

DATE _____

FINDING OF NO SIGNIFICANT IMPACT

TO ALL INTERESTED GOVERNMENTAL AGENCIES AND PUBLIC GROUPS

As required by guidelines for the preparation of environmental impact statements, an environmental review has been performed on the proposed Clean Water State Revolving Fund (SRF) action below:

PROJECT: Wastewater Treatment System Improvements
LOCATION: City of Fort Pierre (Stanley County), SD
PROJECT NUMBER: C461049-07
TOTAL COST/SRF SHARE: \$3,701,000.00/\$3,701,000.00

The city of Fort Pierre is proposing a number of improvements to its wastewater treatment system. Fort Pierre's wastewater system has had multiple violations for discharge effluent limits in the past, currently is not in compliance with its surface water discharge permit and is facing proposed regulatory changes to effluent limits. To address these challenges the city of Fort Pierre is proposing to reroute flow to eliminate short circuiting in the treatment ponds and install new treatment technology for nutrient removal.

The proposed improvements to the wastewater treatment system will include installation of a moving bed bioreactor, add partial aeration to cells 5 and 6, and add UV disinfection. Cells 1 and 2 will be removed from service and a berm will be constructed in cell 4, utilizing the eastern portion for settling of biological materials and the western side as emergency storage in the event of power failure.

The city of Fort Pierre is located in Stanley County in central South Dakota. Construction of this project will occur at the wastewater treatment facility located in Sections 2 and 3 in Township 4 North, Range 31 East.

The city of Fort Pierre was awarded a \$3,701,000 Clean Water SRF loan at 2.125 percent interest for 30 years, and the city pledged a project surcharge for repayment of the loan. Current wastewater rates in Fort Pierre for domestic accounts are \$50.35 per month based on 5,000 gallons usage. This rate includes a \$10.50 surcharge for repayment of the \$3,701,000 loan.

The project will have no direct or indirect impact on any wetlands, as no wetlands are present in the project area. Proposed improvements will not be located in the 100-year floodplain. There will be no significant impact to prime or important farmlands as a result of this project. There proposed project will have no impact on fish and wildlife resources.

The project will not affect any historical or archaeological resources as determined by a Cultural Resources Inventory Survey of the project area. In the event of an archaeological or

historical resource being unearthed during construction, work will be stopped, and the State Historic Preservation Office will be notified.

The review process did not indicate that significant environmental impacts would result from the proposed action. Consequently a preliminary decision not to prepare an Environmental Impact Statement has been made. This action is taken on the basis of a careful review of the engineering report, environmental information documents, and other supporting data which are on file at the Department of Agriculture and Natural Resources (DANR), Division of Financial and Technical Assistance, Pierre, South Dakota, and are available for public scrutiny at Fort Pierre City Hall.

Comments supporting or disagreeing with this decision may be submitted for consideration by DANR. After evaluating the comments received, the Department will make a final decision; however, no final administrative action will be taken on the project for at least 30 calendar days after release of the Finding of No Significant Impact.

Michael A. Perkovich, Administrator
Environmental Funding Program

Published once at the total approximate cost of _____.

ENVIRONMENTAL ASSESSMENT

I. SUMMARY

A. PROJECT IDENTIFICATION

Applicant: City of Fort Pierre
Address: PO Box 700
Fort Pierre, SD 57532

Project Number: C461049-07

B. CONTACT PERSON

Rick Hahn, Public Works Director
PO Box 700
Fort Pierre, SD 57532

C. ABSTRACT

The city of Fort Pierre is proposing a number of improvements to its wastewater treatment system. Fort Pierre's wastewater system has had multiple violations for discharge effluent limits in the past, currently is not in compliance with its surface water discharge permit, and is facing proposed regulatory changes to effluent limits. To address these challenges the city of Fort Pierre is proposing to reroute flow to eliminate short circuiting in the treatment ponds, install an aeration system, add a moving bed bioreactor (MBBR) for nutrient removal, and install a UV disinfection system.

No significant persistent negative impacts are expected from the construction activity related to the proposed project.

