

**Why You Should Read This:** The document below reviews the environmental impact likely from a project. This project is planned to be federally funded through your tax dollars; therefore, you are entitled to take part in its review. If you have concerns about the environmental impact of this project, raise them now. We encourage public input in this decision making process.



## **IOWA STATE REVOLVING FUND**

### **FINDING OF NO SIGNIFICANT IMPACT**

February 7, 2012

#### **To: All Interested Citizens, Government Agencies, and Public Groups**

An environmental review has been performed based on the procedures for implementing the National Environmental Policy Act (NEPA), for the proposed agency action below:

**Applicant:** City of Lohrville

**SRF No.:** CS1920615 01

**County:** Calhoun

**Project No.:** S2010-0121

**State:** Iowa

The City of Lohrville, Iowa is planning an upgrade to their wastewater treatment system. The city has applied for financial assistance through the State Revolving Fund (SRF) loan program to build the project. The State Revolving Loan Program is a program authorized by the Environmental Protection Agency (EPA) and administered by the Iowa Department of Natural Resources (DNR) in partnership with the Iowa Finance Authority.

The City of Lohrville, Iowa is located in Calhoun County approximately 30 miles southwest of Fort Dodge, Iowa and 120 miles east of Sioux City, Iowa. The population of Lohrville according to the 2000 US Census was 431.

The existing wastewater treatment plant consists of a single stage trickling filter plant constructed in 1957. The wastewater flows through a bar screen with a flow meter upon entering the plant. After the screen, the flow then continues to an Imhoff tank for primary settling and dosing before entering the trickling filter mechanism. The wastewater trickles down over the rock bed to outfall on the

south side of the filter. A secondary clarifier completes the process before the water is discharged to an unnamed creek south of the plant. A new secondary clarifier was constructed in 1988 to replace the original. Sludge produced in the Imhoff tank and secondary clarifier is pumped to existing drying beds on the east side of the plant.

The existing wastewater collection system within the City consists of 8-inch lateral lines and 10-inch, 12-inch, and 15-inch interceptor lines. These lines are primarily vitrified clay pipe. A number of foundation drains and roof drains contributed to the system. The City has disconnected all known drains, however a number of hidden foundation drains remain. The joints within the collection system have been shown through televising to be separated, displaced or deteriorated.

The purpose of this project is to make improvements to the wastewater conveyance system and treatment facilities to enhance their reliability, and to replace obsolete system to safely and reliably operate the City of Lohrville's wastewater system for the next 20 years.

The proposed wastewater conveyance system improvements include the construction of a low pressure force main sewer system that consists of a Septic Tank Effluent Pump (STEP) system. The system will be placed at each building within the City. Following construction, the existing conveyance system will be cleaned and abandoned in place. The proposed treatment plant will consist of the three-cell lagoon system. The treated wastewater from the proposed facility will discharge to an unnamed creek approximately 1-1/4 mile north of its confluence with Cedar Creek. The unnamed creek has a use stream designation of A-2, B(WW2).

Three separate alternatives for wastewater system improvements were considered. The first was the 'do-nothing' approach, where the existing would be left as-is and a new treatment facility in form of a controlled discharge lagoon would be constructed. The second alternative would be to line and seal the existing system and monitor the system for one year to determine the design of a new controlled discharge lagoon. The final alternative considered was to construct a new collection, transmission, and treatment system.

The option of relining the entire sewer system would not guarantee that it would reduce or eliminate the inflow and infiltration to a level that would be more "manageable" for treatment. Monitoring would need to be done for a period of time before any design on a treatment system could be accomplished.

The City has a high groundwater table indicated by the flows into the system during "dry" periods. If the system were lined, it is entirely possible that this groundwater would back-up into home-owners basements due to not being able to get into the sewer system. Replacing the system with an entirely new system would pretty much eliminate the inflow and infiltration and leave the existing sewer in place to continue to act as a secondary "drain" for the City.

Positive environmental effects will include reduction of storm water infiltration and bringing the treatment plant into compliance with DNR effluent limits. This will result in improved water quality in the unnamed discharge creek and ultimately Cedar Creek.

