

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
ENVIRONMENTAL INFORMATION DOCUMENT

PROJECT IDENTIFICATION

Applicant: City of Mechanicsville
County: Cedar
State: Iowa

SRF Number: CS1920937 01
Iowa DNR Project Number: S2017-0296A

COMMUNITY DESCRIPTION

Location: The City of Mechanicsville is located in Cedar County, Iowa approximately 30 miles southeast of Cedar Rapids, Iowa and approximately 50 miles northeast of Davenport, Iowa.

Population: The population of Mechanicsville according to the 2010 US Census was 1,146. The design population equivalent for the year 2040 is 1,260.

Current Waste Treatment: The existing wastewater treatment facility was originally constructed in 1987 as a two-cell aerated lagoon system. In 2005, a quiescent cell was constructed, converting the treatment facility to a 3-cell system. Currently, the lagoon cells are not adequately sized to handle permitted flows and hydraulic capacity. The City will be unable to comply with proposed ammonia discharge limits using the existing treatment system.

PROJECT DESCRIPTION

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

Proposed Improvements: The project includes construction of continuous aerated discharge lagoons, followed by Submerged Attached Growth Reactors (SAGR) and all associated underground piping and resurfacing as necessary on existing treatment plant property. A new blower building and new sampler building will be constructed. An Ultraviolet (UV) disinfection system will be installed. Project work also includes construction of an earthen berm and pit area, installing a new lagoon aeration system, filling with gravel, and topping with mulch. The proposed borrow pit will require up to 12 feet deep excavation as marked in the attached site sketches. A standby generator will be installed.

Receiving Stream: The treated wastewater from the proposed facility will discharge to an Unnamed Creek, tributary to Pioneer Creek. It has a use stream designation of A-2 and Class B(WW2). Class A2 waters are secondary contact recreational use waters in which recreational or other uses may result in contact with the water that is either incidental or accidental. During the recreational use, the probability of ingesting appreciable quantities of water is minimal. Waters designated Class B(WW2) are those in which flow or other physical characteristics are capable of supporting a resident aquatic community that includes a variety of native nongame fish and invertebrate species.

ALTERNATIVES CONSIDERED

Alternatives Considered: Four alternatives were considered: existing aerated lagoon treatment facility, land application, mechanical treatment processes, and enhanced treatment aerated lagoon. The existing aerated lagoon treatment facility will not likely be able to meet treatment requirements and future ammonia permit limits. Land application was determined to be economically inefficient and not viable. The four mechanical systems reviewed were considered cost prohibitive. The enhanced treatment aerated lagoon would be able to meet new discharge limits while limiting cost.

Reasons for Selection of Proposed Alternative: The enhanced treatment aerated lagoon with added UV disinfection was selected. This system will be able to cost effectively meet the City's current limits and capacity as well as accommodate future nutrient discharge limits and capacity.

The project site was selected for the availability of land (it is already City-owned), proximity to existing treatment structures, engineering criteria, as well as minimization of the impacts to the environment.

MEASURES TAKEN TO ASSESS IMPACT**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
- Natural Resources Conservation 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
- 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. 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 (567 Iowa Administrative Code IAC 23.3(2)“c”).

This project may require the disposal of sewage sludge. It is the responsibility of the applicant to ensure that the disposal of any sewage sludge complies with applicable requirements found in 40 CFR Part 503 and 567 Iowa Administrative Code IAC 67. Properties that contain regulated materials are located within or very near the proposed project area. If construction activities find an unknown area of contamination, it is the responsibility of the applicant to follow the procedure for notification of hazardous conditions (567 IAC 131.2). Excavated soil that contains a hazardous substance must be assessed and properly disposed of (567 IAC 100.4).

Historical/Archaeological: Various Native American tribes with an interest in the area were provided information regarding the project. A Phase I Archeological investigation of the proposed project area was completed. Results from this investigation will be submitted to the State Historical Preservation Office (SHPO) for review. The project will only proceed as planned if a determination of either “no historic properties affected” or “no adverse affect on historic properties” can be appropriately reached with or without mitigation. 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).

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 concurs that the project will not impact wetlands. According to the Iowa DNR Water Resources Section, this project will not impact the 100-year floodplain. The project will not impact any wild and scenic rivers as none exist within the State of Iowa. The U.S. Fish & Wildlife Service Section 7 Technical Assistance website consultation determined, 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.

No adverse impacts are expected to result from this project, such as those to surface water quantity, or groundwater quality or quantity. 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. An analysis of the farmland conversion impact was completed. Removing this area from production should not have a significant impact on corn or soybean production in the area, nor should it have significant impact on the agricultural industry in the area. 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 Irrecoverable 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 be improved treatment of the wastewater from the City of Mechanicsville, compliance with effluent discharge permit limits, reduced discharge of pollutants and nutrients to the receiving stream, and improved water quality in the receiving stream.