D. COMMENT PERIOD

Comments, supporting or disagreeing with this decision, may be submitted for consideration by the Department of Agriculture and Natural Resources (DANR). After evaluating all the comments received, the department will make a final decision; however, no final administrative action will be taken on the project for at least 30 calendar days after release of the Finding of No Significant Impact.

II. PURPOSE AND NEED FOR THE PROPOSED ACTION

The city of Fort Pierre reports a population of 2,240 people and has been steadily growing since 1970. The city operates a sewer system with 1,214 connections. Wastewater is collected and conveyed to a lagoon treatment system and discharges directly to the Bad River.

Fort Pierre's wastewater treatment system has reported multiple violations of its discharge permit limits for ammonia, total coliforms, Escherichia Coli, and Biochemical Oxygen Demand (BOD) between February 1, 2016 and May 31, 2019. The treatment system requires modifications to come into compliance with its surface water discharge permit.

The city of Fort Pierre currently provides wastewater treatment through a lagoon pond system that consists of four primary treatment cells and two secondary treatment cells, and discharges into the Bad River. The primary cells have been lacking dissolved oxygen and short-circuiting of the system has prevented proper treatment.

The proposed project will reroute flows in the treatment ponds, construct a moving bed bioreactor (MBBR) adjacent to the existing cells, add partial aeration to two primary cells and add ultraviolet (UV) disinfection to the treatment system to meet effluent requirements.

III. PROJECT PLANNING AREA

The city of Fort Pierre is located in Stanley County in central South Dakota. Construction of this project will occur at the wastewater treatment facility located in Sections 2 and 3 in Township 4 North, Range 31 East.

The topography of the Fort Pierre area ranges from rolling hills in the immediate vicinity of the river to relatively flat in areas a mile or more from the river. The area has a continental climate with wide variations in temperature and precipitation. The average annual rainfall is approximately 20 inches, and the annual lake evaporation is 37 inches. The average annual mean temperature for the area around Fort Pierre is approximately 49° F. Temperature readings of 100° F and higher can be expected several days per year as well as readings of -20° F or lower.

IV. ALTERNATIVES

The city of Fort Pierre submitted a facility plan report in June 2020 which evaluated possible options to address issues present in wastewater system. The facility plan report examined alternatives to address issues in the wastewater collection system, the existing lift stations, and the wastewater treatment facility.

Several alternatives were evaluated to address the deficiencies in the wastewater treatment facility in addition to the "No Action" alternative. The "No Action" alternative involves continued use of the existing system. A summary and brief description of the evaluated alternatives are listed below:

Treatment System Alternatives

No Action”

This alternative would not address the deficiencies in the system and would leave the treatment system out of compliance with the surface water discharge permit; therefore, this alternative is not recommended.

Stabilization Ponds

This alternative proposes constructing new stabilization ponds adjacent to the existing ponds on city-owned land. The additional stabilization ponds will allow for increased retention time and hydraulic capacity. This alternative would require a wetland investigation prior to construction and therefore is not recommended.

Revised Ammonia Limits

This alternative proposes working with the SD DANR to revise the discharge effluent limits for ammonia to either a tiered- or flow-based limit. This alternative is recommended; however, does not alleviate the need to implement other treatment system alternatives.

Discharge to Missouri River

This alternative involves changing the discharge point on the treatment facility from an unnamed tributary of the Bad River to directly discharging into the Missouri River. The Missouri River does not currently have ammonia limits. It is anticipated that this will change in the near future and therefore not recommended.

Partial Aeration of Primary Cells

This alternative proposes to add aeration to two of the primary cells to increase ammonia and BOD removal. Adding aeration will not bring the system into immediate compliance with the discharge permit but will eventually allow for continuous discharge that meets the required effluent limits. This alternative is not recommended because there are other alternatives that are more financially feasible.

Partial Aeration and Suspended Attached Growth Reactor (SAGR)

This alternative proposes to construct a SAGR system adjacent to cells 3 and 6. This alternative would also remove cells 1 and 2 from service, add additional aeration and partial mixing in cells 5 and 6, add ultraviolet disinfection, and move the existing surface agitators from cells 5 and 6 to cell 3. A SAGR system is made up of clean gravel beds that evenly distribute wastewater flows across the width of the cell. Aeration is added to the floor of the SAGR causing aerobic conditions and nitrification. This alternative is a feasible option but was not chosen due to benefits of another alternative with similar cost.

