

**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**

April 16, 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 Underwood

**SRF Number:** CS1921137 01

**County:** Pottawattamie

**Iowa DNR Project Number:** W2021-0431A

**State:** Iowa

The City of Underwood, Iowa is planning an upgrade to their wastewater treatment facility. 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 Underwood is located in Pottawattamie County, Iowa approximately 25 miles northeast of Omaha, Nebraska and 115 miles west of Des Moines, Iowa. The population of Underwood according to the 2020 US Census was 954 persons. The design population equivalent for the year 2041 is 1,990 persons.

The City of Underwood currently owns and operates a wastewater treatment system consisting of a collection system, lift stations, and continuous discharge lagoons which discharge treated effluent to Mosquito Creek, a tributary of the Missouri River. The existing lagoon system was originally constructed in 1963 as a two-cell controlled discharge lagoon system. By 1993, the City has outgrown the original system and the two-cell controlled discharge treatment plant was converted into a three-cell continuous discharge system. The existing continuous discharge treatment facility has reached its operating capacity, and at times, struggles to meet current water quality standards.

The purpose of this project is to make improvements to the wastewater treatment facilities to enhance their reliability, increase capacity and to improve treatment to better safely and reliably operate the City of Underwood's wastewater system for at least the next 20 years. The existing three-celled aerated lagoon system is proposed to be upgraded to a LEMNA system for wastewater treatment. An existing cell will be

covered with an insulated cover. The southernmost cell will be partially or fully filled in to provide an area where new construction can take place; construction of a new blower building, polishing reactor, and UV disinfection are included in this area of the project. Various piping and utility alterations are necessary to connect the new treatment system. All work is proposed within the existing treatment plant footprint.

The treated wastewater from the proposed facility will continue to discharge to Mosquito Creek, tributary to the Missouri River, through an effluent diffuser. Mosquito Creek has a use stream designation of A2, B(WW2). The is classified as a water stream. Waters with an A2 classification are those in which recreational or other uses may result in contact with the water that is either incidental or accidental. During the recreational use, the probability of ingesting appreciable quantities of water is minimal. Class A2 uses include fishing, commercial and recreational boating, any limited contact incidental to shoreline activities and activities in which users do not swim or float in the water body while on a boating activity. Waters with a B(WW2) classification are those in which flow or other physical characteristics are capable of supporting a resident aquatic community that includes a variety of native nongame fish and invertebrate species. The flow and other physical characteristics limit the maintenance of warm water game fish populations. These waters generally consist of small perennially flowing streams

Positive environmental effects will be improved treatment of the wastewater from the City of Underwood, compliance with effluent discharge permit limits including new, lower ammonia limits, and improved water quality in the receiving stream. 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. 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.

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 [Jean.Mayne@dnr.iowa.gov](mailto:Jean.Mayne@dnr.iowa.gov) or (515) 491-7565.

Sincerely,

Jean Mayne  
Environmental Specialist  
502 E 9<sup>th</sup> 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  
Dan Narber, 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, USDOT, 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  
The Daily Nonpariel newspaper

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

**PROJECT IDENTIFICATION**

**Applicant:** City of Underwood  
**County:** Pottawattamie  
**State:** Iowa

**SRF Number:** CS1921137 01  
**Iowa DNR Project Number:** W2021-0431A

**COMMUNITY DESCRIPTION**

**Location:** The City of Underwood is located in Pottawattamie County, Iowa approximately 25 miles northeast of Omaha, Nebraska and 115 miles west of Des Moines, Iowa.

**Population:** The population of Underwood according to the 2020 US Census was 954 persons. The design population equivalent for the year 2041 is 1,990 persons.

**Project Background:** The City of Underwood currently owns and operates a wastewater treatment system consisting of a collection system, lift stations, and continuous discharge lagoons which discharge treated effluent to Mosquito Creek, a tributary of the Missouri River. The existing lagoon system was originally constructed in 1963 as a two-cell controlled discharge lagoon system. By 1993, the City has outgrown the original system and the two-cell controlled discharge treatment plant was converted into a three-cell continuous discharge system. The existing continuous discharge treatment facility has reached its operating capacity, and at times, struggles to meet current water quality standards.

**PROJECT DESCRIPTION**

**Purpose:** The purpose of this project is to make improvements to the wastewater treatment facilities to enhance their reliability, increase capacity and to improve treatment to better safely and reliably operate the City of Underwood's wastewater system for at least the next 20 years.

