

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: City of Grinnell

SRF Number: FS-79-24-DWSRF-006

County: Poweshiek

Iowa DNR Project Number: W2023-0266

State: Iowa

The City of Grinnell, 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 Grinnell is located in Poweshiek County, Iowa approximately 66 miles southwest of Cedar Rapids, Iowa and 54 miles northeast of Des Moines, Iowa. The population of Grinnell according to the 2020 US Census was 9,564. The design population equivalent for the year 2045 is 10,939.

The City currently operates five wells (labeled as wells numbered 5-9) that withdraw water from the Jordan aquifer. There is substantial concern for the remaining useful life of Well No. 5 and Well No. 6. Provisions should be made to retire the two oldest wells and drill a new well in the near future. Once a new well is drilled, Well No. 7 should be used as the City's standby well. It is recommended that wells No. 7, 8, and 9 be rehabilitated to ensure continued successful usage. City staff have noted that when Well No. 8 and Well No. 9 are run at the same time, the raw water transmission main from Well No. 8 experiences frequent breaks. Replacement of the transmission main from Well No. 8 to the water treatment plant is also recommended.

The existing water treatment plant has structural deficiencies and significant leaking issues. Due to the age and aforementioned issues - the zeolite softeners within the water treatment plant cannot be operated safely and are not currently in use. Therefore, the City is not able to meet mandatory treatment objectives in their permit while operating their current facility. Since minimal treatment is occurring, the City's finished

water quality is roughly the same as their raw water quality. In addition, minimal iron removal occurs while water is held in the detention tank.

The purpose of this project is to make improvements to the drinking water treatment facilities to enhance their reliability, increase capacity, meet IDNR treatment requirements, and to replace obsolete systems to safely and reliably operate the City of Grinnell's drinking water system for the next 20 years.

The drinking water supply and treatment plant improvements project consists of the construction of a new water treatment plant. The new WTP will be a 91' X 126' direct membrane drinking water treatment facility with bag filters, cartridge filters, membrane feed pumps and membrane skids, chemical feed equipment and chemical containment rooms and laboratory. The existing Wells #7, #8, and #9 will be rehabilitated for improvements with the addition of VFD's and standby power to supply constant feed pressure to the proposed direct membrane WTP. Additionally, 4,250LF of raw water transmission main from Well #8 to the new WTP is planned and a new Jordan Well #10 is also proposed next to the new WTP with a submersible pump, pitless adapter, controls and standby power are also proposed. In addition, a new 32'X90' 0.3 MG clear well is proposed for sufficient water storage.

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, surface water quantity, groundwater quality or quantity, or water supply. No significant impact to surface water quality, fish, shellfish, wildlife, or their natural habitats is expected provided that an NPDES General Permit Number 2 (for storm water discharge associated with construction activities) is obtained and the terms of which are abided by.

Minimum separation distances will be maintained. Noise during construction will be maintained at tolerable levels through controls on construction activities. Any construction debris will be removed from the site for proper disposal. Adverse environmental effects from construction activities will be minimized with proper construction practices, inspection, prompt clean up and other appropriate measures. Areas temporarily disturbed by the construction will be restored.

It has been determined that the proposed action will result in no significant impacts to the surrounding environment. This determination is based on a careful review of the engineering report, the environmental assessment and other supporting data which are on file at the Department of Natural Resources' office in Des Moines, Iowa. These are available for public review upon request. A copy of the environmental assessment is attached. This Department will not take any administrative action on the project for at least thirty (30) calendar days from the above date. Persons disagreeing with the above environmental decision may submit comments to the department during this period. Your comments can be sent to SRF-PC@dnr.iowa.gov or directly to me at: Nicole.Osborn@dnr.iowa.gov or (515) 321-7601.

