Environmental Assessment

A. Project Identification

Name: Village of McClure
McClure-Henry County Regional Water Service Connection

Address: Nick Rettig
Henry County Regional Water and Sewer District
1857 Oakwood Ave.
Napoleon, OH 43545

WSRLA No: FS390548-0004

B. Proposed Project

1. Summary

The Village of McClure and Henry County Regional Water and Sewer District have applied to the Ohio EPA’s Drinking Water Assistance Fund (DWAF) for financing of the McClure – Henry County Regional Water Service Connection Project. This Environmental Assessment (EA) is prepared, in accordance with the DWAF procedures, to evaluate the potential environmental impacts of the proposed project.

The Village of McClure is currently under Findings and Orders for Total Trihalomethanes (TTHM) and Nitrate Maximum Contaminant Level (MCL) violations. The Village is unable to work towards resolving the numerous violations and therefore, has agreed to join the Henry County Regional Water and Sewer District. The District has assumed ownership and responsibility to correct the problems and bring the system into compliance. The District selected to proceed with a regional water service connection from the Village of Malinta. This water service connection will allow the District to abandon the McClure water treatment facility. The City of Napoleon will provide potable water by means of the regional service connection.

The proposed project includes installing about 16,300 linear feet of waterline, a booster pumping and chlorination building, and a new elevated storage tank. The project will be financed by the DWAF, specifically the Water Supply Revolving Loan Account (WSRLA) administered by the Ohio EPA.

2. Project History and Existing Conditions

The Village of McClure is located in the northeastern section of Henry County, at the intersection of State Route 6 and 65. The Village of McClure owns and operates a surface water treatment facility that was constructed during the mid-1970s. The water treatment facility is located north of the Village, just south of State Route 110 and the Maumee River. Raw water is
obtained from the Maumee River, which is pumped to the treatment facility. Treatment consists of:

- Rapid mixing
- Coagulation
- Flocculation
- Settling
- Filtration
- Disinfection

The treatment facility is rated at .196 million gallons per day (MGD) with one of the two filters out of service. The treatment facility can produce up to .392 MGD with both filters in service at a 2 gpm/s.f. filter rate. The treatment plant currently has an average daily demand at .080 mgd and a maximum daily demand between .120 up to .150 MGD.

The Stage 1 Disinfectants / Disinfection Byproducts Rule (D / DBP Rule) is a federal rule that went into effect in 2001 and for water systems serving 500 to 999 persons was regulated beginning January 1, 2004. This rule established maximum contaminant levels (MCL) for both Total Trihalomethanes (TTHM) and Five Haloacetic Acids (HAA5). Also, surface water systems using conventional filtration, as McClure does, are required to meet a percentage of total organic carbon (TOC) removal, which is based on alkalinity. When reviewing the historical running averages for TTHM, McClure has never been in compliance. The Village has also exceeded nitrate MCLs on a number of occasions dating back to 1998.

Findings and Orders were issued on December 29, 2005 by the Director of the Ohio Environmental Protection Agency (Ohio EPA). The orders required the completion of raw water pumping, reservoir, and treatment improvements that will comply with both current and future TTHM and nitrate MCLs.

When the treatment facility was designed in the early 1970s and later constructed, nitrate MCLs were apparently not considered and the D/DBP Rule was not in effect. Due to the seasonal high levels of nitrates and TOCs in the Maumee River, an offline reservoir should have been constructed as part of the water treatment plant. The construction of a reservoir would allow for selective raw water (Maumee River) pumping when nitrates and TOC levels are low. This would greatly aid in the ability to meet both the MCLs as established. It should be noted that even with a reservoir, there have been water treatment facilities that are struggling with the D/DBP Rule. This can be attributed to levels of TOC in the reservoir supply and the treatment plant’s TOC removal capabilities. The McClure treatment facility was designed for turbidity removal, not for the additional TOC removal that is required for meeting the D/DBP Rule. In addition to the lack of TOC removal, the existing water treatment facility for McClure has far exceeded its equipment’s life expectancy.