Partial Aeration and Moving Bed Bioreactor (MBBR)

This alternative proposes to construct a MBBR system adjacent to cell 3. This alternative would also remove cells 1 and 2 from service, add partial aeration to cells 5 and 6, move the existing surface agitators from cells 5 and 6 to cell 3, and add ultraviolet disinfection. Cell 4 will be divided with a berm, utilizing the eastern portion for settling of biological materials and the western side as emergency storage in the event of power failure.

A MBBR system evenly distributes wastewater flow over floating plastic media with a high surface area. Aeration is added to the floor of the MBBR causing aerobic conditions and nitrification. This is the chosen alternative due to it being similar in price to the SAGR system, better understood by city staff leading to less operational issues, and the media being continuously cleaned which does not happen in the SAGR system.

Estimated Cost Breakdown for Selected Alternative

<u>Item Description</u>	<u>Cost</u>
Construction including contingencies	\$ 3,131,290
Engineering, Legal, and Administration	\$ 506,000
Opinion of Probable Project Costs	\$ 3,637,290

V. ENVIRONMENTAL IMPACTS OF THE PROPOSED PROJECTS

After describing the existing conditions for each affected resource, this section identifies the potential long-term impacts of the No Action alternative and the proposed project on human and natural environment resources as well as short-term impacts related to construction activities. For each relevant resource, any necessary mitigation is proposed to lessen the extent and intensity of effects.

Indirect impacts associated with the project if any and all measures currently in place to mitigate for these impacts are discussed with each resource. Indirect impacts are unintentional project-induced impacts (positive or negative) that would affect the socioeconomic and/or natural environment beyond the project area and would occur later in time or be farther removed in distance from the project area. For the purposes of this project, the related impacts associated with the potential development that are anticipated to occur post project construction are discussed as potential indirect impacts of the project.

A. LAND USE

Existing Conditions

The proposed project area is outside of the city limits of Fort Pierre, approximately ½ to 1 mile south of the city limits. Construction will take place on previously developed land.

Impacts of Alternatives

Neither the proposed project nor the No Action alternative would have a direct impact on future land use designation.

Indirect impacts associated with the No Action alternative would be in the form of inconsistent and unplanned growth in this area of the city. Planning and identification of future land use was determined based on the current or potential availability of infrastructure. The No Action alternative would not change any future land use designations, but new growth in the potential service area of the project would likely be inconsistent with the growth plans of the city as a result of the lack of suitable infrastructure.

B. FARMLAND

Existing Conditions

The proposed project area is outside of the city limits of Fort Pierre, approximately ½ to 1 mile south of the city limits. There is a trailer park to the north west of the treatment facility, otherwise the land surrounding the project area is primarily undeveloped.

Impacts of Alternatives

Coordination was conducted with the NRCS to evaluate the project for its impact on prime farmland and statewide important farmland. According to NRCS, the proposed project will have no impact on prime farmland.

C. ECONOMIC RESOURCES

Existing Conditions

The city of Fort Pierre continues to experience a steady growth in population, combined with an increase in land use development. As growth continues, demand on existing resources in the area will increase. This trend will likely continue in the future with the expansion of residential and commercial properties after the WWTF improvements. Increased residential and commercial development is imminent.

Impacts of Alternatives

Neither the No Action alternative nor the proposed project would have direct or indirect effects on economic resources. Economic growth is independent of the project, and growth would likely continue with or without the project. Construction will bring a slight economic boost to the area through the hiring of local labor, retail trade by construction employees, and purchases of miscellaneous building supplies and fuel.

As no negative impacts on economic resources are anticipated, mitigation would not be required.

D. PUBLIC SERVICES AND FACILITIES

Existing Conditions

Many public services are provided to the project area and potential service area, including fire protection, ambulance emergency services, and law enforcement.

There are no public facilities for these services located in the project area or potential service area.

