

**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**

October 10, 2024

**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:** Des Moines Metropolitan Wastewater Reclamation Authority (WRA)      **SRF Number:** CS1921033 01  
**County:** Polk      **Iowa DNR Project Number:** S2021-0366A  
**State:** Iowa

WRA Southern Tier Interceptor Sewer Phase 10 Segment 23 and Southside Des Moines River Interceptor Sewer Phase 3 Segment 5 projects

The Wastewater Reclamation Authority (WRA) of Des Moines, Iowa is planning an upgrade to their wastewater infrastructure. The WRA 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 Des Moines Metropolitan Wastewater Reclamation Authority (WRA) is made-up of 17 metro area municipalities, counties and sewer districts. They work together to protect public health and to enhance the environment by recycling wastewater and being the preferred treatment facilities for hauled liquid wastes. This coverage area is located in central Iowa. This particular project, also called the Southern Tier Interceptor Sewer Phase 10 Segment 23 and Southside Des Moines Rive Interceptor Sewer Phase 3 Segment 5 projects, is located in central Des Moines.

The City of Des Moines is located in Polk County, Iowa approximately 167 miles west of Davenport, Iowa and 37 miles south of Ames, Iowa. The population of Des Moines according to the 2020 US Census was 214,133. In 2022 the WRA served a population of 550,000 people.

The WRA includes a conveyance system and a treatment facility. The conveyance system connects each of the participating communities in Dallas, Polk and Warren Counties to the wastewater treatment facility. The system includes 125 miles of sanitary sewer with pipe sizes up to 144 inches in diameter, equalization basins, and lift stations.

The treatment facility uses a combination of physical, advanced biological and chemical processes to treat the wastewater as it flows through the plant. These processes produce high quality reclaimed wastewater

discharged to the Des Moines River, treated biosolids that are land applied on farm fields for nutrient value and soil amendment, and refined biogas injected into the natural gas pipeline.

There is a significant need to monitor and prioritize areas where repairs, new installations, and ongoing maintenance to the sanitary sewer infrastructure is needed to prevent failure and allow the system to continue safely operating.

The treated wastewater from the DMWRA facility will discharge to the Des Moines River. It has a use stream designation of A-1, B(WW1). Class A-1 is designated as primary contact recreation uses and Class B(WW1) is designated for warmwater aquatic life use and for fish consumption uses.

The purpose of this project is to make improvements to the wastewater conveyance system to increase capacity and provide better flexibility in flow management to continue to safely and reliably operate the WRA's wastewater system for at least the next 20 years.

The proposed project includes the construction of approximately 9,500 linear feet of 48 inch or 54 inch sanitary sewer and approximately 2,500 linear feet of 108 inch or 120 inch sanitary sewer. The new sewers will be installed using primarily open cut methods, adjacent to the existing sewers. The average depth of construction will be between 15 feet and 20 feet. The top width of the trench will be approximately 25 feet to 30 feet.

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 provided the terms of Nationwide Permit #58 are abided by. 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. 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 [SRF-PC@dnr.iowa.gov](mailto:SRF-PC@dnr.iowa.gov) or directly to me at [Hailey.Andersen@dnr.iowa.gov](mailto:Hailey.Andersen@dnr.iowa.gov) or (515) 321-7385.

Sincerely,

Hailey Andersen  
Environmental Specialist  
6200 Park Ave, Suite 200  
Des Moines, IA 50321

Enclosures: Environmental Assessment  
Project Map

Distribution

List (email): Veenstra & Kimm, Inc.  
Winnebago Tribe of Nebraska  
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, USDO, 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  
Des Moines Register

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**IOWA STATE REVOLVING FUND**  
**ENVIRONMENTAL ASSESSMENT DOCUMENT**

**PROJECT IDENTIFICATION**

**Applicant:** Des Moines Metropolitan Wastewater Reclamation Authority (WRA)      **SRF Number:** CS1921033 01  
**County:** Polk      **Iowa DNR Project Number:** S2021-0366A  
**State:** Iowa

