

## ENVIRONMENTAL ASSESSMENT DOCUMENT

### A. Project Identification:

**Applicant:** City of South Sioux City **Project No.** C318016  
**City:** South Sioux City **County:** Dakota **State:** Nebraska  
**Total Project Amount:** \$31,591,000  
**SRF Loan Funds:** \$31,591,000

**B. Reasons for concluding there will be no Significant Impacts:** Attached is an Environmental Narrative Requirements report that has been reviewed by the program. The Environmental Narrative Requirements report was prepared by the City as part of an application for Economic Development Administration grant funds and it did not identify any significant negative impacts. The report is attached as an environmental assessment document because it reflects the Feasibility Study conclusions and the responses received from agencies contacted by the City for comment on the proposed WWTF, and substantially addresses the requirements of an environmental assessment required for CWSRF funding of the project.

The Environmental Narrative Requirements report indicated the project location is predominantly farmland with no significant refuges, parks or wilderness areas on the land, and impacts to wetlands greater than 0.1 acres is not expected. The land for the proposed WWTF construction is in an area zoned for heavy industrial uses generally not compatible with residential or commercial areas, which would allow for the air quality and noise characteristics that may accompany operation of the plant. The WWTF will be constructed outside of the 100-year floodplain. No impacts to endangered species or underground water resources have been noted. No known adverse human health or environmental impacts disproportionate to minority and/or low income populations were indicated in the report and no adverse impact on community growth patterns is expected. Pertinent permitting requirements for construction and operation of the WWTF are addressed within the report. A draft Cultural Resources Investigation report for the site states nothing was discovered indicating a significant archaeological site and no historic properties are present within the project area.

Reviewing NDEE Engineer



Date: January 29, 2020

FINDING OF NO SIGNIFICANT IMPACT DISTRIBUTION LIST  
SOUTH SIOUX CITY, NEBRASKA

DEPARTMENT OF ENVIRONMENT AND ENERGY  
Office of Public Affairs  
P.O. Box 98922  
Lincoln, NE 68509-8922

DEPARTMENT OF HEALTH AND HUMAN  
SERVICES – DIVISION OF PUBLIC HEALTH  
Steve McNulty  
P.O. Box 95026  
Lincoln, NE 68509-5026

DEPARTMENT OF NATURAL RESOURCES  
Curt Inbody  
P.O. Box 94676  
Lincoln, NE 68509-4676

NEBRASKA GAME & PARKS COMMISSION  
Craig Wacker/Carey Grell  
P.O. Box 30370  
Lincoln, NE 68503-0370

DIRECTOR, NEBRASKA STATE  
HISTORICAL SOCIETY  
P.O. Box 82554  
Lincoln, NE 68508-2554

STATE OFFICE OF POLICY RESEARCH  
Policy Advisor  
Rm 1319, State Capitol  
P.O. Box 94601  
Lincoln, NE 68509-4601

DEPARTMENT OF ECONOMIC DEVELOPMENT  
Heather Voorman  
P.O. Box 94666  
Lincoln, NE 68509

DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE  
Eliza Hines  
9325 South Alda Road  
Wood River, NE 68883

NATIONAL PARK SERVICE  
Nick Chevance  
Environmental Coordinator  
Midwest Regional Office  
601 Riverfront Drive  
Omaha, NE 68102-4226

USDA RURAL DEVELOPMENT  
Marty Norton  
Room 308, Federal Building  
100 Centennial Mall North  
Lincoln, NE 68508

ENVIRONMENTAL PROTECTION AGENCY  
Chris Simmons/Kelly Beard-Tittone  
11201 Renner Blvd  
Mail Code: WWPDWIMB  
Lenexa, KS 66219

STATE CONSERVATIONIST  
Natural Resources Conservation Service  
Federal Building, Room 345  
100 Centennial Mall North  
Lincoln, NE 68508

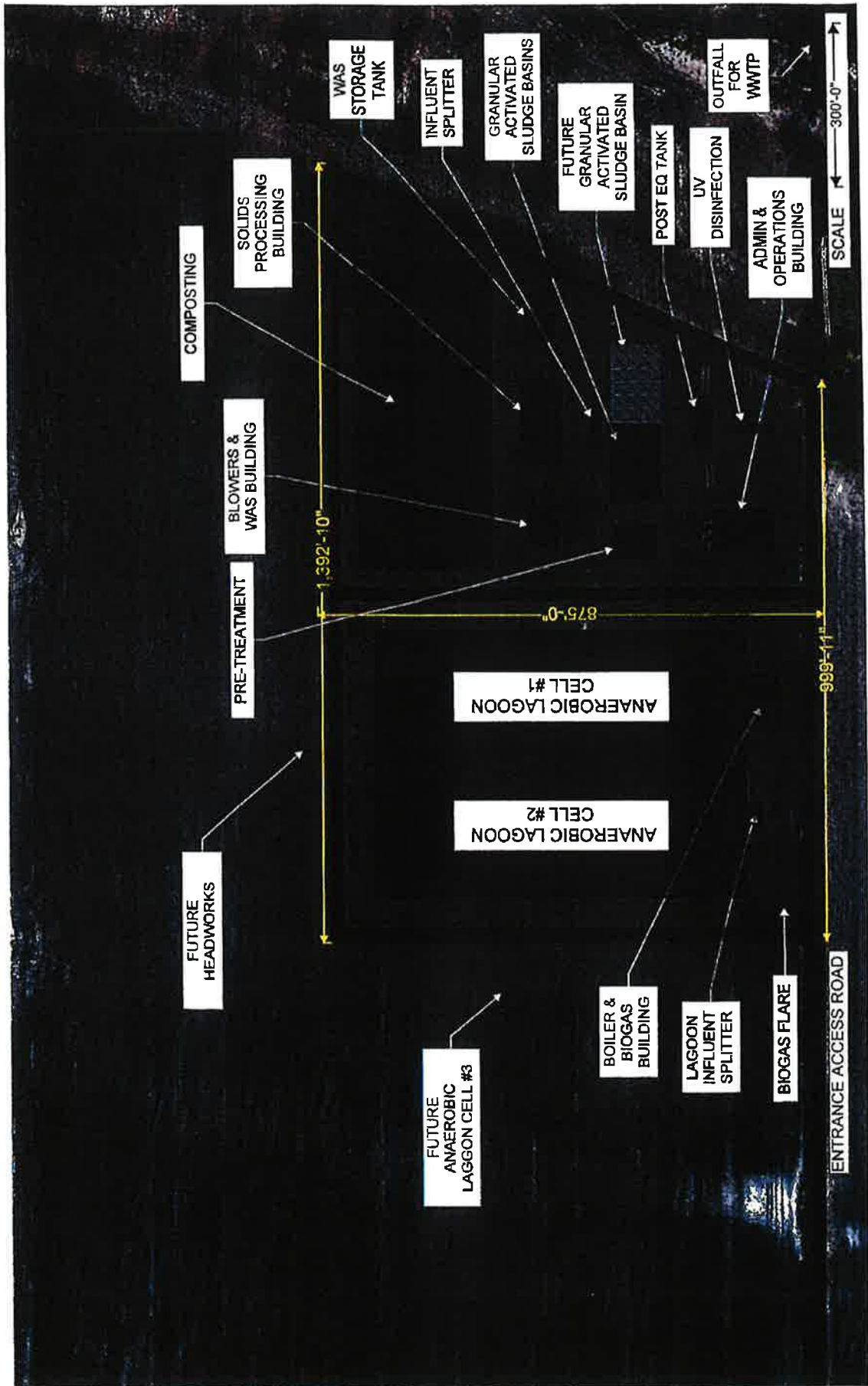
DEPARTMENT OF THE ARMY  
John Moeschen  
State Program Manager  
US Army corps of Engineers  
Nebraska State Office, Suite 1  
8901 South 154<sup>th</sup> Street  
Omaha, NE 68138-3621