The Village of McClure has elected to join the Henry County Regional Water and Sewer District in order to correct the drinking water violations. The ownership of the water treatment facility and distribution system has been assumed by the District. The District now provides all administration, operation, and maintenance to take responsibility of resolving the Findings and Orders for the TTHM and Nitrate violations.
The District developed alternatives for a regional water service connection. A regional water supply analysis was completed, and it was determined that a service connection from the Malinta / Grelton water system would provide the Village of McClure's potable water needs. The regional service connection will resolve ongoing treatment plant operational problems associated with equipment and staffing, as well as correct the water quality violations. The City of Napoleon will be the water supplier for the regional connection. The City, as part of the Henry County Regional Water and Sewer District, is committed to meeting all current and future water quality regulations.

3. Alternatives Analysis

In order to comply with the drinking water regulations and the Findings and Orders, The District has engaged Poggemeyer Design Group, Inc. to evaluate alternatives for a potable regional water supply for the Village of McClure. The regional water alternatives to be analyzed are listed as follows:

1. Malinta / Grelton
2. Liberty Center
3. Napoleon

A regional service connection for the Village of McClure would include an 8-inch diameter water line with a Variable Frequency Drive (VFD) booster pump station that would include a master meter, telemetry, and chlorine feed system. Also, each alternative would include a new 100,000 gallon elevated storage tank. A maintenance inspection was completed on the existing 100,000 gallon elevated storage tank by Nelson Tank Engineering and Consulting, Inc. (NTEC) during August of 2007. NTEC indicated in their report that the tank’s interior surfaces have damage from pitting along the sidewall and riser.

The City of Napoleon currently supplies water to Malinta / Grelton and to Liberty Center. There are six different routes (alternatives) for construction and delivery of water to McClure. The alternative analysis considered factors such as:

- Historical TTHM levels for each potential water supplier
- Estimated construction and projects costs
- Annual water purchase costs

The alternatives have each been evaluated on the considered factors listed above. The table below shows the ranking and cost of the alternatives considered.

<table>
<thead>
<tr>
<th>Ranking</th>
<th>System Alternative</th>
<th>Estimated Project Cost</th>
<th>Estimated Annual Debt Retirement *</th>
<th>Estimated Water Purchase</th>
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4. **Project Description**

Based on the alternatives above, alternative number 3 – Malinta / Grelton was chosen. This alternative includes connecting to the existing 8-inch diameter waterline, located north of Grelton at the intersection of County Road North and Township Road 7. The new 8-inch diameter waterline would then be installed east to State Route 65 on County Road North. The new waterline would be connected to the existing 8-inch diameter waterline that extends south of McClure on State Route 65 (see map below). The project would include a master meter building, with VFD high service pumps, telemetry, and chlorine feed with standby power. The improvements would also include valving, fire hydrants, blowoff assemblies, and three jack and bore sites to cross State Route 65 and avoid two stream crossings. Also included at this time is a new 100,000 gallon elevated storage tank that will replace the existing tank. The project cost is estimated at $1,999,140.

The waterline installation includes approximately 16,036 linear feet of 8-inch watermain with valves, hydrants, meter pits, and service stubs. The average trench dimensions are approximately 5 feet deep and 2 feet wide. The majority of the watermain will be installed in the previously disturbed road right-of-way of County Road North. There will be three jack and bore sites, one site to avoid impacts to Little Turkeyfoot Creek (an unnamed tributary of South Turkeyfoot Creek), another site to avoid impacts to an unnamed tributary of Big Creek, and the
third site to cross State Route 65. There will be a packaged pumping station building within the same project area along County Road North. The site for the pump station building is on the north side of County Road North, 300 feet east of County Road 7. The building is small in size, 44 feet long, 12 feet wide and 14 feet high. The building site will include a small parking lot (2-3 cars) and driveway from County Road North.

The proposed water storage tank will be approximately 149 feet high, with a capacity of 100,000 gallons.

5. **Implementation**

The implementation of the proposed project is projected to begin in the fall of 2012. The Village of McClure and Henry County Regional Water and Sewer District have secured sufficient funding to implement the project at a reasonable cost.

The total project cost for the McClure – Henry County Regional Water Service Connection is estimated to be $1,199,140. Funding for the proposed project is expected to come from the Ohio Drinking Water Assistance Fund (DWAF), specifically the Water Supply Revolving Loan Account (WSRLA) administered by the Ohio EPA.

