

OHIO DEPARTMENT OF DEVELOPMENT
LOCAL GOVERNMENT INNOVATION FUND APPLICATION

DEFIANCE-NAPOLEON WATER SYSTEM
INTERCONNECTION FEASIBILITY STUDY

CITY OF DEFIANCE
CITY OF NAPOLEON

MARCH 2012

TAB 1

CONTACT INFORMATION

Tab 1: Contact Information

Applicants must provide the following contact information:

- **Name of main applicant (the political subdivision applying for the award)**
 - City of Defiance

- **Address of main applicant**
 - 631 Perry Street
 - Defiance, OH 43512

- **Phone Numbers**
 - 419-784-2101
 - 419-782-3223 (fax)

- **Email Address**
 - jleonard@cityofdefiance.com

- **Applicant Contact Information Including:**
 - Name: Jeff Leonard
 - Title: City Administrator
 - Address 631 Perry Street, Defiance, OH
 - Telephone 419-784-211
 - Email: jleonard@cityofdefiance.com

- **County**
 - Defiance

TAB 2

COLLABORATIVE PARTNERS

Tab 2: Collaborative Partners

Applicants applying with collaborative partners (defined in 1.03 of the LGIF Policies) must include the following information in Tab 2:

- **Name of Collaborative Partner**
 - City of Napoleon

- **Address**
 - 255 W. Riverview, P.O. Box 151, Napoleon, OH 43545

- **Phone Numbers**
 - 419-592-4010; 419-599-8393 (fax)

- **Email Address**
 - jbisher@napoleonohio.com

The nature of the Partnership is to investigate the possibility of a collaborative water agreement between the two entities to provide water to the City of Napoleon from the City of Defiance infrastructure. The feasibility study will investigate the plausibility and economics of the agreement and try to point out any possible deficiencies in the system or obstacles to the proposed project. The study will also encompass the impact on the satellite systems for both entities as well as on the rate structures for all water customers served by the proposed combined systems.

TAB 3

PROJECT INFORMATION

Tab 3: Project Information

Applicants must provide project information including:

- **The name of the project**

Defiance-Napoleon Water System Interconnection Feasibility Study

- **A brief project description:**

Due to changes in the industrial customer base in the Defiance area, the Water Plant has been operating far below its rated capacity of 8 million gallons a day (MGD). In 2011, the average daily flow was only 3.4 MGD and the peak daily flow was only 4.5 MGD. This leaves Defiance with a large amount of excess production capacity and provides the ability to provide up to an additional 3 MGD safely without the need to add capacity to its plant. The ability to sell additional water produces "economy in scale." Simply put, the more water that is produced, the less it costs per gallon. Structured debt, as well as staffing, and any building related costs constitute the largest portion of the operational costs of the plant. These costs do not change as production increases. Therefore, selling more water will reduce the cost that has to be passed down to the customer by spreading out this static portion of the budget to an increased number of customers.

Napoleon, Ohio, is located slightly over 12 miles from Defiance. Recently the determination was made that a new water plant will need to be constructed due to the condition of the old facility. An engineer's estimate was prepared at nearly \$15 million. At the time of the meeting, the process had begun to finance the money to begin engineering for the new plant. Napoleon has an average daily flow of 1.5 MGD. The task of repaying this amount of debt will be complicated by having a customer base the size of Napoleon's.

What is being proposed by the City of Defiance is installation of a large diameter water transmission line that would feed Napoleon its potable water. This is an excellent example of shared services. The existing capacity of the Defiance plant would be utilized to prevent Napoleon from spending money unnecessarily to build a plant. The distance between these two cities is approximately 12.5 miles and they are connected by an existing right of way for the US24 roadway.

The potential for economic growth to occur is also a driving motivator for this project. The State of Ohio has made a very large investment in this "Fort to Port" four-lane highway. The combination of the new roadway and the availability of city water anywhere in this corridor should be a strong attraction to any business looking to locate in this area. This would aid the highway project in fulfilling its purpose as a tool to

increase Northwest Ohio's commercial growth potential, and maximize the return on the taxpayer's investment into the U.S. 24 project.

What we are requesting in this application is the funds to have a feasibility study prepared. There are many details that need to be addressed for this project to begin to take shape. It will be necessary to determine construction costs for the waterline as well as what rate structures would have to be able to adequately pay for this service. It will also be necessary to investigate if the treatment process at Defiance will provide the water quality that Napoleon will need to stay in compliance with all the applicable regulations.

This project could have deep reaching rewards to both communities. The ability to share an expensive piece of infrastructure such as a water plant is an excellent example of communities working together to reduce the cost of services to its customers. The savings associated with this project are substantial, and affect a large number of people across two counties. We feel this feasibility study to be a perfect fit for the Local Government Innovation Fund.

- **Identification of the type of award the applicant is seeking:**

Feasibility study grant.

- **A problem statement:**

The City of Defiance and the City of Napoleon along with other public entities face an unusually high burden to pay for infrastructure improvements to support their community needs. The downward spiral in the economy, the eroding tax base and high unemployment place alarming questions on the financial capability of each community to pay for increased capital costs. Communities like Defiance and Napoleon must find alternative options to provide necessary services for their citizens while still providing sound financial stability in the community.

- **Identification of one targeted approach to innovation:**

Shared service.

- **An explanation of the anticipated return on investment based on the ratio of savings:**

The return on investment is hard to estimate due to the lack of data that will be determined with the feasibility study. Due to this, we will focus primarily on the capital side of this project only.

The City of Napoleon needs to replace their existing water plant. A study completed by Jones and Henry Engineers estimates the cost for the renovation of the existing plant at \$15 million dollars, with replacement of the plant costing

an estimated \$27 million. It is estimated that the line that is proposed to run from Defiance to Napoleon will cost an estimated \$7 million. This shows an estimated savings alone from \$8 - \$20 million. With the reduction of the operating cost of Napoleons water system, and the savings based on the not spending the large amount of money needed to renovate/replace the Napoleon Water Treatment Plant return on investment will be high.

The City of Defiance operates an 8 million gallon a day (design capacity) plant. Our current flow however only averages only 3.4 million gallons a day. With over seventy-five percent of our budget in fixed costs (as defined by not changing based on amount of water treated) the ability to sell a large amount of water to our neighboring city yields large dividends for our ratepayers (Refer to Exhibit 1). As the amount of water treated increases, the cost per cubic foot decreases. Any additional future capital expenditures are also able to be spread out among many more customers.

The return on investment doesn't even factor the potential to draw in additional industry. The U.S. 24 corridor from Defiance to Napoleon would be in a perfect position to attract additional business due to the availability of water at these locations.

- **An explanation regarding the probability of the proposal's success (this should be based on any past project implementation, the likelihood of anticipated saving and the plans for project implementation)**

Officials from Defiance and Napoleon have met to discuss the unlimited advantages of studying the need to partner resources for the purposes of assisting its customer base. Both municipalities understand the project very well and both entities are motivated to reducing the high cost of utilities. The feasibility study will focus on likely outcomes and details on the probability of success but overall the strategy has overpowering advantages.

First, financially the concept has win/win outcomes for both entities. Defiance has the capacity to sell and produce an abundant amount of water and Napoleon is faced with an exorbitant bill to improve its existing infrastructure. Anticipated cost for Napoleon are anywhere from \$15 million to upgrade their current infrastructure to \$27 million to provide new infrastructure. Providing a new line from Defiance to Napoleon has been estimated at around \$7 million. Currently, Defiance produces 3.4 million gallons of potable water a day for its customers but, can produce up to 8 million gallons per day. Napoleon's daily production averages 1.5 million gallons per day.

Secondly, the physical ability to lay infrastructure from Defiance to Napoleon isn't as complicated as one might think. Defiance officials have been in contact with the Ohio Department of Transportation (ODOT) to determine if utilities can be placed in the State right of way on U.S. 24. Their answer was that although they generally would not allow this; there is the potential that the project be given a special consideration. ODOT has a new strategy and focus on economic development which couples well with this project.

Finally, all objectives of this project are achievable. The added burden and mandates that both Defiance and Napoleon have on its Combined Sewer Overflow projects only placed additional pressure on its utility rates. The need for both communities to find other solutions to high utility cost is motivation for both municipalities to find alternative options to the high cost of running their utilities.

- **A description of the applicant's plans and ability to replicate or scale the proposal to allow for the inclusion of other political subdivisions.**

Regionalization of this water system allows for scalability throughout our multi-county area. Several water systems and communities in our area are faced with similar economic conditions. This proposed solution could be an answer for their future needs as well.

- **Identification of whether the proposed project is part of a larger consolidation effort by the applicant or collaborative partners(s).**

The feasibility study will go a long way in determining whether or not both entities have the wherewithal to reach for a higher goal by adopting a strategy for water service. Both political bodies are also discussing the need to look at other processes to see if other applications can apply for the services each provides to their communities. Both parties agree that win/win outcomes exist if time and effort is given to problems.

- **Identification of past success on an innovation project.**

In 2008, the City of Defiance was tasked by the Ohio EPA with creating a Municipal Storm Sewer program. One aspect of this program was to create a position for an Urban Stormwater Technician. The City took a creative approach by contacting the Defiance County Soil & Water Conservation District (SWCD). This agency receives in-kind matching grants from the Ohio Department of Natural Resources (ODNR), has many of the necessary components of this program in place and has this particular expertise on staff. In conjunction with them the position was created and staffed. The City pays an agreed upon amount to the SWCD and the ODNR provides matching funds in the range of 70-

90%. This has allowed the City to fulfill their obligations to the OEPA and the SWCD to increase their staff and outreach/education programs while curtailing costs to both organizations.

In addition, the City of Defiance has cooperated with the Defiance County Landfill to handle their leachate disposal. Prior to our agreement, the Landfill would pump their leachate into a holding tank. When this tank was full they would truck the waste to the City's Wastewater Treatment plant. The City allowed the Landfill to install a pump station and force main to discharge the leachate directly into the City sewer system. This has saved the landfill operating money thus allowing lower disposal rates to the City's residents.

