindsay@mvrpc.org](mailto:mlindsay@mvrpc.org).

At all MVRPC public participation meetings, interpreters for hearing impaired individuals or bi-lingual interpreters are available upon request. Requests should be made at least one week prior to the meeting date. Contact MVRPC at (937) 223-6323 or 1-800-750-0750 TTY/TDD to request an interpreter.

For additional information, contact Matt Lindsay, Manager of Environmental Planning, at (937) 223-6323 or via the e-mail address listed above

Continued from page 9

## PUBLIC PARTICIPATION MEETING

TO REVIEW THE GENERAL PLAN REPORT FOR "UNSEWERED COMMUNITIES PROJECT" FOR WAYNE LAKES, OHIO

**WHEN:**  
Saturday, May 30, 2015  
**WHERE:**  
Wayne Lakes  
Community Building  
100 Community Drive  
Greenville, Ohio 45331  
**TIME:**  
2:00 p.m. - 4:00 p.m.

The meeting will be held to review the *General Plan Report* for the "Unsewered Communities Project" for Wayne Lakes, Ohio. In locations where these systems no longer provide adequate wastewater treatment, environmental and health agencies are concerned about the potential for pollution from these systems to harm the environment and human health.

The Miami Valley Regional Planning Commission (MVRPC) realizes these communities face real challenges in planning solutions for future wastewater treatment. Therefore, MVRPC is spearheading the "Unsewered Communities Project" to examine and report on the options for these communities to improve wastewater systems and protect the environment. A public meeting will provide the residents and property owners in Wayne Lakes an opportunity to review the *General Plan Report*.



**MIAMI VALLEY**  
Regional Planning Commission  
For additional information, call 937.223.6323 or visit [mvrpc.org](http://mvrpc.org)

Jewelry • Fashion • Wine • Espresso Tea Lounge • Bakery & Chocolates • Home Accents

**Nonnie WALLER'S**  
PARLOR  
Cross Pointe Shopping Centre  
937-435-5151

**YES. AND KIDS TOO!**

Dayton City Paper

# Which way do you lean??

Dayton City Paper is looking for debate writers! IF you are interested, please visit: [DaytonCityPaper.com/Debate](http://DaytonCityPaper.com/Debate)

### DEBATE FORUM QUESTION OF THE WEEK:

Should foie gras be served in restaurants, or banned as an act of animal cruelty?

## In defense of foie

RESPONSE BY DINING CRITIC PAULA JOHNSON

If you've ever tasted foie gras, merely reading the words produces the pavlovian response I'm experiencing writing them. Silky, unctuous, sublime... If you haven't tried it yet, you can relax about all the controversy.

Eduardo Souza is an upstart Spanish farmer whose foie gras is so legendary it won the prestigious Coup de Couer award in 2006. The fact that Souza produces foie gras so hands-down best-tasting in the world is not as extraordinary as how he does it. What Souza does is prove that ducks, when left to their own devices will produce their own foie gras. Naturally, without gavage, the tube feeding process used to enhance liver size. Souza doesn't use gavage because his flock gorges on their own. He lets them roam free on a large farm with an electrified fence (the electric shock is on the outside, keeping predators out, never shocking the birds). They eat all the olives and figs they want from the trees Souza planted for them, along with a host of other plants which contribute to the product's superlative taste, texture and color. All this is done working with nature, giving the ducks what they want.

We've briefly explored Souza's fairy tale version of foie gras production the way it should be. Knowing about this, how can we defend any other means of production? Consider trying to hold the entire farming industry to this same natural organic free range standard. That's not remotely realistic. So here are some facts from Hudson Valley, New York's La Belle Farms, which unlike most industrialized animal farms, controls every step from breeding, raising the chicks, performing the gavage, slaughtering, processing, packaging and shipping.

At La Belle the ducks are free to roam about in enormous sheds. Since they don't receive antibiotics their outdoor exposure is minimal. Wild birds could introduce deadly bacteria. These ducks are able to walk around on their own, contradicting the notion that they become so fat as to not be ambulatory. They don't vomit. They are disease free and healthy. Duck death rate here is 1 percent. That's less than one-fifth of a regular chicken or duck farm.

The kind of ducks used and their physiology is important to consider. The ducks are Moulards, the hybrid offspring of a male Muscovy (strong, adaptive and non-migratory) and a female Pekin duck (gregarious and migratory). These hybrid ducks are suited for group living and don't have the urge to migrate, but they have the interior anatomy to accommodate the gorging that migration allows, which is what migratory birds do naturally - they have to gorge in order to stay alive.

Watch a video of a cormorant, a similar waterfowl, swallowing a spiky fish several times wider than its neck, and consider the size of the gavage tubes, which are now being made of a flexible

plastic. Unlike humans, ducks have independent tracheas and esophagi, so they don't have a gag reflex. And the topper-ducks breathe through their tongues. It's important to resist the urge to anthropomorphize these animals and consider what they are and what they are designed to do.

Workers at La Belle (all women because the ducks seem to prefer them) are paid on a bonus based system, with their pay upgraded for every A grade liver. Any mishandling of the ducks, any rough treatment, will cause bruising, reducing the value. When the workers administer the gavage they check first by gently squeezing the base of the duck's neck to make sure it's finished all the food from the last feeding. If there's still food, she skips the feeding. If not, the tube is eased down the ducks throat, the food is deposited, then the duck swallows and walks away. Don't bother calling George Romero. It's hardly the stuff of horror.

Foie gras is an easy target, this luxury item that's marketed to the wealthy. Protesting the morality of Spam just doesn't pack quite the same righteous punch. If you are against the confinement, slaughter and eating of all animals that's another argument. But to single out foie is manipulative and misguided.

The bottom line is foie gras production can be done without intervention. It's what these birds naturally do, so the foie gras itself is natural as proved by Eduardo Souza. But if it's done industrially it should be judged on those producing with the highest standards, not the horrific and sensational cases we are all familiar with. Those egregious cases are not the point of the debate. There are only three foie gras farming operations in the U.S. and they certainly don't have the clout to defend themselves to the public and influence opinion like the beef or poultry industry does.

The average American consumes more than 60 pounds of chicken annually, as opposed to 0.00265 pounds of foie gras. Are people going to stop buying cheap eggs that come from chickens confined for a year in cages so small they can't turn around? Or chicken from birds whose beaks are cut off? The source of anything you eat, no matter how much or how little, should be considered carefully. So the next time you scramble an egg or slide a chicken nugget down your own gullet you may want to ponder the ethical nature of that choice. The next time you order foie gras, you won't have to.



Dayton City Paper Dining Critic Paula Johnson would like every meal to start with a champagne cocktail and end with chocolate soufflé. As long as there's a greasy burger and fries somewhere in the middle. Talk food with Paula at [PaulaJohnson@DaytonCityPaper.com](mailto:PaulaJohnson@DaytonCityPaper.com).