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.
- 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 or alter the character of existing residential areas.
- The project should not have a significant impact on production in the area, nor should it have significant impact on the agricultural industry in the area.
- The project will not affect the 100-year flood plain.
- The project will not have effect on parklands, preserves, other public lands, or areas of recognized scenic or recreational value.
- A Phase I Archeological investigation of the proposed project area was completed. Results from this investigation will be submitted to the State Historical Preservation Office for review. The project will only proceed as planned if a determination of either “no historic properties affected” or “no adverse affect on historic properties” can be appropriately reached with or without mitigation.
- 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 (567 IAC 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.

The project description, scope, and anticipated environmental impacts detailed above are accurate and complete to the best to my knowledge.

Signature of the Mayor, City of Mechanicsville

Date

Printed Name of the Mayor, City of Mechanicsville

USGS 7.5 Minute Quadrangle: Stanwood
Section: 18, Township: 82 N, Range: 03 W
Date: 1965
Scale: 1 Inch = 2,000 Feet



North

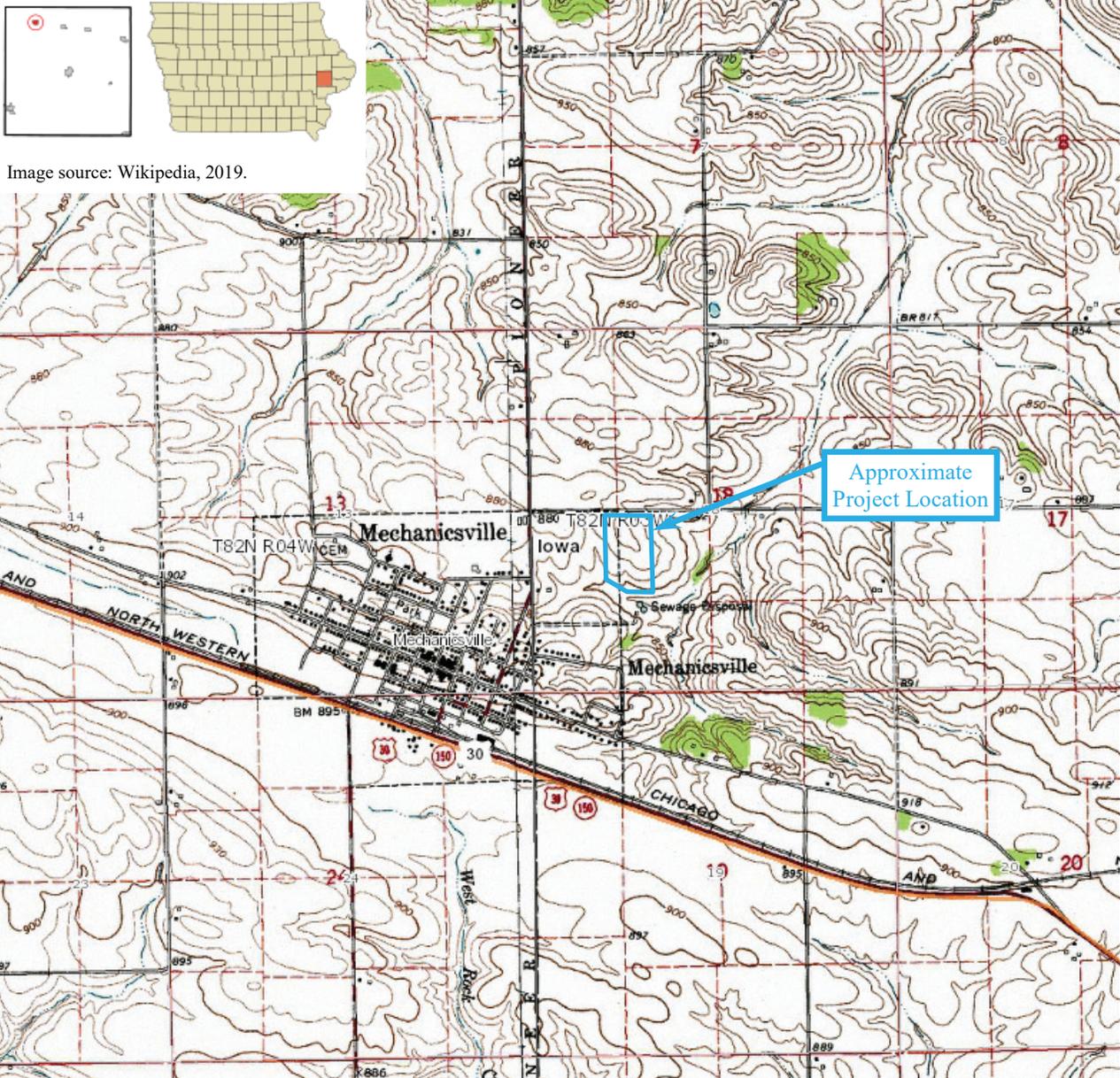


Image source: Wikipedia, 2019.