- **A description of how the proposed project is responding to current substantial changes in economic demand for local or regional governmental services (if applicable).**

The main point of this project is if cost can be spread over a broader customer base the economy of scale can be a benefit for all users. Water Districts, Townships and Villages can all benefit if Defiance and Napoleon can serve as a model to partner their resources in a meaningful way. The feasibility study is the first step in studying the parameters of each public utility and developing a strategy that will aid all governmental subdivisions. These subdivisions include the following:

- Brunersburg Water District
- Ayersville Water and Sewer District
- Village of Liberty Center
- Village of Malinta
- Village of Texas
- Village of Florida
- Henry County Water and Sewer District

An initial meeting with Napoleon officials revealed that both Defiance and Napoleon had similar problems with the respective satellite companies they serve. For example, one major problem for all public water utilities is a problem with TTHM's, an EPA regulation that deals with concerns of compounds created with chlorine and organic matter. A transmission line directly to Napoleon would drastically reduce water age and many of the TTHM problems could be resolved with this new infrastructure.

In conclusion, the City of Defiance and the City of Napoleon have every intention of sharing the benefits with other political subdivisions in Northwest Ohio.

Committing to lower water rates has been a long standing strategy for both Defiance and Napoleon.

- **Identification of intent to implement recommendations of a performance or any other audit recommendations.**

This does not apply to this grant application.

- **An explanation of how the project facilitates an improved business environment and/or promotes community attraction.**

The proposed waterline project would improve the Northwest Ohio business environment by opening up thousands of acres of land for development along the new U.S. 24 corridor. The waterline would provide utility access for developable land at several newly created highway interchanges. This would allow Northwest Ohio communities the ability to attract new business to the area. The waterline would also benefit existing businesses by potentially reducing future costs of water. Construction of this waterline will be a key component in the future of the Northwest Ohio economy and benefit the Defiance and Napoleon communities far into the future.

TAB 4

FINANCIAL DOCUMENTATION

Tab 4 – Financial Documentation

- **A detailed project budget must include separately:**
 - **The most recent three years of financial history.**
This is not applicable for this grant application.
 - **The anticipated project costs:**

We estimate that the cost to execute the attached scope of work will be \$150,000. The timeframe required to complete the above efforts will require nine to twelve months. Please see Exhibit 6.

Include the amount and type of funds requested:

The City of Defiance respectfully requests \$99,000 in grant funds for a feasibility study.

Include the percentage of local matching funds available and documentation explaining how the match will be met.

The \$51,000 balance (34% of the project study costs) will be shared by the City of Defiance and the City of Napoleon.

Include documentation of any in-kind contributions.

In June of 2010 the City of Defiance commissioned Jones & Henry Engineers to conduct a Transmission Main Feasibility Study for the north side of the City. This study laid the groundwork for a current project to extend a new transmission main across the Maumee River. Poggemeyer Design Group is currently under contract to perform the survey and design work for this project. This is the initial step to the design and construction of a new transmission main connecting the two cities. The total monetary amount for these projects is \$11,502 for the feasibility study and \$68,700 for the survey and design. The total in-kind contribution is \$80,202 or approximately 81% of the grant request. Please refer to the attached scopes of work and contracts, Exhibit 7.

- **At least three years of financial projections identifying the anticipated savings that will occur as a result of this project.**

The estimated capital cost of the waterline project is \$7 million. Without the project, it is expected that the City of Napoleon will need to spend either \$15 million to upgrade its existing water treatment facility or \$27 million to construct a new facility.

If each of these options were to be funded with municipal debt, and assuming borrowing terms of 30 years and 4.0% interest, estimated costs are as follows:

	Proposed Waterline Project	Alternative Plant Upgrade	Alternative Plant Construction
Total Cost	\$7,000,000	\$15,000,000	\$27,000,000
Annual Debt Service	\$405,000	\$867,000	\$1,561,000

If the waterline option is chosen, savings from debt service alone will be either \$462,000 or \$1,156,000 *per year* for the 30-year term of the bond.

In addition, other potential operational savings to be realized by the City of Napoleon include reduced staffing, chemical and plant operating costs. Identifying the value of these savings will be part of the proposed feasibility study. However, early indications anticipate savings as high as eighty percent (80%).

TAB 5

SUPPORT DOCUMENTATION

Tab 5

- **Estimated Cost of Additional Treatment on Current Water Budget**
See attached – Exhibit 1
- **Executed partnership agreements with other participating entities.**
See attached Letters of Intent – Exhibit 2
- **Resolution of support from the applicant's and/or collaborative partners' governing entity.**
See attached resolutions from collaborative agencies – Exhibit 3.
- **Feasibility study determinations made by the Department of Development prior to the submission of an application.**
Not applicable.
- **Audit, performance or other, conducted within the past five years (if applicable).**
Not applicable.
- **Identification of each municipality, county or township served (must include information from the 2010 census).**
See attached maps and census information – Exhibit 4.
- **Self score assessment**
See attached – Exhibit 5.
- **Proposed Scope of Work Documentation and Cost Estimate**
See attached – Exhibit 6.
- **Documentation of in-kind contributions**
See attached – Exhibit 7.

EXHIBIT 1

IMPACT ON WATER BUDGET

Fund #591 - WATER DIVISION, Dept. #537 - WATER PLANT

Salary & Wages		2009	2010	2011	2012		
702003	Division Head	\$70,915	\$73,045	\$73,045	\$64,900		
702004	Nb Supervisory	\$51,390	\$53,060	\$53,060	\$58,000		
702005	Nb Non-Supervisory	\$30,540	\$31,530	\$31,530	\$31,528		
1.01 702008	Afscme Non-Supervisory	\$389,335	\$400,775	\$405,900	\$285,291		
703002	Out of Class Pay	\$400	\$400	\$400	\$400		
704000	Shift Differential	\$4,000	\$4,000	\$4,000	\$2,000		
705000	Longevity	\$2,605	\$1,200	\$1,200	\$0		
709000	Overtime	\$101,000	\$105,000	\$50,000	\$60,000		
709500	Vacation Conversion	\$7,690	\$4,765	\$5,870	\$3,000		
710000	Retirement / Conversion	\$20,167	\$15,880	\$14,000	\$0		
717000	PERS	\$89,865	\$94,330	\$80,510	\$70,193		
718000	Health Care	\$136,521	\$133,825	\$147,345	\$118,976	2012x 25%	
720000	FICA / Medicare	\$7,490	\$9,170	\$7,695	\$7,253		
721000	Workmans Compensation	\$20,607	\$25,270	\$20,000	\$20,000		
722000	Uniform Allowance	\$3,030	\$3,030	\$300	\$2,800		
722500	Tax Fringe	\$2,100	\$2,100	\$2,100	\$1,800		Fixed Portion
	Nb seasonal				\$15,000		
	Salary and Wages Sub-Total	\$937,655	\$957,380	\$896,955	\$743,152	\$743,152	\$743,152

Operating							
723001	Training & Education	\$5,500	\$5,500	\$5,500	\$7,500	\$7,500	\$7,500
723017	Safety	\$4,000	\$4,000	\$4,000	\$6,000	\$6,000	\$6,000
727000	Operating Expenses	\$16,800	\$16,800	\$16,800	\$16,800	\$16,800	\$16,800
727010	Building & Grounds/Operating	\$25,000	\$28,000	\$29,000	\$35,000	\$35,000	\$35,000
728000	Office Supplies	\$4,000	\$4,000	\$4,000	\$4,500	\$4,500	\$4,500
730003	Small Equipment & Tools	\$7,800	\$7,800	\$7,800	\$9,000	\$9,000	\$9,000
730121	Chemicals	\$650,000	\$550,000	\$600,000	\$515,000	\$643,750	
730123	Lab Equipment & Supplies	\$14,000	\$15,000	\$18,000	\$20,000	\$20,000	\$20,000
730124	Outside Lab Testing	\$21,000	\$18,500	\$21,000	\$19,000	\$19,000	\$19,000
735001	Gasoline	\$4,000	\$4,000	\$5,500	\$6,500	\$6,500	\$6,500
735003	Vehicle Maintenance	\$1,800	\$1,800	\$2,400	\$2,400	\$2,400	\$2,400
735007	Equipment Repair Parts	\$45,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
740001	Miscellaneous	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
813000	Membership (Dues and Publications)	\$500	\$500	\$500	\$500	\$500	\$500
815000	Postage	\$2,000	\$1,000	\$800	\$1,100	\$1,100	\$1,100
835009	Professional Services (Contractual Services)	\$35,000	\$25,000	\$29,000	\$38,000	\$38,000	\$38,000
835117	Sludge Disposal	\$194,000	\$174,000	\$190,000	\$200,000	\$250,000	
850001	Telephone	\$7,000	\$9,000	\$9,500	\$7,000	\$7,000	\$7,000
900002	Advertising Other	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
920004	Utilities - Gas	\$85,000	\$80,000	\$94,000	\$94,000	\$94,000	\$94,000
920006	Utilities - Electric	\$195,000	\$180,000	\$197,000	\$197,000	\$246,250	
935004	Radio Equipment & Service	\$0	\$0	\$0	\$1,000	\$1,000	\$1,000
946000	Energy Conserv Cap	\$0	\$0	\$0	\$5,000	\$5,000	\$5,000
947001	Reservoir Construction General	\$0	\$0	\$0	\$0	\$0	\$0
947002	Reservoir Construction Electrical	\$0	\$0	\$0	\$0	\$0	\$0
947003	Reservoir Planning	\$0	\$0	\$0	\$0	\$0	\$0
947004	Reservoir Permits & Misc.	\$0	\$0	\$0	\$0	\$0	\$0
947005	Reservoir Contingency	\$0	\$27,796	\$0	\$0	\$0	\$0
947006	Reservoir Engineering & Inspecti	\$0	\$0	\$0	\$0	\$0	\$0
964000	Refund	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
974040	Computer Maintenance & Equipment	\$3,500	\$3,500	\$3,500	\$4,500	\$4,500	\$4,500
	Plant Capital	\$0	\$0	\$0	\$195,000	\$195,000	\$195,000
		\$2,267,555	\$2,197,576	\$2,219,255	\$2,211,952	\$2,439,952	\$1,299,952