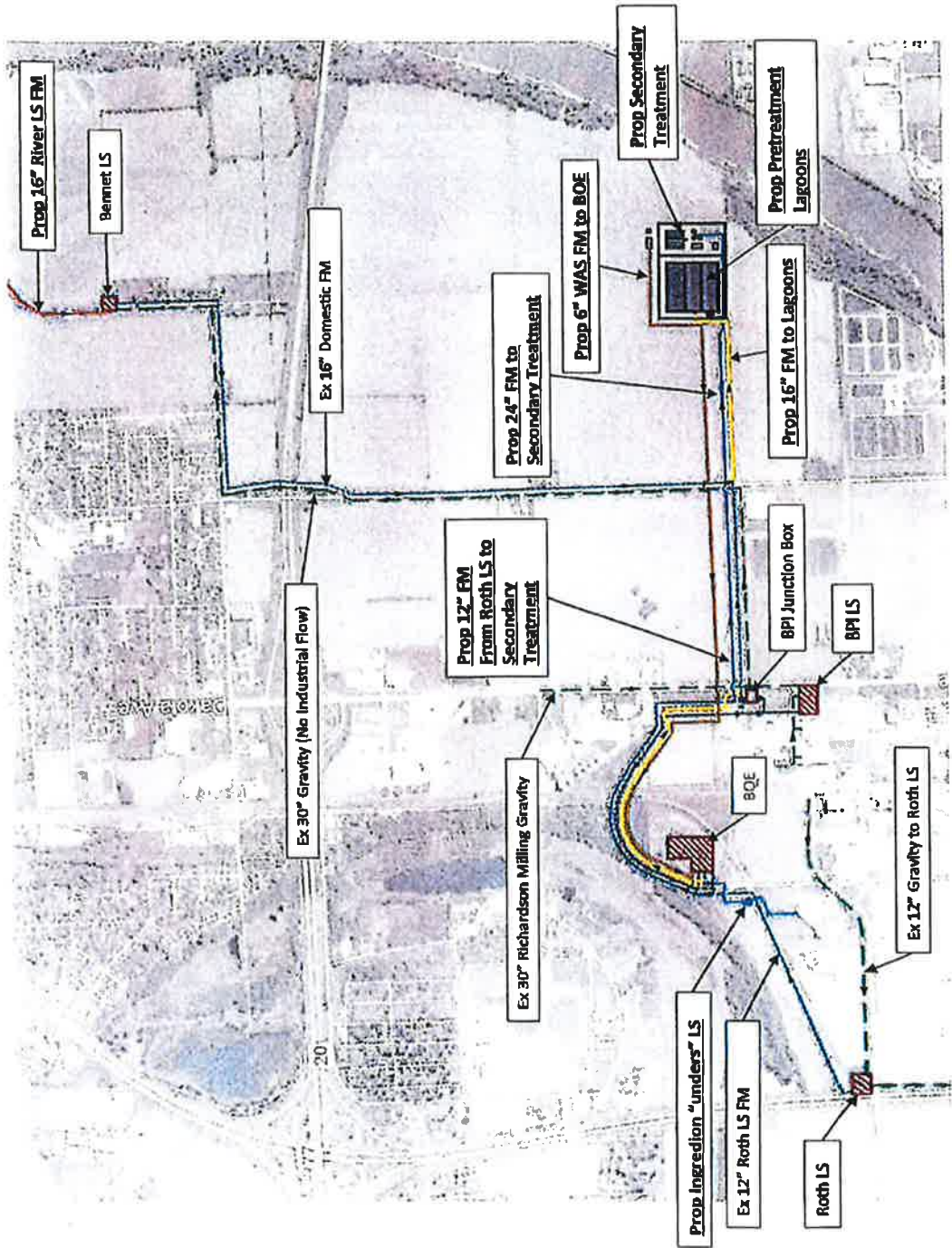
APPLICANT  
Robert Livermore, Public Works Director  
City of South Sioux City  
100 East 4<sup>th</sup> Street  
York, NE 68467-0276

ENGINEER  
Terry Meier, PE  
JEO Consulting Group, Inc.  
2700 Fletcher Avenue  
Lincoln, NE 68504

LOCAL NEWSPAPER:  
(Public Information Only not for Public Notice)  
Dakota County Star  
1000 West 29<sup>th</sup> Street, #212  
South Sioux City, NE 68776

NATURAL RESOURCES DISTRICT:  
John Winkler, Manager  
Papio-Missouri River NRD  
8901 South 154<sup>th</sup> Street  
Omaha, NE 68138-3621





