

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 25, 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-ASR

County: Polk

State: Iowa

SRF Number: FS-77-24-DWSRF-021

Iowa DNR Project Number: W2023-0463

The Des Moines Water Works of Des Moines, Iowa is planning an upgrade to their water supply system. 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 Des Moines Water Works (DMWW) in Des Moines, Iowa is located in Polk County, Iowa and is centrally located within the state. The DMWW is a regional utility providing drinking water to approximately 600,000 customers in the City of Des Moines and the surrounding metropolitan area. More than 20 central Iowa cities, rural water districts, and other entities located in Polk, Warren, Madison, and Dallas Counties are served by DMWW. Based on the consistent growth of the population served by DMWW, the planning period for this project will be approximately 15 years, or 2040. In 2040, that population is expected to be approximately 835,342 persons.

Water demands are projected to increase as the population served by DMWW grows. DMWW uses a combination of surface water and alluvial groundwater sources. The surface water sources are the Racoon and Des Moines Rivers. The groundwater sources are along the Racoon and Des Moines Rivers and include an infiltration gallery and horizontal and radial collector wells. In addition, DMWW has three Cambrian-Ordovician (Jordan) Aquifer Storage and Recovery (ASR) wells. These ASR wells do not supply raw water to the water system. ASR wells effectively supply underground water storage for the water supply system. During periods of low water demand, water is pumped into the ASR; later, during high demand the flow is reversed. Strict regulations track the input and output to balance the system fairly. Based on projected water demands,

DMWW will have to provide additional peak capacity water. DMWW will need to continue developing further solutions to meet existing and projected water demands in coming years.

The purpose of this project is to make improvements to the water supply system to enhance their reliability, increase storage capacity, and to operational flexibility to better continue to safely and reliably operate the Des Moines Water Works water supply system for at least the next 20 years. The project will consist of construction a new Aquifer Storage and Recovery (ASR) well and associated facilities, including a building for flow control and monitoring, water quality monitoring, disinfection and other chemical feed systems, and other components required to support ASR operation. Site work will include piping to connect the new well to the building and to connect the building to the distribution system, piping to route well flush water discharge for disposal, grading and access drive modifications, and other site work as required. The pumping capacity of the ASR facility will be 3.0 million gallons per day (mgd).

Positive environmental effects will be maintained or improved water quantity for the customers of the DMWW. By using the temporary storage in the ASR, fluctuating water demands can be better managed. 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.

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.

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) and the NPDES permit for well testing are obtained and the terms of which are abided by. An Underground Injection Control (UIC) permit must be issued by the EPA. Provided that the UIC permit is 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, or water supply.

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): Strand Associates, Inc.
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, USDO, 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
The Des Moines Register newspaper

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IOWA STATE REVOLVING FUND
ENVIRONMENTAL ASSESSMENT DOCUMENT

PROJECT IDENTIFICATION

Applicant: Des Moines Water Works
County: Polk
State: Iowa

SRF Number: FS-77-24-DWSRF-021
Iowa DNR Project Number: W2023-0463

COMMUNITY DESCRIPTION

Location and Population: The Des Moines Water Works (DMWW) in Des Moines, Iowa is located in Polk County, Iowa and is centrally located within the state. The DMWW is a regional utility providing drinking water to approximately 600,000 customers in the City of Des Moines and the surrounding metropolitan area. More than 20 central Iowa cities, rural water districts, and other entities located in Polk, Warren, Madison, and Dallas Counties are served by DMWW. Based on the consistent growth of the population served by DMWW, the planning period for this project will be approximately 15 years, or 2040. In 2040, that population is expected to be approximately 835,342 persons.

Project Background: Water demands are projected to increase as the population served by DMWW grows. DMWW uses a combination of surface water and alluvial groundwater sources. The surface water sources are the Raccoon and Des Moines Rivers. The groundwater sources are along the Raccoon and Des Moines Rivers and include an infiltration gallery and horizontal and radial collector wells. In addition, DMWW has three Cambrian-Ordovician (Jordan) Aquifer Storage and Recovery (ASR) wells. These ASR wells do not supply raw water to the water system. ASR wells effectively supply underground water storage for the water supply system. During periods of low water demand, water is pumped into the ASR; later, during high demand the flow is reversed. Strict regulations track the input and output to balance the system fairly. Based on projected water demands, DMWW will have to provide additional peak capacity water. DMWW will need to continue developing further solutions to meet existing and projected water demands in coming years.