990004	OWDA Principle	\$141,670	\$147,521	\$153,616	\$159,965	\$159,965	\$159,965
990005	OWDA Interest	\$302,945	\$297,090	\$290,995	\$284,650	\$284,650	\$284,650
999003	Transfer/UBO	\$231,000	\$231,000	\$231,000	\$231,000	\$231,000	\$231,000
999010	Transfer/Admin. Suppor	\$115,200	\$115,200	\$115,200	\$284,900	\$284,900	\$284,900
999027	2005 Refin Principle (94)	\$250,000	\$260,000	\$275,000	\$285,000	\$285,000	\$285,000
999028	2005 Refin Interest (94)	\$180,819	\$170,819	\$159,119	\$145,369	\$145,369	\$145,369
999029	2007 Refin Principle (98)	\$275,000	\$280,000	\$300,000	\$310,000	\$310,000	\$310,000
999030	2007 Refin Interest (98)	\$282,665	\$270,288	\$256,288	\$244,288	\$244,288	\$244,288
999031	Clearwell Principal	\$19,111	\$19,889	\$20,686	\$21,522	\$21,522	\$21,522
999032	Clearwell Interest	\$4,416	\$3,644	\$2,841	\$2,005	\$2,005	\$2,005
999033	Iss2 Rd8 Principal	\$26,147	\$26,938	\$27,752	\$28,591	\$28,591	\$28,591
999034	Iss2 Rd8 Interest	\$7,281	\$6,490	\$5,676	\$4,837	\$4,837	\$4,837
999035	Iss2 Rd9 Principal	\$19,599	\$19,599	\$19,599	\$19,599	\$19,599	\$19,599
	Debt Retirement	\$1,855,853	\$1,848,478	\$1,857,772	\$2,021,726	\$2,021,726	\$2,021,726

Operating Sub-Total \$4,123,408 \$4,046,054 \$4,077,027 \$4,233,678 \$4,461,678

2012 Budget	est. 2012 budget with additional 1.5 MGD	\$3,321,678
		78.46%
		fixed percent of budget

EXHIBIT 2

MOU

Memorandum of Understanding

This agreement is made between the City of Defiance, Ohio, and the City of Napoleon, Ohio. The parties to the agreement jointly represent:

1. The City of Defiance owns and operates a recently reconstructed municipal waterworks and reservoir designed to reliably produce 8,000,000 gallons of potable water per day;
2. Due to reduced demand for potable water within the City of Defiance, unincorporated areas of Defiance County and water districts supplied by the Defiance water works, the municipal treatment plant is under-utilized to a degree that has a significant and adverse impact on the operational and capital efficiency of the treatment plant;
3. Due to the age and condition of the Napoleon water treatment plant, the City of Napoleon has determined that the facility requires extensive renovation or replacement at a cost estimated to be between \$15,000,000 and \$27,000,000;
4. The Napoleon water distribution system supplies water to consumers in the City of Napoleon, unincorporated areas of Henry County, villages and water districts, all of whom will be disadvantaged by rate increases required to finance capital investment in the treatment plant;
5. Aggregate demand for water produced and distributed by the Napoleon water treatment works is 1,500,000 gallons per day;
6. Surplus capacity available at the Defiance water treatment works is in excess of 3,000,000 gallons per day;
7. The Department of Transportation is presently improving U.S. Route 24 between Ft. Wayne, Indiana, and Toledo, Ohio, thereby providing the cities of Defiance and Napoleon with safe and convenient access to Interstate Highways 69, 75, 80 and 90;
8. The improvement of U.S. Route 24 greatly enhances the industrial development potential of lands located adjacent to US Route 24 between Defiance and Napoleon if potable water is available to those lands;
9. A proposal has been made to install a high capacity transmission main within or adjacent to the right-of-way of US Route 24 to convey potable water refined in Defiance to Napoleon for distribution throughout the City of Napoleon and all neighboring villages, districts and unincorporated territories supplied by the City of Napoleon to:
 - A. improve the operational and capital efficiency of the Defiance water treatment plant and reduce unit costs of production for the benefit of all consumers furnished potable water produced by the municipal water works;
 - B. significantly reduce the capital costs that will otherwise be required to renovate or replace the Napoleon water treatment works; and,
 - C. open the 12 mile corridor adjacent to US Route 24 between Defiance and Napoleon to development by providing access to potable water in sufficient quantities to support industrial use of those lands;
10. Preliminary inquiries have been made of the Ohio Department of Transportation regarding

possible use of land within the US Route 24 right-of-way for segments of the proposed water transmission main;

11. The feasibility of the proposed water main will require extensive study requiring consultation with engineers, legal and financial experts and other professionals;
12. With the expressed approval of the legislative authorities of both cities, the City of Defiance is making application to the Ohio Department of Development for a grant of Local Government Innovation Funds to assist with the cost to evaluate the technical and economic feasibility of the proposed transmission line;

Now Therefore, in consideration of the premises, and the mutual promises hereinafter recited, the parties are agreed that in the event the application for Local Government Innovation Funds is approved and a grant of Local Government Innovation Funds is awarded, each of them will:

- A. Fully and cooperatively participate in all statutory procedures to select an engineering and design firm to serve as lead consultant;
- B. Negotiate in good faith to equitably apportion such feasibility study costs as may be incurred in excess of the amount of Local Government Innovation Funds granted by the Ohio Department of Development;
- C. Invite the public officials responsible for administration of each village and regional water district supplied with potable water from their respective systems to participate in the feasibility evaluation to maintain public confidence in the reliability of supply, quality, quantity, and future price of potable water in the event the proposed main is installed; and,
- D. Supply all information requested by the Ohio Department of Transportation and fully cooperate with ODOT officials to expedite evaluation of the availability and suitability of land within the US Route 24 right-of-way for siting of the proposed main and appurtenant structures.

The City of Defiance, Ohio,


J. Robert Armstrong, Mayor

The City of Napoleon, Ohio

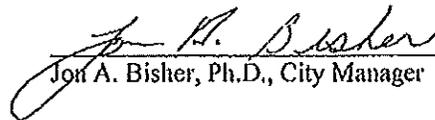

Jon A. Bisher, Ph.D., City Manager

EXHIBIT 3

RESOLUTION OF SUPPORT

RESOLUTION NO. 020-12

A RESOLUTION EXPRESSING SUPPORT FOR AND URGING APPROVAL OF AN APPLICATION BY THE CITY OF DEFIANCE, OHIO, FOR A GRANT OF LOCAL GOVERNMENT INNOVATION FUNDS; AND DECLARING AN EMERGENCY

WHEREAS, the City of Napoleon has determined that the age and condition of the municipal water treatment plant requires that the facility be replaced at a cost of approximately \$15,000,000; and,

WHEREAS, construction of the proposed water treatment plant will impose a heavy financial burden on the City, its residents and non-resident consumers; and,

WHEREAS, the City of Defiance recently reconstructed its municipal waterworks including the installation of a reservoir to eliminate the need to draw water from the Maumee River during times when agricultural runoff and other conditions caution against use of raw water from the river; and,

WHEREAS, the rated capacity of the Defiance water treatment works is 8,000,000 gallons per day; and,

WHEREAS, changes to the industrial base have significantly reduced demand for potable water refined by Defiance to an average daily flow of 3,400,000 gallons per day and a peak flow rate of less than 4,500,000 gallons per day, thereby leaving the City of Defiance with more than 3,000,000 gallons per day in surplus capacity; and,

WHEREAS, the City of Napoleon and outlying districts supplied by the City of Napoleon have an average daily demand requirement of 1,500,000 gallons per day; and,

WHEREAS, a proposal has been made to install a large diameter main within or adjacent to the right-of-way of US Route 24 to enable use of the surplus capacity presently available in Defiance to supply potable water to the Napoleon water distribution system; and,

WHEREAS, the proposed transmission main will, if feasible, spare the City of Napoleon the anticipated capital cost and future debt service obligations required to construct the proposed municipal water treatment works and would also greatly enhance the operational efficiency and cost effectiveness of the water works in Defiance by enabling the facility to operate nearer to its designed capacity limits, thereby affording residents of Napoleon, Defiance, and the non-resident water consumers of both municipalities with lower costs to produce potable water; and,

WHEREAS, the proposed transmission main, if feasible, would open the US Route 24 corridor to industrial and commercial development benefitting the regional economy; and,

WHEREAS, considerable study will be required to determine the feasibility of the proposed water transmission main and any diligent evaluation of the proposal will require expenditures to consult with engineers, financial advisors and other consultants; and,

WHEREAS, the City of Defiance is making application to the Ohio Department of Development for a grant of Local Government Innovation Funds to assist with costs to be incurred to evaluate the feasibility of the proposed transmission main;

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF NAPOLEON, OHIO:

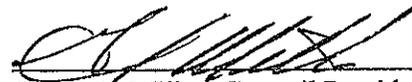
Section 1. That, the City of Napoleon endorses the application of the City of Defiance seeking Local Government Innovation Funds to evaluate the feasibility of a potable water transmission main connecting the Napoleon Water Distribution System to the Defiance Water Treatment Plant and urges the Ohio Department of Development to give the application favorable consideration.

Section 2. That, it is found and determined that all formal actions of this City Council concerning and relating to the adoption of this Resolution were adopted in open meetings of this City Council, and that all deliberations of this City Council and any of its committees that resulted in such formal actions were in compliance with all legal requirements, including Section 121.22 of the Ohio Revised Code and the Codified Ordinances of Napoleon Ohio.

Section 3. That, if any other prior Ordinance or Resolution is found to be in conflict with this Resolution, then the provisions of this Resolution shall prevail. Further, if any portion of this Resolution is found to be invalid for any reason, such decision shall not affect the validity of the remaining portions of this Resolution or any part thereof.

Section 4. That, this Resolution is declared to be an emergency measure necessary for the immediate preservation of the public peace, health or safety of the City and its inhabitants, and for the further reason that this legislation must be in effect at the earliest possible time to timely meet the grant application requirement for a waterline that is essential to the public health, safety, and public peace to our citizens; therefore, provided it receives the required number of votes for passage as emergency legislation, it shall be in full force and effect immediately upon its passage; otherwise, it shall be in full force and effect at the earliest time permitted by law.

Passed: February 20, 2012

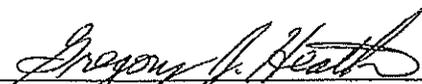

Glenn A. Miller, Council President

Approved: February 20, 2012


Ronald A. Behm, Mayor

VOTE ON PASSAGE 6 Yea 0 Nay 0 Abstain

Attest:


Gregory J. Heath, Clerk/Finance Director

I, Gregory J. Heath, Clerk/Finance Director of the City of Napoleon, do hereby certify that the foregoing Resolution No. 020-12 was duly published in the Northwest Signal, a newspaper of general circulation in said City, on the _____ day of _____; & I further certify the compliance with rules established in Chapter 103 of the Codified Ordinances Of Napoleon Ohio and the laws of the State of Ohio pertaining to Public Meetings.

