

Why You Should Read This: The document below reviews the environmental impact likely from a State Revolving Fund project. As part of the environmental review, you are entitled to provide comments. 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

May 23, 2025

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 Mason City

County: Cerro Gordo

State: Iowa

SRF Number: CS1921175 01

Iowa DNR Project Number: 2023-0391A

The City of Mason City, Iowa is planning an upgrade to their wastewater treatment infrastructure. 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 Mason City is located in Cerro Gordo County, Iowa approximately 9 miles east of Clear Lake, Iowa and 27 miles west of Charles City, Iowa. The population of Mason City according to the 2020 US Census was 27,338 people. The design population equivalent for the year 2044 is 31,401 people.

The City of Mason City currently operates the Mason City Water Reclamation Facility (WRF) as a secondary treatment facility. The WRF was originally constructed in 1953 with several improvements constructed between 1997 and 2010 that included expansion and age-related equipment replacements. The current treatment process consists of pre-treatment, primary clarifiers, trickling filters, intermediate clarifiers, aeration basins, final clarifiers, and UV disinfection, along with odor control equipment. Sludge handling consists of raw sludge storage, sludge thickening, primary and secondary digestion, cold sludge storage, lagoon mixing, and load out. Treated wastewater is discharged through a 48-inch outfall line to the Winnebago River. While the WRF is in good working condition and meeting current NPDES limits for BOD, TSS, and ammonia nitrogen as it was designed to do, the existing treatment system has not been meeting the proposed removal goals of the Iowa DNR's Nutrient Reduction Strategy for total nitrogen and total phosphorus. An evaluation of the WRF determined that operational changes of the existing treatment system are not feasible to meet nutrient reduction goals, nor is source reduction of total nitrogen and total phosphorus within the collection system.

The purpose of this project is to make improvements to the wastewater treatment facilities to enhance their reliability for total nitrogen and total phosphorus treatment, and to safely and reliably operate the City of Mason City's wastewater treatment system for the next 20 years. The project is a conversion from the existing fixed film process to an Enhanced Biological Nutrient Removal (EBNR) A2O Process with aerobic, anaerobic, and anoxic basins. This conversion will also include demolition of several structures (such as trickling filters, raw sludge storage tank, intermediate clarifiers #1 & #2, the intermediate clarifier splitter box) and abandonment of others (such as pre-aeration basin and pump station #2). Miscellaneous piping/utility alterations and replacement of aging equipment will also occur at the existing treatment facility to enable this conversion.

The treated wastewater from the WRF discharges to the Winnebago River, a Class A-1, B(WW-1), and HH designated stream. A-1 waters are waters in which recreational or other uses may result in prolonged and direct contact with the water, involving considerable risk of ingesting water in quantities sufficient to pose a health hazard. Such activities would include, but not be limited to, swimming, diving, water skiing, and water contact recreational canoeing. B(WW-1) waters are waters in which temperature, flow and other habitat characteristics are suitable to maintain warm water game fish populations along with a resident aquatic community that includes a variety of native nongame fish and invertebrate species. These waters generally include border rivers, large interior rivers, and the lower segments of medium-size tributary streams. HH waters are waters in which fish are routinely harvested for human consumption or waters both designated as a drinking water supply and in which fish are routinely harvested for human consumption.

Positive environmental effects will be improved treatment of the wastewater from the City of Mason City, compliance with effluent discharge permit limits, reduced discharge of pollutants to the receiving stream, and improved water quality in the receiving stream.

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 provided that any tree cutting is conducted between October 1 and March 31 to avoid impacting endangered bats. 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 all necessary floodplain development permits, state and local, are obtained and the terms of which are abided by. The Iowa DNR issued Flood Plain Development Permit Number 2024-1736FP-01 on December 6, 2024. The City of Mason City determined that the project will not require a city flood plain permit. 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. If construction activities uncover any archaeological item(s), the City should notify SRF staff. If human remains are discovered then state law also applies IC 263B.

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.

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.

It has been determined that the proposed action will result in no significant impacts to the surrounding environment. This determination is based on 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. Your comments can be sent to SRF-PC@dnr.iowa.gov or directly to me at rebecca.flynnkettman@dnr.iowa.gov or (515) 204-5672.