**FOR RENT**

1 BR apt, very nice, w/appliances & w/d hookup. No pets or smoking. \$385/mo. 126B W. Water St, Greenville. 937-547-9871

1 BR upstairs efficiency, Greenville. Utilities included. \$385/mo + deposit & references. No pets. 937-417-4099 after 4pm

2 BR large 1st floor apt near Grnl park. No pets or smoking. \$400/mo. 305 Miami Circle. 547-9871

Lg 2 BR, 1 bath apt, across from G'Ville Park. No smoking, no pets. \$495 + deposit. Includes water, heat & trash. 417-3257

Small apt, non-smoking, no pets. Pittsburg. \$535/mo + deposit. 937-692-5752

2 BR apt, Greenville. Must pay gas & electric. \$350/mo, \$200 deposit. 937-621-0810

1 BR downstairs apt. W/d hookup. All electric. Water included. Ask about free rent. \$350/mo, \$350 deposit. 765-964-4291

939 Washington Ave., Greenv. 2 br house with detached garage. \$575 mo./\$575 deposit. No pets. 937-548-9587

Newer spacious apt coming for rent, 140 Dwyer Ave, Grnl. Yard care/snow removal provided. C/a, gas heat. Attached garage. 937-547-1435

3 bdrm home - fenced in backyard, outside New Madison. No pets in the house. No smoking. \$650 deposit, \$650 rent. 996-0200 or 937-564-2849

**FOR RENT**

1 BR downstairs apt, Union City, IN. Furnished. All utilities paid. \$135/week + \$400 deposit. 937-968-6804

**PRODUCE**

Tomato & Cabbage plants \$2/doz. Sweet potato plants 50¢ each. No Sunday Sales. 4133 Gettysburg-Pittsburg Rd 548-9032

**WANTED**

Looking for roommate to split expenses. Please call 937-808-4087

Wanted: Used house trailers in good condition. Please call 937-448-2974

**LIVESTOCK**

Brown egg laying pullets. 937-526-4541

Two Jersey steer calves, weaned and on grass. 250 lbs. \$550 each. 937-467-1368

**REAL ESTATE**

For Sale: Ranch home on 1 acre, 3 BR, 1.5 bath, finished basement, deck, on SR 121 South. 548-4289

**UPSTATE NY ABSOLUTE LAND LIQUIDATION! MAY 16TH!**

19 Tracts from 3 to 35 acres starting at \$12,900. Examples: 9 acres - \$19,900. 20 acres - \$29,900. 35 acres - Farmhouse - \$169,900. Foreclosures, estates, abandoned farms! Waterfront, trout streams, farmhouses, views! Clear title, 100% g'teed! Terms available! Call 888-738-6994 to register or go to [NewYorkLandandLakes.com](http://NewYorkLandandLakes.com)

Beautiful large log home on 2.4 acres w/3 BRs, loft, pellet boiler, pond & much more. Located on SR 571 on the edge of Greenville. \$309,000. Trump Realty 678-5687 for your personal showing

For Sale: 1-1/2 story, 3 BR, 2 full bath home w/40x60 pole barn & older barn on 13 wooded acres in F-M school district. East of Greenville. 937-548-1869

**LOST AND FOUND**

LOST DOG, North Star area. White/black Husky named Marley. 1 brown eye, other is half brown/blue. 937-564-1532

**WANTED TO BUY**

Cars/Trucks, running or not. To \$500. Will PU. Starter/alt \$4-\$10. Alum rims, \$10-\$14. CAT converters \$5-\$120, 937-423-2703 or 937-621-5809

**WANTED TO BUY**

BUYING VINTAGE GUITARS, Banjos, Mandolins & Amplifiers. ALSO buying Flutes, Saxophones, Trombones, Trumpets in good condition, Yamaha, Selmer, King, Conn. Bring them to Bach to Rock Music, 334 S. Broadway, Greenville, OH for an offer. 937-547-1970, email: [bachtorock@earthlink.net](mailto:bachtorock@earthlink.net)

**RECREATIONAL**

Fiberglass fishing boat, 14', and trailer, both like new, new seats & paddles, etc. RED AND BEAUTIFUL! Always stored inside. V-bottom. In Greenville. \$950 or trade for Indian arrowheads. 937-417-9044

1996 Damon Hornet 32' Travel Trailer. One slide-out. Does not have an awning. Sleeps 6. Asking \$4500. 937-526-3732

**RECREATIONAL**

Boat, 1998 Sea Nymph Angler, 16.5', 50hp Johnson, trailer & all access. Clean. \$6950. 937-547-1111

**HOUSEHOLD**

Very nice used Rainbow vacuum sweeper. Warranty. Call 548-0870

**HOUSEHOLD**

PILLOWTOP 14 INCH THICK MATTRESS & BOX SPRINGS: FULL SET \$237; QUEEN SET \$259; KING SET \$399. NEW IN PLASTIC WITH WARRANTY. 937-884-5455 We deliver

**PUBLIC NOTICE**

Public Participation Meeting to be Held to review the General Plan Report for Answered Communities Project for Wayne Lakes.

The Miami Valley is dotted with small communities with pockets of areas served by septic systems. In locations where these systems no longer provide adequate wastewater treatment, environmental and health agencies are concerned about the potential for pollution from these systems to harm the environment and human health.

The Miami Valley Regional Planning Commission (MVRPC) realizes these communities face real challenges in planning solutions for future wastewater treatment. Therefore, MVRPC is spearheading the "Unsewered Communities Project" to examine and report on the options for these communities to improve wastewater systems and protect the environment. The General Plan report will identify actionable solutions and lay the groundwork for future projects.

A public meeting will provide the residents and property owners in Wayne Lakes an opportunity to review the General Plan report.

The meeting will be held as follows:

**Saturday, May 30, 2015**  
**Wayne Lakes Community Building**  
 100 Community Drive  
 Greenville, Ohio 45331  
 2:00 p.m. - 4:00 p.m.

"The "Unsewered Communities Project" will evaluate the specific problems and needs of each participating community to develop customized wastewater treatment options in the form of a General Plan," said MVRPC's Executive Director, Brian O. Martin, AICP.

If you are unable to attend the meeting, the General Plan report will also be available for public review on MVRPC's web site at [www.mvrpc.org/environment/WaterQualityManagement/](http://www.mvrpc.org/environment/WaterQualityManagement/) on or before May 8, 2015. You can also review the list at the MVRPC offices, 10 N. Ludlow Street, Suite 700, Dayton, OH, 45402, during regular business hours (8:00 a.m. - 5:00 p.m., Monday through Friday). Written comments will be accepted through June 8, 2015 at the above address or via e-mail to Matt Lindsay, Manager of Environmental Planning, at [mlindsay@mvrpc.org](mailto:mlindsay@mvrpc.org).

At all MVRPC public participation meetings, interpreters for hearing impaired individuals or bi-lingual interpreters are available upon request. Requests should be made at least one week prior to the meeting date. Contact MVRPC at (937) 223-6323 or 1-800-750-0750 TTY/TDD to request an interpreter.

For additional information, contact Matt Lindsay, Manager of Environmental Planning, at (937) 223-6323 or via the e-mail address listed above.

**UAW LOCAL #2413 ELECTION NOTICE**

Election of the listed offices for the FRAM unit of the UAW Local 2413 will be held Tuesday, May 12, 2015.

The election will be held in the cafeteria at the plant between the hours of 6:00 a.m. and 5:00 p.m.

**Elected Offices:**

- President
- 2nd Shift Committeeman

All members in good standing are eligible to vote. Members may be asked to present some form of identification at the polls. Retirees are also eligible to vote.

Fram UAW Election Committee  
 PO Box 987  
 Greenville, OH 45331

Kay Julian

**LEGAL NOTICE**

The Village of Ansonia will review the 2016 Budget at a Public Hearing on Tuesday, June 2 at 7:45 p.m. in the Council Chambers at the Municipal Building located at 202 N. Main St., Ansonia, OH 45303. The budget is now available for review during normal business hours at the Municipal Building.

**LEGAL NOTICE**

The Village of Rossburg will review the 2016 Budget at a Public Hearing on Wednesday, June 3 at 7:00 p.m. in the Council Chambers at the Municipal Building located at 200 W. Main St., Rossburg, OH. The budget is available for review. You may call

# MIAMI VALLEY

## Regional Planning Commission

### BOARD MEMBERS

- Board Meeting May 2016
- Exco Committee Mtg May 2016
- Board Roster List

### TECHNICAL STAFF

- TAC Meeting Apr 2016
- Web TELUS Transp Project Management

### PUBLIC VISITORS

- Miami Valley Bikeways
- Going Places Initiative
- MVRPC Annual Report

### MEDIA

- Online Mapping Applications

TRANSPORTATION LAND USE ENVIRONMENT DATA & MAPPING PROJECTS SERVICES OUR REGION OUR VISION



## NEWS RELEASES

### Public Participation Meeting to be Held to review the General Plan Report for Unsewered Communities Project for Wayne Lakes

May 05, 2015

Dayton OH – The Miami Valley is dotted with small communities with pockets of areas served by septic systems. In locations where these systems no longer provide adequate wastewater treatment, environmental and health agencies are concerned about the potential for pollution from these systems to harm the environment and human health.