Sincerely,

Nicole Osborn
Environmental Specialist
502 E 9th St
Des Moines, IA 50319-0034

Enclosures: Environmental Assessment
Project Map

Distribution

List (email): Jen Collens, McClure Engineering Company
Michael Washburn, McClure Engineering Company
Ann Wingenter, Grinnell Historic Preservation Commission
Edward Boling, Council on Environmental Quality
Jake Hansen, Iowa Department of Agriculture and Land Stewardship
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Dan Narber, Iowa Economic Development Authority
Alicia Vasto, Iowa Environmental Council
Michael Schmidt, Iowa Environmental Council
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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
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Kraig McPeck, Fish and Wildlife Service, Rock Island Field Office
Ann D'Alfonso, USEPA Region VII
Kelly Beard-Tittone, USEPA Region VII
Grinnell Herald-Register

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IOWA STATE REVOLVING FUND
ENVIRONMENTAL ASSESSMENT DOCUMENT

PROJECT IDENTIFICATION

Applicant: City of Grinnell
County: Poweshiek
State: Iowa

SRF Number: FS-79-24-DWSRF-006
Iowa DNR Project Number: W2023-0266

COMMUNITY DESCRIPTION

Location: The City of Grinnell is located in Poweshiek County, Iowa approximately 66 miles southwest of Cedar Rapids, Iowa and 54 miles northeast of Des Moines, Iowa.

Population: The population of Grinnell according to the 2020 US Census was 9,564. The design population equivalent for the year 2045 is 10,939.

Current Source of Water: The City currently operates five wells (labeled as wells numbered 5-9) that withdraw water from the Jordan aquifer. The combined pumping capacity of available wells is approximately 3,905 gpm. Well No. 7 is approximately 67 years old. Wells No. 5 and No. 6 range in age from 96 to 102 years old and have significantly less capacity than other wells in the system. Furthermore, raw water from these two wells are significantly higher in calcium, hardness, magnesium, sulfate, and TDS. Because of this, Wells No. 5 and No. 6 are currently used for emergency stand-by purposes only. There is substantial concern for the remaining useful life of Well No. 5 and Well No. 6. Provisions should be made to retire the two oldest wells and drill a new well in the near future. Once a new well is drilled, Well No. 7 should be used as the City's standby well.

Well No. 8 was drilled in 1974 and Well No. 9 in 2002. Wells No. 8 and 9 have undergone routine maintenance on a regular basis. It is recommended that Well No. 8 and 9 be televised to determine the condition of the existing casing and to evaluate any potential sediment buildup occurring in the wells.

Current Raw Water Transmission Mains: City staff have noted that when Well No. 8 and Well No. 9 are run at the same time, the raw water transmission main from Well No. 8 experiences frequent breaks. Typically, the breaks occur on the stretch of pipe that starts at Well No. 8 and ends at the junction where Well No. 8 and Well No. 9 raw water mains join together. Replacement of the transmission main from Well No. 8 to the water treatment plant is recommended. This should allow Well No. 8 and Well No. 9 to be operated at the same time and reduce the risk of water main breaks.

Current Water Treatment and Quality: Grinnell's current treatment process consists of forced draft aeration, pre-chlorination, and detention in a 1.0 MG baffled storage tank for iron oxidation and sedimentation. Four high service pumps are used to pump water from the detention tank to the treatment plant. Once inside the plant, water bypasses the existing zeolite softeners (4 ea) and is sent into the distribution system. The softeners were removed from service in 2022 due to deterioration. Polyphosphate for corrosion control and sodium hypochlorite for disinfection are injected prior to entering the distribution system. The City is currently disinfecting using breakpoint chlorination.

The city's operating permit requires zeolite softening as mandatory treatment for radium removal. However, due to structural deficiencies and significant leaking issues, the zeolite softeners cannot be operated safely and are not currently in use. Therefore, the City is not able to meet mandatory treatment objectives in their permit while operating their current facility. Since minimal treatment is occurring, the City's finished water quality is roughly the same as their raw water quality. Minimal iron removal occurs while water is held in the detention tank. During routine sampling, the City has recently tested above the MCL standard for radium. This testing occurred while the softeners were offline.

