<u>Why You Should Read This</u>: 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

April 1, 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 Kingsley SRF Number: FS-75-24-DWSRF-040

County: Plymouth Iowa DNR Project Number: W2023-0626

State: Iowa

The City of Kingsley, Iowa is planning an upgrade to their drinking water 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 Kingsley is located in Plymouth County, Iowa approximately 110 southeast miles of Sioux Falls, South Dakota and 182 miles northwest of Des Moines, Iowa. The population of Kingsley according to the 2020 US Census was 1,396. The design population equivalent for the year 2045 is 1,682.

Currently, the City of Kingsley operates two shallow wells, Wells #1 and #3, and a deep well, Well #4. The two shallow wells obtain water from the alluvial aquifer. The alluvial aquifer is generally shallow sand and gravel deposits located in floodplains or river channels. Alluvial aquifers do not have confining layers and are considered highly susceptible to surface contamination by the IDNR. Well #4 is in the Pleistocene buried sand and gravel aquifer. These aquifers are also located within floodplains or ancient river valleys which were buried beneath more recent sediment. This aquifer has a confining layer between 50 and 100 feet thick and is considered slightly susceptible to surface contamination. Due to increasing nitrate concentrations, well #4 is required to pump with the shallow wells for proper blending to maintain a nitrate level below maximum contaminant level (MCL). The City has discussed plugging Well #1 and decommissioning Well #3 because of nitrate issues. Well #4 will continue to be used for drinking water supply, however it cannot be used alone to meet the demand.

The City does not have any existing water treatment equipment or notable processes, with the exception of chemical injection. There is an existing building, the pump house, where raw water from the wells combines, and chemicals are injected before water enters the distribution system. Raw water is dosed with C-5 Polyphosphate for sequestration of iron and manganese, then dosed with sodium hypochlorite for disinfection. Sodium hypochlorite is dosed at a rate high enough to maintain a free chlorine residual throughout the distribution system. Treated water is pumped to the distribution system and the elevated storage tank.

The purpose of this project is to make improvements to the drinking water facilities to enhance their reliability, increase capacity, efficiently treat raw water to provide the community with water meeting all the MCLs, and reliably operate the City of Kingsley's drinking water system for the next 20 years.

The proposed project includes the drilling of new deep wells and the construction of a new treatment facility building. An access road to the treatment plant and well sites are also planned. A new raw water transmission main from the wells to the new treatment building and a new finished water main from the facility to the distribution system is proposed. Trenched construction is anticipated for the raw water transmission main at a minimum of six feet deep. Trenched and trenchless construction is anticipated for the finished water main at a minimum of six ft depth and four ft wide. Project will also include a clearwell. Excavations for building and clearwell may be up to 20' deep. Also proposed is the installation of a generator and new electrical service.

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 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 (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 <a href="mailto:SRF-PC@dnr.iowa.gov">SRF-PC@dnr.iowa.gov</a> or directly to me at <a href="mailto:Nicole.Osborn@dnr.iowa.gov">Nicole.Osborn@dnr.iowa.gov</a> or (515) 321-7601.

Sincerely,

Nicole Osborn Environmental Specialist 6200 Park Ave, Suite 200 Des Moines, IA 50321

Enclosures: Environmental Assessment

**Project Map** 

Distribution

List (email): ISG, Inc.

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

Rick Andriano, 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, USDOI, National Park Service, Midwest Region Kraig McPeek, Fish and Wildlife Service, Rock Island Field Office

Ann D'Alfonso, USEPA Region VII

Kelly Beard-Tittone, USEPA Region VII The Record <u>Why You Should Read This</u>: The document below reviews the environmental impact likely from a State Revolving Fund (SRF) 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.



#### PROJECT IDENTIFICATION

**Applicant:** City of Kingsley

**County:** Plymouth

State: Iowa

SRF Number: FS-75-24-DWSRF-040 lowa DNR Project Number: W2023-0626

#### **COMMUNITY DESCRIPTION**

**Location:** The City of Kingsley is located in Plymouth County, Iowa approximately 110 southeast miles of Sioux Falls, South Dakota and 182 miles northwest of Des Moines, Iowa.

**Population:** The population of Kingsley according to the 2020 US Census was 1,396. The design population equivalent for the year 2045 is 1,682.