The Miami Valley Regional Planning Commission (MVRPC) realizes these communities face real challenges in planning solutions for future wastewater treatment. Therefore, MVRPC is spearheading the "Unsewered Communities Project" to examine and report on the options for these communities to improve wastewater systems and protect the environment. The General Plan report will identify actionable solutions and lay the groundwork for future projects.

A public meeting will provide the residents and property owners in Wayne Lakes an opportunity to review the General Plan report.

The meeting will be held as follows:

Saturday, May 30, 2015  
Wayne Lakes Community Building  
100 Community Drive  
Greenville, Ohio 45331  
2:00 p.m. – 4:00 p.m.

[Read More](#)

## ABOUT US

The Miami Valley Regional Planning Commission (MVRPC) is a voluntary association of numerous local governments and non-governmental organizations surrounding Dayton, Ohio. These organizations use MVRPC as a forum and resource where regional partners identify priorities, develop public policy and implement collaborative strategies to improve the quality of life and economic vitality throughout the Miami Valley.

### May

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	
8	9	10	11	12	13	
14	15	16	17	18	19	
20	21	22	23	24	25	
26	27	28	29	30	31	

## UPCOMING EVENTS

May 12, 2015

Public Participation Meeting to be Held to review the General Plan Report for Unsewered Communities Project for Glenwood Area in Preble County.

May 21, 2015

TAC Meeting May 2016

May 25, 2015

MVRPC Office Closed

May 30, 2015

Public Participation Meeting to be Held to review the General Plan Report for Unsewered Communities Project for Wayne Lakes.

June 02, 2015

Public Participation Meeting to be held regarding the DRAFT Bikeways Plan Update.

## MVRPC SOCIAL MEDIA

FACEBOOK TWITTER YOUTUBE

Did you see our staff in the Dayton Business Journal Edition



TRANSPORTATION

LAND USE

ENVIRONMENT

DATA &amp; MAPPING

PROJECTS

SERVICES

OUR REGION

OUR VISION


[Home > Environment](#)

## Unsewered Communities

The Miami Valley is dotted with small communities with pockets of residences and businesses served by septic systems. In locations where these systems no longer provide adequate wastewater treatment, water surveys and samples collected by OEPA have documented the presence of *E. coli* bacteria, which is the principal organism used to detect the presence of fecal pollution (human, solid waste) in drainage ditches and tributaries to our creeks and rivers.

In some places, there may not be enough physical space to build septic systems to modern specifications. In other places, there may not be the resources to construct adequate community-scale treatment works, nor the projected future customer base to keep such treatment works viable. The purpose of the "Unsewered Communities Project" is to examine and report on the options for these communities where on-site treatment is failing to protect human health and the environment. The reports will identify actionable solutions and lay the groundwork for future projects.

## Wayne Lakes Draft Sewer Study

The Miami Valley Regional Planning Commission has contracted with IBI Group to complete a feasibility study for wastewater collection and treatment alternatives for the Village of Wayne Lakes in Darke County. The [DRAFT sewer feasibility study \(Part 1, Part 2, Part 3, Part 4\)](#) is now available for public review and comment.

The study provides a preliminary engineering review of multiple options for replacement of on-site septic systems with in the village. The study examines septic tank effluent pump (STEP) systems, grinder pump sewage systems and vacuum sewer systems for potential collection options. The draft report also looks at options for wastewater treatment including three different designs for a new treatment facility for the village: extended aeration, lagoons and packed-bed media. In addition, the draft report studies the possibility of contracting with three different neighboring communities for wastewater treatment. The draft study recommends a specific collection and treatment alternative: grinder pump sewers and a new mechanical, extended aeration plant for treatment.

The draft report also covers other critical topics:

- Environmental conditions surrounding the Village of Wayne Lakes
- Future development potential and population projections
- Potential project costs
- Local, regional, state and federal funding options
- Implementation considerations

The draft study report was developed with the guidance of a local steering committee made up from elected officials, and business and property owners from the Village of Wayne Lakes. The steering committee met three times and the minutes of these meetings are available on the project web site: <http://www.mvrc.org/water/unseweredcommunities/index.html#tab=0>

### UNSEWERED COMMUNITIES

The Miami Valley is dotted with small communities with pockets of residences and businesses served by septic systems. In locations where these systems no longer provide adequate wastewater treatment, water surveys and samples collected by OEPA have documented the presence of *E. coli* bacteria, which is the principal organism used to detect the presence of fecal pollution (human, solid waste) in drainage ditches and tributaries to our creeks and rivers.

#### May

					1
2	3	4	5	6	7
8	9	10	11	12	13
14	15	16	17	18	19
20	21	22	23	24	25
26	27	28	29	30	31

### UPCOMING EVENTS

May 01, 2012

MVRC Executive Committee Meeting  
May 2012

May 02, 2012

MVRC Board Meeting May 2012

May 22, 2012

Public Participation Meeting to be held at 6:00pm at the Central Park District for Unsewered Communities Project for Darke County Area to Present County

May 22, 2012

MVRC Meeting May 2012

May 23, 2012

MVRC Office Closed

Find us on Facebook

 Miami Valley  
Regional Planning  
Commission

[Like](#)

421 26086 188 0800 0800 Miami Valley Regional  
Planning Commission



## Typical septic tank effluent

- ◆ 76 million bacteria per 100ml
- ◆ No dissolved oxygen
- ◆ Biological Oxygen Demand: 140mg/l
- ◆ Total solids: 820 mg/l
- ◆ Nitrogen: 36 mg/l

As you can see, septic tank effluent can be harmful to human and aquatic life that may come into contact with it.  
Source: Salvato, J.S., (1992) *Environmental Engineering & Sanitation*, (pp. 479) New York: John Wiley & Sons, Inc.



Beautiful Wayne Lakes



Septic tank effluent

## Importance of Sanitary Sewer for the Village of Wayne Lakes

300 Garst Avenue  
Greenville, Ohio 45331  
Phone: 937-548-4196  
Fax: 937-548-9654



Tel: 937-548-4196

# Village of Wayne Lakes

## Septic Systems in Wayne Lakes

According to the 2010 US Census there are approximately 346 households in the Village of Wayne Lakes. The Darke County Health Department has 322 sewage permits for properties within the Village. Therefore, there are approximately 24 homes that do not have sewage permits and likely do not have adequate sewage treatment,

Of the 322 permits on file, 135 of these are for systems that are considered discharging systems. Discharging systems include aeration systems, subsurface sand filters and dry wells. These systems allow the sewage to discharge to tiles, lakes, streams and leave the property. Also, these systems do not meet EPA discharge standards.

Of the 187 properties with leachfields, 137 of these systems were installed prior to 1980. Therefore, the majority of the systems have outlasted their useful lifespan and many will need replaced in the near future.

## Why do we care about septic systems?

Since there are 159 systems (discharging systems & properties with no permit), this creates approximately **63,600 gallons per day** of inadequately treated sewage into receiving streams and lakes. (Assuming 400 gallons per day per household).



*Aeration discharge pipe into a receiving stream*

## What are the potential benefits for the Village and residents once sanitary sewer is installed?

There would be an increase in the number of potential building lots located within the Village. Lots that may have been previously denied due to size restrictions can be re-evaluated for potential building.

The sewage generated by the Village would be adequately treated and would not potentially discharge into the lakes or local streams.