**Proposed Improvements:** The existing three-celled aerated lagoon system is proposed to be upgraded to a LEMNA system for wastewater treatment. An existing cell will be covered with an insulated cover. The southernmost cell will be partially or fully filled in to provide an area where new construction can take place; construction of a new blower building, polishing reactor, and UV disinfection are included in this area of the

project. Various piping and utility alterations are necessary to connect the new treatment system. All work is proposed within the existing treatment plant footprint.

**Receiving Stream:** The treated wastewater from the proposed facility will continue to discharge to Mosquito Creek, tributary to the Missouri River, through an effluent diffuser. Mosquito Creek has a use stream designation of A2, B(WW2). The is classified as a water stream. Waters with an A2 classification are those in which recreational or other uses may result in contact with the water that is either incidental or accidental. During the recreational use, the probability of ingesting appreciable quantities of water is minimal. Class A2 uses include fishing, commercial and recreational boating, any limited contact incidental to shoreline activities and activities in which users do not swim or float in the water body while on a boating activity. Waters with a B(WW2) classification are those in which flow or other physical characteristics are capable of supporting a resident aquatic community that includes a variety of native nongame fish and invertebrate species. The flow and other physical characteristics limit the maintenance of warm water game fish populations. These waters generally consist of small perennially flowing streams

## ALTERNATIVES CONSIDERED

**Alternatives Considered:** Alternatives considered included the construction of a new controlled discharge lagoon system near the existing treatment plant site, the conversion of the existing plant to a LEMNA treatment process, and the construction of a new mechanical treatment plant (activated sludge).

**Reasons for Selection of Proposed Alternative:** The No-Action alternative is not viable due the increasing need for capacity and treatment of wastewater from the City of Underwood. The construction of a new controlled discharge system was found to be excessively expensive as it would require a large purchase of land. The construction of a new mechanical treatment plant was determined to be cost prohibitive for the City of Underwood. The selected alternative of conversion to a LEMNA system allowed for the re-use of the existing lagoons footprint. By limiting the project work to the existing treatment plant footprint, the selected alternative takes into account engineering needs and project costs, well as minimization of the impacts to the environment.

## MEASURES TAKEN TO ASSESS IMPACT

**Public Involvement:** A public hearing was held on April 9, 2024 at 6:00PM at the City's regular council meeting. The public notice of this hearing was published in the Daily Nonpareil newspaper on February 29, 2024. The public notice was also posted in three prominent public locations (City Hall, the local Post Office, and the Underwood Truck Stop) and posted on the City of Underwood website of scheduled public meetings. 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. 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”).

This project may require the disposal of sewage sludge. It is the responsibility of the applicant to ensure that the disposal of any sewage sludge complies with applicable requirements found in 40 CFR Part 503 and 567 Iowa Administrative Code IAC 67.

**Historical/Archaeological:** Various Native American tribes with an interest in the area were provided information regarding the project. The project has been submitted to the State Historical Preservation Office (SHPO) for review. The project will only proceed as planned if a determination of either “no historic properties affected” or “no adverse effect on historic properties” can be appropriately reached with or without mitigation. 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. 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. 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. 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

**Environmental Justice:** Based on the current EPA EJSscreen tool, this project area has been evaluated as a community with Environmental Justice (EJ) concern at the time of this review and for the purposes of this proposed project. The EJSscreen report is available upon request. While short-term environmental impacts are expected as outlined in the construction section above, this project will improve the handling and treatment of wastewater. Based on the approved antidegradation analysis, this project has been designed to maintain and protect high quality waters and existing water quality in other waters from unnecessary pollution.

**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 treatment of the wastewater from the City of Underwood, compliance with effluent discharge permit limits including new, lower ammonia limits, 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.
- The project will not affect threatened and endangered species or their habitats. 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.



## THEREFORE:

The above project conforms to the criteria in 567 Iowa Administrative Code 92.8(1)“b” 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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**Jean Mayne**