WRA Southern Tier Interceptor Sewer Phase 10 Segment 23 and Southside Des Moines River Interceptor Sewer Phase 3 Segment 5 projects

**COMMUNITY DESCRIPTION**

**Location:** The Des Moines Metropolitan Wastewater Reclamation Authority (WRA) is made-up of 17 metro area municipalities, counties and sewer districts. They work together to protect public health and to enhance the environment by recycling wastewater and being the preferred treatment facilities for hauled liquid wastes. This coverage area is located in central Iowa. This particular project, also called the Southern Tier Interceptor Sewer Phase 10 Segment 23 and Southside Des Moines Rive Interceptor Sewer Phase 3 Segment 5 projects, is located in central Des Moines.

**Population:** The City of Des Moines is located in Polk County, Iowa approximately 167 miles west of Davenport, Iowa and 37 miles south of Ames, Iowa. The population of Des Moines according to the 2020 US Census was 214,133. In 2022 the WRA served a population of 550,000 people.

**Current Waste Collection and Treatment System:** The WRA includes a conveyance system and a treatment facility. The conveyance system connects each of the participating communities in Dallas, Polk and Warren Counties to the wastewater treatment facility. The system includes 125 miles of sanitary sewer with pipe sizes up to 144 inches in diameter, equalization basins, and lift stations.

The treatment facility uses a combination of physical, advanced biological and chemical processes to treat the wastewater as it flows through the plant. These processes produce high quality reclaimed wastewater discharged to the Des Moines River, treated biosolids that are land applied on farm fields for nutrient value and soil amendment, and refined biogas injected into the natural gas pipeline.

There is a significant need to monitor and prioritize areas where repairs, new installations, and ongoing maintenance to the sanitary sewer infrastructure is needed to prevent failure and allow the system to continue safely operating.

**Receiving Stream:** The treated wastewater from the DMWRA facility will discharge to the Des Moines River. It has a use stream designation of A-1, B(WW1). Class A-1 is designated as primary contact recreation uses and Class B(WW1) is designated for warmwater aquatic life use and for fish consumption uses.

## PROJECT DESCRIPTION

**Purpose:** The purpose of this project is to make improvements to the wastewater conveyance system to increase capacity and provide better flexibility in flow management to continue to safely and reliably operate the WRA's wastewater system for at least the next 20 years.

**Proposed Improvements:** The proposed project includes the construction of approximately 9,500 linear feet of 48 inch or 54 inch sanitary sewer and approximately 2,500 linear feet of 108 inch or 120 inch sanitary sewer. The new sewers will be installed using primarily open cut methods, adjacent to the existing sewers. The average depth of construction will be between 15 feet and 20 feet. The top width of the trench will be approximately 25 feet to 30 feet.

## ALTERNATIVES CONSIDERED

**Alternatives Considered:** The potential need for improvements to the WRA Southern Tier Interceptor was identified in 2004 as part of the work on the WRA Facility Plan Update – 2004. The original Southern Tier Interceptor was designed to collect the wastewater flow from then existing treatment facilities owned and operated by the City of Des Moines (3 facilities), the Greenfield Plaza Hills of Coventry Sanitary District and the Lakewood Benefited Sanitary District. The design flows and service areas for the Southern Tier Interceptor were established in 1982. Between 1982 and 2004 there were several changes in the service area and growth potential of the southern and southwestern portion of the WRA service territory.

As part of the 2004 WRA Facility Plan Update three alternatives were evaluated relative to the Southwest Area Diversion Facility. That evaluation included a review of alternatives to convey flow from the Southwest Area Diversion Facility to the WRA system.

One of the alternatives evaluated involved construction the North River Interceptor that would be tributary to the Southern Tier Pump Station. This alternative included upgrading the capacity of the Southern Tier Pump Station and the eastern portion of the WRA Southern Tier Interceptor to convey the flow to the Southside Des Moines River Interceptor.