## Why is a sanitary sewer system important for Wayne Lakes?

- ◆ Large number of discharging systems
  - ◇ 63,600 gallons per day of inadequately treated sewage
- ◆ 73% of non-discharging systems are more than 30 years old
- ◆ Small lot sizes
  - ◇ Inadequate room for on-site septic system replacement/repair
  - ◇ No room for primary and replacement sewage treatment or for new construction
- ◆ Proximity of homes to the lakes
- ◆ Village is located on highly permeable soil types



*Polluted receiving stream from septic discharge*

NOTICE -NOTICE - NOTICE  
DATE CORRECTION

MAY 30TH SAT. 2 - 4PM  
AT OUR CLUBHOUSE

STATE PEOPLE WILL BE HERE  
FOR FIRST OF MANY PUBLIC  
MEETINGS CONCERNING A  
PROPOSED SEWER SYSTEM  
FOR OUR VILLAGE

DO NOT MISS THIS!

# **MVRPC Unsewered Communities Study**

## **Environmental Overview: Wayne Lakes Community**

---

### **Summary:**

This environmental overview was conducted as part of the Miami Valley Regional Planning Commission's Unsewered Communities Project, which examines options for communities where on-site treatment is failing to protect human health and the environment. This overview provides a high level examination of the environmental conditions present within the project study area of each of the identified participating communities.

### **Air Quality:**

Darke County, Ohio is in attainment for all National Ambient Air Quality Standards. No air quality concerns are anticipated as a result of the proposed project.

### **Noise Impacts:**

Temporary noise impacts may occur during construction, however, no permanent noise impacts are anticipated as a result of the proposed project.

### **Hazardous Materials:**

An environmental site assessment was not conducted as part of this study.

### **Cultural Resources:**

A single archaeological site is located in the northern most portion of the project study area, and a single cemetery is located in the southeastern portion of the project study area (See attached map). The Ohio State Historical Preservation Office should be consulted prior to conducting any excavating or digging within either of these areas.

East of the study area, numerous historical structures are present at the Fort Jefferson State Memorial Park. It is unlikely that any of these structures would be impacted by the proposed project, however, if it is determined that these historical structures may be impacted, coordination with the Ohio State Historical Preservation Office should be conducted prior to any impacts occurring.

# MVRPC Unsewered Communities Study

## Environmental Overview: Wayne Lakes Community

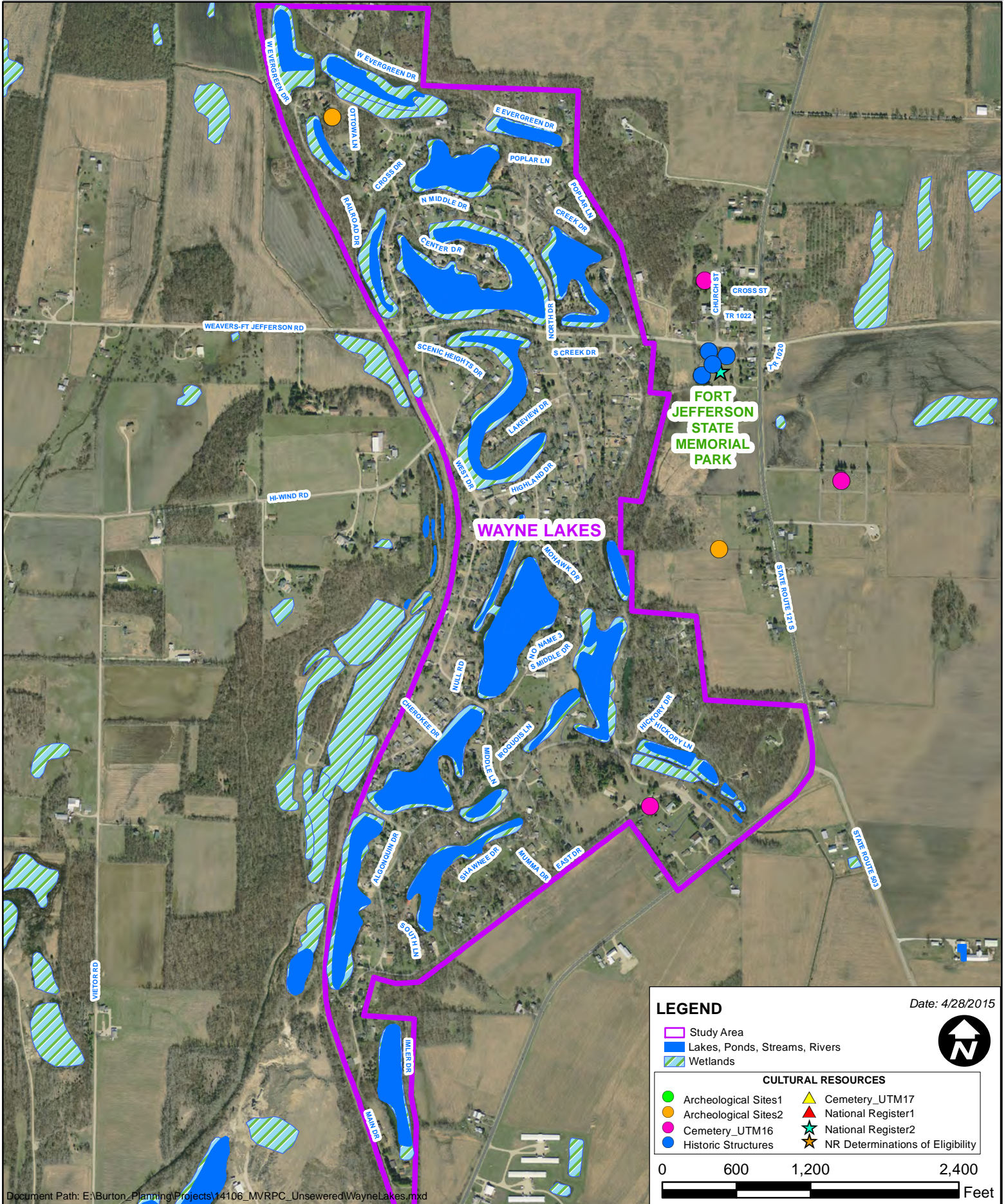
---

### **Ecological Resources:**

---

The project study area is comprised of numerous ecological resources including lakes, ponds, and wetlands. The discharge any dredged or fill material below the ordinary high water mark in lakes and ponds, or below the upland wetland boundary in wetlands may require a waterway permit through the United States Army Corps of Engineers (USACE) or the Ohio Environmental Protection Agency (OEPA). Coordination should be conducted with these two resource agencies prior to conducting any work below the ordinary high water mark or below the wetland upland boundary.

The project study area is not within the Greater Miami Buried Aquifer. Projects located within a Sole Source Aquifer should conduct coordination with the Ohio EPA to assist the Ohio EPA in understanding local hydrogeologic conditions and specific project design concerns. This coordination will also help to ensure that Sole Source Aquifer protection measures support or enhance existing groundwater protection efforts rather than duplicate them.