The pipe gallery at the current plant is also extremely poor condition and poses a health hazard for staff. The gallery is located in a narrow concrete vault underneath the plant's floor. Access to the pipe gallery is through a small opening in the plant floor. Because there are no permanent access steps in the pipe gallery, staff must use a ladder to enter the vault and perform inspections or repairs. The pipes in the gallery are in poor condition. One area of particular concern is a wye fitting that supplies water to the center distribution system. The wye fitting is extremely deteriorated, and it is uncertain how long it will continue to function. Because there is no redundancy for this wye fitting, it remains the singular route for water leaving the plant and entering the distribution system. Due to the lack of redundancy and deteriorated condition of the pipes and fittings in the gallery, replacement of the wye fitting would be extremely difficult. Additionally, the current access opening is not adequately sized for replacing any of the existing piping (i.e. logistically impossible to get a 20-foot segment of pipe into the pipe gallery through the existing opening). Replacing pipe segments in the gallery would require cutting a much larger opening in concrete floor of the water treatment plant. Because the pipe gallery is directly adjacent to the high service pumps (HSPs), expanding the access opening would require the relocation of all four HSPs. Due to building and site constraints, relocation of the HSPs to a different location in the building is not feasible. Therefore, rehabilitation of the pipe gallery is not feasible.

The current treatment facility is not equipped with emergency backup power. In the event of a power outage, the City uses a small Honda generator to power emergency lights, the PLC, and chemical feed equipment. High service pump No. 4 is equipped with a diesel engine for auxiliary power and is only operated during emergencies in which the water treatment plant has lost power. According to a recent inspection by IDNR, the City has a connection to Poweshiek Rural Water to provide them with water for emergencies, but due to pressure differences Grinnell is incapable of receiving rural water during emergencies.

Due to the deteriorated condition of the softeners, the deteriorated condition of the pipe, and the small footprint of the existing building and site, there is no cost-effective solution to rehabilitate the current facility and bring it up to DNR standards, therefore, the construction a new treatment facility is necessary

PROJECT DESCRIPTION

Purpose: The purpose of this project is to make improvements to the drinking water treatment facilities to enhance their reliability, increase capacity, meet IDNR treatment requirements, and to replace obsolete system to safely and reliably operate the City of Grinnell's drinking water system for the next 20 years.

Proposed Improvements: The drinking water supply and treatment plant improvements project consists of the construction of a new water treatment plant. The new WTP will be a 91' X 126' direct membrane drinking water treatment facility with bag filters, cartridge filters, membrane feed pumps and membrane skids, chemical feed equipment and chemical containment rooms and laboratory. The existing Wells #7, #8 and #9 will be rehabilitated for improvements with the addition of VFD's and standby power to supply constant feed pressure to the proposed direct membrane WTP. Additionally, 4,250LF of raw water transmission main from Well #8 to the new WTP is planned and a new Jordan Well #10 is also proposed next to the new WTP with a submersible pump, pitless adapter, controls and standby power are also proposed. In addition, a new 32'X90' 0.3 MG clear well is proposed for sufficient water storage.

ALTERNATIVES CONSIDERED

Alternatives Considered: Several alternatives were identified for potential improvements to address the raw water supply and water treatment concerns. The alternatives evaluated as part of the Preliminary Engineering Report are as follows.

Raw Water Alternatives:

Alternative 1 – New Jordan Well (Well No. 10) : The location for Well No. 10 will be on the same site as the new treatment plant. This is the preferred location because it minimizes the length of raw water main that would be required to connect the new well to the new drinking water facility while also maintaining adequate site separation between active wells. Total project costs for a new Jordan aquifer well are estimated to be \$3,778,000.

Alternative 2 – Abandon Wells No. 5 & No. 6 : Wells No. 5 and No. 6 range in age from 96 to 102 years old and have significantly less capacity than other wells in the system. Raw water from these wells is significantly higher in calcium, hardness, magnesium, sulfate, and TDS. Because of this, these wells are currently used for emergency stand-by purposes only. Wells No. 5 and No. 6 have reached the end of their useful life and should be retired. Total project costs for abandoning Wells No.5 and No. 6 are estimated to be \$66,000.

Alternative 3 – Existing Well Improvements : Membrane treatment equipment requires a constant feed pressure in order to function properly and efficiently. Therefore, VFDs and permanent stand-by power sources will be added to wells No. 8 and No. 9. Total project costs for improving wells No. 8 and No. 9 are estimated to be \$652,000.