A second alternative evaluated involved the construction of a North River Interceptor that would not connect to the Southern Tier Pump Station. Under this alternative the North River Interceptor would continue downstream along the North River to a point closer to its confluence with the Des Moines River. At that point a pump station would be constructed to convey the flow northerly to connect to a gravity sewer that would parallel a portion of the WRA Southern Tier Interceptor referred to as Phase 10, Segment 6.

The third alternative evaluated involved pumping the flow from the Southwest Area Diversion Facility equalization basin northerly to the upper reaches of the Southwest Outfall effectively using the same force main used to divert the flow except to reverse the direction of flow.

**Reasons for Selection of Proposed Alternative:** The No-Action alternative is not viable due to the need to repair and maintain sanitary sewer infrastructure to prevent failure and safely continue operation. The project site was selected for the proximity to existing infrastructure as well as minimization of the impacts to the environment.

The evaluation of alternatives in 2004 indicated the most technically feasible and cost-effective alternative was to construct the North River Interceptor downstream to the Southern Tier Interceptor and to improve the Southern Tier pump station, force main and eastern phase of the Southern Tier Interceptor.

The second alternative of constructing the North River Interceptor and extending the North River Interceptor farther downstream before pumping northerly to the Southern Tier Interceptor was determined to be costlier as it involved construction of more pipe than what would be involved with upgrading the eastern phase of the Southern Tier Interceptor. To take advantage of the reduced pumping that was the primary advantage of this alternative the pump station would need to be located in an area that would be subject to inundation from Lake Red Rock. This alternative, although determined technically feasible, was costlier than the first alternative.

The third alternative of reversing the flow in the force main and pumping the flow back to the Southwest Outfall was determined to be a technically difficult alternative. Reversing the flow in the force main created logistical design issues as the force main is designed as a combination pressure and gravity sewer. The design modifications for reverse flow in the force main would have significantly increased the cost of this alternative.

Additional evaluation in the 2014 Facility Plan Update confirmed the need for a parallel sewer in this area. This was again confirmed by evaluation that began in 2021.

## **MEASURES TAKEN TO ASSESS IMPACT**

**Public Involvement:** A public hearing was held on August 15, 2023 at 1:30PM at the WRA's regular board meeting. The public notice of this hearing was published in the Des Moines Register on July 11, 2023. 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  
Des Moines Historic 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”).

**Historical/Archaeological:** 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, and the SHPO has concurred (R&C#230677355), 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 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 provided the terms of Nationwide Permit #58 are 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 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 conditions and local permit 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. 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 within the present corporate limits of Des Moines 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 wastewater conveyance and treatment of the wastewater from the WRA 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 provided the terms of Nationwide Permit #58 are abided by.
- 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.
- 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 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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**Hailey Andersen**