The project will not significantly affect the pattern and type of land use (industrial, commercial, agricultural, recreational, residential) or growth and distribution of population. The project will not displace population, alter the character of existing residential areas, or convert significant farmlands to non agricultural purposes. The project will not conflict with local, regional or State land use plans or policies. The project will not have effect on parklands, preserves, other public lands, or areas of recognized scenic or recreational value. The project will not impact wetlands or waters of the United States provided that the terms and conditions of US Army Corps of Engineers Nationwide Permit 13 are abided by. The project will not affect the 100 year flood plain provided that the terms and conditions of the IDNR Floodplain Development Permit are abided by. No Historic Properties will be adversely affected by the proposed project. The project will not have a significant adverse effect upon local ambient noise levels, surface water quantity, groundwater quality or quantity, or water supply.

Minimum separation distances will be maintained. Noise during construction will be maintained at tolerable levels through controls on construction activities. Any construction debris will be removed from the site for proper disposal. Adverse environmental effects from construction activities will be minimized with proper construction practices, inspection, prompt clean up and other appropriate measures. Areas temporarily disturbed by the construction will be restored.

The attached review does not indicate that a significant environmental impact will result from the proposed action. This action is taken on the basis of a careful review of the engineering report, the environmental assessment and other supporting data which are on file at the Department of Natural Resources' office in Des Moines, Iowa. These are available for public review upon request. A copy of the environmental assessment is attached. This Department will not take any administrative action on the project for at least thirty (30) calendar days from the above date. Persons disagreeing with the above environmental decision may submit comments to the department during this period. Please direct your comments to me at [kate.bussanmas@dnr.iowa.gov](mailto:kate.bussanmas@dnr.iowa.gov) or 515-725-0992.

Sincerely,



Kate Bussanmas  
Environmental Specialist  
401 SW 7<sup>th</sup>, Suite M  
Des Moines, IA 50309

Enclosures: Environmental Assessment  
Project Map

Distribution Eric Deters, Kuehl and Payer  
List (email): Carissa Miller, MIDAS COG  
Ryan Harvey, The Leader Newspaper  
Horst Greczmiel, Council on Environmental Quality  
Dean Lemke, Iowa Department of Agriculture and Land Stewardship  
Ken Sharp, Iowa Department of Public Health

Benton Quade, Iowa Economic Development Authority  
Annie Beaman, Iowa Environmental Council  
Susan Heathcote, Iowa Environmental Council  
Tracy Scebold, Iowa Finance Authority  
Mickey Shields, Iowa League of Cities  
Jane Clark, Sierra Club  
Donna Jones, USACE Rock Island District  
Jim Carroll, USDA Rural Development  
Nick Chevance, USDOJ, National Park Service, Midwest Region  
USDOJ, Fish and Wildlife Service, Rock Island Field Office  
Christopher Simmons, USEPA Region VII  
Joe Cothorn, USEPA Region VII  
Kelly Beard-Tittone, USEPA Region VII

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## **IOWA STATE REVOLVING FUND**

### **ENVIRONMENTAL ASSESSMENT DOCUMENT**

#### ***PROJECT IDENTIFICATION***

**Applicant:** City of Lohrville

**SRF No.:** CS1920615 01

**Project No.:** S2010-0121

**County:** Calhoun

**State:** Iowa

#### ***COMMUNITY DESCRIPTION***

**Location:** The City of Lohrville, Iowa is located in Calhoun County approximately 30 miles southwest of Fort Dodge, Iowa and 120 miles east of Sioux City, Iowa.

**Population:** The population of Lohrville according to the 2000 US Census was 431.

**Current Waste Treatment:** The existing wastewater treatment plant consists of a single stage trickling filter plant constructed in 1957. The wastewater flows through a bar screen with a flow meter upon entering the plant. After the screen, the flow then continues to an Imhoff tank for primary settling and dosing before entering the trickling filter mechanism. The wastewater trickles down over the rock bed to outfall on the south side of the filter. A secondary clarifier completes the process before the water is discharged to an unnamed creek south of the plant.

A new secondary clarifier was constructed in 1988 to replace the original. Sludge produced in the Imhoff tank and secondary clarifier is pumped to existing drying beds on the east side of the plant.

#### **Current Waste Collection System:**

The existing wastewater collection system within the City consists of 8-inch lateral lines and 10-inch, 12-inch, and 15-inch interceptor lines. These lines are primarily vitrified clay pipe. A number of foundation drains and roof drains contributed to the system. The City has disconnected all known drains, however a number of hidden foundation drains remain. The

joints within the collection system have been shown through televising to be separated, displaced or deteriorated.