Alternative 4 – Raw Water Main Improvements : City staff have noted that when Well No. 8 and Well No. 9 are run at the same time, the raw water transmission main from Well No. 8 experiences frequent breaks. Typically, the breaks occur on the stretch of pipe that starts at Well No. 8 and runs to the junction where Well No. 8 and Well No. 9 raw water mains join together. Replacement of the transmission main from Well No. 8 to the water treatment plant is recommended. This should allow Well No. 8 and Well No. 9 to be operated at the

same time and reduce the risk of water main breaks. Total project costs for improving the water main from Well No.8 to the drinking water plant are estimated to be \$1,418,000.

Alternative 5 – New Jordan Wells (Well No. 11) : Over the next 5 to 10 years, it is recommended the City drill a second new well (Well No. 11). Drilling Well No. 11 will allow the City to retire older wells in their raw water system (i.e. Well No. 7) to meet additional water demands in the future. Well No. 8 would become the new standby well. A location of Well No. 11 and the connecting transmission main has been identified. This is the preferred location because it is located on city-owned property and will maintain adequate site separation between existing wells. Total project costs for a new Jordan aquifer well at this location are estimated to be \$3,680,000. Total project costs for a new transmission main connecting Well No. 11 to the water treatment plant are estimated to be \$1,497,000. The totaled cost for both the well and transmission line is \$5,117,000.

Alternative 6 – New Jordan Wells (Well No. 12) : Over the next 10 to 20 years, it is recommended the City drill a third new well (Well No. 12). Drilling Well No. 12 will allow the City to retire older wells in their raw water system (i.e. Well No. 8) and will allow them to meet additional water demands in the future. Well No. 9 would become the new standby well. The location of Well No. 12 and the connecting transmission main have been identified. This is the preferred location because it is located on city-owned property and will maintain adequate site separation between active wells.

Water Treatment Alternatives:

Alternative 1 – Lime Softening : Lime softening is a common type of water treatment that removes hardness and radium. For Grinnell specifically, the lime softening treatment process would begin by pumping raw water from the well through an aerator. The aeration process ejects dissolved gasses (CO₂ or H₂S) and oxidizes iron and manganese. Lime is then added to the water before flowing into a rapid mix tank. Adding lime will soften the water by raising the pH and forcing dissolved calcium and magnesium particles to precipitate out of solution. Water leaving the rapid mix tank is sent to one of two solids contact clarifiers. In the solids contact clarifiers, dissolved particles in the water, including iron, manganese, calcium and magnesium, continue to react and precipitate out of solution. Particulate matter settles to the bottom of the clarifiers as a lime residual/sludge.

The cons of such a treatment plan would be an increased treatment footprint as lime sludge lagoons and transmission piping will be necessary, as well as the proper disposal of the lime sludge. This method also requires additional operational time which could lead to a need for more staff.

Alternative 2 – Direct Membrane Softening : Membrane treatment is a highly effective method for removing hardness, radium, nitrate, sulfate, total dissolved solids, and other chemical compounds found in raw drinking water. The membrane treatment process generally works by using high pressure to push water through a semi-permeable membrane leaving behind contaminants that are too large to pass through the pores of the membranes. For Grinnell specifically, the direct membrane treatment process would begin with well flushing. Wells are flushed for several minutes to remove any solids that have settled in the well or raw water main. Flushed water is discharged directly to the sanitary collection system. After the wells have been flushed, water is pumped through bag and cartridge filters to remove any insoluble iron and manganese that may be present in the raw water. Anti-scalant chemical is added after the bag filters but before the cartridge filters. After the cartridge filters, water is pressurized by membrane feed pumps before entering the membrane skids. The “clean”, softened water that passes through the membrane is called the permeate. The water containing the contaminants is called the “concentrate”. The concentrate is directly discharge or wasted to the sanitary sewer.

The cons of such a treatment plan is that it's energy intensive and a significant amount of water is used for membrane flushing to the sanitary collection system.

Alternative 3 – Membrane Softening with Pre-treatment : For any membrane treatment system, removal of insoluble iron and manganese prior to the membrane process is extremely important. Removing these insoluble metals protects the membranes from significant damage and premature failure. For communities with high concentrations of insoluble iron and manganese in their raw water, removal of these constituents is accomplished by pre-treating the water. This additional treatment steps can add significant capital and operational costs to a membrane treatment project.