Impacts of Alternatives

The No Action alternative would have no direct or indirect impacts on public services and facilities. The city of Fort Pierre is planning for the growth of the city and would continue to provide services to new growth areas as appropriate.

The project, by its nature, is to improve wastewater treatment services for the existing and proposed service area, thereby providing infrastructure to this area.

As no impacts on public services and facilities are anticipated and the city of Pierre is anticipating and planning for the growth of the city, mitigation would not be required.

E. WATER QUALITY

Existing Conditions

The discharge site of the current WWTF and proposed improvements is the Bad River. According to the statement of basis with the current surface water discharge permit, the beneficial use categories of the Bad River are as follows:

- Warmwater marginal fish life propagation waters (6)
- Limited-contact recreation waters (8)
- Fish and wildlife propagation, recreation, and stock watering waters (9)
- Irrigation waters (10)

The Bad River flows into the Missouri River/Lake Sharpe three miles downstream of the discharge point. According to the statement of basis with the current surface water discharge permit, the beneficial use categories of Lake Sharpe of the Missouri River are as follows:

- Domestic water supply (1)
- Coldwater permanent fish life propagation waters (2)
- Immersion recreation waters (7)
- Limited-contact recreation waters (8)
- Fish and wildlife propagation, recreation, and stock watering waters (9)
- Irrigation waters (10)
- Commerce and industry waters (11)

Impacts of Alternatives

The selected alternative will have no significant short- or long-term effect on water quality. Short-term impacts to water quality will be minimized by the implementation of the Storm Water Permit issued under the National Pollution Discharge Elimination System (NPDES). This permit requires the reestablishment of vegetation and best management practices to minimize soil erosion during the construction of the selected alternative. Long-term impacts to water quality as a result of the wastewater treatment facility effluent discharge into the Bad River will be avoided by compliance with the Surface Water Discharge permit issued to the city. The discharge limit concentrations were

established so that the water quality standards of the Bad River set by the NPDES program under Section 402 of the Clean Water Act will not be exceeded.

F. FLOODPLAINS

Existing Conditions

The proposed project is located outside the 100-year flood plain. After flooding occurred in 2011, the perimeter surrounding cells 1 and 2 were raised to bring them outside of the 100-year floodplain.

Impacts of Alternatives

Neither the No Action alternative nor the project would have direct impacts on floodplains; therefore, mitigation is not required. This project will be constructed to elevations that are above the 100-year flood plain elevations as determined by the engineering study.

There will be no indirect impacts to flood plains associated with the project. The area available for development as a result of this project is at elevations above the 100-year flood plain.

G. FISH AND WILDLIFE

Existing Conditions

No special fish and wildlife habitats have been identified in the project area.

Impacts of Alternatives

The No Action alternative would have no direct effect on fish or wildlife habitat.

Very little natural area will be disturbed or left disturbed as a direct result of the project. Limiting the amount of construction work and potential permanent impacts to wildlife habitat would allow for preservation of habitat within this proposed project service area. As a result, the project would have no long-term effect on fisheries and wildlife. Potential short-term impacts can result from construction activities. Best management practices as established by the US Fish and Wildlife Service will be used to minimize the impact on wildlife.

As a result of ample wildlife habitat for displaced wildlife to migrate to and existing measures for protection of wildlife habitat, no significant indirect impacts to fish and wildlife habitat would occur as a result of the No Action alternative or the project.

H. THREATENED AND ENDANGERED SPECIES

Existing Conditions

In accordance with Section 7(c) of the Endangered Species Act of 1973, informal consultation for the project was initiated for the presence of threatened or endangered (T&E) species with the South Dakota Field Office of US Fish and Wildlife Service (US FWS) and the South Dakota Department of Game, Fish, and Parks (SD GFP). State T&E species and species of management concern are regulated under South Dakota Statutes 34A-8 and 34A-8A, respectively. SD GFP maintains a list of species determined to be threatened or endangered within the State. A species of management concern is a designated species that requires both

control and protection (e.g., prairie dogs). Letters were mailed to US FWS and SDD GFP requesting comments on this project.