Gregory J. Heath, Clerk/Finance Director

CERTIFICATION

I, Gregory J. Heath, Finance Director/Clerk of Council for the City of Napoleon, Ohio, do hereby certify that this document is a True and Correct copy of Resolution No. 020-12, passed February 20, 2012.



Gregory J. Heath, Finance Director/Clerk of Council

02/21/2012
Date

RESOLUTION No. 2436

**A RESOLUTION EXPRESSING SUPPORT FOR AND URGING APPROVAL OF
AN APPLICATION BY THE CITY OF DEFIANCE FOR A GRANT OF LOCAL
GOVERNMENT INNOVATION FUNDS AND DECLARING AN EMERGENCY**

WHEREAS, the City of Defiance reconstructed the municipal waterworks and installed a reservoir to eliminate the need to draw water from the Maumee River during times when conditions caution against use of raw water from the river and, as a result of these costly improvements, now has the capacity to reliably produce 8,000,000 gallons of potable water per day; and,

WHEREAS, changes to the Industrial base have reduced demand for potable water to an average daily flow of 3,400,000 gallons per day and reduced the peak flow rate to less than 4,500,000 gallons per day, leaving the City with more than 3,000,000 gallons per day in unused and under utilized production capacity; and,

WHEREAS, the City of Napoleon has determined that the city's water treatment plant requires renovation or replacement at a cost of between \$14,000,000 and \$25,000,000; and,

WHEREAS, the City of Napoleon and outlying districts and villages supplied by Napoleon have an aggregate daily demand of 1,500,000 gallons per day; and,

WHEREAS, a proposal has been made to install a transmission main within or adjacent to the right-of-way of US Route 24 to enable use of the surplus capacity available in Defiance to supply the need for potable water in Napoleon and all regional and village systems supplied by Napoleon; and,

WHEREAS, if feasible, the proposed main will enhance the operational and capital efficiency of the Defiance water works and reduce costs for all consumers, spare the City of Napoleon the anticipated capital cost to renovate or replace the Napoleon water works, and open 12 miles of the US Route 24 corridor to industrial and commercial development benefitting the regional economy; and,

WHEREAS, the City Administrator has prepared an application seeking a grant of Local Government Innovation Funds to assist with engineering and other costs to be incurred to evaluate the feasibility of the proposed transmission main;

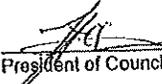
Now therefore, be it Resolved by the Council of the Municipality of Defiance, Ohio, that:

Section 1: Council endorses the application seeking an award of Local Government Innovation Funds and urges the Ohio Department of Development to give the application favorable consideration.

Section 2: It is found and determined that all legislative actions pertaining to the adoption of this Resolution were taken in Public Session and that all deliberations that affected or influenced any such legislative act, including all deliberations in Committee, were conducted in Public Session duly convened in accordance with law.

Section 3: This Resolution is declared to be an emergency measure necessary to preserve the health, safety and welfare of the community for the reason that the application endorsed by this Resolution must be filed with the Ohio Department of Development by March 1, 2012. As such, this Resolution shall be effective immediately upon passage and approval of the Mayor.

Passed: February 28, 2012



President of Council

Attest: Chris Elbert, Clerk

Approved: February 28, 2012



Mayor

EXHIBIT 4

CENSUS DATA & MAPS

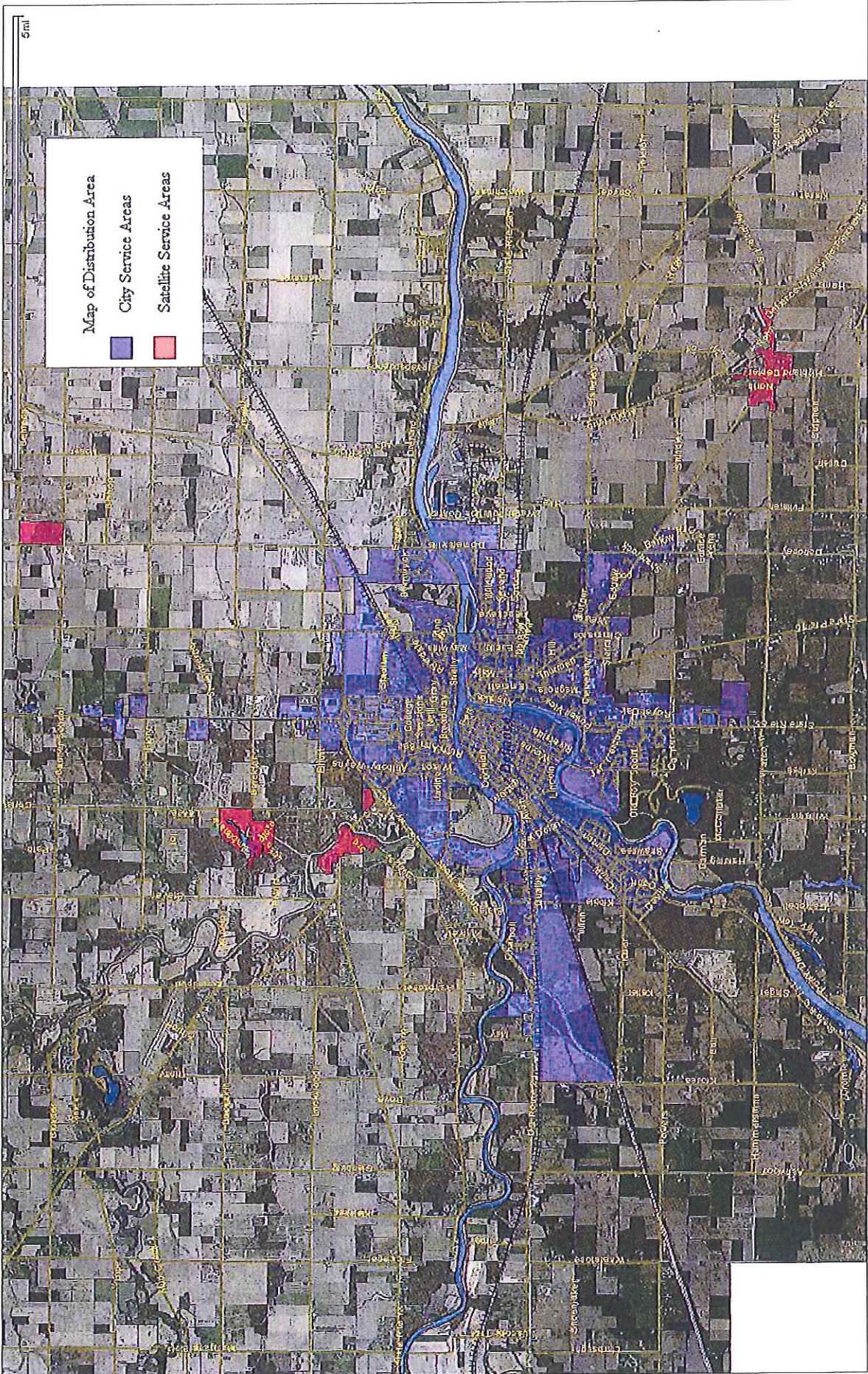
2000 Census Information for
 Areas Impacted by proposed project
Defiance-Napoleon Water System Interconnection Feasibility Study

<u>Political Subdivision</u>	<u>Population</u>
City of Napoleon (Henry County)	9,318
Harrison Twp (Henry County)	1,026
Napoleon Twp (Henry County)	1,513
Village of Liberty Center (Henry County)	1,109
Village of Malinta (Henry County)	285
Liberty Township (Henry County)	1,296
Village of Florida (Henry County)	246
City of Defiance (Defiance County)	16,465
Defiance Township (Defiance County)	1,860
Noble Township (Defiance County)	2,274
Highland Township (Defiance County)	2,658
Richland Township (Defiance County)	1,974
Total	40,024

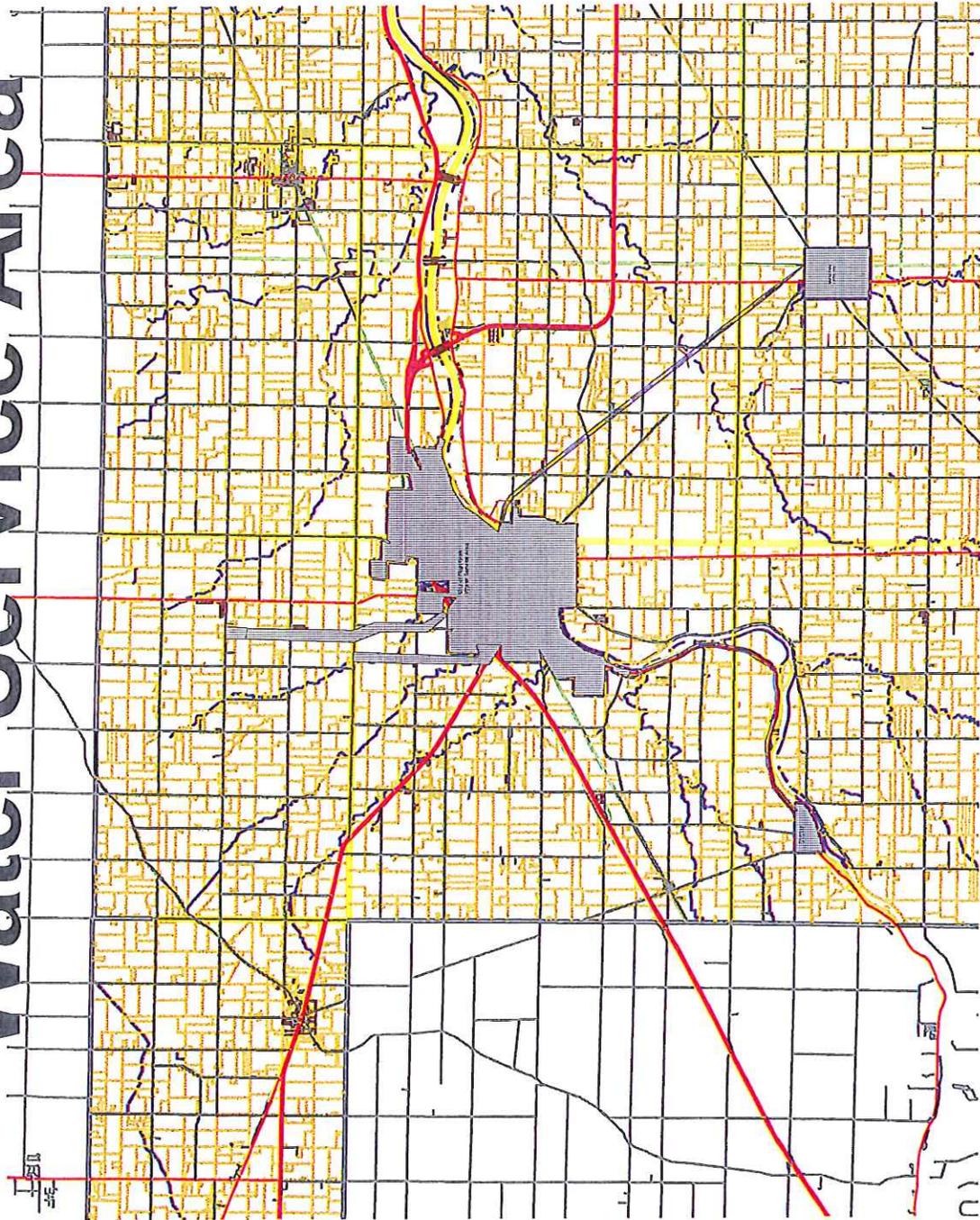
The Cities of Defiance and Napoleon are the primary applicants for grant funds. These other political subdivisions have been included as they are currently/could be served by the potential interconnected water system.