## **Environmental Narrative Requirements**

*The National Environmental Policy Act (NEPA) requires Federal agencies to assess the potential environmental impacts associated with proposed federal actions, including financial assistance. Applicants are encouraged to contact their designated Economic Development Representative or the applicable EDA Regional Environmental Officer with questions (please see the EDA website or the applicable Federal Funding Opportunity for contact information) regarding this template and/or the appropriate level of documentation. Resources of available information are listed in many of the sections. If you are using a locally saved copy of this template, please check EDA's website to confirm this is the current version.*

*For further information regarding EDA's obligations under NEPA, please refer to the regulations for implementing NEPA at 40 C.F.R. 1500-1508. The Council on Environmental Quality's 2007 guidance document "A Citizen's Guide to the NEPA is another resource available online.*

*Several issues discussed in the environmental narrative below may require consultation with other State or Federal agencies at a later date (for example, the State Historic Preservation Office or the U.S. Fish and Wildlife Service). While EDA does not require that applicants complete such consultations before submitting an initial application, applicants should be aware that in the event their project is selected for further evaluation for funding, EDA may delegate these consultations to the applicant and expect them to be completed in an expeditious manner and prior to approval of an award.*

***Applicants must provide information on the following items in the environmental narrative. For any area in which the applicant asserts that an item is not applicable to a project, provide an explanation.***

### **A. PROJECT DESCRIPTION**

South Sioux City sustained damage from all three flooding events beginning in March 2019 and struggled with ongoing high-water throughout 2019 due to continued heavy rains, high impacts to the Missouri River and high upstream dam outputs. With these repeat events, Dakota County including South Sioux City was identified by the Stafford Disaster Act / FEMA as a disaster county in Nebraska. Refer to Attachment b: FEMA Declaration Map Documentation – DR-4420. Daily flows for the Sioux City wastewater treatment plant are directly related to high water events, i.e. repeated floods as occurred in 2019. The Spring rapid snow melt and heavy rains, combined with abnormally high river levels over the summer, fall and early winter months have resulted in a doubling or tripling of daily flows at Sioux City's waste water treatment plant (WWTP). Normal flow would be approximately 13-14 MGD, however, Sioux City has been needing to treat in excess of 20 MGD and sometimes in excess of 30 MGD. Relief is not expected until river levels recede to near normal levels.

The City currently collects all wastewater and sends the wastewater to Sioux City, IA for final treatment. Sioux City, IA has notified the City (11/26/2019) that in four years they will no longer accept wastewater from the southern portion of the community, primarily the industrial area. Attachment 8. Letter from Sioux City Iowa - Discontinuance

The project includes the construction of a new wastewater treatment facility in the N 1/2 of Sec 3, T28N, R09E and in the N 1/2 of Sec 4, T28N, R09E. The project also includes the construction of two covered anaerobic lagoons, a granular activated sludge treatment system, an ultraviolet disinfection system, and then direct discharge to the Missouri River. Also included are new conveyance

improvements to direct wastewater to the proposed new treatment facility and upgrades to lift stations as required. A map showing the proposed improvements is shown as Attachment 1a-c. WWTF Map Views.

The City of South Sioux City, Nebraska has completed a feasibility study and is now in the design phase of constructing a new wastewater treatment facility (WWTF) to serve the southernmost industries in the community. The project has undergone an environmental review, a 30-day public hearing ending 12/23/2019 and an open house on 8/12/2019. The proposed project will be funded by the Nebraska State Revolving Loan Fund (committed) and the U.S Department of Commerce – EDA (proposed). The project is estimated to cost \$31,591,000.

**1. Beneficiaries**

*Identify any existing businesses or major developments that will benefit from the proposed project, and those that will expand or locate in the area because of the project.*

Several major businesses are expected to directly benefit from the WWTP and report additional planned expansion efforts:

**Table 1. Economic Impact**  
Based on known Investments as of 1/15/2020

Private Sector	Current Jobs	Recent Investment	Proposed Investments	
			Estimated Jobs	Est. Additional Investment
empirical	580	20,000,000	15	\$ 20,000,000
Ingredion (1)	32	133,000,000	11	\$ 7,000,000
Richardson Milling	75	11,055,887	0	0
<b>Subtotal</b>	<b>687</b>	<b>164,055,887</b>	<b>26</b>	<b>\$ 27,000,000</b>
WWTP			6	32,000,000
<b>TOTAL</b>	<b>687</b>	<b>\$ 164,055,887</b>	<b>32</b>	<b>\$ 59,000,000</b>

Source: Letters of Impact

Notes: (1) Ingredion set to begin operation February 2020  
Adding onto current job estimates

**2. Proposed Construction**

As an exhibit to this Narrative, a topographical map of the project area and a site map (with legend and north arrow) displaying the project location and boundaries, existing and proposed project components and location of all sites and/or companies benefitting from the proposed project can be found as Attachment 1a-c: WWTP Map Views.

**Describe the project construction components in detailed, quantifiable terms.**

During the feasibility study and after assessing monetary and nonmonetary considerations for the range of alternatives and sizing options, a site was selected (Alternative 2A). This WWTP alternative would be built on a single, combined site that includes covered anaerobic lagoons followed by a granular activated sludge treatment system, an ultraviolet disinfection system, and then direct discharge to the Missouri River. Also included are new conveyance



improvements to direct wastewater to the proposed new treatment facility and upgrades to associated lift stations. This alternative potentially makes use of and benefits from the retired energy facility from an industrial pretreatment, gas production, and solids handling perspective available in the future while minimizing the level of equalization and pretreatment required by the individual industries. The WWTP accommodates some level of near term industrial growth and allows for future expansion for long term growth.

**Describe the project location, proposed construction methods, and schedule.**

Please refer to the Preliminary Engineering Report (PER) Attachment 3: Feasibility Study. The City of South Sioux City is proposing to construct a WWTP on 44-acres of land located at the N 1/2 of Sec 3, T28N, R09E and in the N 1/2 of Sec 4, T28N, R09E, City of South Sioux City, Dakota County, NE. The project would be constructed over a three-year period and entail an open, competitive bidding process with construction staging area located entirely within the existing ROW.