As opposed to direct membrane treatment, water is first sent through an oxidation/detention/filtration treatment process before entering the cartridge filters. The first step in the process involves converting iron and manganese from a dissolved form to a particulate form through oxidation. An induced draft aerator is typically used to oxidize the metals. After aeration, water is held in a detention tank where the metals are allowed adequate time to precipitate out of solution. Following the detention tank, water passes through filter media to remove the precipitated iron and manganese. The filter media needs to be backwashed periodically in order to remove accumulated iron and manganese from the filter beds. Backwash water leaves the filtration system and enters an equalization tank before flowing into the City's sanitary sewer system. Filtered water leaving the filtration beds follows a similar treatment path as direct membrane treatment.

Reasons for Selection of Proposed Alternative: Raw Water Alternatives 1-4 have been selected for this project as they are the necessary components to provide an adequate water supply for the City of Grinnell.

To address the City's raw and finished water quality concerns and to meet mandatory treatment objectives for radium, it is recommended that the City construct a new direct membrane treatment facility (Alternative 2). Direct membrane treatment is the most cost-effective treatment option through the design year of 2045, and it allows the City to meet current and future IDNR regulations.

MEASURES TAKEN TO ASSESS IMPACT

Public Involvement: A public hearing was held on January 2 at 7:00PM at the City's regular council meeting. The public notice of this hearing was published in the Grinnell Herald-Register on November 27, 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
Grinnell Historic Preservation Commission

No adverse comments were received from any agencies or general public. Conditions placed on the applicant by the above agencies in order to assure no significant impact are included in the Summary of Reasons for Concluding No Significant Impact section.

ENVIRONMENTAL IMPACT SUMMARY

Construction: Traffic patterns within the community may be disrupted and above normal noise levels in the vicinity of the construction equipment can be anticipated during construction and should be a temporary problem. Adverse environmental impacts on noise quality will be handled by limited hours of contractor work time during the day. Other adverse environmental effects from construction activities will be minimized by proper construction practices, inspection, prompt cleanup, and other appropriate measures. Areas temporarily disturbed by the construction will be restored. Solid wastes resulting from the construction project will be regularly cleared away with substantial efforts made to minimize inconvenience to area residents.

Care will be taken to maintain dirt to avoid erosion and runoff. The proposed project will disturb one or more acres of soil; therefore, the applicant is required to obtain an NPDES General Permit Number 2 (for storm water discharge associated with construction activities) and abide by its terms. Provided that this permit is obtained and the terms of which are abided by, no significant impact to surface water quality, fish, shellfish, wildlife, or their natural habitats is expected.

Temporary air quality degradation may occur due to dust and fumes from construction equipment. The applicant shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property during the proposed project (567 Iowa Administrative Code IAC 23.3(2)“c”).

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#240170752), that this undertaking will result in “No Adverse Effect - With Conditions”. The conditions are vibrational monitoring for historic structures during construction. 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. 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.

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 Grinnell 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 water quality in Grinnell. The water treatment facility will bring the City of Grinnell into compliance with department requirements. The new well and the rehabilitation of existing wells will better assist in meeting the City's water demands. A catastrophic loss of water supply could result in City-wide health impacts due to a lack of sanitation and the use of other water sources that may not meet Federal drinking water standards.

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.
- 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) *Drinking water or 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.