### ***PROJECT DESCRIPTION***

**Purpose:** The purpose of this project is to make improvements to the wastewater conveyance system and treatment facilities to enhance their reliability, and to replace obsolete system to safely and reliably operate the City of Lohrville's wastewater system for the next 20 years.

**Proposed Improvements:** The proposed wastewater conveyance system improvements include the construction of a low pressure force main sewer system that consists of a Septic Tank Effluent Pump (STEP) system. The system will be placed at each building within the City. Following construction, the existing conveyance system will be cleaned and abandoned in place. The proposed treatment plant will consist of the three-cell lagoon system.

**Receiving Stream:** The treated wastewater from the proposed facility will discharge to an unnamed creek approximately 1-1/4 mile north of its confluence with Cedar Creek. The unnamed creek has a use stream designation of A-2, B(WW2).

### ***ALTERNATIVES CONSIDERED***

**Alternatives Considered:** Three separate alternatives for wastewater system improvements were considered. The first was the 'do-nothing' approach, where the existing would be left as-is and a new treatment facility in form of a controlled discharge lagoon would be constructed. The second alternative would be to line and seal the existing system and monitor the system for one year to determine the design of a new controlled discharge lagoon. The final alternative considered was to construct a new collection, transmission, and treatment system.

**Reasons for Selection of Proposed Alternative:** The option of relining the entire sewer system would not guarantee that it would reduce or eliminate the inflow and infiltration to a level that would be more "manageable" for treatment. Monitoring would need to be done for a period of time before any design on a treatment system could be accomplished.

The City has a high groundwater table indicated by the flows into the system during "dry" periods. If the system were lined, it is entirely possible that this groundwater would back-up into home-owners basements due to not being able to get into the sewer system. Replacing the system with an entirely new system would pretty much eliminate the inflow and infiltration and leave the existing sewer in place to continue to act as a secondary "drain" for the City.

### ***MEASURES TAKEN TO ASSESS IMPACT***

**Public Involvement:** A public hearing was held on December 13, 2011 at 6:00PM at the City's regular council meeting. The public notice of this hearing was published in The Leader on November 9, 2011. The purpose of this hearing was to present the environmental and financial impacts of the proposed improvement project. No written or oral comments were received.

**Coordination And Documentation With Other Agencies And Special Interest Groups:**

The following Federal, state and local agencies were asked to comment on the proposed project to better assess the potential impact to the environment:

U.S. Army Corps of Engineers  
U.S. Fish and Wildlife Service  
State Historical Society of Iowa (State Historical Preservation Office)  
Iowa DNR Conservation and Recreation Division  
Iowa DNR Water Resources Section  
Citizen Band Potawatomi Indian Tribe  
Delaware Tribe of Indians  
Flandreau Santee Sioux  
Ho-Chunk Nation  
Iowa Tribe of Kansas and Nebraska  
Iowa Tribe of Oklahoma  
Kickapoo Tribe in Kansas  
Kickapoo Tribe of Oklahoma  
Lower Sioux Indian Community Council  
Miami Tribe of Oklahoma  
Omaha Tribal Council  
Osage Tribal Council  
Otoe-Missouria Tribe  
Pawnee Nation of Oklahoma  
Peoria Tribe of Indians of Oklahoma  
Ponca Tribe of Indians of Oklahoma  
Ponca Tribe of Nebraska  
Prairie Band Potawatomi Nation  
Prairie Island Indian Community  
Sac & Fox Nation of Mississippi in Iowa  
Sac & Fox Nation of Missouri  
Sac & Fox Nation of Oklahoma  
Santee Sioux Nation  
Shakopee Mdewakanton Sioux Community  
Sisseton-Wahpeton Oyate  
Spirit Lake Tribal Council  
Three Affiliated Tribes Mandan, Hidatsa & Arikara Nations  
Upper Sioux Tribe  
Winnebago Tribal Council  
Yankton Sioux Tribal Business and Claims Committee

No adverse comments were received from any agencies or general public. Conditions placed on the applicant by the above agencies in order to assure no significant impact are included in the Summary of Reasons for Concluding No Significant Impact section.

## ***ENVIRONMENTAL IMPACT SUMMARY***

**Construction:** Traffic patterns within the community may be disrupted and above normal noise levels in the vicinity of the construction equipment can be anticipated during construction and should be a temporary problem. Adverse environmental impacts on noise quality will be handled by limited hours of contractor work time during the day. Other adverse environmental effects from construction activities will be minimized by proper construction practices, inspection, prompt cleanup, and other appropriate measures. Areas temporarily disturbed by the construction will be restored. Solid wastes resulting from the construction project will be regularly cleared away with substantial efforts made to minimize inconvenience to area residents.