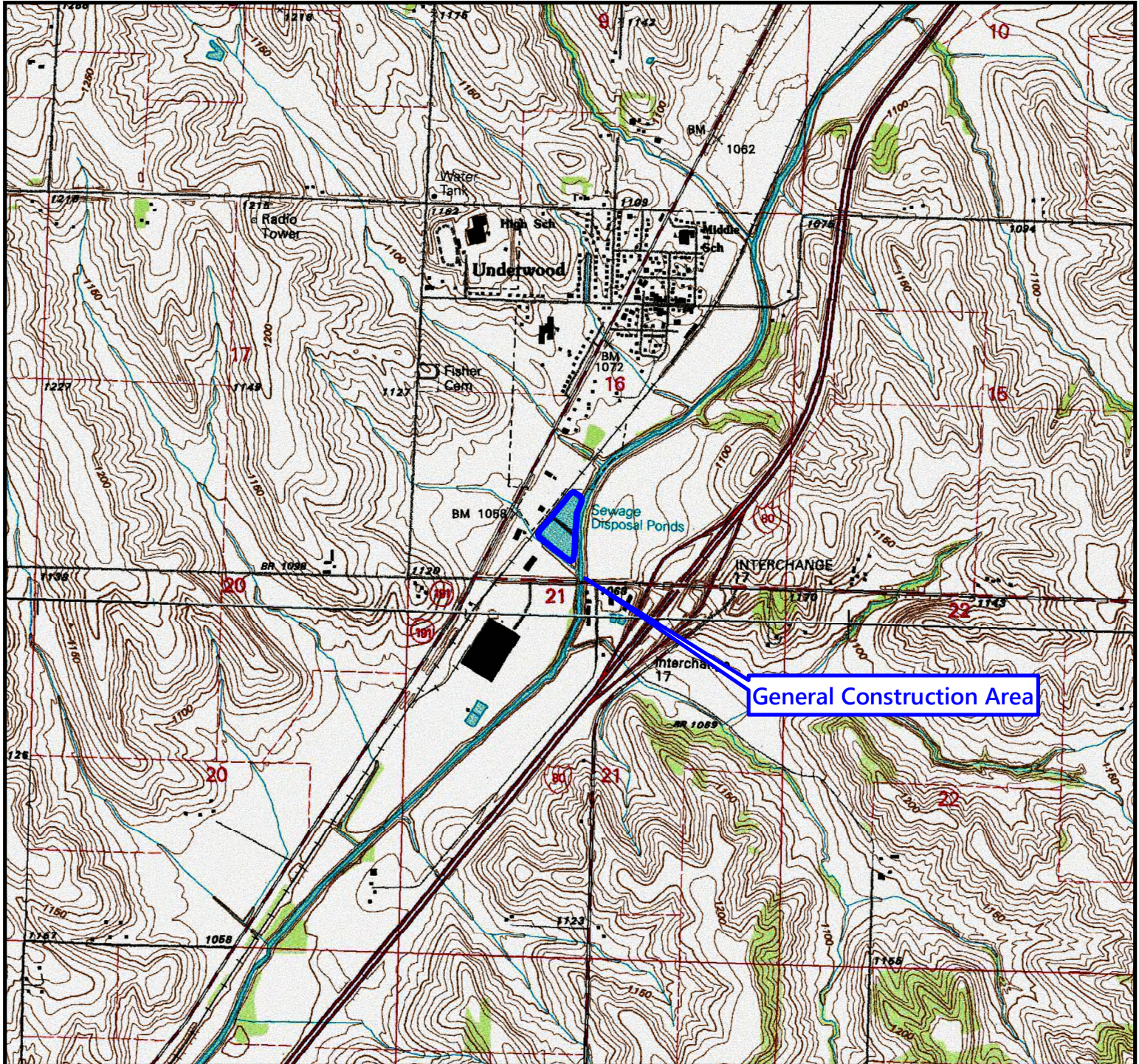
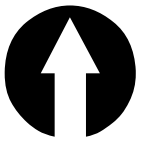
Environmental Review Specialist  
State Revolving Fund  
Iowa Department of Natural Resources





STATE  
REVOLVING FUND  
IOWA

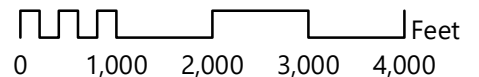
USGS 7.5' Quad: Underwood  
S 16, T 76N, R 42W  
Date: 1994



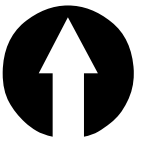
## Topographic Map

Underwood Treatment Facility Improvements  
Underwood, Iowa (Pottawattamie County)

Scale: 1 inch = 2,000 feet



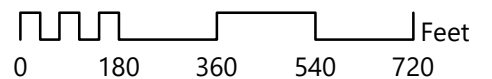




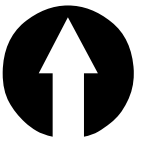
# Aerial Photograph

Underwood Treatment Facility Improvements  
Underwood, Iowa (Pottawattamie County)

Scale: 1 inch = 352 feet







# LiDAR

Underwood Treatment Facility Improvements  
Underwood, Iowa (Pottawattamie County)

Scale: 1 inch = 352 feet