Impacts of Alternatives

Neither the No Action alternative nor the project would have direct or indirect impacts on T&E species.

I. WETLANDS AND WATERWAYS

Existing Conditions

No wetlands within the project area were identified through a desktop analysis of National Wetland Inventory (NWI) mapping and U.S. Geological Survey (USGS) mapping of the project area.

Impacts of Alternatives

The No Action alternative would have no direct impacts on wetlands or waterways.

Indirect impacts to wetlands will not occur as a result of the No Action alternative or the proposed project. Indirect impacts include development of the land within the identified area. The US Fish and Wildlife Service encourages avoidance of wetlands, if possible, minimization of impacts to wetlands if they cannot be avoided, and replacement of wetland values that may be impacted by a project.

J. ARCHAEOLOGICAL AND HISTORIC RESOURCES

Existing Conditions

A record search was completed by the South Dakota State Historical Society Archaeological Research Center. There are no properties of known historic or archeological significance on the proposed sites where ground disturbing activities will take place.

Impacts of Alternatives

Neither the No Action alternative nor the project would have direct impacts on cultural resources; therefore, mitigation is not required.

There will be no indirect impacts to cultural resources as determined by an archaeological survey of the area available for development as a result of this project.

K. CONSTRUCTION

Construction impacts for both the project and the indirect effect of development, such as air quality (dust and smoke), noise, and odor problems, can be minimized through various construction management measures. Soil erosion at the construction sites can also be minimized throughout the construction period with best management practices. The contract documents will specify the construction management and BMPs. In addition, any impacts that persist after implementation of BMPs would only be temporary in nature.

L. CUMULATIVE IMPACTS

Cumulative impacts are effects that are combined from different projects, are typically considered negative impacts, and persist to the long-term detriment of the environment. The Council on Environmental Quality's (CEQ's) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) define cumulative impacts as "The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR 1508.7).

Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. They may arise from single or multiple actions and result in additive or interactive effects. Before cumulative impacts can be evaluated, a proposed action must have advanced far enough in the planning process that its implementation is reasonably foreseeable.

Potential indirect impacts of this project may result from new residential, commercial or industrial development that would not be able to occur without the wastewater system improvements. Examples include disturbances of environmentally sensitive areas or historic or cultural resources from construction activities. The uncertainty of growth dynamics and the environmental issues associated with future growth make the identification of specific indirect impacts associated with the project impractical.

VII. AGENCIES CONSULTED

The following agencies were consulted in regard to the proposed project construction and environmental review and had the following comments:

1. South Dakota State Historical Society, State Historic Preservation Office, in a letter dated September 28, 2020:

Based on the information provided to the South Dakota State Historic Preservation Office on 9/18/2020, we concur with your determination of "No Adverse Effect" for the undertaking.

Pursuant to 36 CFR Part 800.13, if historic properties are discovered or unanticipated effects on historic properties are found after the agency official has completed the Section 106 process, the agency official shall avoid, minimize, or mitigate the adverse effects to such properties and notify the SHPO and Indian tribes that might attach religious and cultural significance to the affected property within 48 hours of the discovery.

Concurrence of the State Historic Preservation Office does not relieve the federal agency official from consulting with other appropriate parties, as described in 36 CFR Part 800.2(c).

2. US Department of Interior, Fish and Wildlife Service, in a letter dated July 30, 2020:

This constitutes a report of the Department of the Interior prepared in accordance with the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.). We have reviewed and have NO OBJECTION to this proposed project.

4. US Department of Agriculture, Natural Resources Conservation Service in a letter dated September 25, 2020:

Thank you for the opportunity to provide Farmland Protection Policy Act (FPPA) review of this project. The project as outlined will have **no impact** on prime or important farmland.

5. South Dakota Department Game, Fish and Parks in a letter dated October 2, 2020:

The Department of Game, Fish, and Parks has reviewed the above project involving improvements to the sewage lagoon in Fort Pierre, South Dakota.

Based on the information provided, there is no anticipated significant impact to fish or wildlife resources.