Care will be taken to maintain dirt to avoid erosion and runoff. The proposed project will disturb soils over an area greater than one acre; therefore, the applicant is required to obtain an NPDES General Permit Number 2 (for storm water discharge associated with construction activities) and abide by its terms. Therefore, no significant impact to surface water quality, fish, shellfish, wildlife, or their natural habitats is expected.

Temporary air quality degradation may occur due to dust and fumes from construction equipment. The applicant shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property during the proposed project (IAW Iowa Administrative Code 567-23.3(2)“c”).

**Historical/Archaeological:** The State Historical Preservation Office and various Native American tribes with an interest in the area were provided information regarding the project. A Lead Agency Agreement was signed for this project as it has planned funding from two federal sources, CDBG and IDNR SRF; the IDNR recipient was designated as the lead agency representative for all Section 106 interactions. The CDBG recipient has determined, and the SHPO has agreed (January 11, 2012, R&C#111213081), that this undertaking will result in “no historic properties effected” based on the scope of the project and the findings of the Phase I Archeological Survey conducted on the project property. Some of the Native American tribes have not responded with any objections to the project, however they reserve the right to be notified in the event of an unexpected discovery of archeological materials.

**Environmental:** According to the Iowa DNR Conservation and Recreation Division, the proposed project will not interfere with any State-owned parks, recreational areas or open spaces. The U.S. Army Corps of Engineers has issued Nationwide Permit 13 for streambank stabilization. The terms and conditions of this permit shall be abided by. The project will not impact any wild and scenic rivers as none exist within the State of Iowa. The U.S. Fish & Wildlife Service and Iowa DNR Conservation and Recreation Division agree that the project will not impact threatened or endangered species or their habitats. However, if any State- or Federally-listed threatened or endangered species or communities are found during the planning or construction phases, additional studies and/or mitigation may be required. The Iowa DNR Water Resources Section has issued a Floodplain Development permit to mitigate any impacts of development within the 100-year floodplain.

No adverse impacts are expected to result from this project, such as those to surface water quantity, or groundwater quality or quantity.

An NPDES wastewater discharge permit is needed. Therefore, no significant impact to surface water quality, fish, shellfish, wildlife, or their natural habitats is expected.

**Land Use And Trends:** The project will not displace population nor will it alter the character of existing residential areas. The proposed project is partly within the present corporate limits of Lohrville in areas zoned residential, commercial, or industrial. No significant farmlands will be impacted. This project should not impact population trends as the presence or absence of existing water/sewer infrastructure is unlikely to induce significant alterations in the population growth or distribution given the myriad of factors that influence development in this region. Similarly, this project is unlikely to induce significant alterations in the pattern and type of land use.

**Irreversible And Irretrievable Commitment of Resources:** Fuels, materials, and various forms of energy will be utilized during construction.

### ***POSITIVE ENVIRONMENTAL EFFECTS TO BE REALIZED FROM THE PROPOSED PROJECT***

Positive environmental effects will include reduction of storm water infiltration and bringing the treatment plant into compliance with DNR effluent limits. This will result in improved water quality in the unnamed discharge creek and ultimately Cedar Creek.

### ***SUMMARY OF REASONS FOR CONCLUDING NO SIGNIFICANT IMPACT***

- The project will not significantly affect the pattern and type of land use (industrial, commercial, agricultural, recreational, residential) or growth and distribution of population.
- The project will not conflict with local, regional or State land use plans or policies.
- The project will not impact wetlands or waters of the United States provided that the terms and conditions US Army Corps of Engineers Nationwide Permit 13 are abided by.
- The project will not affect threatened and endangered species or their habitats. If any State- or Federally-listed threatened or endangered species or communities are found during the planning or construction phases, additional studies and/or mitigation may be required.
- The project will not displace population, alter the character of existing residential areas, or convert significant farmlands to non-agricultural purposes.
- The project will not affect the 100-year flood plain provided that the terms and conditions of the IDNR Floodplain Development Permit are abided by.
- The project will not have effect on parklands, preserves, other public lands, or areas of recognized scenic or recreational value.

