

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

March 18, 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 Water Works – Transmission – Beaver Segment Only

County: Polk

SRF Number: FS-77-23-DWSRF-075

State: Iowa

Iowa DNR Project Number: W 2022-0672

The Des Moines Water Works (DMWW) of Des Moines, Iowa is planning an upgrade to their water distribution system. The DMWW 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 DMWW is an independently operated municipal utility providing drinking water to more than 500,000 customers in the Des Moines and surrounding metropolitan area. Over 20 central Iowa cities, rural water districts, and other entities located in Polk, Warren, Madison, and Dallas counties are served by DMWW. Des Moines is centrally located in Iowa. The population served by the DMWW System was estimated in 2015 to be 538,312 persons. Year 2015 will serve as the base year for analysis. Population and demand projections were analyzed for 5-year intervals between 2015 and 2040. Projected population for 2025 was estimated at 661,339 persons. Projected population for 2040 was estimated at 835,342 persons.

This water main projects is a part of a much larger Long Range Plan 2017 (LRP). In this plan, the existing water distribution system was analyzed to identify gaps and recommend improvements to meet the projected growth expected. There are approximately 1,434 miles of active water mains ranging from 2 to 60 inches in diameter in the DMWW system. Pipe materials include PVC, cast iron, ductile iron, and pre-stressed concrete cylinder pipe among other less common types. The LRP included a hydraulic analysis of the system and results of the modeling process to better determine opportunities for improvement; multiple scenarios were considered related to increasing supply, pressure, velocity and headloss within specific pipes, system pumping and storage, and fire flow needs. Recommendations for system improvements were developed for the planning years 2020, 2025, 2030, 2035, and 2040 for the three major supply improvement alternatives.

According to the LRP, DT-20-08 is one of many high priority improvements; this one was scheduled to be completed between 2021 and 2025. DT-20-08 will provide an improved connection from the Saylorville water treatment plant (SWTP) to the transmission network to more fully utilize the production capacity of the SWTP to the distribution system.

The purpose of this project is to make improvements to the water distribution system to improve reliability and to improve system efficiency to safely and reliably operate the Des Moines Water Works system in this area for at least the next 20 years. The project includes construction of a segment of new transmission water main, DT-20-08, which was identified in the DMWW Long Range Plan as key improvements necessary to address critical restrictions in the core transmission main network. DT-20-08 consists of the construction of approximately 11,300 feet of 36-inch to 48-inch diameter transmission main. The main will connect to the existing feeder main from the Saylorville Water Treatment Plant at 62nd and Beaver Drive and extend to the interconnection with the existing feeder main located north of the intersection of Merle Hay Road and Interstate 80/35.

Positive environmental effects will be maintained or improved water quality and/or quantity for DMWW customers in this vicinity. This project will assist in the prevention of water supply contamination associated with inadequate pressures within the distribution system. 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.

While the U.S. Army Corps of Engineers has not yet commented on the project, the project will not impact wetlands provided that the terms of any necessary Section 404 Permit are abided by. The project may effect, but is not likely to effect 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. Please direct your comments to me at Jean.Mayne@dnr.iowa.gov or 515-491-7565.

Sincerely,

Jean Mayne
Environmental Specialist
502 E 9th St
Des Moines, IA 50319-0034

Enclosures: Environmental Assessment
Project Map

Distribution

List (email): Snyder & Associates
Edward Boling, Council on Environmental Quality
Jake Hansen, Iowa Department of Agriculture and Land Stewardship
Ken Sharp, Iowa Department of Public Health
Sarah Petersen, Iowa Department of Public Health
Nichole Hansen, 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
Christopher Simmons, USEPA Region VII
Kelly Beard-Tittone, USEPA Region VII
Des Moines Register Newspaper

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IOWA STATE REVOLVING FUND
ENVIRONMENTAL ASSESSMENT DOCUMENT

PROJECT IDENTIFICATION

Applicant: Des Moines Water Works – Transmission – Beaver Segment Only

County: Polk

SRF Number: FS-77-23-DWSRF-075

State: Iowa

Iowa DNR Project Number: W 2022-0672

COMMUNITY DESCRIPTION

Location: The Des Moines Water Works (DMWW) is an independently operated municipal utility providing drinking water to more than 500,000 customers in the Des Moines and surrounding metropolitan area. Over 20 central Iowa cities, rural water districts, and other entities located in Polk, Warren, Madison, and Dallas counties are served by DMWW. Des Moines is centrally located in Iowa.