The McClure – Henry County Project ranked high enough on Ohio EPA’s priority list to be in the fundable range for WSRLA funds. Based on the DWAF Program Management Plan, the County qualifies for up to 20% principal forgiveness, and the remainder of the funds at a 2% interest rate for up to 30 years\(^1\). Based on an estimate project cost of $1,199,140, the County will be eligible for $239,828 in principal forgiveness, and $959,312 at a 2% interest rate for up to a 30 year term\(^2\).

The WSRLA loan for the project is currently anticipated to be awarded in October 2012. Project construction will commence shortly thereafter, and take approximately 12 months to complete.

C. **Environmental Impact of the Proposed Project**

A complete environmental review of the project was performed, and each environmental attribute is addressed below. Construction-related impacts will generally by confined to the areas of surface disturbance. These areas will include the construction easement in which the proposed waterlines will be installed. Collectively, these areas are relatively small, and the construction-related impacts are such that standard construction mitigation will generally be adequate to prevent adverse environmental impacts. The potential for adverse environmental

\(^1\) These terms are offered by Drinking Water Assistance Fund, and are available because the County’s project qualified as a Tier 3 disadvantaged community.

\(^2\) Principal forgiveness is essentially a grant. Technically speaking, principal forgiveness is a portion of a loan in which no interest is charged, and the principal is “forgiven”, i.e. it is not repaid.
impacts has been greatly reduced by utilizing the jack and boring technique to avoid impacts and the majority of the alignment is within the road rights-of-way.

1. **Major Land Forms**

   The waterline installation and pump station are located along County Road North, and the elevated water storage tank is just north of McClure along State Route 65. The topography is flat and the majority of the waterlines will be installed adjacent to the road rights-of-way. Waterline installation will be a relatively simple process of digging a narrow (approximately 2 feet wide) and shallow (approximately 5 feet deep) trench, and installing the bedding material and pipe, and then backfilling the trench.

   There are two stream crossings for the project, where the waterline will be installed at least 5 feet underneath the streams using the “jack and bore” method to avoid impacts to the streams. Compared to the typical “open-cut” trench method described above, the “jack and bore” method is a lower impact alternative. For this method, a pit is dug in the roadway, and the jack and bore equipment is lowered into the pit. The equipment consists of a hydraulic jack set on rails, utilizing the back of the pit as a back stop for the jacking. An auger the size of the inside of the casing pipe is used to bore out the soil as the casing pipe is pushed forward. The waterline is then pushed into place inside the casing pipe. The final step is to fill the casing around the new pipe to hold the waterline securely in place.

   In summary, jacking and boring is considered to be a lower impact construction alternative because there is less surface disruption. Most of the work is underground and not at the surface like the typical “open-cut” trench method.

   There will be no large areas of excavation or stockpiling earthen materials. The only above ground features of the project will be the hydrants which are installed. Once construction is completed, all ground surface elevations will be restored to their pre-construction levels. The site for the elevated water storage tank is alongside a dog shelter for the county, and is previously disturbed from the development. Based on the above, the proposed project will have no significant adverse effect on major land forms.

2. **Surface and Ground Water**

   The project area is within the South Turkeyfoot Creek and Big Creek watersheds. Both creeks are part of the Maumee River watershed. South Turkeyfoot Creek and Big Creek are both classified as Warmwater Habitat, and the Maumee River is classified as Warmwater and Modified Warmwater Habitat by the Ohio EPA.³ The proposed project does involve two minor

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³ Warmwater Habitat is a water quality designation used by the Ohio EPA to relate to the ability of the streams to support a diversity of aquatic life. Warmwater Habitat is the most common water quality designation in the state. A Warmwater Habitat stream supports typical assemblages of fish and invertebrates. A Modified Warmwater
stream crossings, both of which will be jack and bored to avoid impacts to Little Turkeyfoot Creek and an unnamed tributary of Big Creek. Adverse impacts from erosion or sedimentation are not anticipated because the jack and bore construction method will be utilized for the stream crossings. Construction best management practices (BMPs), good housekeeping, and following road rights-of-way should prevent any adverse impacts. Based on the above, no significant adverse impacts to surface water resources are expected as a result of the proposed project.