USGS Topographic Map

Mechanicsville Wastewater Treatment Plant Improvement Project
Mechanicsville, IA

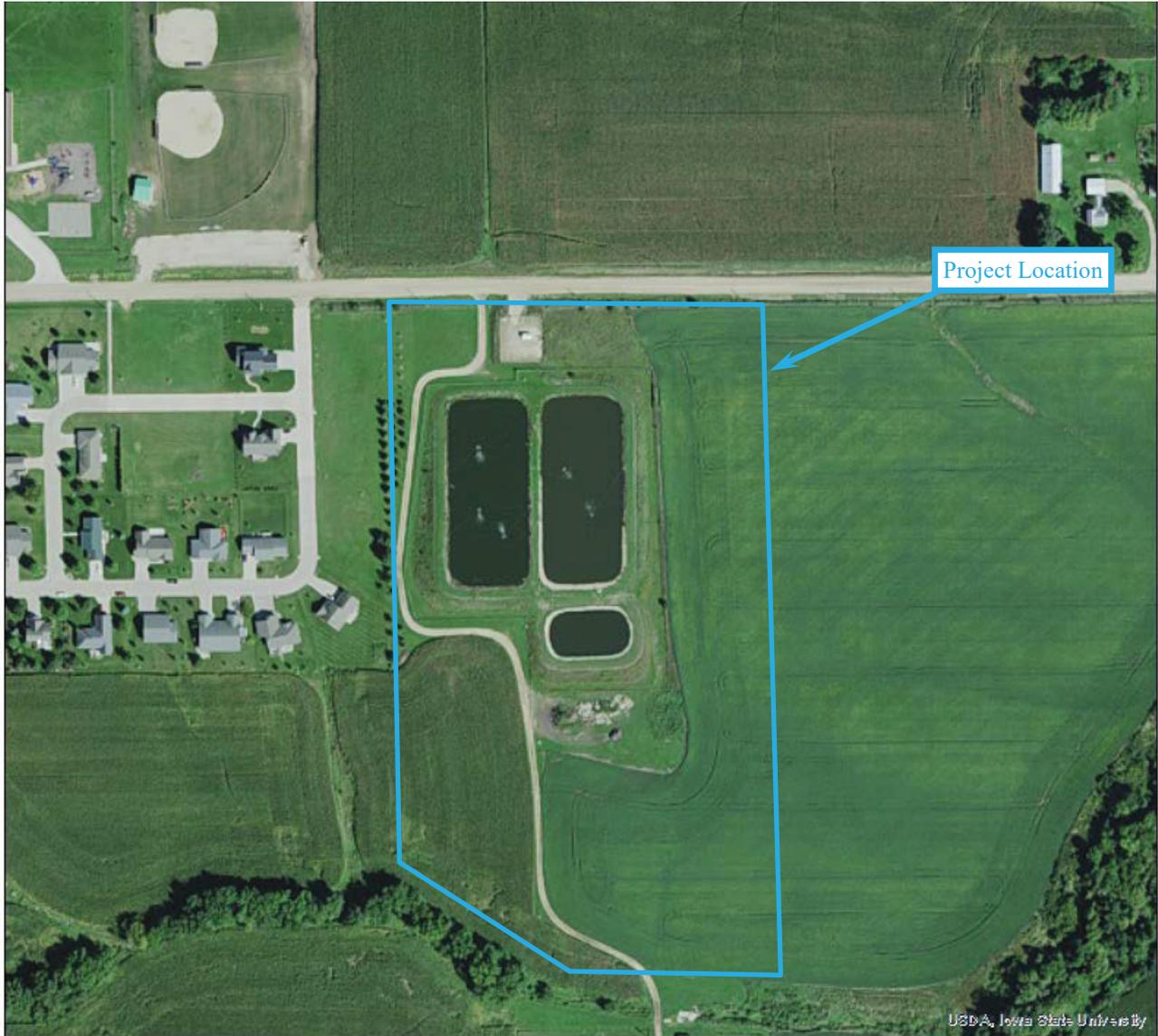


State Revolving Fund
502 East 9th Street
Des Moines, IA 50319-0034

Location information provided by Veenstra & Kimm, Inc



North



Aerial Photograph

Mechanicsville Wastewater Treatment Plant Improvement Project
Mechanicsville, IA



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