Population: The population served by the DMWW System was estimated in 2015 to be 538,312 persons. Year 2015 will serve as the base year for analysis. Population and demand projections were analyzed for 5-year intervals between 2015 and 2040. Projected population for 2025 was estimated at 661,339 persons. Projected population for 2040 was estimated at 835,342 persons.

Project Background: This water main projects is a part of a much larger Long Range Plan 2017 (LRP). In this plan, the existing water distribution system was analyzed to identify gaps and recommend improvements to meet the projected growth expected. There are approximately 1,434 miles of active water mains ranging from 2 to 60 inches in diameter in the DMWW system. Pipe materials include PVC, cast iron, ductile iron, and pre-stressed concrete cylinder pipe among other less common types. The LRP included a hydraulic analysis of the system and results of the modeling process to better determine opportunities for improvement; multiple scenarios were considered related to increasing supply, pressure, velocity and headloss within specific pipes, system pumping and storage, and fire flow needs. Recommendations for system improvements were developed for the planning years 2020, 2025, 2030, 2035, and 2040 for the three major supply improvement alternatives.

According to the LRP, DT-20-08 is one of many high priority improvements; this one was scheduled to be completed between 2021 and 2025. DT-20-08 will provide an improved connection from the Saylorville water

treatment plant (SWTP) to the transmission network to more fully utilize the production capacity of the SWTP to the distribution system.

PROJECT DESCRIPTION

Purpose: The purpose of this project is to make improvements to the water distribution system to improve reliability and to improve system efficiency to safely and reliably operate the Des Moines Water Works system in this area for at least the next 20 years.

Proposed Improvements: The project includes construction of a segment of new transmission water main, DT-20-08, which was identified in the DMWW Long Range Plan as key improvements necessary to address critical restrictions in the core transmission main network. DT-20-08 consists of the construction of approximately 11,300 feet of 36-inch to 48-inch diameter transmission main. The main will connect to the existing feeder main from the Saylorville Water Treatment Plant at 62nd and Beaver Drive and extend to the interconnection with the existing feeder main located north of the intersection of Merle Hay Road and Interstate 80/35.

ALTERNATIVES CONSIDERED

Alternatives Considered: The alternatives considered in the Long Range Plan 2017 primarily centered around alterations to existing treatment plants to allow for capacity expansion or construction of a new treatment plant and how, given those options, the rest of the distribution system would best adjust to the changed pressures and volumes to maintain quality and quantity to existing customers.

Reasons for Selection of Proposed Alternative: The No-Action alternative is not viable due to expected changes in demand over the entire DMWW system. Increasing production capacity options correlated to necessary improvements to distribution/storage. Extensive hydraulic modeling helped to select the best options to maintain or improve system performance for all customers.

MEASURES TAKEN TO ASSESS IMPACT

Public Involvement: A public hearing was held on August 22, 2023 at the DMWW regular board meeting. The public notice of this hearing was published in the Des Moines Register newspaper on July 19, 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: Various Native American tribes with an interest in the area and the Certified Local Government were provided information regarding the project. 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#230877104), that this undertaking will result in “no historic properties affected” based on the scope of the project 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: A Joint Application was submitted by the City’s consultant to the Iowa DNR Conservation and Recreation Division and U.S. Army Corps of Engineers. The DNR Flood Plain Management Section will determine if the proposed project requires a permit for impacts to the 100-year floodplain. The DNR Conservation and Recreation Division will determine if the project will impact any State-owned lands or State-listed threatened or endangered species. The U.S. Army Corps of Engineers will determine if the proposed project will impact wetlands or jurisdictional waters of the United States. 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. While the U.S. Army Corps of Engineers has not yet commented on the project, the project will not impact wetlands provided that the terms of any necessary Section 404 Permit 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 is not likely to 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. 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 maintained or improved water quality and/or quantity for DMWW customers in this vicinity. This project will assist in the prevention of water supply contamination associated with inadequate pressures within the distribution 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.
- While the U.S. Army Corps of Engineers has not yet commented on the project, the project will not impact wetlands provided that the terms of any necessary Section 404 Permit are abided by.
- The project may effect, but is not likely to effect 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:

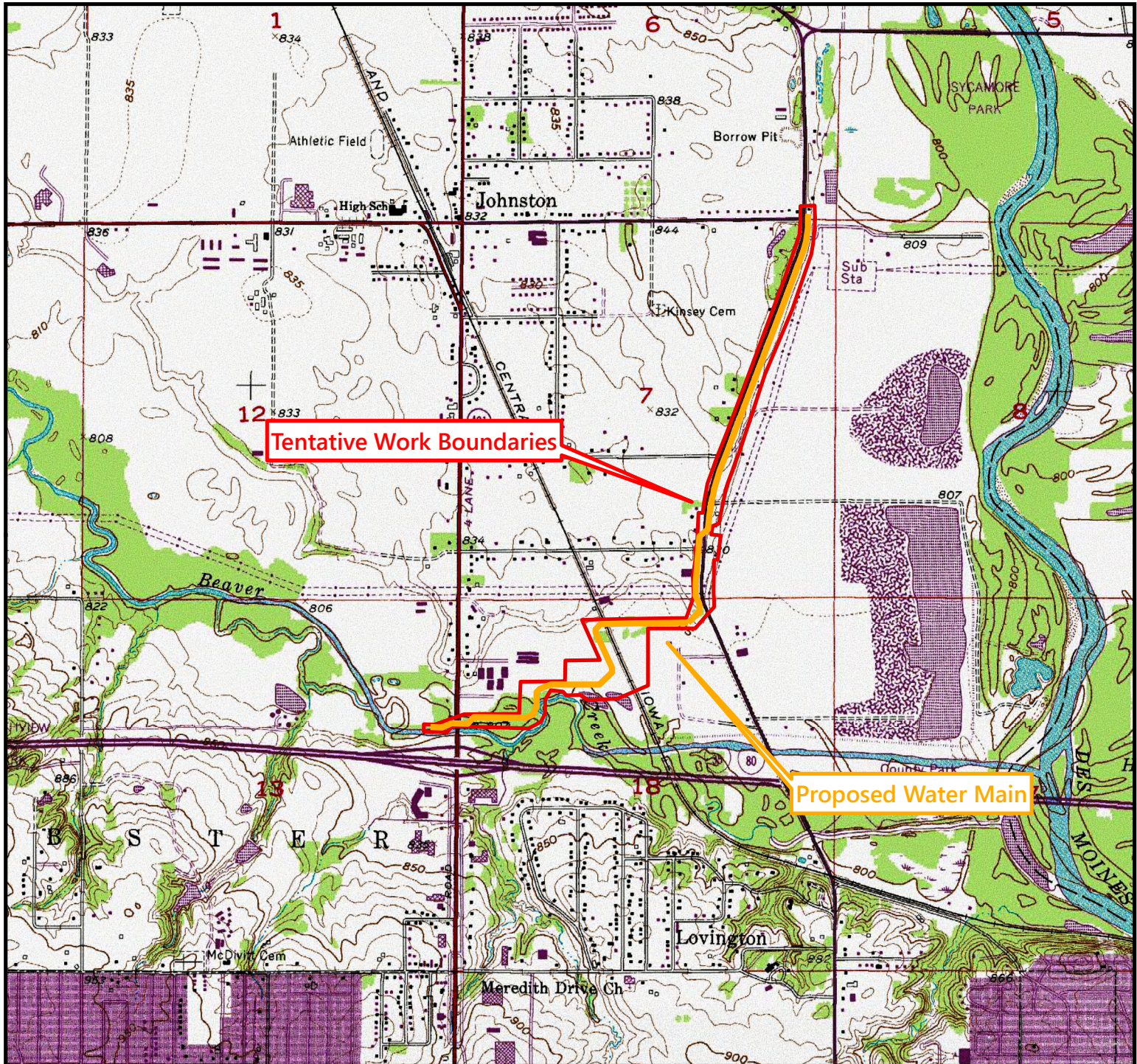
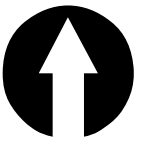
The above project conforms to the criteria in 567 Iowa Administrative Code 44.10(3) relating to compliance with the National Environmental Policy Act of 1969. No adverse effect or significant environmental impact is foreseen at this time.