Sincerely,

Rebecca Flynn Kettman
Environmental Specialist
6200 Park Ave, Suite 200
Des Moines, IA 50321

Enclosures: Environmental Assessment
Project Map

Distribution

List (email): WHKS
Edward Boling, Council on Environmental Quality
Jake Hansen, Iowa Department of Agriculture and Land Stewardship
Ken Sharp, Iowa Department of Health & Human Services
Mindy Wells, Iowa Department of Health & Human Services
Chad Sands, Iowa Economic Development Authority
Alicia Vasto, Iowa Environmental Council
Michael Schmidt, Iowa Environmental Council
Tracy Scebold, Iowa Finance Authority
Tony Toigo, Iowa Finance Authority
Lee Wagner, Iowa Finance Authority
Mickey Shields, Iowa League of Cities
Jane Clark, Sierra Club

Josh Mandelbaum, Environmental Law and Policy Center
Kate Sand, USDA Rural Development
Tokey Boswell, USDOl, National Park Service, Midwest Region
Kraig McPeck, Fish and Wildlife Service, Rock Island Field Office
Ann D'Alfonso, USEPA Region VII
Kelly Beard-Tittone, USEPA Region VII
The Globe Gazette

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IOWA STATE REVOLVING FUND
ENVIRONMENTAL ASSESSMENT DOCUMENT

PROJECT IDENTIFICATION

Applicant: City of Mason City
County: Cerro Gordo
State: Iowa

SRF Number: CS1921175 01
Iowa DNR Project Number: 2023-0391A

COMMUNITY DESCRIPTION

Location: The City of Mason City is located in Cerro Gordo County, Iowa approximately 9 miles east of Clear Lake, Iowa and 27 miles west of Charles City, Iowa.

Population: The population of Mason City according to the 2020 US Census was 27,338 people. The design population equivalent for the year 2044 is 31,401 people.

Current Waste Treatment: The City of Mason City currently operates the Mason City Water Reclamation Facility (WRF) as a secondary treatment facility. The WRF was originally constructed in 1953 with several improvements constructed between 1997 and 2010 that included expansion and age-related equipment replacements. The current treatment process consists of pre-treatment, primary clarifiers, trickling filters, intermediate clarifiers, aeration basins, final clarifiers, and UV disinfection, along with odor control equipment. Sludge handling consists of raw sludge storage, sludge thickening, primary and secondary digestion, cold sludge storage, lagoon mixing, and load out. Treated wastewater is discharged through a 48-inch outfall line to the Winnebago River. While the WRF is in good working condition and meeting current NPDES limits for BOD, TSS, and ammonia nitrogen as it was designed to do, the existing treatment system has not been meeting the proposed removal goals of the Iowa DNR's Nutrient Reduction Strategy for total nitrogen and total phosphorus. An evaluation of the WRF determined that operational changes of the existing treatment system are not feasible to meet nutrient reduction goals, nor is source reduction of total nitrogen and total phosphorus within the collection system.

PROJECT DESCRIPTION

Purpose: The purpose of this project is to make improvements to the wastewater treatment facilities to enhance their reliability for total nitrogen and total phosphorus treatment, and to safely and reliably operate the City of Mason City's wastewater treatment system for the next 20 years.

Proposed Improvements: The project is a conversion from the existing fixed film process to an Enhanced Biological Nutrient Removal (EBNR) A2O Process with aerobic, anaerobic, and anoxic basins. This conversion will also include demolition of several structures (such as trickling filters, raw sludge storage tank, intermediate clarifiers #1 & #2, the intermediate clarifier splitter box) and abandonment of others (such as pre-aeration basin and pump station #2). Miscellaneous piping/utility alterations and replacement of aging equipment will also occur at the existing treatment facility to enable this conversion.

Receiving Stream: The treated wastewater from the WRF discharges to the Winnebago River, a Class A-1, B(WW-1), and HH designated stream. A-1 waters are waters in which recreational or other uses may result in prolonged and direct contact with the water, involving considerable risk of ingesting water in quantities sufficient to pose a health hazard. Such activities would include, but not be limited to, swimming, diving, water skiing, and water contact recreational canoeing. B(WW-1) waters are waters in which temperature, flow and other habitat characteristics are suitable to maintain warm water game fish populations along with a resident aquatic community that includes a variety of native nongame fish and invertebrate species. These waters generally include border rivers, large interior rivers, and the lower segments of medium-size tributary streams. HH waters are waters in which fish are routinely harvested for human consumption or waters both designated as a drinking water supply and in which fish are routinely harvested for human consumption.