PROJECT DESCRIPTION

Purpose: The purpose of this project is to make improvements to the water supply system to enhance their reliability, increase storage capacity, and to operational flexibility to better continue to safely and reliably operate the Des Moines Water Works water supply system for at least the next 20 years.

Proposed Improvements: The project will consist of construction a new Aquifer Storage and Recovery (ASR) well and associated facilities, including a building for flow control and monitoring, water quality monitoring, disinfection and other chemical feed systems, and other components required to support ASR operation. Site work will include piping to connect the new well to the building and to connect the building to the distribution system, piping to route well flush water discharge for disposal, grading and access drive modifications, and other site work as required. The pumping capacity of the ASR facility will be 3.0 million gallons per day (mgd).

ALTERNATIVES CONSIDERED

Alternatives Considered: In order to provide solutions to meet existing and projected water demands for the coming years, options include additional ASR wells, expansion of the existing water treatment plants, and additional storage structures.

Reasons for Selection of Proposed Alternative: The No-Action alternative is not viable due to the expected increase in demand due to population growth. The project site was selected for the availability of land, proximity to existing infrastructure, engineering criteria, expected population/demand growth geographically, and capacity/demand modeling as well as minimization of the impacts to the environment.

MEASURES TAKEN TO ASSESS IMPACT

Public Involvement: A public hearing was held on December 19, 2023 at 3:30PM at the DMWW regular board meeting. The public notice of this hearing was published in the Des Moines Register on November 15, 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

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#231277317), 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: 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.

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 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.

An Underground Injection Control (UIC) permit must be issued by the EPA. Provided that the UIC permit is 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, or water supply. During testing, which is required for the well to be permitted, water will be recovered from the ASR well and flushed and cannot be pumped to the distribution system. The purpose of testing is to test the water quality upon recovery compared to the injection water, as well as monitor the confirm flow rates and water levels during injection and recovery from the aquifer bubble. There are no sanitary sewers near the Northeast 14th Street site to be used for flush water disposal; therefore, the flush water will be discharged through a new 16-inch storm sewer to the ditch located northwest of the site. A National Pollutant Discharge Elimination System (NPDES) permit will be required for the flushing water discharge. The flush water will require dichlorination before it is discharged.

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 quantity for the customers of the DMWW. By using the temporary storage in the ASR, fluctuating water demands can be better managed.