Nicole Osborn

Environmental Review Specialist

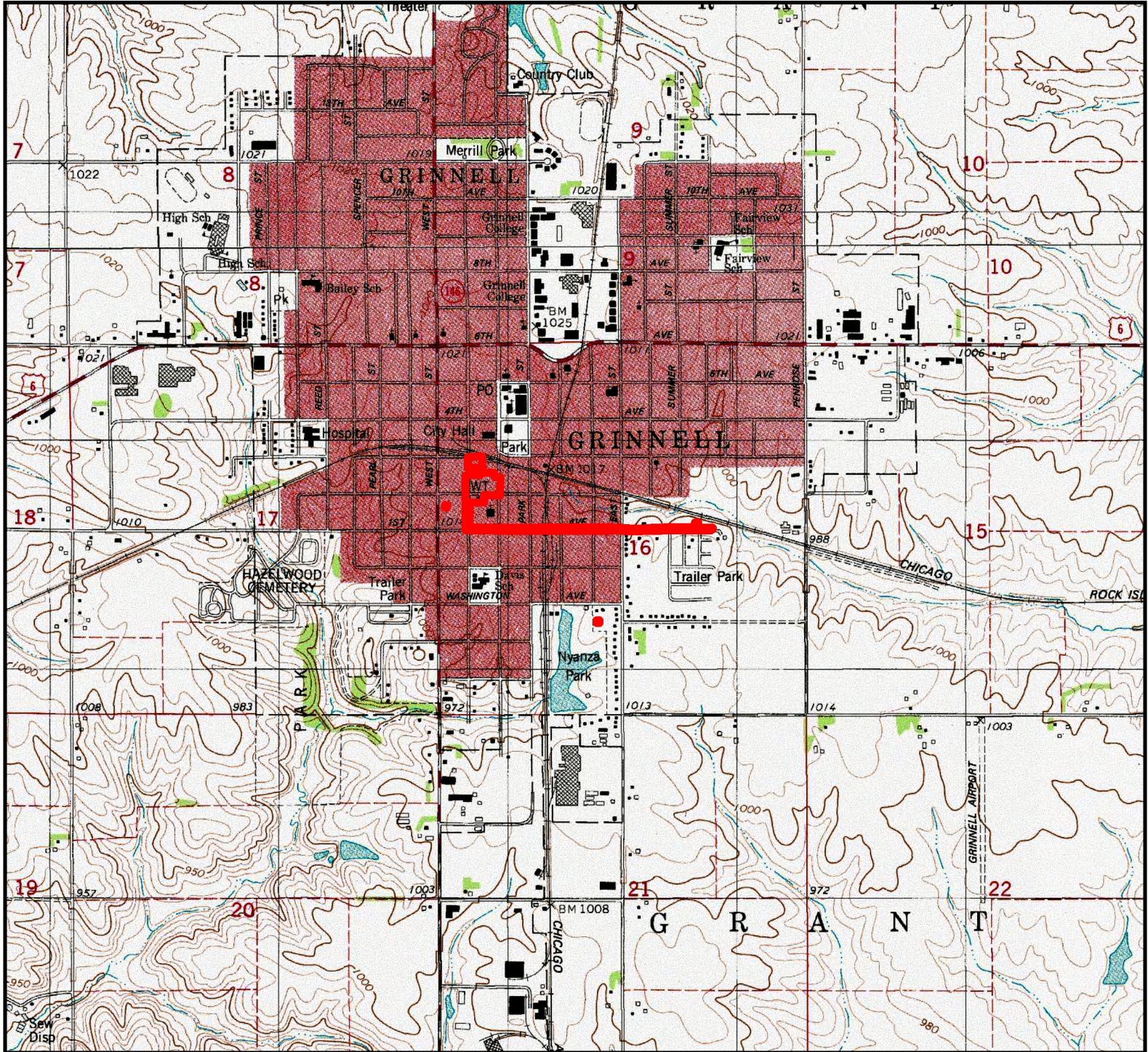
State Revolving Fund

Iowa Department of Natural Resources



STATE
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IOWA

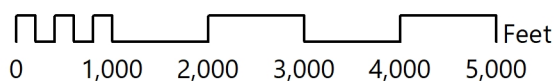
USGS 7.5 Minute Quadrangle: Grinnell S
Section: 16, Township: 80 N, Range: 16 W
Date: 1979



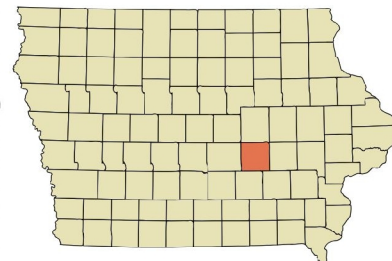
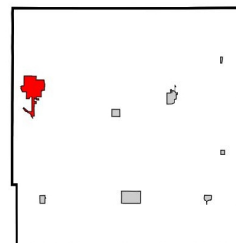
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 Project Area