There is potential to 'pick up' additional users along the main line between Defiance and Napoleon. The extent of the other potential users would be indentified in the Feasibility Study to be commenced if Innovation Grant Funds are awarded.

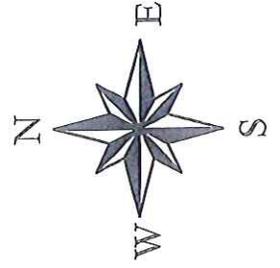
The enclosed maps note the existing service areas for each respective water system. Additionally, a map has been enclosed that denotes the immediate potential service area along a main water line between Defiance and Napoleon.



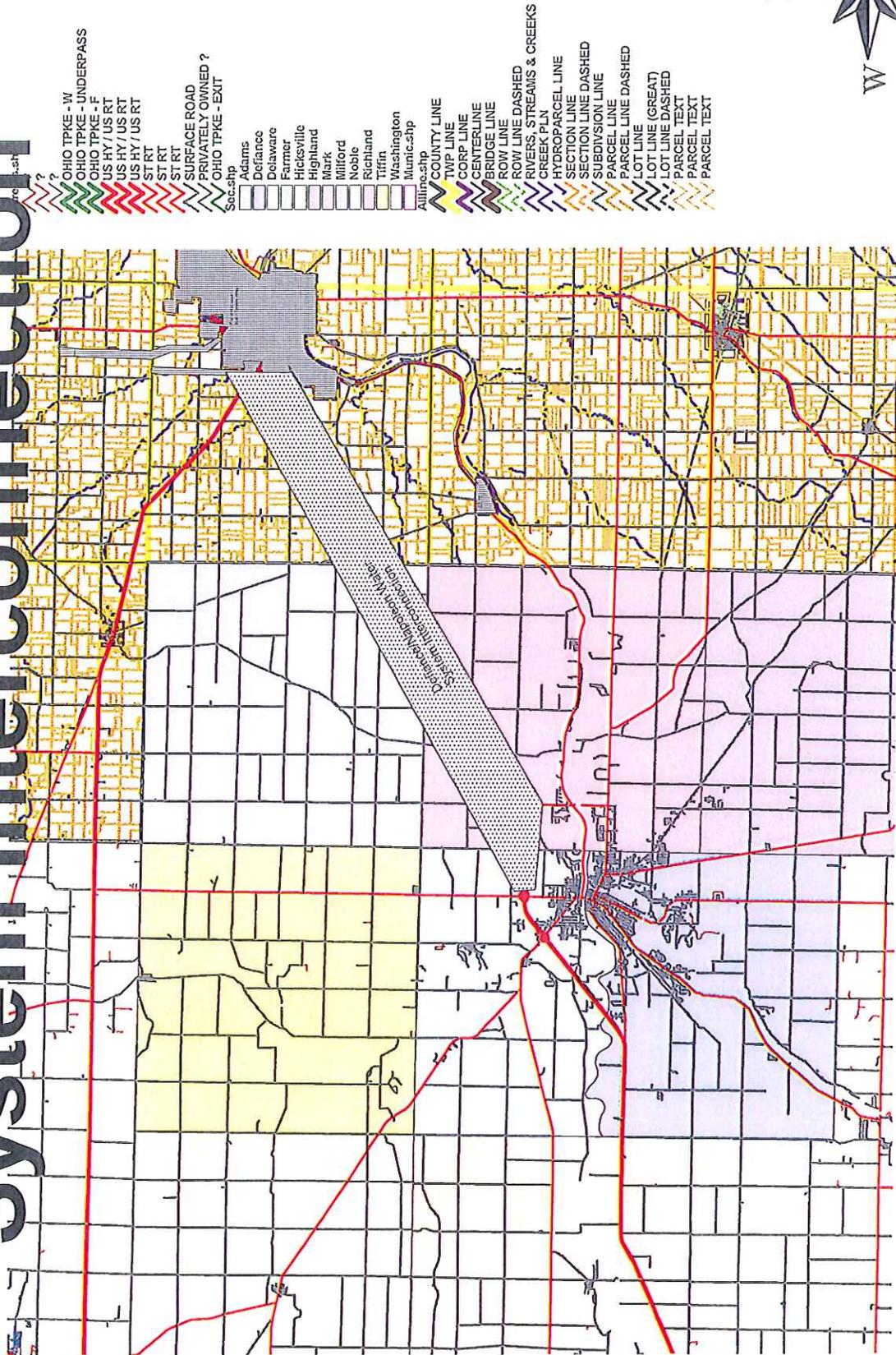
City of Napoleon Water Service Area



- Munic.shp
- Streets.shp
- ?
- ?
- ?
- OHIO TPKE - W
- OHIO TPKE - UNDERPASS
- OHIO TPKE - F
- US HY / US RT
- US HY / US RT
- US HY / US RT
- ST RT
- ST RT
- ST RT
- SURFACE ROAD
- PRIVATELY OWNED ?
- OHIO TPKE - EXIT
- Allline.shp
- COUNTY LINE
- TWP LINE
- CORP LINE
- CENTERLINE
- BRIDGE LINE
- ROW LINE
- ROW LINE DASHED
- RIVERS, STREAMS & CREEKS
- CREEK PLN
- HYDROPARCEL LINE
- SECTION LINE
- SECTION LINE DASHED
- SUBDIVISION LINE
- PARCEL LINE
- PARCEL LINE DASHED
- LOT LINE
- LOT LINE (GREAT)
- LOT LINE DASHED
- PARCEL TEXT
- PARCEL TEXT
- PARCEL TEXT



Defiance/Napoleon Water System Interconnection



- OHIO TPKE - W
- OHIO TPKE - UNDERPASS
- OHIO TPKE - F
- US HY / US RT
- US HY / US RT
- US HY / US RT
- ST RT
- ST RT
- ST RT
- SURFACE ROAD
- PRIVATELY OWNED ?
- OHIO TPKE - EXIT
- Sec.shp
- Adams
- Defiance
- Delaware
- Farmer
- Hicksville
- Highland
- Mark
- Millford
- Noble
- Richland
- Tiffin
- Washington
- Munic.shp
- Allline.shp
- COUNTY LINE
- TWP LINE
- CORP LINE
- CENTERLINE
- BRIDGE LINE
- ROW LINE
- ROW LINE DASHED
- RIVERS, STREAMS & CREEKS
- CREEK PLN
- HYDROPARCEL LINE
- SECTION LINE
- SECTION LINE DASHED
- SUBDIVISION LINE
- PARCEL LINE
- PARCEL LINE DASHED
- LOT LINE
- LOT LINE (GREAT)
- LOT LINE DASHED
- PARCEL TEXT
- PARCEL TEXT
- PARCEL TEXT

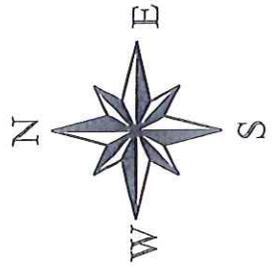


EXHIBIT 5

SELF-SCORE ASSESSMENT

Local Government Innovation Fund Program

Application Scoring

Lead Applicant	City of Defiance
Project Name	Def.-Nap. Water System Interconnection Feasibility Study

<input checked="" type="checkbox"/>	Grant Application
-------------------------------------	--------------------------

or

<input type="checkbox"/>	Loan Application
--------------------------	-------------------------

The Local Government Innovation Fund Council
77 South High Street
P.O. Box 1001
Columbus, Ohio 43216-1001
(614) 995-2292

Local Government Innovation Fund Project Scoring Sheet

Section 1: Financing Measures

Financing Measures	Description	Criteria	Max Points	Applicant Self Score	Validated Score
Financial Information	Applicant includes financial information (i.e., service related operating budgets) for the most recent three years and the three year period following the project. The financial information must be directly related to the scope of the project and will be used as the cost basis for determining any savings resulting from the project.	Applicant provides a thorough, detailed and complete financial information	5	<input checked="" type="radio"/>	
		Applicant provided more than minimum requirements but did not provide additional justification or support	3	<input type="radio"/>	
		Applicant provided minimal financial information	1	<input type="radio"/>	
		Points			5
Repayment Structure (Loan Only)	Applicant demonstrates a viable repayment source to support loan award. Secondary source can be in the form of a debt reserve, bank participation, a guarantee from a local entity, or other collateral (i.e., emergency rainy day, or contingency fund, etc.).	Applicant clearly demonstrates a secondary repayment source.	5	<input type="radio"/>	
		Applicant does not have a secondary repayment source.	0	<input checked="" type="radio"/>	
		Points			0
Local Match	Percentage of local matching funds being contributed to the project. This may include in-kind contributions.	70% or greater	5	<input checked="" type="radio"/>	
		40-69.99%	3	<input type="radio"/>	
		10-39.99%	1	<input type="radio"/>	
		Points			5
Total Section Points				10	0