Ground water supply in the general project area is good. In most of this portion of Henry County, yields from ground water wells can be 25 to 100 gallons per minute (GPM).\(^4\) Ground water quantity and quality should not be adversely affected by the proposed project. During construction of the proposed project, it may be necessary to de-water the trenches in some areas, but this should not significantly impact ground water quantity because the trenches will be shallow, and de-watering will not occur in any one place for a significant amount of time. De-watered flows will be settled (if necessary) before the discharge to any water body. There should be no change in the ground water quality during or after construction of the proposed project. Based on the above, it is concluded that the proposed project will have no significant adverse impact on ground water quantity or quality.

3. Terrestrial and Aquatic Habitat

The proposed project area for the waterline and pump station is along County Road North. The site for the elevated water storage tank is alongside the Henry County Dog Shelter. There are no nearby water bodies or significant terrestrial habitat in the pre-disturbed, developed location for the proposed site of the elevated water storage tank. The waterline and pump station project site contains two nearby streams, which will be avoided as discussed previously. There is no significant terrestrial habitat in the pre-disturbed, developed road right-of-way along County Road North.

As part of the environmental review of the overall project, the Ohio Department of Natural Resources (ODNR) was consulted with regard to threatened and endangered species that may be present in the project area. U.S. Fish and Wildlife Service (USFWS) information on federally-listed species was also collected. Information from ODNR and USFWS indicates that Henry County is within the range of the following species:

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Habitat is similar to a Warmwater Habitat, but supports more tolerant fish and invertebrates because of sources of impairments or conditions that influence the water quality of the stream.

\(^4\) Information obtained from the Ohio Department of Natural Resources (ODNR), Henry County Ground Water Resource Map.
<table>
<thead>
<tr>
<th>Species</th>
<th>Scientific Name</th>
<th>State and Federal Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indiana Bat</td>
<td><em>Myotis sodalis</em></td>
<td>State and federally listed endangered species</td>
</tr>
<tr>
<td>Rayed bean</td>
<td><em>Villosa fabalis</em></td>
<td>State endangered and federal proposed endangered mussel species</td>
</tr>
</tbody>
</table>

Due to the nature of the proposed project, its alignment, and its construction techniques, it is not expected that any of the above species will be adversely affected by the project. Given the fact that sensitive habitat is not present and will not be altered; the project is not expected to have any significant adverse environmental impacts to terrestrial or aquatic habitat, or to threatened or endangered species.

4. **Land Use and Agriculture**

The project area is located along County Road North just outside of the Village of McClure, and the County Dog Shelter just north of the Village. This area is pre-disturbed and developed. Land use in the project area is comprised of agriculture, roadways, and development. The proposed project will install water lines within the road right-of-way along County Road North and construct a new elevated water storage tank alongside the site of the existing County Dog Shelter, and therefore not impact any agricultural land use.

The proposed project is to provide potable water to existing residents. These water lines are only for the existing residents of the Village of McClure, and are not designed for significant development of residential growth. No significant residential growth is expected in the project area. Thus, the proposed project will neither directly or indirectly impact land use or agriculture in the project area.

5. **Floodplains and Wetlands**

The proposed project was reviewed with respect to facilities being located in a designated floodplain or floodway. As mentioned previously, the proposed project is located along County Road North and alongside the County Dog Shelter, and the entire alignment is outside of any designated floodplain or floodway. Based on the above, no significant adverse impact to floodplains will occur from the proposed project.

The proposed project was also reviewed with respect to the wetlands in the construction area. Based on information reviewed by Ohio EPA, it does not appear that there are wetlands along
the proposed project’s alignment. Thus, significant adverse impacts to wetlands are not likely to result from the project.

6. **Archaeological and Historical Resources**

   The proposed project was reviewed with respect to its potential for adverse impacts to archaeological or historic resources. According to information from the Ohio Historic Preservation Office (OHPO), there are no records of archaeological sites or historic properties near the project area.\(^5\) There are no properties in the area that are listed on the National Register of Historic Places (NRHP). Based on the information, the Ohio EPA determined that the proposed project will have no effect on properties eligible for or listed on the NRHP. Ohio EPA submitted this determination to the OHPO.

7. **Air Quality**

   Henry County is in attainment with the six federal air quality pollutant standards. The county is in attainment with the standards for sulfur dioxide, nitrogen oxide, lead, carbon monoxide, particulate matter, and ozone. The proposed project will result in a temporary increase of dust and fumes from construction activities; however, the contractor(s) will take appropriate measures (such as spraying exposed soil with water) to control fugitive dust during construction, so any such impacts should be short-term and insignificant. There will be no long-term adverse impact to air quality associated with the proposed project.