**LEGEND**

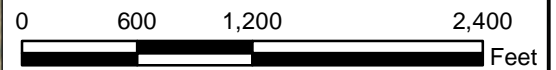
Date: 4/28/2015

- Study Area
- Lakes, Ponds, Streams, Rivers
- Wetlands



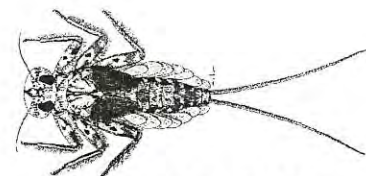
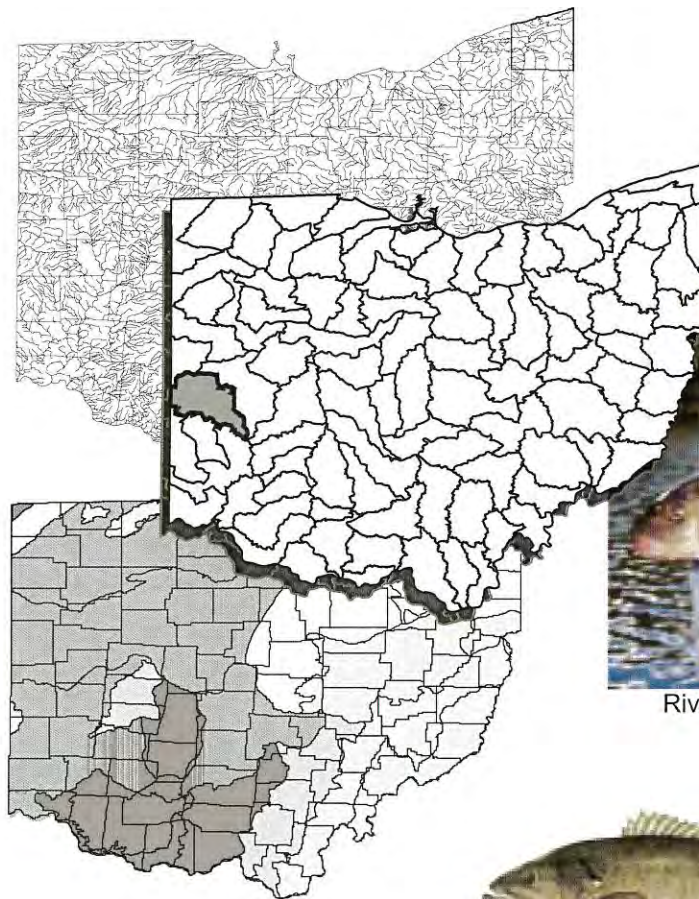
**CULTURAL RESOURCES**

- Archeological Sites1
- Archeological Sites2
- Cemetery\_UTM16
- Historic Structures
- Cemetery\_UTM17
- National Register1
- National Register2
- NR Determinations of Eligibility



# Biological and Water Quality Study of the Stillwater River Watershed

## Darke, Miami and Montgomery Counties



Mayfly (*Eurylophella* sp.)



River Redhorse (*Moxostoma carinatum*)



Smallmouth Bass (*Micropterus dolomieu*)

November 6, 2001

P.O. Box 1049, 122 South Front Street, Columbus, Ohio 43216-1049



*Mud Creek, Prairie Outlet, and Lake Branch Ditch*

Prairie Outlet and Lake Branch Ditch enter Mud Creek at RMs 5.44 and 5.29, respectively. Draining 29.5 mi<sup>2</sup>, Mud Creek then enters Greenville Creek at RM 21.31 near Greenville. The unsewered community of Wayne Lakes is bordered to the east by Prairie Outlet and to the west by Mud Creek. Additionally, Prairie Outlet has historically received occasional runoff from area veal farms. Daytime grab water chemistry samples were collected at four sites in Mud Creek (RMs 7.50, 5.87, 4.67, and 0.09), one site (RM 0.80) in Prairie Outlet and one site (RM 0.40) in Lake Branch Ditch (Figures 58-61, Tables 6 and 7, Appendix Table A-1). During the 1999 survey, the WWH aquatic life use designation and water quality criteria applied in Mud Creek and Prairie Outlet. Given that Lake Branch Ditch did not have an aquatic life use designation during the 1999 survey, water quality criteria identified for the limited resource water (LRW) use designation applied (OAC rule 3745-1-07).

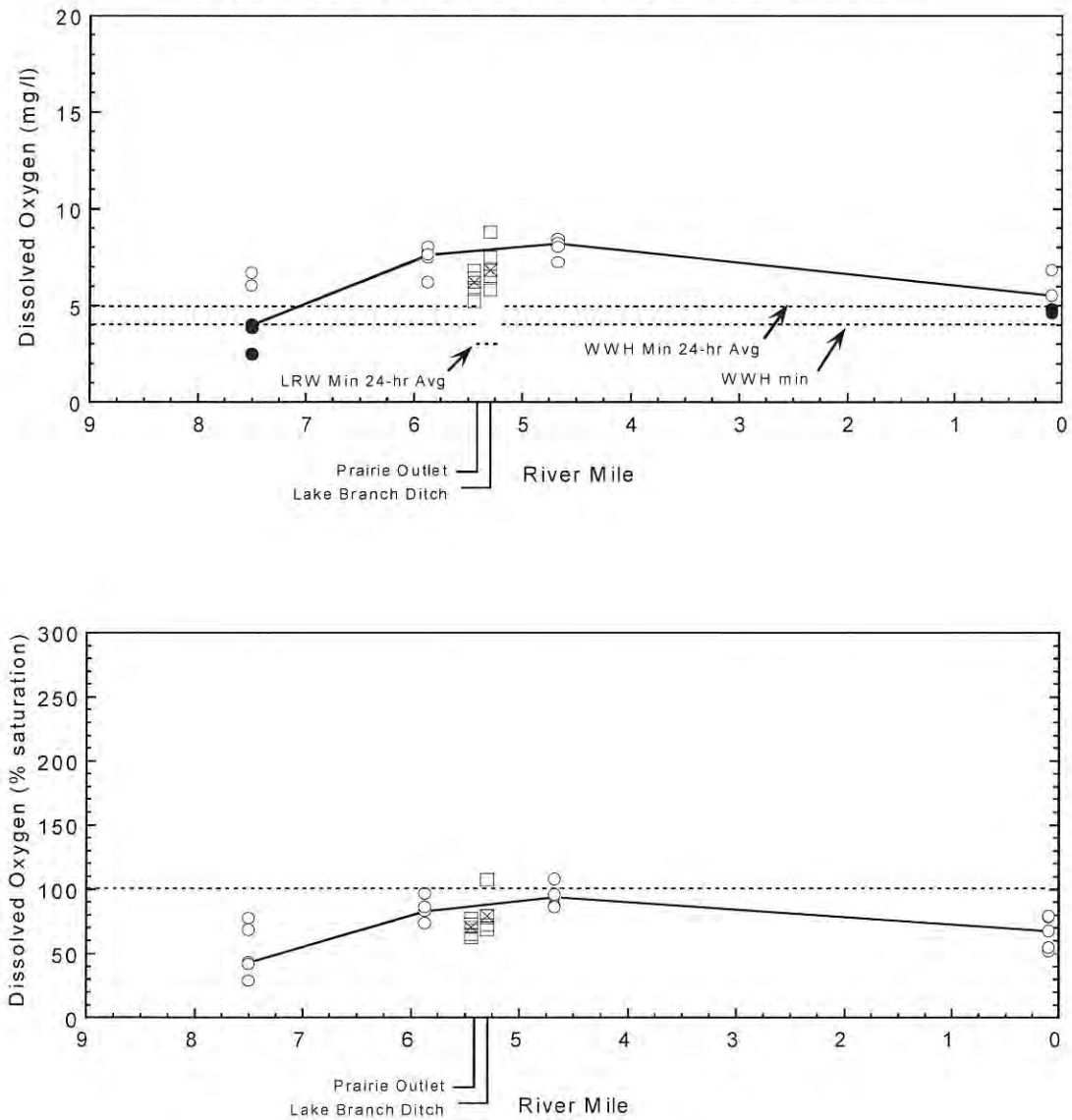
Dissolved oxygen concentrations frequently fell below WWH criteria in Mud Creek at the headwater site (RM 7.50) and near the mouth (RM 0.09). Median percent saturations ranged from 43% at RM 7.50 to 94% at RM 4.67. Concentrations in both Prairie Outlet and Lake Branch Ditch remained above applicable criteria with median concentrations and percent saturations of 6.2 mg/l and 70% and 6.8 mg/l and 79%, respectively.

BOD<sub>5</sub> concentrations remained low throughout the basin with the majority (93%) of values less than the MDL (2 mg/l). While 72% of ammonia-N values recorded in the basin were less than the applicable 90<sup>th</sup> percentile reference concentrations, somewhat higher levels were measured in Mud Creek at RM 7.50 (median and maximum of 0.107 mg/l and 0.336 mg/l) and RM 0.09 (median and maximum of 0.096 mg/l and 0.232 mg/l).