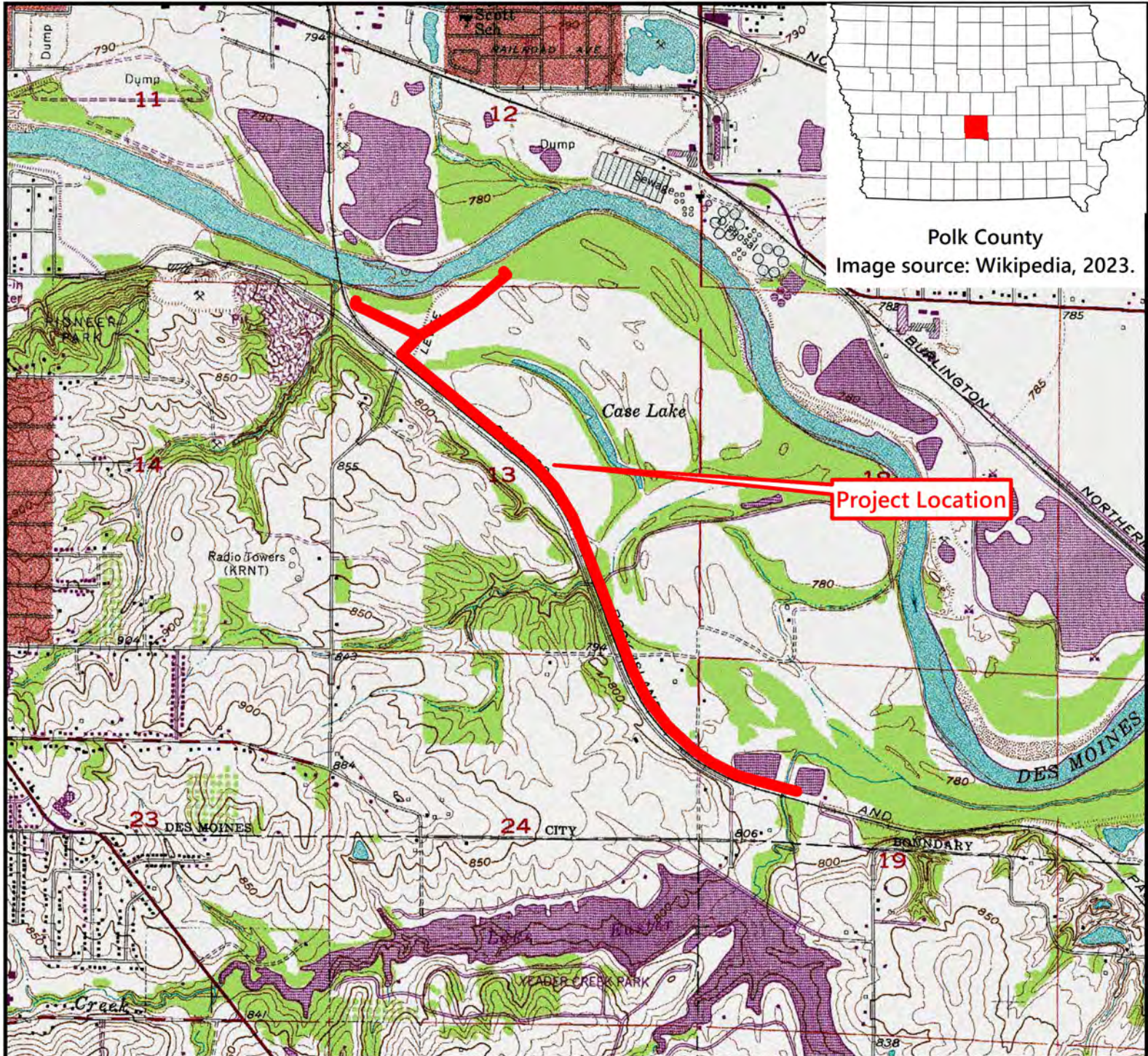
Environmental Review Specialist

State Revolving Fund

Iowa Department of Natural Resources



PARTNERSHIP WITH THE IOWA FINANCE AUTHORITY  
AND THE IOWA DEPARTMENT OF NATURAL RESOURCES

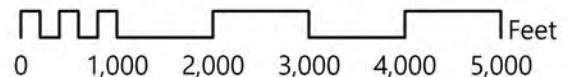


Polk County  
Image source: Wikipedia, 2023.

WRA Southern Tier Interceptor Sewer Phase 10 Segment 23  
 Southside Des Moines River Interceptor Sewer Phase 3 Segment 5  
 Des Moines, Iowa

USGS 7.5 Minute Quadrangle: Des Moines SE  
 Section: 12, 13, 24, Township: 78 N, Range: 24 W  
 Section: 19, Township: 78 N, Range: 23 W  
 Date: 1976

Scale: 1 inch = 2,000 feet



# 2016 Aerial Photograph



WRA Southern Tier Interceptor Sewer Phase 10 Segment 23  
Southside Des Moines River Interceptor Sewer Phase 3 Segment 5  
Des Moines, Iowa

USGS 7.5 Minute Quadrangle: Des Moines SE  
Section: 12, 13, 24, Township: 78 N, Range: 24 W  
Section: 19, Township: 78 N, Range: 23 W

Scale: 1 inch = 1,100 feet