Proposed project schedule:

- Land acquisition upon receipt of SRF – January 2020
- 30% Design – December 2019 to March 2020
- 90% Design – March 2020 to September 2020
- Final Design – September 2020 to October 2020
- Permitting – September 2020 to December 2020
- Bidding and Awarding of Contracts – December 2020 to February 2021
- Construction Period - March 2021 to December 2022

**3. Need and Purpose**

*Provide a brief summary of the underlying need and purpose of the proposal for EDA funding.*

South Sioux City sustained damage from all three flooding events in 2019 and struggled with ongoing high-water throughout 2019 due to high upstream dam outputs and repeated heavy rains. This impact created high flow volumes needing to be treated by the existing wastewater treatment facility. The repeated floods complicated an already delicate situation with the Sioux City Regional Treatment Plant resulting in terminating South Sioux City's growing southern industries from the existing regional WWTF and raising existing rates. Sioux City, IA indicated at its Council meeting on November 25, 2019 that they will no longer accept wastewater from the southern portion of South Sioux City, the City's growing industries. (Attachment 9 – Letter of Discontinuance from Sioux City Iowa) South Sioux City has four years to disconnect and construct a new treatment facility for the industries in the southern area of the city. At this time, Sioux City has indicated that they will continue to accept and treat residential waste at an increase rate. This culmination of events has resulted in the need for South Sioux City to construct its own WWTP; hence, the application to EDA for partial construction funding support.

#### 4. Alternatives to the Proposed Project

*Based in the Need and Purpose summary above, provide a detailed description of alternative actions that were considered during the project planning but were not selected (e.g., alternative locations, designs, other projects having similar benefits, and a “no project” alternative). Explain why this project/site was selected as the preferred alternative with respect to other choices. Provide detail on why others alternatives were rejected (e.g. did not meet the purpose and need of the project, implicated more environmental impacts than the proposed action). If the selected project would impact wetlands or floodplains, provide detailed description of alternatives to those proposed impacts.*

As identified in the Feasibility Study (Attachment 3) and consistent with the established project goals (Attachment 3 - Feasibility Study, p.1), three alternatives were identified and evaluated across a range of anticipated flows and loads for potential implementation in South Sioux City:

- Alternative 1 - Covered Anaerobic Lagoon (CAL) followed by Conventional Activated Sludge (CAS)
- Alternative 2 - CAL followed by Granular Activated Sludge (GrAS)
- Alternative 3-Anaerobic Membrane Bioreactor (AnMBR) followed by Membrane Aerated Bioreactor (MABR)

The anaerobic lagoons in Alternatives 1 and 2 were sized for BOD removal and to equalize 5-day production flows and loads from incoming waste streams over 7-days. The AnMBR system was sized for BOD removal, while the MABR was sized for BOD and ammonia removal with the capability to reduce aeration requirements.

The three alternatives were also evaluated based on performance criteria, acceptance criteria, and other nonmonetary considerations such as capability to accommodate future industrial domestic loads, reliability, solids handling impacts, effectiveness, constructability, adaptability to more stringent nutrient standards, safety, positive public opinion, operational requirements, and maintenance requirements. Alternative 2A and Alternative 2B scored most favorably, while Alternative 3 scored the least favorably.

Overall, the preliminary costs for Alternative 3 were 50 percent higher than for Alternatives 1 and 2. In addition, Alternative 3 would not be as easily expandable to treat the domestic flows from the City either now or in the future. Also, the construction of Alternative 3 would require that the BOE facility be out of operation for significant periods of time to implement, reducing the overall gas revenue potential for the system. This reduced revenue could be significant, adding to the financial differences between Alternatives 1 and 2 and Alternative 3. Due to these factors, Alternative 3 was eliminated from further consideration during the feasibility study.

Based on the initial screening and evaluation process, Alternative 1 and 2 were selected for further refinement. From the development of these alternatives, there are two possible site locations with four anaerobic lagoon sizing options and eight secondary treatment sizing options. For simplicity, the options were grouped by



treatment alternative. For each of these alternatives there are two site options, a combined river site option and a split site option locating the anaerobic lagoons near the BOE site and the secondary treatment at the river site. A site layout was developed for each of the four alternative options. In total, cost estimates for 32 combinations of alternatives and sizing options were generated, including capital costs, operations and maintenance costs, and present value costs.

After Workshop 2 and further discussions with the City, it was determined that the inclusion of South Sioux City domestic flows would not be considered when selecting a final preferred alternative. The City domestic flows will continue to be sent to the Sioux City WINTP for treatment. This decision resulted in the refinement of a smaller, less expensive preferred alternative by eliminating the need for significant investment in new conveyance. It was also decided that the use of the BOE facility and locating the anaerobic lagoons near the BOE facility would not be considered when selecting a final preferred alternative due to the uncertain future and viability of the BOE facility at the time of the feasibility study. While this decision potentially eliminates the possibility of gas revenue in the short term, the remaining combinations of alternatives still allowed the City to select an alternative that would achieve its overarching goals for the wastewater treatment facilities.

After assessing monetary and nonmonetary considerations for the range of alternatives and sizing options, Alternative 2A was selected as the preferred alternative. Alternative 2A would be built on a single, combined site that includes covered anaerobic lagoons followed by granular activated sludge, UV disinfection, and a new direct discharge to the Missouri River. Attachment 1-1 shows the preliminary combined river site layout, while Attachment 1-2 shows the process flow schematic for Alternative 2A. Alternative 2A makes the use and benefit of the BOE facility from an industrial pretreatment, gas production, and solids handling perspective available in the future while minimizing the level of equalization and pretreatment required by the individual industries and accommodates some level of near term industrial growth, allowing for future expansion for long term growth.

**B. HISTORIC/ARCHEOLOGICAL RESOURCES**

*Identify any known historic/archeological resources within the project site(s) or area of potential effect that are either listed on the National Register of Historic Places or considered to be of local or State significance and perhaps eligible for listing on the National Register. In many states, the State Historic Preservation Office (SHPO) maintains GIS databases of historic properties and cultural resources. Delineate an Area of Potential Effect (APE) for the project. The APE is the geographic area or areas within which a proposal may cause changes in the character or use of historic properties, which would include (but is not limited to) any new development or renovation by the beneficiary facilitated by the proposed EDA project. Discuss the potential impacts of the project on culturally significant resources and provide a determination as to whether there will be: no historical properties/cultural resources present; no historical properties/cultural resources adversely affected; or historical properties/cultural resources adversely impacted.*

**Note that the applicant is not required to contact the SHPO until directed to do so by EDA.** If comments from the SHPO have already been received, they should be attached along with copies of the information provided to the SHPO. If you wish to initiate early consultation, please consult the website of the appropriate SHPO for instructions on required information.