6. US Department of the Army, Corps of Engineers in a letter dated August 5, 2020:

Your plans should be coordinated with the state water quality office that has jurisdiction with the area where the project is located to ensure compliance with federal and state water quality standards and regulations mandated by the Clean Water Act and administered by the U.S. Environmental Protection Agency. Please coordinate with the South Dakota Department of Environment & Natural Resources concerning state water quality programs.

If you have not already done so, it is recommended you consult with the U.S. Fish and Wildlife Service and the South Dakota Department of Game, Fish and Parks regarding fish and wildlife resources. In addition, the South Dakota State Historic Preservation Office should be contacted for information and recommendations on potential cultural resources in the project area.

The Federal floodplain management criterion basically states that construction which could be damaged by floodwaters or which could obstruct flood flows should not be located in the one percent annual floodplain. If this is not practicable, any residential construction that could be damaged by floodwater must be placed above the one percent annual chance floodwater surface elevation. Any nonresidential construction that could be damaged by floodwater must be placed above or flood proofed to above the one percent annual chance floodwater surface elevation. All construction should be designed to minimize potential harm to or within the floodplain. Higher levels of protection are encouraged to provide added safety. If the operation of the constructed facilities is considered critical

during flood periods, the facilities should be protected from at least the 0.2 percent annual flood chance.

If construction must occur in the floodplain, it must be located outside the floodway. If a floodway has not been determined and designated, the construction should be as far from the stream channel as possible. The goal of any construction in the floodplain is to achieve the highest level of flood protection with zero impact to adjacent property.

Since the proposed project does not appear to be located within Corps owned or operated lands, your plans should be submitted to the local floodplain administrator for review and approval prior to construction. It should be ensured that the proposed project is in compliance with floodplain management criteria of Meade County and the State of South Dakota. In addition, please coordinate with the following floodplain office:

South Dakota Division of Emergency Management
Attention: Mr. Marc Macy
118 W. Capitol Avenue
Pierre, South Dakota 57501
Telephone: 605-773-3231
Fax: 605-773-3580
Email: marc.macy@state.sd.us

Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization under Section 404 of the Clean Water Act. You can visit the Omaha District's Regulatory website for permit applications and related information. Please review the information on the provided website (<http://www.nwo.usace.army.mil/Missions/RegulatoryProgram.aspx>) to determine if this project requires a 404 permit. For a detailed review of permit requirements, preliminary and final project plans should be sent to:

U.S. Army Corps of Engineers
Pierre Regulatory Office
Attention: Mr. Steve Naylor, CENWO-ODR-SD
28563 Powerhouse Road, Room 120
Pierre, South Dakota 57501

VIII. PUBLIC PARTICIPATION

A. Public Hearing

Date: March 2, 2020

Location: Commission Room, Stanley County Courthouse, Fort Pierre, SD

B. Public Response

Mayor Hanson called for public comment. There were no complaints or concerns voiced.

IX. REFERENCE DOCUMENTS

The following reference documents have been utilized by DENR in the environmental review of this document and considered to be part of the project file.

1. Amended Fort Pierre Wastewater System Facility Plan (Dated March 2020) for City of Fort Pierre, prepared by Banner Associates, Inc.
2. Fort Pierre, SD Wastewater System Updated Facility Plan (Dated June, 2020) for City of Fort Pierre, prepared by Bartlett & West, Inc.
3. Response from State Historic Preservation Office, Jenna Carlson Dietmeier, dated September 29, 2020, to Tyler Zetl, South Dakota Department of Environment and Natural Resources.
4. Response from US Fish and Wildlife Service dated July 30, 2020 to Nick Kuzmyak, P.E., Bartlett & West Inc.
5. Response from the Natural Resource Conservation Service dated September 25, 2020 to Nick Kuzmyak, P.E., Bartlett & West Inc.
6. Response from South Dakota Department of Game, Fish and Parks dated October 2, 2020 to Nick Kuzmyak, P.E., Bartlett & West Inc.
7. Response from US Army Corps of Engineers, dated August 5, 2020 to Nick Kuzmyak, P.E., Bartlett & West Inc.
8. Approved meeting minutes of the March 2, 2020 meeting of the Fort Pierre City Council.