Section 2: Collaborative Measures

Collaborative Measures	Description	Criteria	Max Points	Applicant Self Score	Validated Score
Population	Applicant's population (or the population of the area(s) served) falls within one of the listed categories as determined by the U.S. Census Bureau. Population scoring will be determined by the smallest population listed in the application. Applications from (or collaborating with) small communities are preferred.	Applicant (or collaborative partner) is not a county and has a population of less than 20,000 residents	5	<input checked="" type="radio"/>	
		Applicant (or collaborative partner) is a county but has less than 235,000	5	<input type="radio"/>	
		Applicant (or collaborative partner) is not a county but has a population 20,001 or greater.	3	<input type="radio"/>	
		Applicant (or collaborative partner) is a county with a population of 235,001 residents or more	3	<input type="radio"/>	
		Points			5
Participating Entities	Applicant has executed partnership agreements outlining all collaborative partners and participation agreements and has resolutions of support. (Note: Sole applicants only need to provide a resolution of support from its governing entity.)	More than one applicant	5	<input checked="" type="radio"/>	
		Single applicant	1	<input type="radio"/>	
		Points			5
Total Section Points				10	0

Local Government Innovation Fund Project Scoring Sheet

Section 3: Success Measures

Success Measures	Description	Criteria	Points	Applicant Self Score	Validated Score
Expected Return	<i>Applicant demonstrates as a percentage of savings (i.e., actual savings, increased revenue, or cost avoidance) an expected return. The return must be derived from the applicant's cost basis. The expected return is ranked in one of the following percentage categories:</i>	75% or greater	30	<input checked="" type="radio"/>	
		25.01% to 74.99%	20	<input type="radio"/>	
		Less than 25%	10	<input type="radio"/>	
		Points			30
Past Success	<i>Applicant has successfully implemented, or is following project guidance from a shared services model, for an efficiency, shared service, coproduction or merger project in the past.</i>	Yes	5	<input checked="" type="radio"/>	
		No	0	<input type="radio"/>	
		Points			5
Scalable/Replicable Proposal	<i>Applicant's proposal can be replicated by other local governments or scaled for the inclusion of other local governments.</i>	The project is both scalable and replicable	10	<input checked="" type="radio"/>	
		The project is either scalable or replicable	5	<input type="radio"/>	
		Does not apply	0	<input type="radio"/>	
		Points			10
Probability of Success	<i>Applicant provides a documented need for the project and clearly outlines the likelihood of the need being met.</i>	Provided	5	<input checked="" type="radio"/>	
		Not Provided	0	<input type="radio"/>	
		Points			5
Total Section Points				50	0

Section 4: Significance Measures

Significance Measures	Description	Criteria	Points Assigned	Applicant Self Score	Validated Score
Performance Audit Implementation /Cost Benchmarking	<i>The project implements a single recommendation from a performance audit provided by the Auditor of State under Chapter 117 of the Ohio Revised Code or is informed by cost benchmarking.</i>	Project implements a recommendation from an audit or is informed by benchmarking	5	<input type="radio"/>	
		Project does not implement a recommendation from an audit and is not informed by benchmarking	0	<input checked="" type="radio"/>	
		Points			0
Economic Impact	<i>Applicant demonstrates the project will promote business environment (i.e., demonstrates a business relationship resulting from the project) and will provide for community attraction (i.e., cost avoidance with respect to taxes)</i>	Applicant clearly demonstrates economic impact	5	<input checked="" type="radio"/>	
		Applicant mentions but does not prove economic impact	3	<input type="radio"/>	
		Applicant does not demonstrate an economic impact	0	<input type="radio"/>	
		Points			5
Response to Economic Demand	<i>The project responds to current substantial changes in economic demand for local or regional government services.</i>	Yes	5	<input checked="" type="radio"/>	
		No	0	<input type="radio"/>	
		Points			5
Total Section Points				10	0

Section 5: Council Measures			
Council Measures	Description	Criteria	Points Assigned
Council Preference	Council Ranking for Competitive Rounds	The Applicant Does Not Fill Out This Section; This is for the Local Government Innovation Fund Council only. The points for this section is based on the applicant demonstrating innovation or Inventiveness with the project	
Total Section Points (10max)			

Scoring Summary			
		Applicant Self Score	Validated Score
Section 1: Financing Measures		10	0
Section 2: Collaborative Measures		10	0
Section 3: Success Measures		50	0
Section 4: Significance Measures		10	0
Total Base Points:		80	0

Reviewer Comments

EXHIBIT 6

SCOPE OF WORK & COST

Local Government Innovation Fund Application

Project Name:

Defiance/Napoleon Water System Interconnection Feasibility Study

Draft Scope of Work:

The purpose of this project will be to provide a qualitative evaluation for the technical and financial feasibility of providing an interconnection of potable drinking water supply from the City of Defiance to the City of Napoleon. This supply of potable water could provide a cost-effective means for the City of Napoleon to address current and anticipated issues in complying with drinking water rules, while creating an economic development corridor along the newly completed US-24 between the two (2) Cities.

The City of Napoleon has completed an evaluation of alternatives to address current and anticipated deficiencies at their water treatment plant (WTP) to provide a continued reliable source of drinking water to its residents, as well as the nearby satellite communities receiving water. The alternatives presented within the Water Treatment Plant Evaluation (April 2011) range from upgrading the existing WTP to the construction of a new WTP and are estimated to cost from \$14MM to \$28MM.

The City of Defiance has recently undertaken and completed the construction of a new reservoir, as well as other process improvements at the Defiance WTP. The improvements at the Defiance WTP have created an ability to meet current and anticipated needs within their current service area and excess capacity to serve a larger base, including the City of Napoleon system and economic development zones between the two (2) communities.

The development of the feasibility study will include:

Task 1: Background Data Collection and Review

Data collected will include, but will not be limited to:

- Previous studies and design plans, including models.
- Existing system components and service areas.
- Existing and future (20-year) economic growth and flow projections.
- The condition of the existing systems including information on the location and physical condition.
- Documentation of experienced problems within the existing water treatment and distribution systems.
- Existing and future consumption rates, including fire flows.
- Current water rate structures.
- Existing land use/comprehensive plans
- Existing and proposed economic development strategies

Task 2: Assessment of Current Conditions, Opportunities & Constraints

Develop a detailed discussion of current conditions that set the stage for the proposed collaboration, along with the potential issues and constraints that may need to be overcome to ensure the success of the system.

- City of Defiance
 - Existing distribution system components, opportunities and limitations
 - Existing WTP condition and capacity
 - Future (20-year) economic development opportunities and projections

- Current and pending rules
- Current and anticipated capital improvement projects
- Current and projected water rates
- City of Napoleon
 - Existing distribution system components, opportunities and limitations
 - Existing WTP condition and capacity
 - Future (20-year) economic development opportunities and projections
 - Current and pending rules
 - Current and anticipated capital improvement projects
 - Current and projected water rates
 - Current agreements
- US-24 Corridor
 - Existing land use and zoning
 - Available existing infrastructure
 - Future (20-year) economic development opportunities and projections

Task 3: Identify and Evaluate Potential Alternatives

Identify and evaluate potential alternatives for:

- 1) Conveyance of potable water from Defiance to Napoleon;
- 2) Improving current deficiencies within each system;
- 3) Addressing regulatory constraints, including DBP's ... WTP Improvements, as required; and
- 4) Cost-effectiveness, including capital and estimated O&M costs

Task 3A: Define Assumptions:

With representatives of both communities, establish the agreed-upon assumptions to be used for preparing the feasibility study to include:

- Current and future flows, including satellite systems
- Ranking criteria
- Funding scenarios

Task 3B: Develop & Rank Conveyance Alternatives:

Review potential conveyance alternative routes and sizes for conveyance

- US-24 R/W (Domersville Rd. to Henry CR-P/Bales Rd.)
- Maumee-Western RR R/W (Domersville to Glenwood)
- SR-424 (Domersville to Glenwood)
- Others
- Within this subtask, also complete an analysis of required improvements within the City of Defiance and Napoleon distribution systems to provide the necessary capacity for existing and future conditions at the proposed connection points
- All options will be presented with an Engineer's Estimate for the Probable Cost of Construction based upon 2012 estimates, including technical services
- Alternatives will be ranked based upon estimated capital cost, O&M costs, environmental impacts and other rating criteria developed

Task 3C: Develop & Rank WTP Improvement Alternatives:

Review potential improvements at each community's WTP

- City of Defiance
 - High service storage (clearwell & elevated tanks) and pumping capacities
 - Disinfection By-Products (DPB's)

- GAC filters
 - UV pre-oxidation
 - Air-stripping
 - Alternative disinfectants
 - Taste & odor controls
- City of Napoleon
 - High service storage (clearwell & elevated tanks) and pumping capacities
 - Chlorine residual estimates and water age
 - Disinfection By-Products (DPB's)
 - Re-chlorination
 - GAC filters
 - Air-stripping
 - Electrical service & switchgear
- All options will be presented with an Engineer's Estimate for the Probable Cost of Construction based upon 2012 estimates, including technical services
- Alternatives will be ranked based upon estimated capital cost, O&M costs, environmental impacts and other rating criteria developed

Task 3C: Recommendations

- Present recommended alternatives
- Develop phasing plan, as required

Task 4: Financial Analysis

A cost effective analysis (present worth) will be performed to evaluate economic feasibility of the recommended alternatives. The cost-effective analysis will include estimates for annual operation and maintenance (O&M) costs, as well as repair, rehabilitation and replacement costs of various critical components of each system.

The financial analysis will include:

- An evaluation of various funding opportunities
 - Loan and grant programs (OEPA, USDA, OWDA, OPWC, ODOD, etc.)
 - Funding districts & zones (TIF, JEDZ, etc.)
 - Local Water Revenue Funds
- Projections of future water rates

Task 5: Report Preparation and Consolidation

Consolidate information gathered and developed in the tasks noted above into a final report that presents all elements of the work including a summary of findings regarding technical and financial feasibility of the recommended solutions. Draft copies of the report will be submitted and presented to the Cities. Initial comments during the presentation will be collected and discussed during the presentation. Following presentation of the report and receipt of additional review comments on the draft report and the presentation, the report will be updated and finalized.