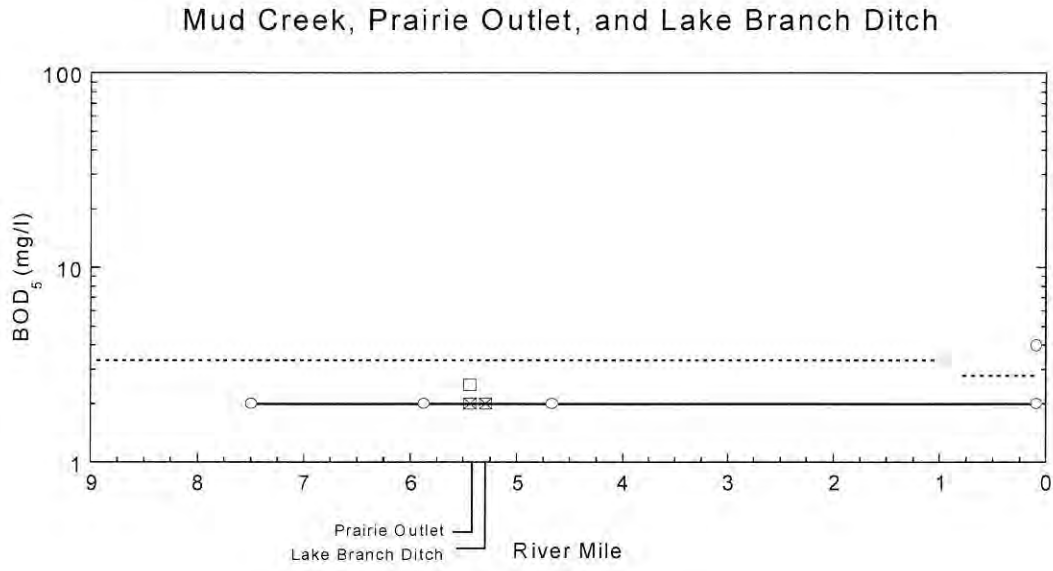
Nitrate-nitrite-N remained low in Mud Creek and the two tributaries with an overall median of 0.56 mg/l for all values measured in the basin. The highest concentrations (median and maximum values of 1.32 mg/l and 1.42 mg/l) were recorded in Prairie Outlet. An overall median of 0.07 mg/l was recorded for all phosphorus concentrations in the Mud Creek basin during the 1999 survey. Site medians ranged from 0.05 mg/l at RM 5.87 in Mud Creek to 0.12 mg/l at RM 0.09. Maximum values ranging from 0.16 mg/l (RM 4.67) to 0.25 mg/l (RM 0.09) were recorded on July 28 after localized precipitation.

TSS medians of 5 mg/l were recorded at sites in Prairie Outlet and Lake Branch Ditch. Mud Creek median TSS concentrations increased longitudinally from 5 mg/l at the headwater sites (RMs 7.50 and 5.87) to 18 mg/l at RM 0.09. (A heavy silt and muck substrate was observed at RM 0.09 and field crews noted turbidity at the site throughout the survey.) A maximum of 88 mg/l was recorded in the headwaters at RM 7.50 on September 8, a day of exceptionally low flow. Additionally, concentrations of iron (11300 µg/l), manganese (628 µg/l), arsenic (7 µg/l), lead (8 µg/l), zinc (46 µg/l), and aluminum (7000 µg/l) recorded on this day at RM 7.50 were the highest measured in the Mud Creek basin during the survey. (It should be noted that as stream levels diminished over the summer, sampling became increasingly difficult, especially at headwater sites. Some results may be somewhat compromised in that substrate may have inadvertently been disturbed, thus introducing sediments into the sample.)

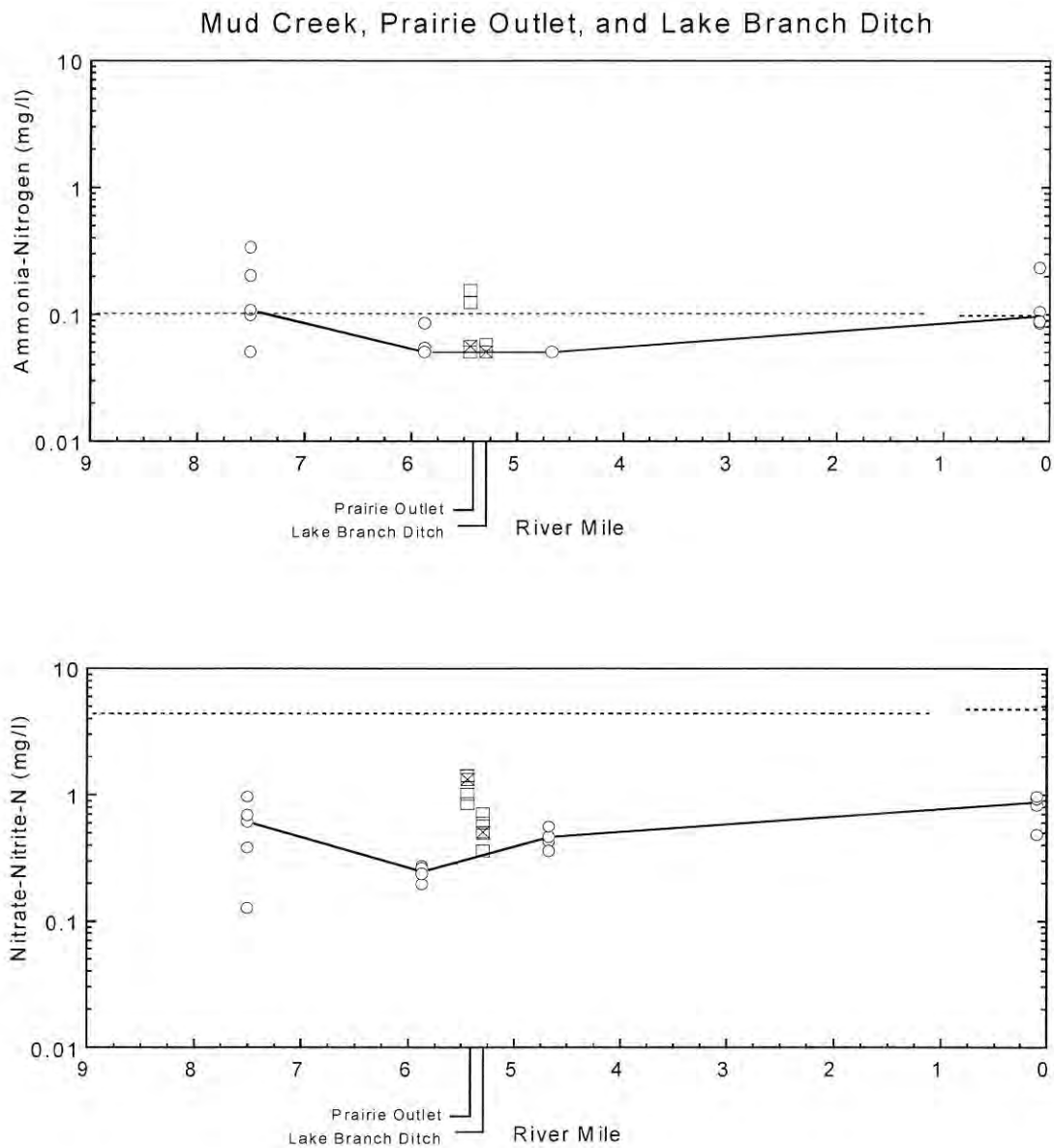
Mud Creek, Prairie Outlet, and Lake Branch Ditch