ALTERNATIVES CONSIDERED

Alternatives Considered: Treatment options using agricultural fields and/or natural treatment options were investigated, however, the size of the WRF's discharge flow rendered these options unfeasible due to the significant amount of land that would be needed. Since operational changes to the existing treatment system and source reduction in the collection system are also not feasible options, the City evaluated several technology alternatives likely to achieve reasonable effluent limits for the Iowa Nutrient Reduction Strategy. The five nutrient removal technologies the City considered include:

- Option 1 – Conversion to an EBNR A2/O Activated Sludge Process
- Option 2 – Conversion to a BNR MLE Activated Sludge Process without Trickling Filters
- Option 3 – Reverse Order of Existing Aeration Basins and Trickling Filters, Convert to MLE Process
- Option 4 – Conversion to a BNR MLE Activated Sludge Process with Trickling Filters
- Option 5 – Addition of IFAS to Existing Activated Sludge System

Reasons for Selection of Proposed Alternative: The No-Action alternative is not viable due to the existing inability of the treatment plant to adequately treat for total nitrogen and total phosphorus. The City selected Option 1 to convert the WRF to an EBNR A2/O Activated Sludge Process as a proven technology with many working examples in the upper Midwest. The City considered economic impacts including capital costs, impacts to user rates, operating and maintenance costs, and environmental impacts to evaluate each option. Option 1 has a lower annual operation and maintenance cost, especially considering future cost increases in treatment chemicals. Option 1 also has a greater potential for future operational flexibility, less reliance on chemical supplementation, and less sludge production than the other options. The project site was selected for the availability of land (it is already City-owned) as well as minimization of the impacts to the environment.

MEASURES TAKEN TO ASSESS IMPACT

Public Involvement: A public hearing was held on May 20, 2025 at 7:00 PM at the Mason City Public Library, Mason City Room. The public notice of this hearing was made available by publication in The Globe Gazette on April 17, 2025 and placed on the City website on April 18, 2025. 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 Flood Plain Management 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
- Mason City Historic Preservation Commission

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 one or more acres of soil; 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. Provided that this permit is obtained and the terms of which are abided by, 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 does include construction of equipment that has a potential to emit criteria pollutants and/or hazardous air pollutants. However, the equipment’s potential to emit and anticipated actual emissions are below minor source reporting thresholds.

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: This project will not be receiving federal funds through SRF. As such, this project is not considered a federal undertaking as defined in §300320 under the National Historic Preservation Act, 54 U.S.C. 300101 et seq. for the purpose of the SRF environmental review. The State Historical Preservation Office (SHPO), the Certified Local Government, and various Native American tribes with an interest in the area were provided information regarding the project. The DNR has determined that this undertaking will result in no historic properties affected based on the scope of the project and the findings of an archaeological survey conducted on the project property. However, if construction activities uncover any archaeological item(s), the City should notify SRF staff. If human remains are discovered then state law also applies IC 263B.

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. 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 protected species or their habitats provided that any tree cutting is conducted between October 1 and March 31 to avoid impacting endangered bats. 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. According to the Iowa DNR Flood Plain Management Section, this project will not impact the 100-year floodplain provided all necessary floodplain development permits, state and local, are obtained and the terms of which are abided by. The Iowa DNR issued Flood Plain Development Permit Number 2024-1736FP-01 on December 6, 2024. The City of Mason City determined that the project will not require a city flood plain permit. 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. The proposed project is within the present corporate limits of Mason City 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.

Nondiscrimination: All programs, projects, and activities undertaken by DNR in the SRF programs are subject to federal anti-discrimination laws, including the Civil Rights Act of 1964, section 504 of the Rehabilitation Act of 1973, and section 13 of the Federal Water Pollution Control Amendments of 1972. These laws prohibit discrimination on the basis of race, color, national origin, sex, disability, or age.

POSITIVE ENVIRONMENTAL EFFECTS TO BE REALIZED FROM THE PROPOSED PROJECT

Positive environmental effects will be improved treatment of the wastewater from the City of Mason City, compliance with effluent discharge permit limits, reduced discharge of pollutants 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 provided that any tree cutting is conducted between October 1 and March 31 to avoid impacting endangered bats. 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 all necessary floodplain development permits, state and local, are obtained and the terms of which are abided by. The Iowa DNR issued Flood Plain Development Permit Number 2024-1736FP-01 on December 6, 2024. The City of Mason City determined that the project will not require a city flood plain permit.
- 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. If construction activities uncover any archaeological item(s), the City should notify SRF staff. If human remains are discovered then state law also applies IC 263B.
- 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.