8. **Noise, Traffic, and Aesthetics**

   While noise levels in the project area will be increased by the operation of equipment during construction, the impact of these activities will be short-term. Vehicles and equipment will be operated so as to minimize noise to the greatest degree practicable. Therefore, noise resulting from the operation of earthmoving and other construction equipment, should not result in any significant adverse environmental impacts. Furthermore, there will be no long-term increase in noise levels attributable to the proposed project.

   The proposed waterline installation is within the road right-of-way of County Road North. The proposed site for the elevated water tank is at the County Dog Shelter on State Route 65. There will be a slight increase in the normal amount of traffic (equipment and materials delivery, etc.), but this increase will not be significant. The proposed project will not necessitate any long-term road closures; however there will be some temporary road closures during the water line installation segments. Traffic is expected to be maintained on the main route, County Road North. The crossing on the side roads will be closed temporarily with proper signage. Closures would be expected to be less than one workday for each crossing.

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\(^5\) The Ohio Archaeological Inventory (OAI) and the Ohio Historic Inventory (OHI) were reviewed by the Ohio EPA, and no records were found within the project area.
Construction activities are typically aesthetically displeasing. However, the proposed construction will be of short duration, and will be confined (at any one time) to a small area. Once the construction is completed, there will be little visible change in the surrounding area along County Road North and a water tower will be constructed along-side the County Dog Shelter. There are no long-term adverse aesthetic impacts anticipated from the proposed project.

9. **Local Economy**

The proposed McClure – Henry County Regional Water Service Connection has an estimated total cost of $1,199,140. The project ranked high enough on Ohio EPA’s priority list to be in the fundable range for WSRLA funds. Based on the DWAF Program Management Plan, the County qualifies for up to 20% principal forgiveness, and the remainder of the funds at a 2% interest rate for up to 30 years. Based on an estimated project cost of $1,199,140, the County will be eligible for $239,828 in principal forgiveness, and $959,312 at a 2% interest rate for up to a 30 year term (see page 5 for details).

The debt incurred by the Village of McClure will be retired by the collection of user charges for the project. There are 487 customers within the Village that will become water customers of The Henry County Regional Water and Sewer District, and will pay an additional rate increase to help pay for the project. According to the Village, the average monthly charge to their customers is approximately $35.30 per month (based on 2,500 gallons/month). For McClure’s service customers, there will be an additional $13.11 per month rate increase in addition to the monthly user charge to help pay for the project. Based on this information, the estimated average monthly charge for McClure’s service customers is $48.41.

McClure’s annual median household income (MHI) is $40,982 and the average annual user charge for the project area is estimated to be $580.92, which is 1.4% of the median household income for the project area. This is slightly above the Ohio average of 1.2% (the 2008 state average annual user charge for water supply services as a percentage of the 2000 Ohio MHI).

McClure’s projected average annual user cost is within the range of surrounding communities, namely: Liberty Center (population 1,109) - $735, and Napoleon (population 9,119) - $561. The population served for this project is 761 residents.

Based on the above, the proposed project should not result to significant adverse impacts to the local economy.

D. **Public Participation**

The following agencies have reviewed, and were provided an opportunity to comment on, the planning information for the proposed project:

- Ohio Environmental Protection Agency
The Henry County Board of Commissioners had a public meeting about the project on March 27, 2012. The Henry County Regional Water and Sewer District also holds two public meetings per month, and those meetings are open to the public and press.

The Ohio EPA is not aware of any significant public opposition to the proposed project.

**E. Reasons for a Preliminary Finding of No Significant Impact**

Based upon Ohio EPA’s review of the planning information and the materials presented in this Environmental Assessment, it is concluded that there will be no significant adverse impacts from the proposed project as it relates to the environmental features discussed previously. Through avoidance of sensitive areas and the use of mitigative measures outlined in this document, the impacts from construction should generally be short-term and insignificant.

The completion of this long awaited project will provide a safe and adequate supply of treated water for the residents of the Village of McClure.

**F. Questions or Comments**

For further information, contact:

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