Current Source of Water: Currently, the City of Kingsley operates two shallow wells, Wells #1 and #3, and a deep well, Well #4. The two shallow wells obtain water from the alluvial aquifer. The alluvial aquifer is generally shallow sand and gravel deposits located in floodplains or river channels. Alluvial aquifers do not have confining layers and are considered highly susceptible to surface contamination by the IDNR. Well #4 is in the Pleistocene buried sand and gravel aquifer. These aquifers are also located within floodplains or ancient river valleys which were buried beneath more recent sediment. This aquifer has a confining layer between 50 and 100 feet thick and is considered slightly susceptible to surface contamination. Due to increasing nitrate concentrations, well #4 is required to pump with the shallow wells for proper blending to maintain a nitrate level below maximum contaminant level (MCL). The City has discussed plugging Well #1 and decommissioning Well #3 because of nitrate issues. Well #4 will continue to be used for drinking water supply, however it cannot be used alone to meet the demand.

**Current Water Treatment and Quality:** The City does not have any existing water treatment equipment or notable processes, with the exception of chemical injection. There is an existing building, the pump house, where raw water from the wells combines, and chemicals are injected before water enters the distribution system. Raw water is dosed with C-5 Polyphosphate for sequestration of iron and manganese, then dosed with sodium hypochlorite for disinfection. Sodium hypochlorite is dosed at a rate high enough to maintain a free chlorine residual throughout the distribution

system. Treated water is pumped to the distribution system and the elevated storage tank.

## **PROJECT DESCRIPTION**

**Purpose:** The purpose of this project is to make improvements to the drinking water facilities to enhance their reliability, increase capacity, efficiently treat raw water to provide the community with water meeting all the MCLs, and reliably operate the City of Kingsley's drinking water system for the next 20 years.

**Proposed Improvements:** The proposed project includes the drilling of new deep wells and the construction of a new treatment facility building. An access road to the treatment plant and well sites are also planned. A new raw water transmission main from the wells to the new treatment building and a new finished water main from the facility to the distribution system is proposed. Trenched construction is anticipated for the raw water transmission main at a minimum of six feet deep. Trenched and trenchless construction is anticipated for the finished water main at a minimum of six ft depth and four ft wide. Project will also include a clearwell. Excavations for building and clearwell may be up to 20' deep. Also proposed is the installation of a generator and new electrical service.

#### **ALTERNATIVES CONSIDERED**

Each alternative in this section includes an on-site generator, installation of two new deep wells, assumed plugging of existing two shallow wells, installation of new raw water transmission main from Well #4 to the proposed treatment plant site, site piping, finished watermain to reconnect to the existing 8" feeder main to the system and tower, all site work, electrical service connection, electrical and controls equipment, mechanical and HVAC equipment, and additional site improvements.

## **Alternatives Considered:**

Alternative #1 – Aeration, Detention, Pressure Filtration: This alternative keeps each part of the water treatment process separate from one another and will be housed in an approximately 4,400 square-foot building. Raw water will enter the facility and cascade through an induced draft aerator for oxidation of iron and removal of hydrogen sulfide. Next, the water will flow into the detention tank to allow the oxidation reactions to complete. The detention tank will be concrete or steel construction and be sized to provide a minimum of 30 minutes of detention time. Low service pumps (LSP) will pump water from the detention tank through the pressure filters. The pressure filters will physically remove the oxidized iron. Water will then move under pressure from the filters to a clearwell, for plant storage and disinfection. The clearwell will be a steel standpipe style tank or concrete tank size based on 30 minutes of reaction time. Finally, high service pumps (HSP) will pump water from the clear well to the distribution system and water tower. Probable cost for this alternative is \$7.1 million.

Alternative #2 – Packaged System: This alternative combines most of the water treatment process into one unit of equipment and will be housed in an approximately 3,500 square-foot building. Raw water will enter the facility and flow through a unit of combined aeration, detention, and filtration. Examples of this equipment include an Aeralator and Dualator. These combined units perform the same functions as the equipment described in Alternative 1 and are a proven technology in the state of lowa. Then, water will flow to a clearwell for disinfection reaction time and plant storage. The use of low service pumps (LSP) for this will be determined in design. High service pumps (HSP) will take finished water from the clearwell to the distribution system.