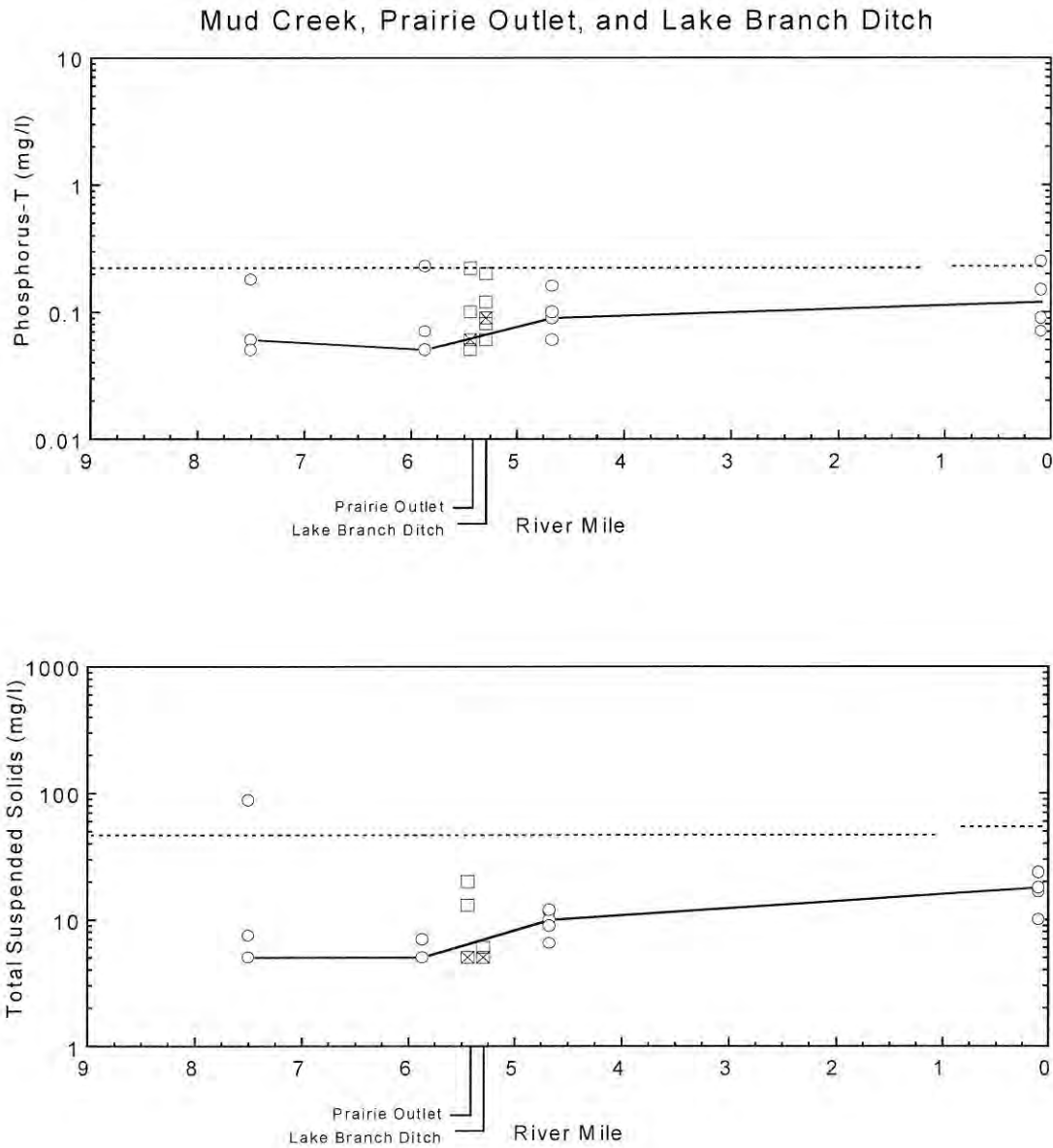
**Figure 58.** Longitudinal scatter plots (daytime grabs) of dissolved oxygen concentrations (upper figure) and percent dissolved oxygen saturations (lower figure) in Mud Creek (circles), Prairie Outlet, and Lake Branch Ditch (both represented by squares) during the 1999 survey. The solid line depicts the median value at each river mile sampled in Mud Creek while an 'X' depicts the medians for Prairie Outlet and Lake Branch Ditch. Water quality criteria are shown in the upper figure. Values below the water quality criteria are indicated by solid circles.



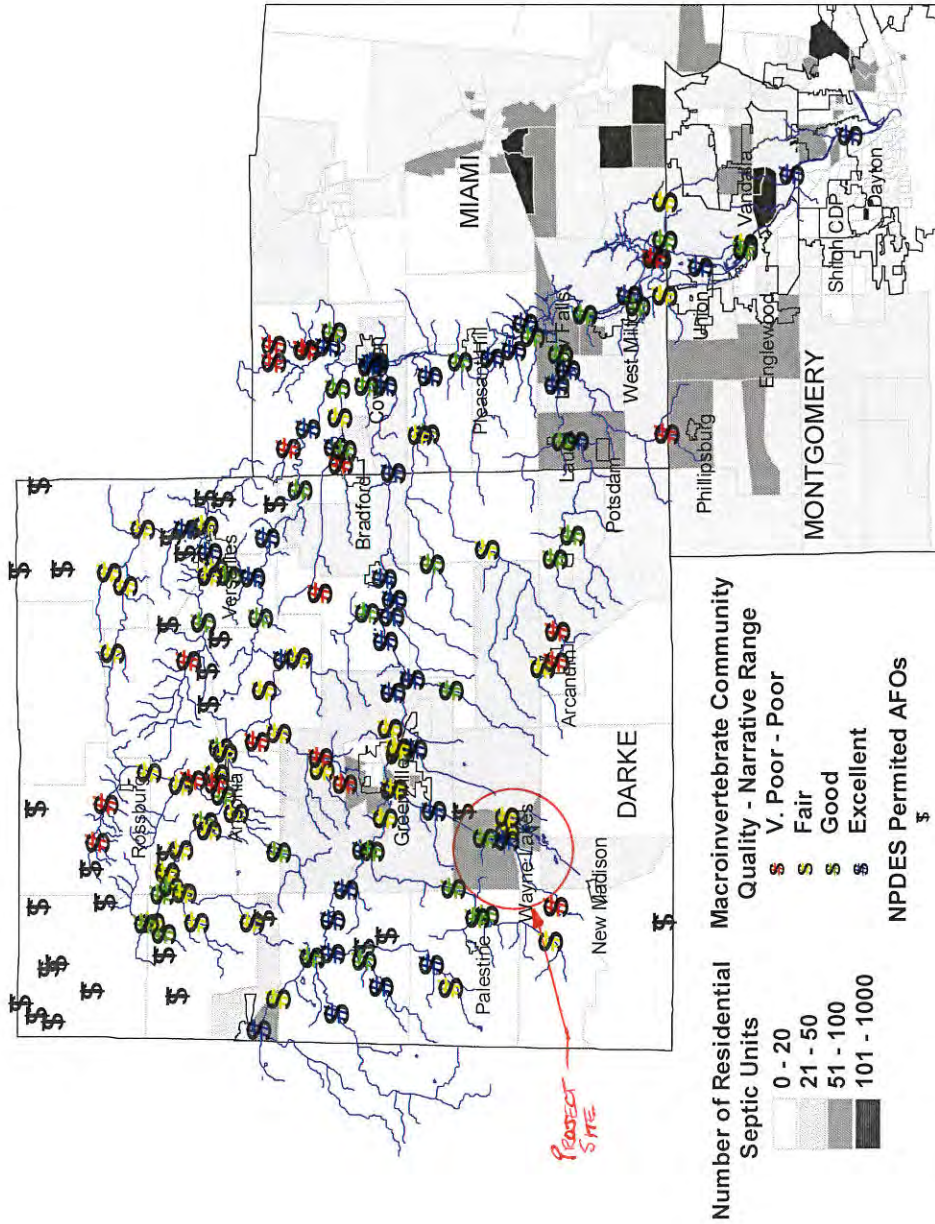
**Figure 59.** Longitudinal scatter plot (daytime grabs) of BOD<sub>5</sub> concentrations in Mud Creek (circles), Prairie Outlet, and Lake Branch Ditch (both represented by squares) during the 1999 survey. The solid line depicts the median value at each river mile sampled in Mud Creek while an 'X' depicts the medians for Prairie Outlet and Lake Branch Ditch. The dotted lines represent the 90<sup>th</sup> percentile concentration from reference sites of similar size in the Eastern Corn Belt Plains (ECBP) ecoregion.