An Environmental Review was required by the Nebraska Department of Energy and Environment for the purpose of securing funding through the State Revolving Loan Fund. Nebraska SHPO has been contacted along with other agencies such as US Corp of Engineers, Fish and Wildlife, Natural Resources Commission, Native American tribal THPO, etc. The environmental review responses are found as Attachment G: Nebraska SHPO, Attachment 7: USACE Letter and Response; Attachment 8: All other Environmental Review Letters and Response.

### C. AFFECTED ENVIRONMENT

*For the resource areas identified below, indicate potential direct and indirect impacts from proposed project activities and specify proposed measures to mitigate probable impacts. Direct impacts are caused by the action and occur at the same time and place. Indirect impacts are those that are caused by a proposed action, but that may occur later in time or farther removed in distance, relative to the primary impacts of the proposed action (40 C.F.R. Section 1508.8) Development induced by the proposed project would be an example of an indirect impact.*

#### 1. **Affected Area**

*Describe the general project area, including topography, historic land usages, unique geological features, and economic history. Provide site photographs if available. Identify native vegetation and wildlife found in the project area or its immediate vicinity. Describe the amount and type of vegetation in the project area and indicate the impact to vegetation if removed (e.g., 1.2 acres of early successional native hardwood forest). Identify any designated State and National Parks, National Wildlife Refuges, or National Game Preserves located on or in the vicinity of the proposed project activities. Identify any Wilderness Areas, as designated or proposed under the Wilderness Act, or wild or scenic rivers, as designated or proposed under the Wild and Scenic Rivers Act, that are located on or in the vicinity of the proposed project activities.*

1. *Direct effects*
2. *Indirect effects*

The project area is located east of IBP Avenue, approximately 0.77-mile north of Pine Street in Dakota County Nebraska (Attachment 4). The area is located within Sections 3 and 4, Township 28 North, Range 9 East. The coordinates for the project area are 42.435058° N latitude and -96.396172° W latitude. The USGS topographic map depicts the Missouri River generally flowing north to south directly east of the area. A wooded area is depicted on a portion of the area near the river. The area is flat with elevations ranging from approximately 1097 feet to 1100 feet above mean sea level. The majority of the project land and surrounding area has been used as farmland – corn or soybeans. No significant Refuges, Parks, Wilderness areas exist on the land.

#### 2. **Coastal Zones**

No coastal zone management programs exist in the State of Nebraska nor HUD Region VII, as established by the Coastal Zone Management Act. (<https://cost.noaa.gov/czm/mystate>)

### 3. Wetlands

HDR and JEO Consulting Group, Inc. (JEO) was retained by the City of South Sioux City for the Preliminary Engineering Review/Engineering Study with JEO completing the Wetland Delineation Report – April 2019. The report summarizes the findings of the wetland delineation completed on March 27, 2019 in accordance with the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual (1987 Manual), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) (Midwest Regional Supplement), and NRCS National Engineering Handbook, Part 650, Chapter 19. Refer to Attachment 4 for JEO Wetland Report. As indicated in the report, the Engineers do not expect any impacts to wetlands greater than 0.1 acres. Attachment 2: Wetland Affected Area Maps shows how the proposed project is outside the wetland boundaries.

***Provide any correspondence from the U.S. Army Corps of Engineers (USACE), including any jurisdictional determination or permit documents.***

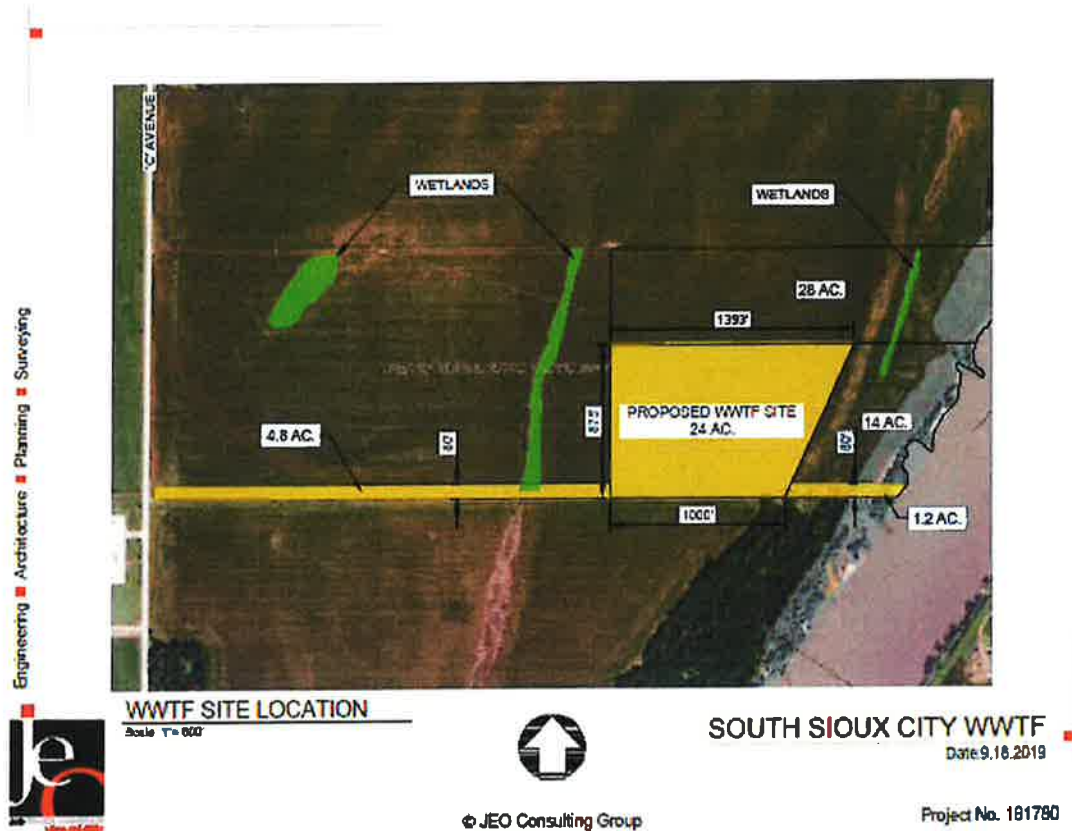
A letter was received from the USACE which also included the Nationwide Permit (NWP) Pre-Construction Notification (PCN) which will further assess the project impacts to WOUS and environmental impacts based on this site specific information as required under the Section 404 permit application. Refer to Attachment 7: U.S. Army Corps of Engineers (USACE). The PCN will be completed during the design phase of the project by the Engineering staff and will be forwarded to EDA Project Officer upon completion.