SUMMARY OF REASONS FOR CONCLUDING NO SIGNIFICANT IMPACT

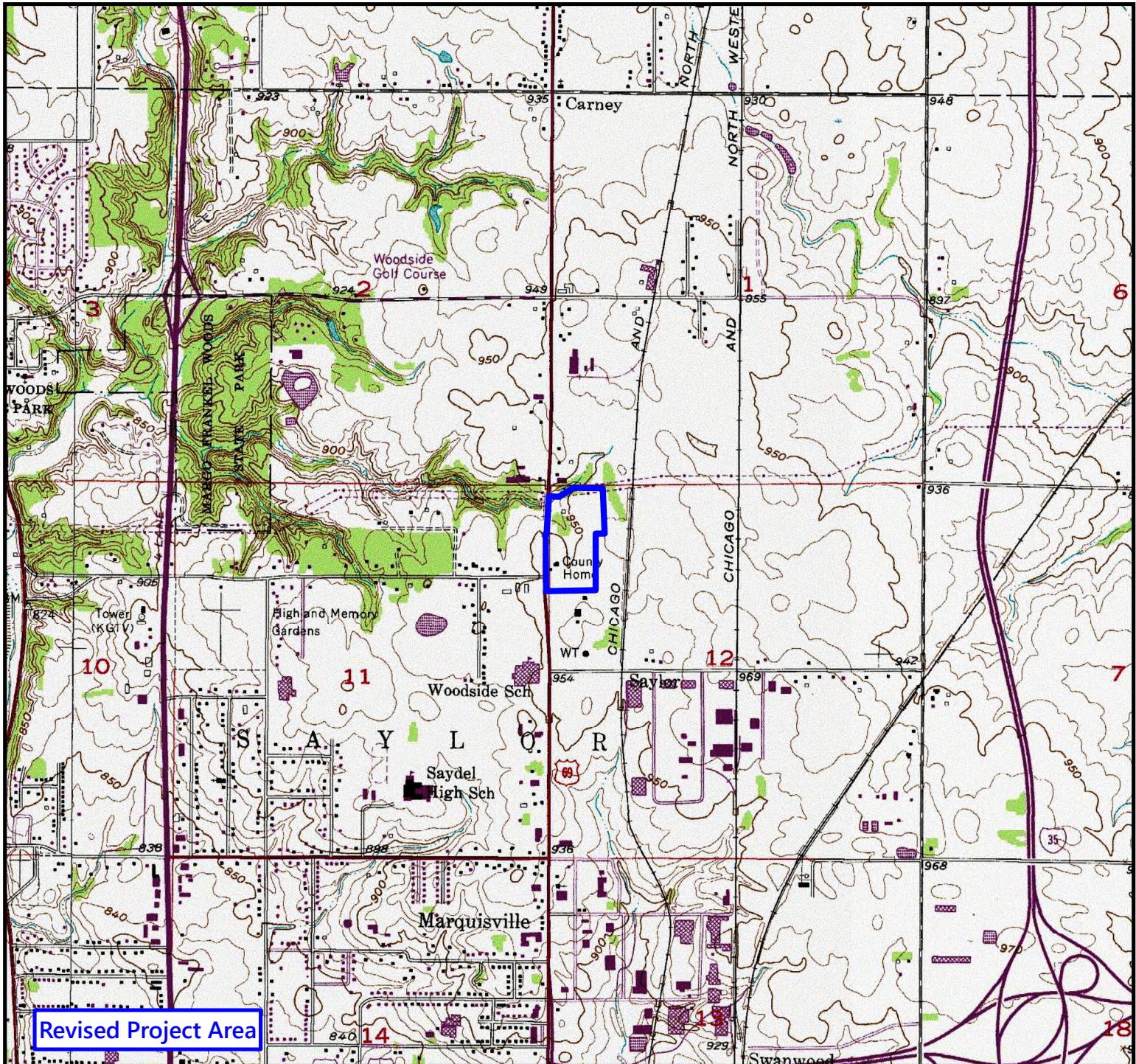
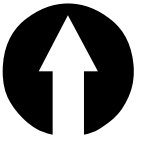
- The project will not significantly affect the pattern and type of land use (industrial, commercial, agricultural, recreational, residential) or growth and distribution of population.
- The project will not conflict with local, regional or State land use plans or policies.
- The project will not impact wetlands.
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- 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.
- 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) and the NPDES permit for well testing are obtained and the terms of which are abided by.
- An Underground Injection Control (UIC) permit must be issued by the EPA. Provided that the UIC permit is 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, or water supply.

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

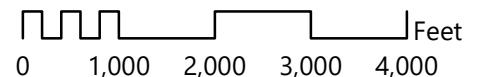
Environmental Review Specialist
State Revolving Fund
Iowa Department of Natural Resources

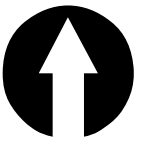


Topographic Map

DMWW Aquifer Storage and Recovery Well (ASR) Revised
Des Moines, Iowa (Polk County)