THEREFORE:

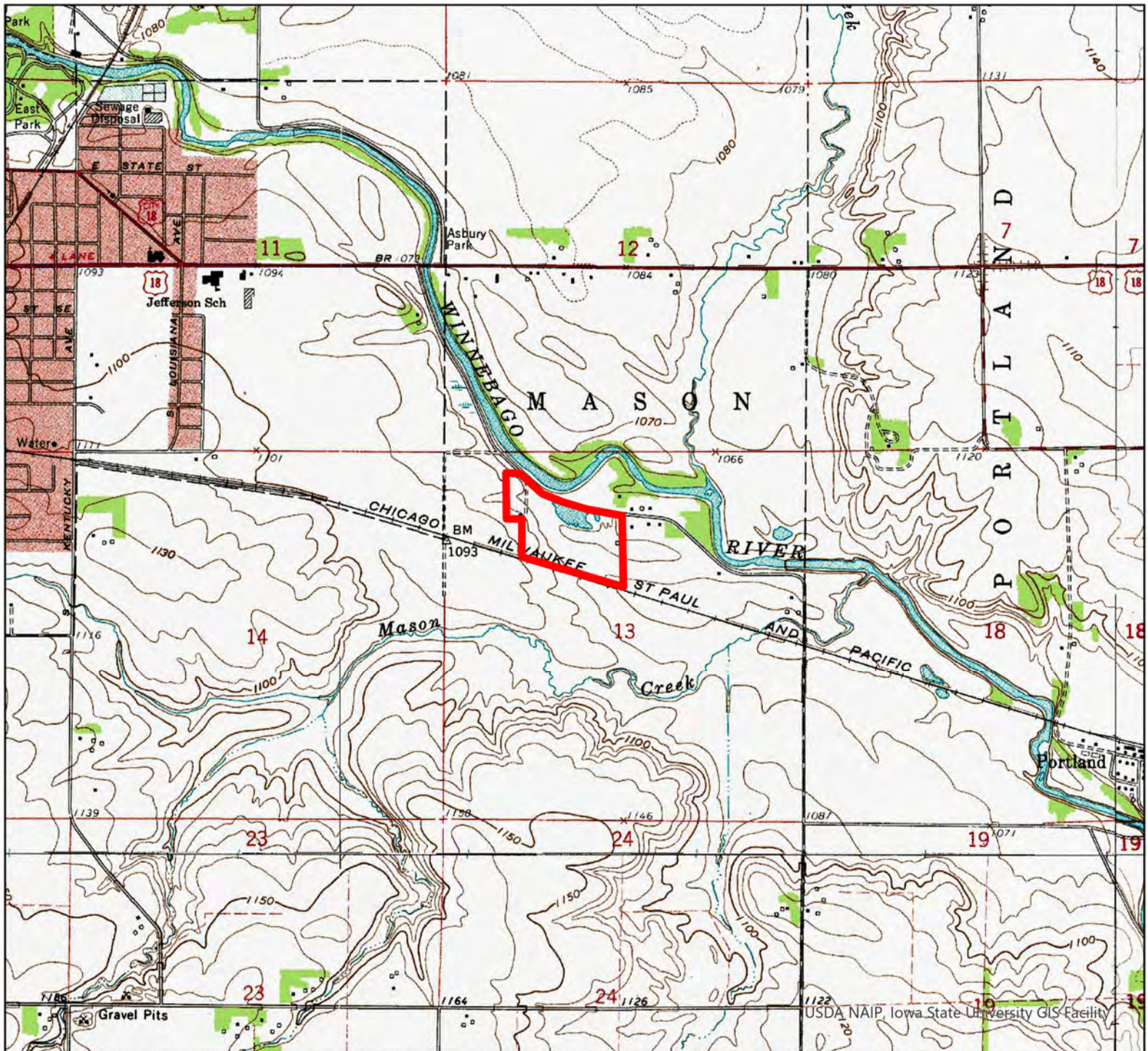
The above project conforms to the criteria in 567 Iowa Administrative Code 92.8(1)“b” relating to compliance with the National Environmental Policy Act of 1969. This Environmental Assessment Document (EAD) outlines the justification that the environmental review for the proposed project should be classified as a Finding of No Significant Impact (FNSI) and does not rise to the significance of an Environmental Impact Statement (EIS) in accordance with 40 CFR § 1501.5.

Rebecca Flynn Kettman

Environmental Review Specialist

State Revolving Fund


Iowa Department of Natural Resources



USGS Topographic Map

City of Mason City WRF Improvements
Mason City, IA (Cerro Gordo County)

Legend

 Proposed Project Area

0 1,500 3,000 6,000 Feet






USDA NAIP, Iowa State University GIS Facility

City of Mason City WRF Improvements
Mason City, IA (Cerro Gordo County)



Legend

 Proposed Project Area