***1. Provide a determination of direct and indirect effects including the amount of jurisdictional waters affected by type (e.g. 1.1 acres of palustrine emergent wetlands would be impacted by the proposed project).***

According to the JEO Wetland Delineation Report (Attachments 4-6), data was collected in 23 locations within the 44-acre area with four areas meeting all three criteria for wetland classification. In addition to identified wetlands, direct discharge to the Missouri River will occur preceded by covered anaerobic lagoons followed by a granular activated sludge treatment system, and an ultraviolet disinfection system.

***2. If any wetlands would be impacted by the project, provide an analysis of alternatives to wetland impact in this section or in the Alternatives to the Project section above.***

The project does not expect any impacts to wetlands greater than 0.1 acres. Refer to the wetland delineation report (Attachment 4-6) that is included in the feasibility study. The following map shows how the proposed project is outside the wetland boundaries.



**3. Describe any mitigation plans here or in Section D below.**

*If wetlands, streams, or navigable waters may be impacted, it is recommended that Applicants contact USACE concerning any jurisdictional waters resources.*

Due to the outflow into the Missouri River, USACE Permit is required and both engineering firms (HDR, JEO) will be in contact with USACE for the recommended mitigation plans as required.

**4. Floodplains**

- i) Describe direct and indirect effects to 100-year floodplains, if any.*
- ii) If any 100-year floodplains would be impacted by the project, provide an analysis of alternatives to floodplain impact in this section or in the Alternatives to the Project section above.*
- iii) Indicate whether the Applicant's community participates in the National Flood Insurance Program. – NO*
- iv) Indicate if a critical action (e.g., emergency response facility, hospital, wastewater treatment plant) is being located within the 500-year floodplain.*

i., ii.) The project is located at 42.435058N / -96.3961724W. The FEMA DFIRM map shows the study area on Panel 31043C0120D, with an effective date of January 9, 2012. The majority of the area is mapped Zone X (unshaded), which represents areas outside the 0.2% annual chance flood event. The eastern side of the area adjacent to the river is mapped as

Zone A, which are areas with a 1% annual chance of annual flooding. The Missouri River is mapped as a regulatory floodway within Zone AE (shaded), which are special flood hazard.

iii.) The City of South Sioux City does not participate in the National Flood Insurance Program.

iv.) The area is Zone X- unshaded. Shaded Zone X are areas that have a 0.2% probability of flooding every year (also known as the "500-year floodplain"). Properties in unshaded Zone X are considered to be at low risk of flooding under the National Flood Insurance Program. Flood insurance is not required for properties in Zone X.

**5. Endangered Species**

*Provide a list of all threatened, endangered, and candidate species located in or near the project area, including any proposed development by the beneficiary, and the immediate vicinity. Identify these species' potential or existing habitat, and critical habitat designations in the project area. Identify the potential for direct or indirect impacts on these species. Critical habitat designations, lists of protected species by county, and information on effect determinations are available on the U.S. Fish and Wildlife Service's (FWS) website. The FWS' web-based Information, Planning, and Conservation System (IPaC) may also be useful for the early planning stage of a project. If an Effect Determination or Biological Assessment has been completed for any of the species listed, please provide. Attach any correspondence with FWS that exists related to their proposal. For projects with possible impacts to fisheries and marine/coastal species, provide any correspondence with the National Marine Fisheries Service (NMFS).*

U.S. Department of Interior – Fish and Wildlife Services stamped the letter on 12/12/2019 indicating “no concerns” (Attachment 8) The following table shows the threatened and endangered species listed for Dakota County, Nebraska in general.

**Table 2 - Threatened and Endangered Species in Dakota County, Nebraska**

Common Name	Scientific Name	State Status	Federal Status	Suitable Habitat present?
Piping plover	<i>Charadrius melodus</i>	Threatened	Not Listed	No
River otter	<i>Lontra Canadensis</i>	Threatened	Not Listed	No
Northern long-eared bat	<i>Myotis septentrionalis</i>	Threatened	Threatened	No
Pallid sturgeon	<i>Scaphirhynchus albus</i>	Endangered	Endangered	No
Lake sturgeon	<i>Acipenser fulvescens</i>	Threatened	Not Listed	No
Sturgeon chub	<i>Macrhybopsis gelida</i>	Endangered	Not Listed	No
American ginseng	<i>Panax quinquefolium</i>	Threatened	Not Listed	No
Western prairie fringed orchid	<i>Platanthera praeclara</i>	---	Threatened	No

SOURCE: US Department of the Interior, Fish and Wildlife Service Ecological Services Nebraska Field Office, 9325 South Alda Road Wood River, NE 68883, Phone: 308-382-6468 Endangered, Threatened, Proposed, and Candidate Species in Nebraska Counties, 12/18

**6. Land Use and Zoning**

*Describe the present formal zoning designation and current land use of the specific project site and adjacent land parcels. The areas include: the site of construction activities, adjacent areas, and areas affected by the primary beneficiaries. Land uses to be considered include, but are not limited to, industrial, commercial, residential, agriculture, recreational, woodlands, mines/quarries, and open spaces. Please indicate whether the project is located entirely within a city limit. Identify agriculture land parcels designated as "prime/unique agriculture lands" by the U.S. Department of Agriculture (USDA) under the Federal Farmlands Protection Act or a local equivalent. Additional information may be found at the USDA's Natural Resources Conservation Service website.*

Present zoning allows farming. The property is zoned M3 which permits as an allowable use a sewer treatment plant. This information is found in Municipal Code Section 130-111(a)(3).