Jean Mayne

Environmental Review Specialist
State Revolving Fund
Iowa Department of Natural Resources



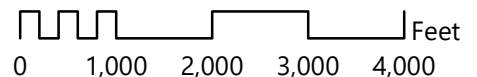
USGS 7.5' Quad: Des Moines NW and SW
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S: 25, 36 T: 79N, R: 25W
Date: 1975-1976

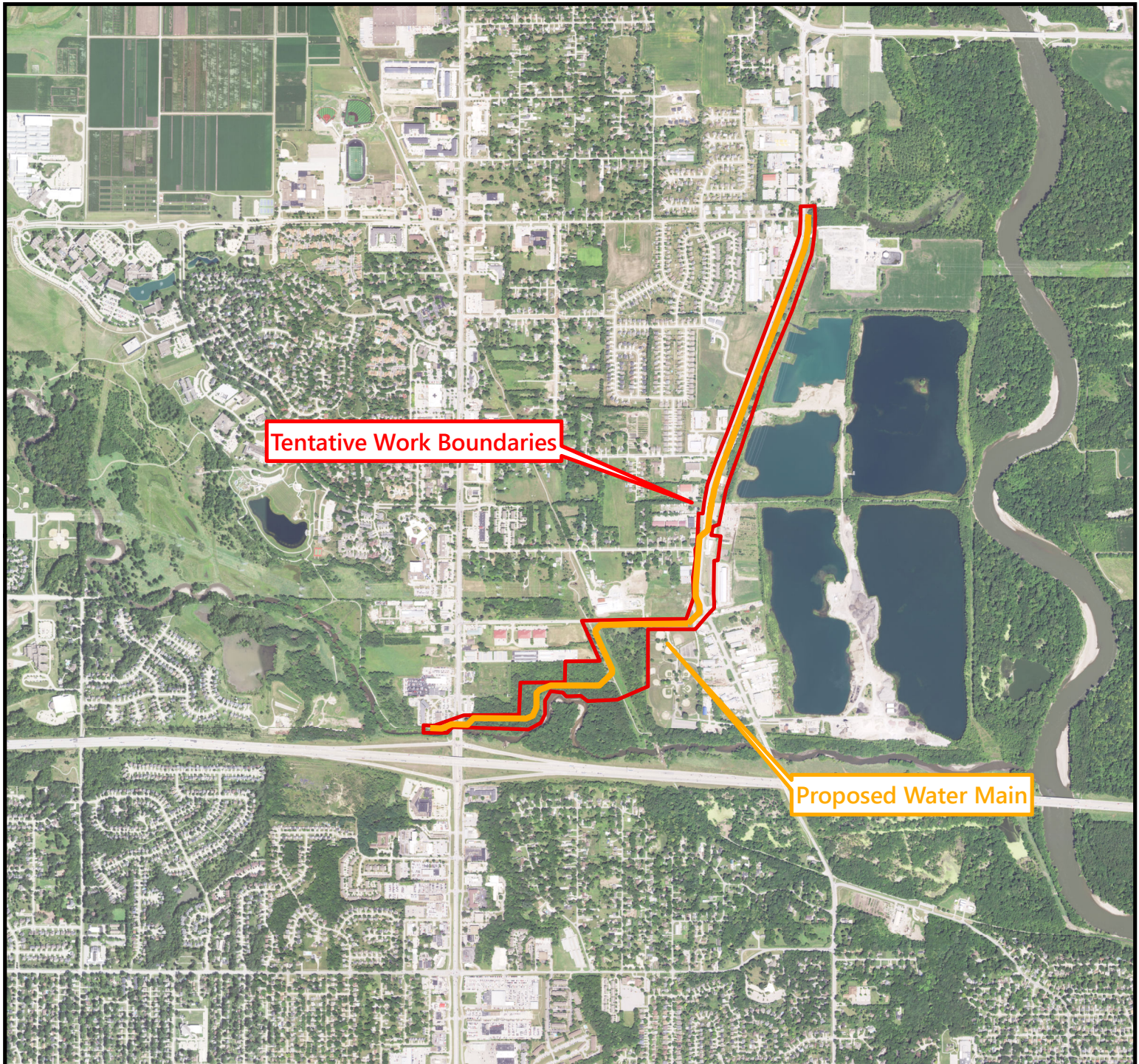
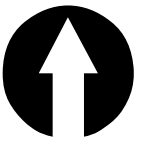


Topographic Map

Des Moines Water Works - Transmission Main North
Johnston, Iowa (Polk County)