- No Historic Properties will be adversely affected by the proposed project. However, if project activities uncover any item(s) that might be of archaeological, historical, or architectural interest, or if important new archaeological, historical, or architectural data should be encountered in the project APE, the applicant should make reasonable efforts to avoid further impacts to the property until an assessment can be made by an individual meeting the Secretary of the Interior's professional qualifications standards (36 CFR Part 61).
- The project will not have a significant adverse effect upon local ambient air quality provided the applicant takes reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property during the proposed project (IAW Iowa Administrative Code 567-23.3(2)“c”).
- The project will not have a significant adverse effect upon local ambient noise levels, surface water quantity, groundwater quality or quantity, or water supply.
- No significant impact to surface water quality, fish, shellfish, wildlife, or their natural habitats is expected provided that an NPDES General Permit Number 2 (for storm water discharge associated with construction activities) is obtained and the terms of which are abided by.
- The project will not have a significant adverse effect upon local ambient noise levels.

THEREFORE:

The above project conforms to the criteria in 567 Iowa Administrative Code 92.8(1)“b” for wastewater relating to compliance with the National Environmental Policy Act of 1969. No adverse effect or significant environmental impact is foreseen at this time.



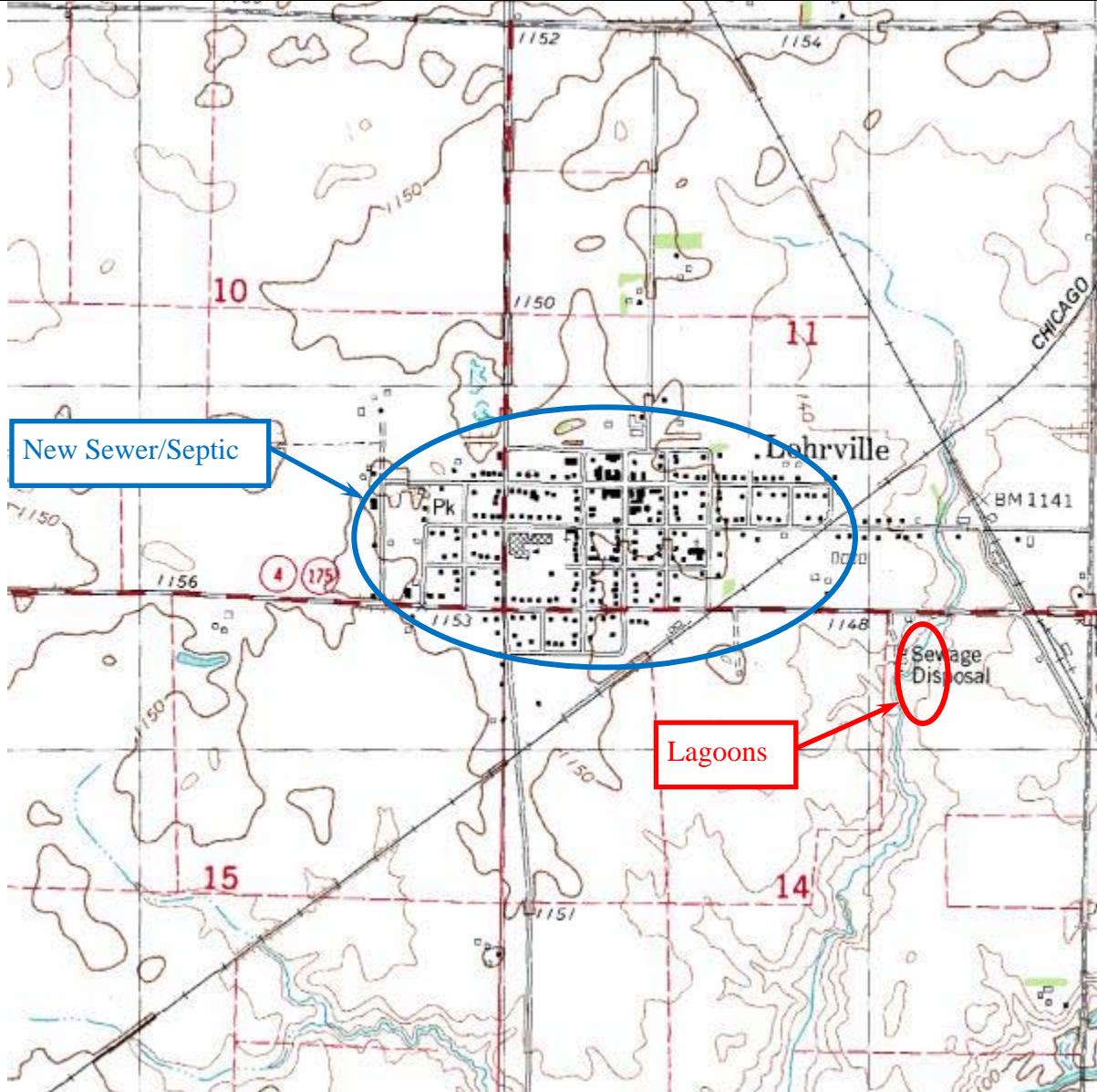
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**Kate Bussanmas**  
Environmental Review Services  
State Revolving Fund  
Iowa Department of Natural Resources