**7. Solid Waste Management**

*Indicate the types and quantities of solid wastes to be produced by the project facilities and primary beneficiary. Describe local solid waste collection and disposal methods and the expected useful life of the disposal facility. Indicate if recycling or resource recovery programs are currently being used or will be used in the future.*

The proposed WWTP will produce EPA CFR 503 Class B biosolids. These biosolids will be treated via aerobic digestion followed by dewatering and storage at site on containment pads. Following sufficient storage time, the biosolids will be disposed via land application on adjacent agricultural fields in accordance to CFR 503 Regulations. Approximately 4000-5000 tons of biosolids at 80% moisture content will be produced per year. The biosolids will provide a beneficial reuse in supplying agronomic needs to non-food crops.

Three major industries will primarily be served by the WWTF: Empirical Foods (formerly Beef Products Incorporated (Empirical), Richardson Milling, and Ingredion. Types and quantities of solid wastes flows and loads summary are discussed at Attachment 9, HDR Feasibility Study, pages 7-13. All waste products are agriculturally based. Empirical Foods (formerly Beef Products Incorporated (Empirical) maker of lean beef. Richardson Milling is a major miller of organic oats that supplies products internationally with the South Sioux City, Nebraska facility certified organic for coated and cluster oat production. Ingredion (NYSE: INGR), a leading global provider of ingredient solutions to diversified industries, will produce protein isolates from peas with expansion plans to include production of isolates from other pulses as well to include higher protein isolates primarily for the nutrition, health and wellness categories.

**8. Hazardous or Toxic Substances**

*Describe any toxic, hazardous, or radioactive substances that will be utilized or produced by the proposed project facilities and primary beneficiaries. Describe the manner in which these substances will be stored, used, or disposed. Complete and sign one "Applicant Certification Clause" for each co-applicant (see Appendix A). Indicate if hazardous or toxic substances have been or must be remediated prior to construction, demolition, or renovation. If a recent Phase I or Phase II Environmental Site Assessment has been performed, please provide a copy of the executive summary (a full copy may be requested at a later date).*

There will be no hazardous or toxic substances stored or produced at the proposed wastewater treatment plant.



**9. Water Resources**

*Describe surface and underground water resources at or near the project site(s) and any impacts of the project to these. If groundwater will be used, is the aquifer in overdraft and /or adjudicated? If there will be discharges to surface water, is the receiving surface water body listed on the U.S. Environmental Protection Agency's (EPA) Section 303(d) list of impaired waters? Is a National Pollution Discharge Elimination System (NPDES) permit required for any discharges to surface waters? Indicate if the proposed project is located within an area mapped by the EPA as sole source aquifer recharge area (maps and further information are available on EPA's website). Describe any induced changes in local surface water runoff patterns, and the status of storm water discharge permit processes (if applicable).*

There will be no underground water resources impacted by the proposed project. The new WWTP will discharge treated water to the Missouri River adjacent to the project site. The Missouri River is listed as a Class 5 impaired water for bacterial (E. Coli). A new NPDES permit will be required for the WWTP. The facility will be designed with a disinfection system to comply with the requirements of the NPDES permit.

**10. Water Supply and Distribution System**

*Indicate the source, quality, and supply capacity of local domestic and industrial/commercial water resources, and the amount of water that project facilities and primary beneficiaries are expected to utilize. Note whether the water that is being supplied is in compliance with the Safe Drinking Water Act, and if not, what steps are being taken to ensure compliance.*

Water supply for the facility will be sourced from potable water produced by the City of South Sioux City water system which complies with the Safe Drinking Water Act. The WWTP is expected to utilize 10,000 gallons of potable water per day.

**11. Wastewater Collection and Treatment Facilities**

*Describe the wastewater treatment facilities available for processing the additional effluent including usage by the beneficiary(s). Indicate design capacities and current loading (both daily average and peak), and adequacy in terms of degree and type of treatment required.*

The proposed project is the construction of a new WWTP. The proposed plant will not discharge to any other treatment facility and will be the final source of treatment of approximately 2.18 million gallons of wastewater per day. The anticipated hydraulic flows and organic loads are summarized in Table 3-7 in the Feasibility Study, page 12. The proposed WWTP will be in compliance to the proposed NPDES permit and maintain compliance with the Clean Water Act as monitored by the Nebraska Department of Environment and Energy (NDEE).

*Describe all domestic class or process wastewater or other discharges associated with the project facilities and its primary beneficiaries, and the expected composition and quantities to be discharged either to a municipal system or to the local environment.*

Initially, Empirical Foods, formerly Beef Products Incorporated, Richardson Milling, and Ingredient will comprise the influent streams for the wastewater treatment plant. The anticipated flows and organic loads are summarized in Table 3-7 in the Feasibility Study, page 12.

*Indicate all discharges that will require on-site pre-treatment. Note whether the wastewater treatment plant is in violation of the Clean Water Act, and if so, what steps are being taken to ensure compliance. If local treatment and sewer systems are or will be inadequate or overloaded, describe the steps being taken for necessary improvements and their completion dates.*

The proposed plant will be the final source of treatment of approximately 2.18 million gallons of wastewater per day. The anticipated hydraulic flows and organic loads are summarized in Table 3-7 in the Feasibility Study, page 12. The proposed WWTP will be in compliance to the proposed NDPEs permit and maintain compliance with the Clean Water Act as monitored by the Nebraska Department of Environment and Energy (NDEE).

**12. Environmental Justice (Executive Order 12898)**

*Describe whether the proposed project will result in disproportionate adverse human health or environmental impacts relative to minority and low income populations. Sufficient detail should be provided to enable EDA to determine whether the project will comply with Executive Order 12898.*

This project supports the construction of a wastewater treatment plant for the southern area of South Sioux City due to the agreement termination of the current contract with the regional WWTP located in Sioux City Iowa. There is no known adverse human health or environmental impacts disproportionate to minority and/or low income populations.