Scale: 1 inch = 2,000 feet

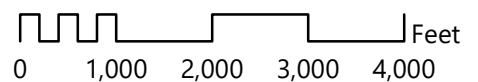


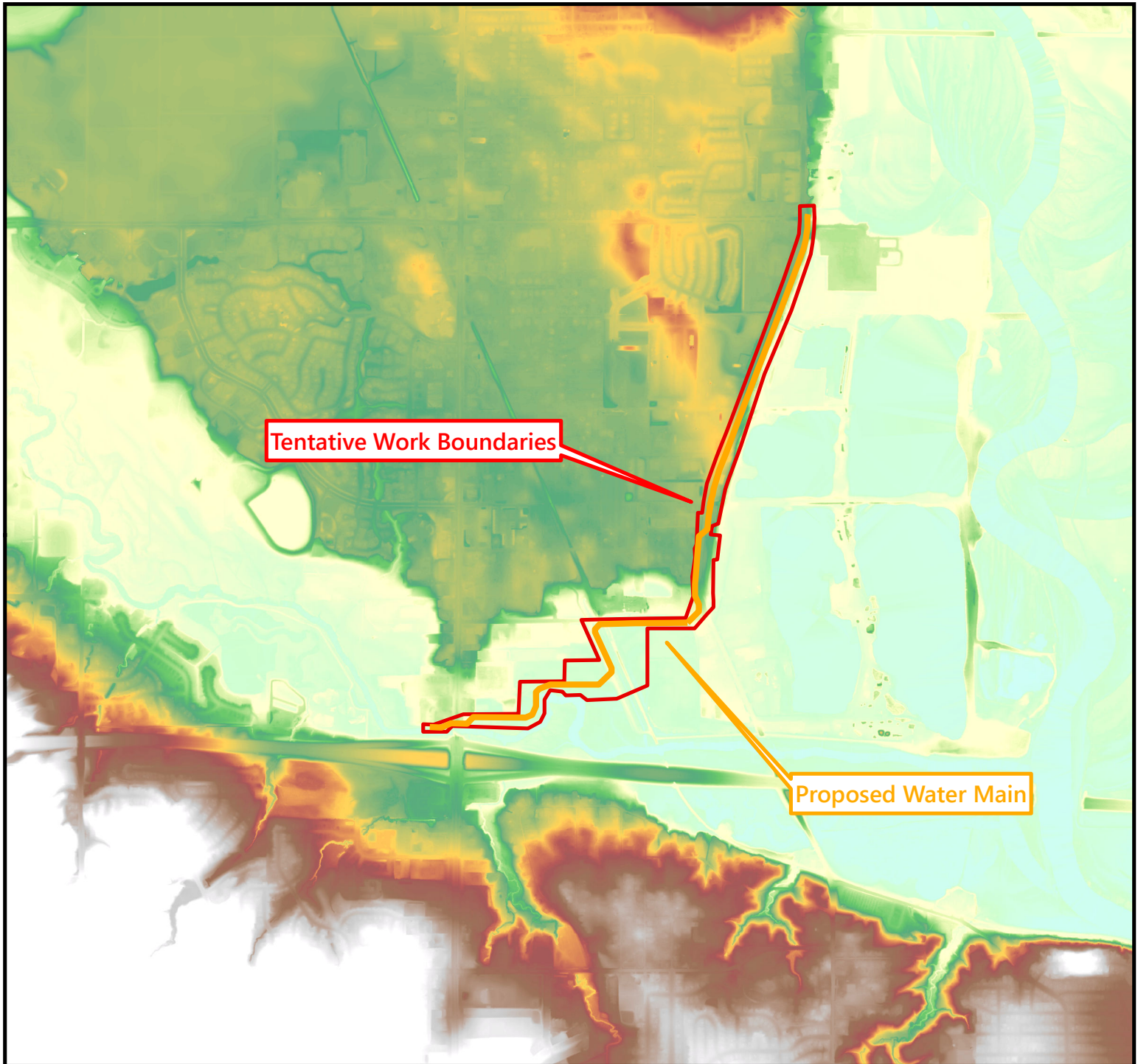
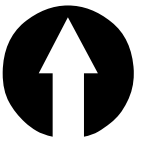


Aerial Photograph

Des Moines Water Works - Transmission Main North
Johnston, Iowa (Polk County)

Scale: 1 inch = 2,000 feet





LiDAR

Des Moines Water Works - Transmission Main North
Johnston, Iowa (Polk County)

Scale: 1 inch = 2,000 feet