**Figure 60.** Longitudinal scatter plots (daytime grabs) of ammonia-N (upper figure) and nitrate-nitrite-N (lower figure) concentrations in Mud Creek (circles), Prairie Outlet, and Lake Branch Ditch (both represented by squares) during the 1999 survey. The solid line depicts the median value at each river mile sampled in Mud Creek while an 'X' depicts the medians for Prairie Outlet and Lake Branch Ditch. Dotted lines represent the 90<sup>th</sup> percentile concentration from reference sites of similar size in the Eastern Corn Belt Plains (ECBP) ecoregion.



**Figure 61.** Longitudinal scatter plots (daytime grabs) of total phosphorus (upper figure) and total suspended solids (lower figure) concentrations in Mud Creek (circles), Prairie Outlet, and Lake Branch Ditch (both represented by squares) during the 1999 survey. The solid line depicts the median value at each river mile sampled in Mud Creek while an 'X' depicts the medians for Prairie Outlet and Lake Branch Ditch. Dotted lines represent the 90<sup>th</sup> percentile concentration from reference sites of similar size in the Eastern Corn Belt Plains (ECBP) ecoregion.



**Figure 98.** Macroinvertebrate community quality by narrative range, 1999, in relation to NPDES permitted animal feeding operations (AFOs) and density of residential units served by on-site sewage disposal.

**STEP COLLECTION**

**PCKD BED MED TREAT**

	<b>COST</b>	<b>PW</b>
PROJECT COST (collection)	\$ 5,417,496	
(treatment)	\$ 2,337,984	
(total)	\$7,755,480	\$7,755,480
ANNUAL O&M (collection)	\$ 29,000	
(treatment)	\$ 33,000	
(total)	\$62,000	\$711,134
20 YEAR PRESENT WORTH		<b>\$8,466,614</b>

	<b>GRINDER COLLECT EXT AERATION TREAT</b>		<b>GRINDER COLLECT LAGOON TREAT</b>		<b>GRINDER COLLECT GREENVILLE TREAT</b>		<b>GRINDER COLLECT PAL/HOLLTREAT</b>		<b>GRINDER COLLECT NEW MADISON TREAT</b>	
	<b>COST</b>	<b>PW</b>	<b>COST</b>	<b>PW</b>	<b>COST</b>	<b>PW</b>	<b>COST</b>	<b>PW</b>	<b>COST</b>	<b>PW</b>
PROJECT COST (collection)	\$ 5,530,818		\$ 5,530,818		\$ 5,530,818		\$ 5,530,818		\$ 5,530,818	
(treatment)	\$ 1,816,320		\$ 1,968,120		\$ 1,128,997		\$ 1,861,080		\$ 1,498,900	
(total)	\$7,347,138	\$7,347,138	\$7,498,938	\$7,498,938	\$6,659,815	\$6,659,815	\$7,391,898	\$7,391,898	\$7,029,718	\$7,029,718
ANNUAL O&M (collection)	\$ 31,000		\$ 31,000		\$ 31,000		\$ 31,000		\$ 31,000	
(treatment)	\$ 60,000		\$ 35,500		\$ 164,800		\$ 204,750		\$ 204,750	
(total)	\$91,000	\$1,043,761	\$66,500	\$762,748	\$195,800	\$2,245,806	\$235,750	\$2,704,029	\$235,750	\$2,704,029
20 YEAR PRESENT WORTH		<b>\$8,390,899</b>		<b>\$8,261,686</b>		<b>\$8,905,621</b>		<b>\$10,095,927</b>		<b>\$9,733,747</b>

	<b>VACUUM COLLECT EXT AERATION TREAT</b>		<b>VACUUM COLLECT LAGOON TREAT</b>		<b>VACUUM COLLECT GREENVILLE TREAT</b>		<b>VACUUM COLLECT PAL/HOLL TREAT</b>		<b>VACUUM COLLECT NEW MADISON TREAT</b>	
	<b>COST</b>	<b>PW</b>	<b>COST</b>	<b>PW</b>	<b>COST</b>	<b>PW</b>	<b>COST</b>	<b>PW</b>	<b>COST</b>	<b>PW</b>
PROJECT COST (collection)	\$ 5,670,342		\$ 5,670,342		\$ 5,670,342		\$ 5,670,342		\$ 5,670,342	
(treatment)	\$ 1,816,320		\$ 1,968,120		\$ 1,128,997		\$ 1,861,080		\$ 1,498,900	
(total)	\$7,486,662	\$7,486,662	\$7,638,462	\$7,638,462	\$6,799,339	\$6,799,339	\$7,531,422	\$7,531,422	\$7,169,242	\$7,169,242
ANNUAL O&M (collection)	\$ 36,000		\$ 36,000		\$ 36,000		\$ 36,000		\$ 36,000	
(treatment)	\$ 60,000		\$ 35,500		\$ 164,800		\$ 204,750		\$ 204,750	
(total)	\$96,000	\$1,101,110	\$71,500	\$820,098	\$200,800	\$2,303,156	\$240,750	\$2,761,378	\$240,750	\$2,761,378
20 YEAR PRESENT WORTH		<b>\$8,587,772</b>		<b>\$8,458,560</b>		<b>\$9,102,495</b>		<b>\$10,292,800</b>		<b>\$9,930,620</b>

2014 Low-Moderate-Income Summary Data for Ohio Counties and Places

Area	Low Pop	Low-Mod Pop	LMI Universe	LMI Percent
<b>Darke County</b>	<b>9,225</b>	<b>18,405</b>	<b>52,315</b>	<b>35.18%</b>
Adams township	540	1,045	3,455	30.25%
Allen township	160	270	920	29.35%
Ansonia village	215	485	950	51.05%
Arcanum village	490	750	2,400	31.25%
Bradford village	440	745	1,870	39.84%
Brown township	260	660	1,780	37.08%
Burkettsville village	10	30	230	13.04%
Butler township	265	485	1,570	30.89%
Castine village	50	75	150	50.00%
Franklin township	230	495	1,290	38.37%
Gettysburg village	125	210	525	40.00%
Gordon village	15	50	150	33.33%
Greenville city	3,365	5,880	12,770	46.05%
Greenville township	4,060	7,395	17,040	43.40%
Harrison township	240	620	2,255	27.49%
Hollansburg village	35	75	205	36.59%
Ithaca village	4	15	80	18.75%
Jackson township	715	1,315	2,895	45.42%
Liberty township	145	400	1,050	38.10%
Mississinawa township	30	120	810	14.81%
Monroe township	85	405	1,605	25.23%
Neave township	335	975	2,230	43.72%
New Madison village	135	290	765	37.91%
New Weston village	55	80	185	43.24%
North Star village	25	50	215	23.26%
Osgood village	25	55	270	20.37%
Palestine village	65	110	230	47.83%
Patterson township	280	370	1,560	23.72%
Pitsburg village	20	160	450	35.56%
Richland township	105	240	1,115	21.52%
Rosburg village	20	65	150	43.33%
Twin township	575	1,110	4,035	27.51%
Union City village	680	1,370	6,220	22.03%
Van Buren township	150	475	1,555	30.55%
Versailles village	350	720	2,635	27.32%
Wabash township	190	275	860	31.98%
Washington township	120	345	1,225	28.16%
Wayne Lakes village	140	305	720	42.36%
Wayne township	600	1,225	4,440	27.59%
York township	135	185	620	29.84%
Yorkshire village	30	50	100	50.00%