Estimated Fee & Schedule:

We estimate that the cost to execute the above scope of work will be \$150,000. The timeframe required to complete the above efforts will require nine to twelve months.

EXHIBIT 7

IN-KIND CONTRIBUTIONS



Jones & Henry Engineers, Ltd.

2000 WEST CENTRAL AVENUE, TOLEDO, OHIO 43606 • 419/473-9611
www.jheng.com FAX • 419/473-8924

April 28, 2010

Lee P. Rausch, P.E.
City Engineer
City of Defiance
631 Perry Street, Ste. 102
Defiance, Ohio 43512

Subject: Proposal for North Side Water Transmission
Main Feasibility Study
Project No. 2008-D001

Dear Mr. Rausch:

Jones & Henry Engineers, Ltd. is pleased to submit this proposal to provide professional engineering services to assist the City of Defiance in a feasibility study for a North Side Water Transmission Main. As you are aware, our firm has an 85 year tradition of high standards and distinction that continues with each new project. We offer you a special combination of technical expertise and a proven history in water, storm water and wastewater studies, designs, and construction oversight.

Throughout the firm's history, our projects have been almost exclusively in the environmental field. Being specialists, we are thoroughly familiar with the technical aspects, the financial limitations, and the political challenges that the project may encounter. Jones & Henry will work closely with you, sharing ideas, evaluating alternatives, and helping guide you to the best solution for the community. Jones & Henry has designed and overseen the construction of water, storm-water and wastewater improvements for nearly 700 clients, the large majority being municipal entities.

We have evaluated your request for proposal and have determined that we can complete the study within six (6) weeks of a notice to proceed. The estimated not-to-exceed cost to complete the project, as requested by the City and as described in Section 2, is \$6,850. We are aware that the activities related to this project are varied and complex, and cannot be extensively and adequately described within the confines of this proposal. Therefore, at your convenience, we would appreciate the opportunity to meet with you personally to discuss the proposal in detail.



Jones & Henry Engineers, Ltd.

Lee P. Rausch, P.E.

April 28, 2010

Page 2

On behalf of Jones & Henry we wish to thank you for the opportunity to present this proposal. We are very interested in this project and would appreciate the opportunity to work with the City of Defiance. Please feel free to call if you have any questions while reviewing our proposal or should you require further information.

Sincerely,

JONES & HENRY ENGINEERS, LTD.

Steven L. Wordelman, P.E.

President

SLW/bjm

c: Clifford M. Gordon, P.E.

Lee Rausch

From: Richard Kipp [rkipp@cityofdefiance.com]
Sent: Monday, August 02, 2010 3:47 PM
To: 'Lee Rausch'; 'John Lehner'
Subject: FW: Cost to Evaluate Domersville - North Additional Line

During the review of the northside transmission main preliminary study, we were discussing the size of the transmission main. As proposed, the transmission main will probably need to be in excess of 24 inch pipe. This would make installation difficult and costly. When I mentioned that we have also been talking about extending a watermain on Domersville from 281 to Elliot or Flory, Clifford said this would likely reduce the size requirement for the transmission main. I asked that he send a quote to evaluate the Domersville line as part of this study. His quote is below. Please let me know if this can be added to the study. Thanks.

*Richard J. Kipp
Water Superintendent
City of Defiance
Ph: 419-782-1886
fx: 419-782-6510
rkipp@cityofdefiance.com*

From: Clifford Gordon [mailto:CGORDON@jheng.com]
Sent: Monday, August 02, 2010 3:15 PM
To: Richard Kipp
Subject: Cost to Evaluate Domersville - North Additional Line

Mr. Kipp:

Per your request, I have estimated that it would take an additional 4 hours to evaluate the northeast line along Domersville as discussed during our meeting on Thursday, July 29th. This amounts to an equivalent \$504.00. Please let me know if you wish for me to proceed.

Thanks for the great help on Thursday. Both you and Mr. Rhody were very patient and helpful. I certainly wish the employees of other communities would be as dedicated and helpful as you both were.

See you soon.

Cliff

This email and files with it are confidential and are solely for the use of the addressee. If you received this in error, please notify the sender immediately by e-mail and delete this e-mail from your system. E-mail messages and files cannot be guaranteed to be secure, error-free or reproduce accurately on your system. The sender therefore does not accept liability for errors or omissions.

Additional information regarding our policy on electronic documents is available at WWW.JHENG.COM



Jones & Henry Engineers, Ltd.

2000 WEST CENTRAL AVENUE, TOLEDO, OHIO 43606 • 419/473-9611
www.jheng.com FAX • 419/473-8924

November 12, 2010

Lee P. Rausch, P.E.
City Engineer
631 Perry Street, Suite 102
Defiance, Ohio 43512

NOV 15 2010
RECORDED & INDEXED

Subject: Additional Evaluations for North Side Water Transmission Main Feasibility Study
Project No. 2008-D001
073-6483.001

Dear Mr. Rausch:

First of all, on behalf of Jones & Henry Engineers, Ltd., I wish to thank you and the City's staff that met with us on November 3 to discuss the project in reference.

During our meeting, you expressed interest in having our firm perform additional evaluations utilizing the recent modified WaterCAD model. Three specific issues were suggested for additional evaluation and include the evaluation of a booster station on Ridge and High Streets, a booster station to empty and fill the elevated water storage tank on Diehl Road, and evaluation of water-quality-related issues. Below is a brief discussion of our understanding of your request, followed by our estimated cost.

EVALUATION OF BOOSTER STATION ON RIDGE AND HIGH STREETS

Previous evaluations performed by Jones & Henry, and presented to the City in draft form prior to our meeting, indicated that, in order to meet future water-demand requirements, it would be necessary to construct a 20-inch water supply mainline from the water treatment plant to Hilton Avenue. It would also require a complementary 16-inch line from Hilton Avenue to the intersection of Northwood Drive and Carpenter.

In our report, we indicated that a booster station would likely reduce the size of both the lines indicated above and may even delay the need for the lines altogether (depending on development).

The evaluation proposed will assess the influence of a booster station near the intersection of Ridge and High Streets on the water distribution system. The system performance will be evaluated for current and future conditions, with and without the proposed water transmission mains. If applicable/needed, pipe sizes and pump capacity will be recommended to meet the City's future development. As a side benefit, and as part of this evaluation, it will be necessary to assess the effect of the booster station on the Diehl Tank which is another of the City's concerns.

EVALUATION OF A PUMP STATION FOR CYCLING OF DIEHL TANK

Of concern to the City, is the difficulty noted in cycling (emptying) the elevated storage tank on Diehl Road. This condition brings with it the unwanted consequence of increased water age and deterioration of water quality. This condition is expected to worsen as more pressure is required to deliver additional flow to the area northeast of the City. One option to address this issue, is the construction of a dedicated pump station to empty the tank. There is also the possibility that the pump station could be used to boost the



Jones & Henry Engineers, Ltd.

Lee P. Rausch, P.E.
073-6483.001
November 12, 2010
Page 2

flow to the northeast area. The option of a pump station will be evaluated to determine pump size and potential effect on the system under current and future conditions.
WATER AGE EVALUATION

The City indicated that it has been experiencing water quality deterioration in the area of Pinehurst, Christie Meadows, near the intersection of SR-66 and US-24, and the area in the vicinity of Christy and Breckler Roads. The City has also indicated that when Diehl Tank is taken out of service, the water quality in the area of Christy and Breckler seems to deteriorate even more.

In addition, the City has experienced some water-quality-related issue, since a 12-inch water line was placed in service in April 2009 along Stadium Drive. The City has also requested that the water age evaluation include the effect of taking the Stadium Drive water line out of service and compare to existing flow and water age data.

An evaluation will be performed that will provide the City with water age determination at different points in the system to determine the progression of water age and general movement of water flow. Water age evaluation will be performed under current and future conditions, taking into consideration the potential effect of the proposed transmission mains.

We have estimated a cost of \$4,148 to complete the evaluation as described above (see attached sheet for detail regarding the cost estimate). Should you have questions or concerns regarding any aspect of this letter, please feel free to contact us at your convenience.

On behalf of Jones & Henry Engineers, I would like to thank you for this opportunity.

Sincerely,

JONES & HENRY ENGINEERS, LTD.

Clifford M. Gordon, P.E.
Principal
Director of Groundwater & Environmental Modeling

CMG/rmb
Attachment

c: Mr. Richard Kipp
Steven L. Wordelman, P.E., President



**PROPOSED FEE STRUCTURE
FOR
WATER DIVISION TRANSMISSION MAIN PROJECT
DEFIANCE, OHIO
FROM: POGGEMEYER DESIGN GROUP, INC.
TO: CITY OF DEFIANCE
DATE: January 4, 2012**

The Fee Structure for the project has been split into two segments, one for the complete design and construction of the Booster Pump Station and the other for the design only of the Maumee River Crossings and Transmission Main. PDG is proposing the following Fee Structure for the Water Division Transmission Main Project:

Booster Pump Station

The Fee Structure for the Booster Pump Station is for the entire package from design to construction.

No fee is included for a geotechnical firm to do subsurface investigations that may be needed for the design of the structure. Also no fee has been included for easement or appraisal work, if required, for the location of the Booster Pump Station.

Booster Pump Station Engineering Fee is as follows:

<u>Total Engineer Fee:</u>	<u>\$40,150</u>
<u>Fee Breakdown:</u>	
Survey:	\$3,500
Preliminary Design:	\$10,000
Final Design:	\$12,000
Bidding:	\$3,500
Construction Administration:	\$8,550
As-Built Drawings:	\$2,500
Construction Observation:	By City*
Easement Work	none anticipated for the Diehl Park Location

* Construction Observation will be by City of Defiance personnel unless otherwise requested of PDG. PDG can provide these services and will provide a cost for these services when requested.



Maumee River Crossings and Transmission Main

The Fee Structure for the Maumee River Crossings and Transmission Main may only be through the design phase due to funding considerations. The Bidding, Construction Administration, and Construction Observation fees have not been included in the Professional Fee.