Reasons for Selection of Proposed Alternative: Alternative #2 is the recommended treatment improvements as this alterative would increase the firm capacity of the drinking water system to meet projected water demands through 2045 and provide a new water treatment plant with a packaged system of equipment for aeration, detention, and filtration of raw water. The estimated cost for this alternative is \$6.4 million, which is lower than Alternative #11

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

**Public Involvement:** A public hearing was held on January 6, 2025 at 7:00PM at the City's regular council meeting. The public notice of this hearing was made available by publication in The Record on November 21, 2024 and posted in three public locations on November 26, 2024. 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

**Natural Resources Conservation 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

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").

Historical/Archaeological: The State Historical Preservation Office (SHPO) and various Native American tribes with an interest in the area were provided information regarding the project. The DNR has determined, and the SHPO has concurred (R&C# 241075204) that this undertaking will result in "no historic properties affected" based on the scope of the project, the prior use of the project area, and the findings of the Phase I Archeological Survey conducted on the project property. 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 interest, 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. 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.

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

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 Kingsley in areas zoned residential, commercial, or industrial. 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 a 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 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 water quality. The new water treatment building will ensure that the citizens of Kingsley will have water quality that meets compliance with department requirements and the new wells will improve the reliability of drinking water system.

### 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 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 (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 44.10(3) 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.

## **Nicole Osborn**

Environmental Review Specialist State Revolving Fund Iowa Department of Natural Resources

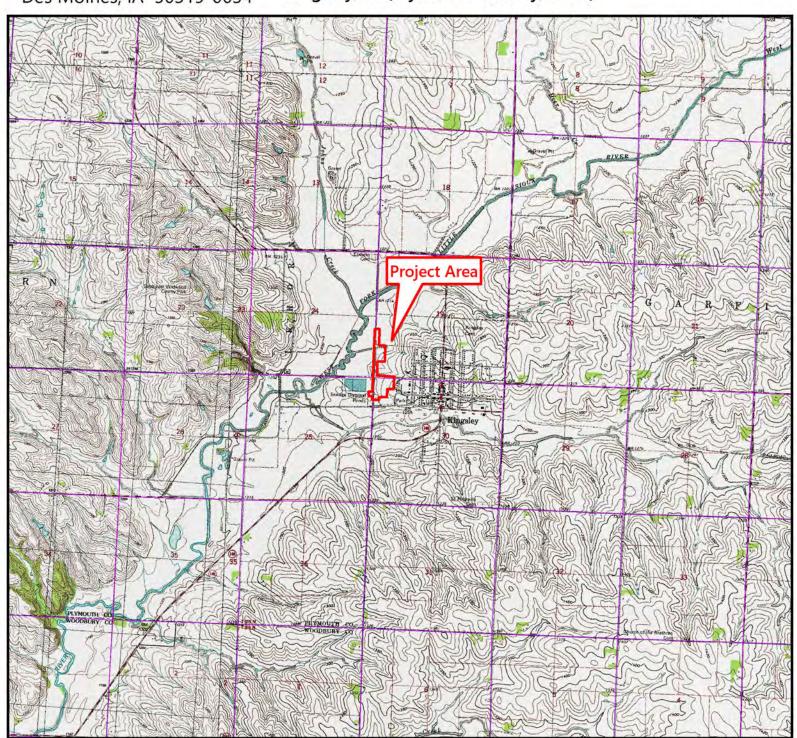


State Revolving Fund 502 East 9th Street Des Moines, IA 50319-0034

# **Topographical Map**

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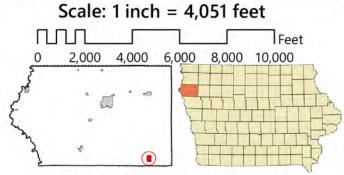
City of Kingsley Water System Improvements Kingsley, IA (Plymouth County, Iowa)



USGS 7.5 Minute Quadrangle: Kingsley Section: 19, 24, 25, 30 Township: 90 N,

Range: 44 W, 43 W

Date: 1969



Scott County. Image source: Wikipedia, 2023.



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

## **Aerial Map**

1

City of Kingsley Water System Improvements Kingsley, IA (Plymouth County, Iowa)



USGS 7.5 Minute Quadrangle: Kingsley Section: 19, 24, 25, 30 Township: 90 N, Range: 44 W, 43 W