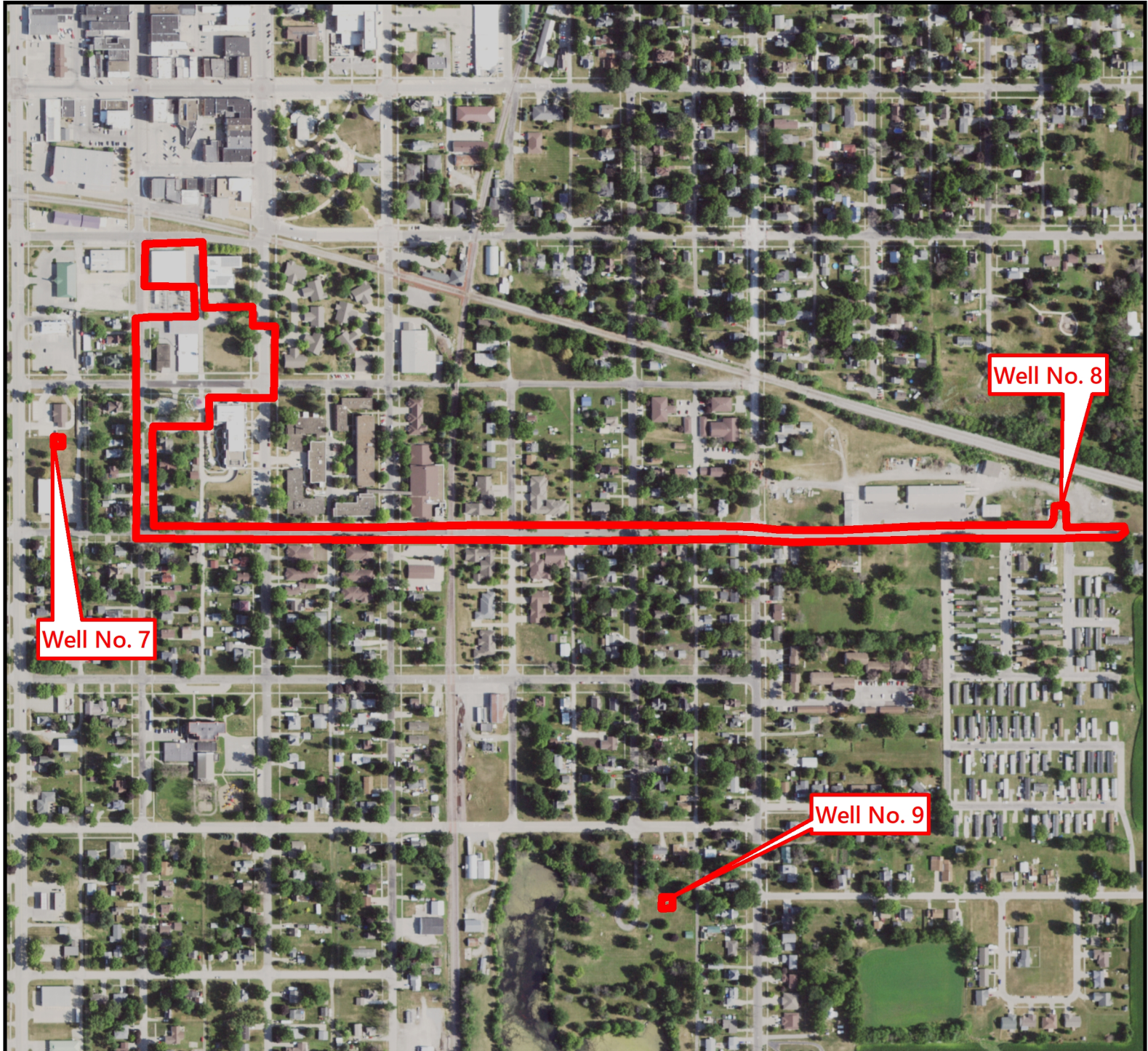
Scale: 1 inch = 2,000 feet



Grinnell Water System Improvements Phase 1
Grinnell, IA (Poweshiek County, Iowa)



Poweshiek County. Image source: Wikipedia, 2023.



Legend

 Project Area

Scale: 1 inch = 500 feet

Grinnell Water System Improvements Phase 1
Grinnell, IA (Poweshiek County, Iowa)