Lohrville Quadrangle  
Section: 10,11,14,15 Township: 86 N, Range: 32 W  
Scale: 1 Inch = 2,000 Feet



North



## USGS Topographic Map

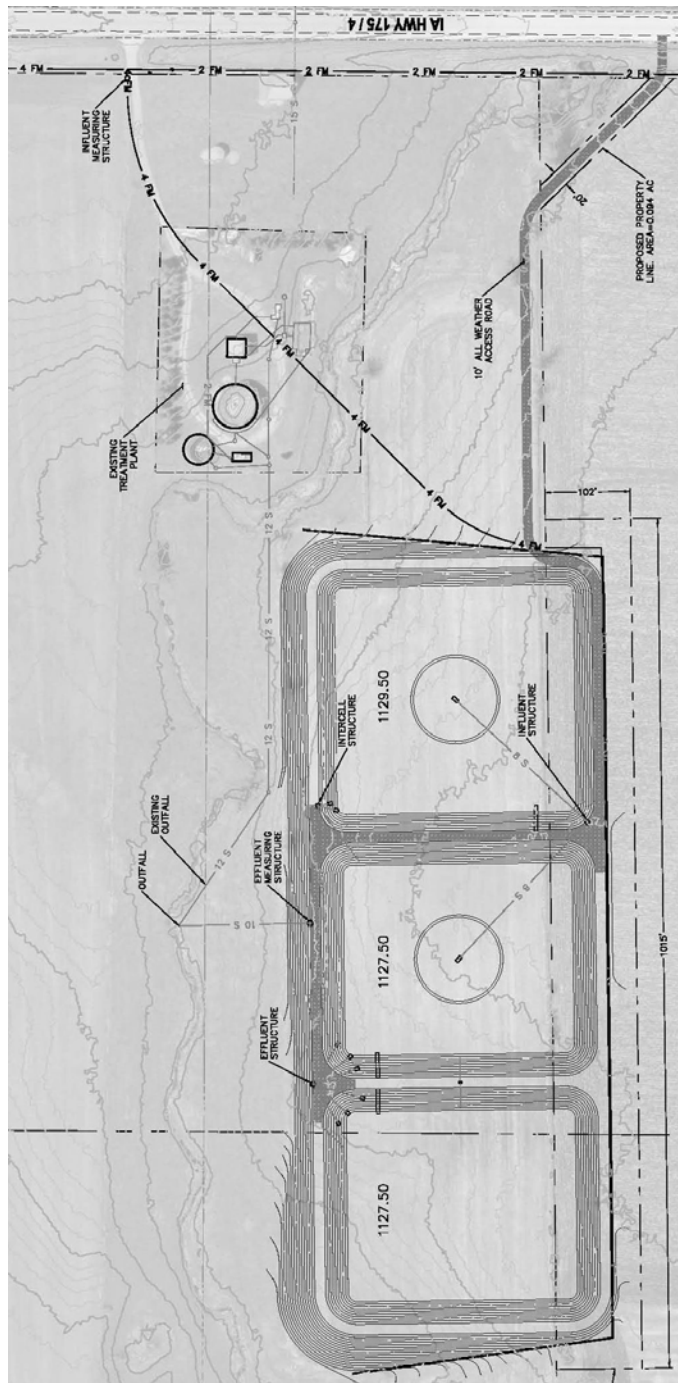
Lohrville Wastewater Upgrades  
Lohrville, Iowa



State Revolving Fund  
401 SW 7<sup>th</sup> Street, Suite M  
Des Moines, IA 50309



Provided by Kuehl and Payer



## Aerial Photograph/Site Plan

Lagoons/WWTF Site  
Lohrville, Iowa



State Revolving Fund  
401 SW 7<sup>th</sup> Street, Suite M  
Des Moines, IA 50309

# Project Layout