Scale: 1 inch = 2,000 feet

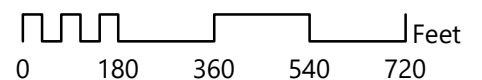


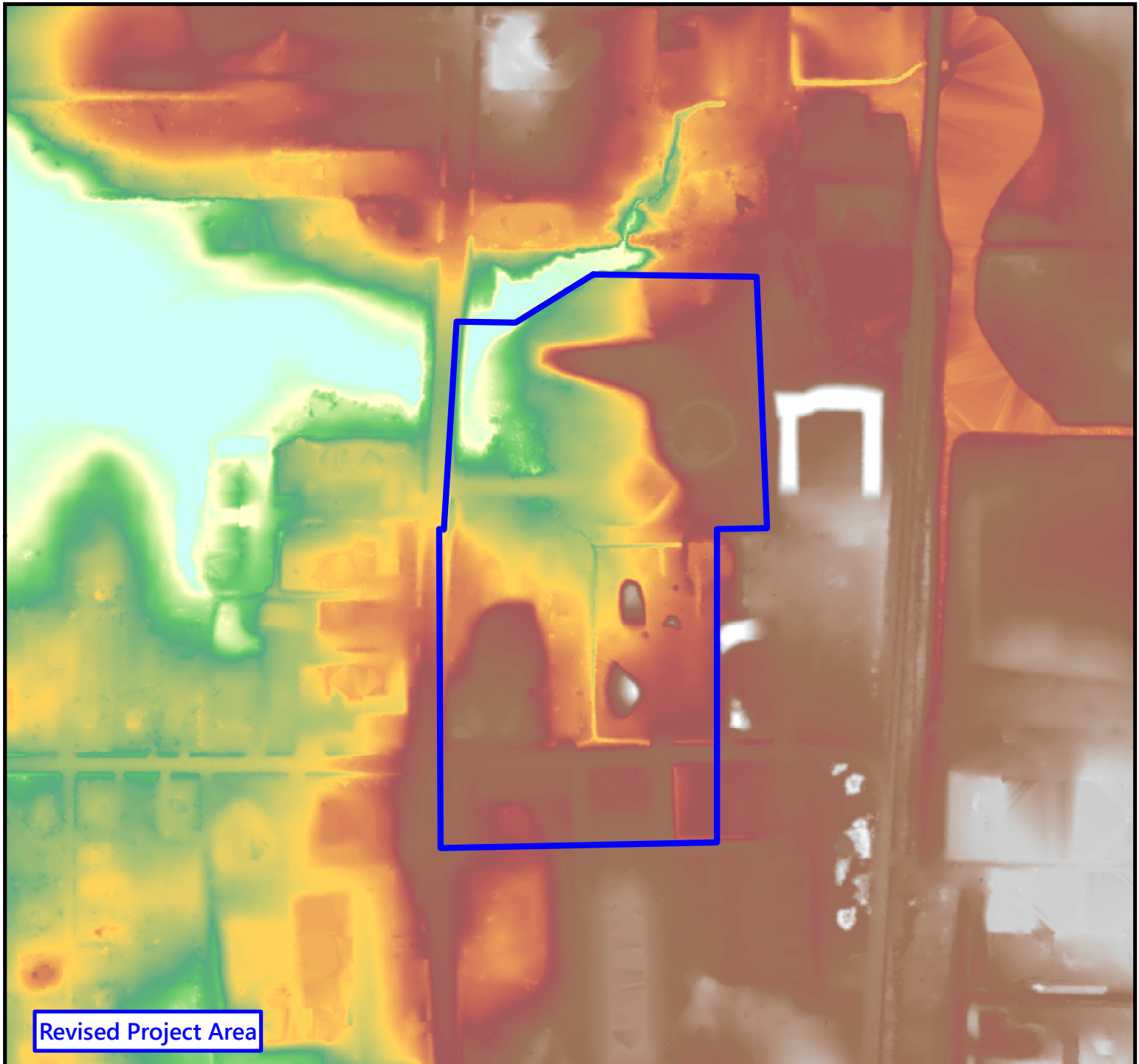
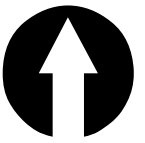


Aerial Photograph

DMWW Aquifer Storage and Recovery Well (ASR) Revised
Des Moines, Iowa (Polk County)

Scale: 1 inch = 361 feet





LiDAR

DMWW Aquifer Storage and Recovery Well (ASR) Revised
Des Moines, Iowa (Polk County)

Scale: 1 inch = 361 feet