No fee is included for a geotechnical firm to do subsurface investigations that may be needed for the design of the structure. Also no fee has been included for easement work or coordination of appraisal work for the Maumee River Crossings and Transmission Main.

Maumee River Crossings and Transmission Main Engineering Fee is as follows:

<u>Total Engineer Fee:</u>	<u>\$68,700</u>
<u>Fee Breakdown:</u>	
Survey:	\$6,000
Preliminary Design:	\$24,500
Final Design:	\$38,200
Bidding:	*
Construction Administration:	*
As-Built Drawings:	*
Construction Observation:	By City*
Easement Work:	**

* These professional fees will be based upon the time frame the project has funding available and is ready for bidding and construction. Construction Observation will be by City of Defiance personnel unless otherwise requested of PDG, PDG can provide these services and will provide a cost for these services when requested.

** Fee for easement work will be based upon the number and complexity of the easements which will be identified during the design phase.

State & County QuickFacts

Defiance (city), Ohio

People QuickFacts	Defiance	Ohio
Population, 2011 estimate	NA	11,544,951
Population, 2010	16,494	11,536,504
Population, percent change, 2000 to 2010	0.2%	1.6%
Population, 2000	16,465	11,353,140
Persons under 5 years, percent, 2010	6.9%	6.2%
Persons under 18 years, percent, 2010	24.1%	23.7%
Persons 65 years and over, percent, 2010	15.3%	14.1%
Female persons, percent, 2010	51.7%	51.2%
White persons, percent, 2010 (a)	88.1%	82.7%
Black persons, percent, 2010 (a)	3.6%	12.2%
American Indian and Alaska Native persons, percent, 2010 (a)	0.3%	0.2%
Asian persons, percent, 2010 (a)	0.4%	1.7%
Native Hawaiian and Other Pacific Islander, percent, 2010 (a)	Z	0.0%
Persons reporting two or more races, percent, 2010	2.8%	2.1%
Persons of Hispanic or Latino origin, percent, 2010 (b)	14.4%	3.1%
White persons not Hispanic, percent, 2010	80.5%	81.1%
Living in same house 1 year & over, 2006-2010	80.0%	85.0%
Foreign born persons, percent, 2006-2010	1.9%	3.8%
Language other than English spoken at home, pct age 5+, 2006-2010	5.6%	6.3%
High school graduates, percent of persons age 25+, 2006-2010	85.7%	87.4%
Bachelor's degree or higher, pct of persons age 25+, 2006-2010	17.9%	24.1%
Mean travel time to work (minutes), workers age 16+, 2006-2010	17.0	22.7
Housing units, 2010	7,435	5,127,508
Homeownership rate, 2006-2010	67.1%	69.2%
Housing units in multi-unit structures, percent, 2006-2010	20.8%	23.0%
Median value of owner-occupied housing units, 2006-2010	\$96,400	\$136,400
Households, 2006-2010	6,709	4,552,270
Persons per household, 2006-2010	2.38	2.46
Per capita money income in past 12 months (2010 dollars) 2006-2010	\$21,399	\$25,113
Median household income 2006-2010	\$39,585	\$47,358
Persons below poverty level, percent, 2006-2010	19.0%	14.2%
Business QuickFacts	Defiance	Ohio
Total number of firms, 2007	1,226	897,939
Black-owned firms, percent, 2007	F	5.8%
American Indian- and Alaska Native-owned firms, percent, 2007	F	0.3%
Asian-owned firms, percent, 2007	F	2.0%

Native Hawaiian and Other Pacific Islander-owned firms, percent, 2007	F	S
Hispanic-owned firms, percent, 2007	F	1.1%
Women-owned firms, percent, 2007	19.2%	27.7%
Manufacturers shipments, 2007 (\$1000)	846,739	295,890,890
Merchant wholesaler sales, 2007 (\$1000)	63,612	135,575,279
Retail sales, 2007 (\$1000)	356,533	138,816,008
Retail sales per capita, 2007	\$22,229	\$12,049
Accommodation and food services sales, 2007 (\$1000)	32,448	17,779,905

Geography QuickFacts	Defiance	Ohio
Land area in square miles, 2010	11.62	40,860.69
Persons per square mile, 2010	1,419.8	282.3
FIPS Code	21308	39
Counties		

Population estimates for counties will be available in April, 2012 and for cities in June, 2012.

- (a) Includes persons reporting only one race.
- (b) Hispanics may be of any race, so also are included in applicable race categories.

- D: Suppressed to avoid disclosure of confidential information
- F: Fewer than 100 firms
- FN: Footnote on this item for this area in place of data
- NA: Not available
- S: Suppressed; does not meet publication standards
- X: Not applicable
- Z: Value greater than zero but less than half unit of measure shown

Source U.S. Census Bureau. State and County QuickFacts. Data derived from Population Estimates, American Community Survey, Census of Population and Housing, County Business Patterns, Economic Census, Survey of Business Owners, Building Permits, Consolidated Federal Funds Report, Census of Governments
 Last Revised: Tuesday, 31-Jan-2012 17:22:46 EST



CITY OF DEFIANCE

ENGINEERING DIVISION
631 PERRY STREET, SUITE 102
DEFIANCE, OH 43512-2780
PHONE 419.784.2249
FAX 419.784.5443

LEE P. RAUSCH, P.E.
City Engineer

April 25, 2012

Ms. Thea J. Walsh, AICP
Ohio Department of Development
77 South High Street
PO Box 1001
Columbus, OH 43216-1001

Re: Cure – Defiance-Napoleon Water System
Interconnection Feasibility Study

Dear Ms. Walsh:

Per your letter of April 2, 2012 we are providing this additional information.

Please feel free to call this office at (419) 784-2249 with any questions, concerns or request for additional information.

Sincerely,
City of Defiance

Lee P. Rausch, P.E.
City Engineer

Cc: Jeff Leonard, City Administrator
File



April 2, 2012

Jeff Leonard
City of Defiance
631 Perry Street
Defiance, Ohio 43512

RE: Application Cure Letter

Dear Jeff Leonard:

The Ohio Department of Development (Development) has received and is currently reviewing your application for Round 1 of Local Government Innovation Fund program. During this review Development has determined that additional information is needed for your application. The identified item(s) requiring your attention are listed on the attached page(s). Please respond only to the issues raised. Failure to fully address all the identified items could lead to a competitive score reduction or ineligibility for Round 1 of the Local Government Innovation Fund program. **A written response from the applicant to this completeness review is due to Development no later than 5:00 p.m. on April 30, 2012.** Please send the response in a single email to lgif@development.ohio.gov and include "Cure—Project Name" in the subject line.

While this cure letter represents the additional information needed for Development review, the Local Government Innovation Council continues to reserve the right to request additional information about your application.

Thank you once again for your participation in Local Government Innovation program. Please contact the Office of Redevelopment at lgif@development.ohio.gov or 614-995-2292 if you have further questions regarding your application or the information requested in this letter.

Sincerely,

Thea J. Walsh, AICP
Deputy Chief, Office of Redevelopment
Ohio Department of Development

Local Government Innovation Fund Completeness Review

Applicant: City of Defiance
Project Name: Defiance-Napoleon Water System Interconnection Feasibility Study
Request Type: Grant

Issues for Response

1. Budget

Please provide a line item budget that includes at minimum: 1) the sources of all funds being contributed to the project include **all** sources—cash, in-kind, etc.; 2) the uses of all funds (provide a line item for each use); 3) the total project costs (including the funding request **and** the local match. Please be sure that all uses of funds are eligible expenses as set forth in the program guidelines.

Example:

Collaboration Village's Project Budget

Sources of Funds

LGIF Request	\$100,000
Match Contribution (10%)	\$ 11,111
<hr/>	<hr/>
Total	\$111,111

Uses of Funds

Consultant Fees for Study	\$111,111
<hr/>	<hr/>
Total	\$111,111

Total Project Cost: \$111,111

2. Match

A minimum of 10% match is required for all projects. Matching funds must be 10% of the **total project cost** (not 10% of the funding request). Please document your 10% match and provide evidence of the contribution.

For **in-kind contributions**, please provide documentation as outlined in section 2.06 of the Local Government Innovation Fund program policies. Certification of in-kind contributions may only be made for past investments. Anticipated in-kind contributions must be certified **after** the contribution is made.

3. Population Information and Documentation

Please provide documentation supporting population information provided using the 2010 U.S. Census. To access census information, you may visit the following website <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

1. CITY OF DEFIANCE PROJECT BUDGET

SOURCE OF FUNDS	AMOUNT
LGIF Request (66%)	\$ 99,000
City of Defiance Match (17%)	\$ 25,500
City of Napoleon Match (17%)	<u>\$ 25,500</u>
Total	\$150,000

USE OF FUNDS

Consultant Fees for Study	\$150,000
TOTAL PROJECT COST:	\$150,000

2. MATCH

Clarification on the matching and in-kind contributions is required. The estimated cost of this project, the feasibility study, is \$150,000. Of this the Cities of Defiance and Napoleon have each committed to \$25,500 or 34% of the total request. However, the City of Defiance has completed some preliminary work for this project. The costs for this work are documented in Exhibit 7 of the original submittal. The City has spent \$11,502 for a feasibility study in 2010. That study included the practicality of extending a new transmission main from our existing plant to better serve the northern part of the City. This new study will use the data generated by the original study to investigate the feasibility of extending the transmission main to the City of Napoleon. In 2012 the City authorized another \$108,850 to implement the findings of this initial study. In conclusion, the total cost of the entire study and implementation is estimated to be \$270,352. Of this amount the Cities of Defiance and Napoleon are jointly contributing \$120,352 or 44.5%.

3. POPULATION DOCUMENTATION

(See attached from the US Census Bureau)

Please note the information provided in the application references 2000 Census data. Current 2010 Census data indicates an increase of 29 residents for the City of Defiance for a population of 16,494. The information provided on the attachment is for main applicant. The information provided in the application, Exhibit 4, includes the entire service area.

BUDGET

SOURCES OF FUNDS

LGIF Request	\$99,000
City of Defiance Match	\$25,500
City of Napoleon Match	<u>\$25,500</u>
Total	\$150,000

USE OF FUNDS

Consultant Fees for Study	\$150,000
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TOTAL PROJECT COST: \$150,000