The location of the treatment plant is in an isolated farming area, far from any housing development or neighborhoods, schools, other businesses or recreational parks. The City recognizes that community members are key witnesses of land application events and their potential impacts on health, quality of life, and the environment. Meaningful involvement of community members in decision-making through the use of public hearings, solicitation of public comments, response to concerns addressed immediately strengthen the environmental health protections for the project. So far, the project has offered an Open House (August 20, 2019), 30-day notice, letters to agencies and tribes connected with such project development, and a Public Hearing (December 23, 2019). All comments and/or phone calls received during the 30-day Environmental Review posting are enclosed.

**13. Transportation (Streets, Traffic and Parking)**

*Briefly describe the local street/road system serving the project site(s) and describe any new traffic patterns that may arise because of the project. Indicate if land use in the vicinity, such as residential, hospital, school, or recreational, will be affected by these new traffic patterns.*

Currently, there is a farming road to the proposed site. Access to the site will occur off of C Avenue, which is a two-way concrete paved road extending from South Sioux City to Dakota city. Purchase of the land will allow the City to own access rights to build a private road to the site off of C Avenue. The location is in the southern area of the City, far removed from neighborhoods, schools, recreational offerings. The planned 44-acres and surrounding area is currently agricultural and has been in farm production (corn or soybeans) for years.

*Indicate if any existing capacities of these transportation facilities will be exceeded as a direct or indirect result of this project implementation, particularly in terms of car and truck traffic, and what the new Level of Service designation will be.*

No existing capacities will be exceeded directly or indirectly as a result of this project.

**14. Air Quality**

*Indicate types and quantities of air emissions (including odors) to be produced by the project facilities and its primary beneficiaries, and any measures proposed to mitigate adverse impacts. Indicate the impact that the project would have on greenhouse gas emissions. Is the proposed project site classified as a "non-attainment" area for any criteria pollutants? If so, what are those pollutants? Indicate any local topographical or meteorological conditions that hinder the dispersal of air emissions.*

The proposed WWTP will have minor odor production common with any WWTP. The proposed design will control major odors via covered and sealed anaerobic lagoons and odor control facilities. The WWTP will have a biogas flare. The flare will be utilized to control odors and emission from the anaerobic lagoon process. The flare will require an EPA air permit.

**15. Noise**

*Will operation of project facilities or primary beneficiaries' facilities increase local ambient noise levels? If yes, indicate the estimated levels of increase, and the areas and sensitive receptors (e.g., residences) to be affected.*

The proposed WWTP will be situated on 44-acres of isolated farm land, near the Missouri River. The property is zoned M3 found in Municipal Code Section 130-111(a)(3) and reads as such: "Division 3—Intent and purpose. The Division 3 zoning district is intended for the purpose of allowing heavy industrial uses involving the manufacturing, compounding, processing, assembly, packaging or testing of goods or equipment which generally are not compatible with residential or commercial uses and which may be noxious or offensive by reason of the emission of odor, dust, smoke, gas, noise or vibrations."

**16. Permits**

*Identify any Federal, State, or local permits of an environmental nature needed for the project (e.g., USACE, US Environmental Protection Agency (EPA), Coastal Zone Management/Shoreline Management, Air Quality, State Environmental Policy Act, NPDES, etc.) and the status of any such permits. Attach copies of any such permits and all associated correspondence, including the permit applications.*

The following permits will be needed:

- Storm Water Pollution Prevention Plan (SWPPP) and NPDES Storm Water Permit NOI.
  - To be completed at the end of the design period. 30-day approval process expected.
- NDEE NPDES Discharge Permit
  - To be completed at the end of the design period. 60-day approval process expected.
- NDEE Wastewater Construction Permits (Both Packages).
  - To be completed at the end of the design period. 60-day approval process expected.

- NDEE Water Extension Permit
  - To be completed at the end of the design period. 30-day approval process expected.
- EPA Air Permit for the biogas flare and backup generator.
  - To be completed at the end of the 30% design period. 270-day approval process expected.
- State Fire Marshall Permit.
  - To be completed at the end of the design period. 30-day approval process expected.
- USACE 404 Permit for the construction of the new outfall sewer to the Missouri River.
  - To be completed at the middle of the 90% design period. 120-day approval process expected.
- Section 408 Permit to address potential impacts to federal facilities including bank stabilization and navigation project (BSNP) features.
  - To be completed at the middle of the 90% design period. 120-day approval process expected.
- Floodplain Development Permit (Discharge to Missouri River)
  - To be completed at the middle of the 90% design period. 90-day approval process expected.

As the respective permits are written approved, these will be forwarded to the assigned EDA Program Officer.

**17. Public Notification/Controversy**

*Provide evidence of the community's awareness of the project, such as newspaper articles or public notification and/or public meetings, as applicable. If a formal public hearing has been held, attach a copy of the minutes. Fully describe any public controversy or objections which have been made concerning this proposed project and discuss steps taken to resolve such objections.*

A public hearing was conducted on the WWTP on December 23, 2019 during the Council's regularly scheduled council meeting to receive public comments regarding the WWTP and use of NDEE State Revolving Loan Fund and application to the US Department of Commerce – Economic Development Administration. A 30-day notice was published and placed in customary locations. Refer to Attachment 10: Public Hearing Publication, Minutes and Comments. No one spoke in favor, against, or neutral for the project. On August 20, 2019, from 5 p.m. to 7 p.m. in the South Sioux City Fire Hall Meeting Room; 201 West 16th Street, South Sioux City, NE 68776, the two Engineering firms - HDR and JEO - conducted an open house public meeting. At the open house, community members had the opportunity to review findings and provide comment on the draft operation assessment and draft feasibility study for these facilities and the City's strategy for long-term wastewater treatment. All phone calls generated (2) and comments (0) are attached.

**18. Cumulative Effects**

*Please list projects (public and private, whether or not directly related to the proposed project described above) that have occurred or will occur in the past, present, and future in and around the project area that could result in*

*significant cumulative impacts when considered in aggregate with the proposed EDA project. Cumulative impacts result from the incremental impacts of a proposed action when added to other past, present and reasonable foreseeable future actions (40 C.F.R. Section 1508.7). In other words, cumulative impacts can result from individually minor but collectively significant impacts. Based on the direct and indirect impacts identified in Sections C1-18, identify which resources, ecosystems, and human communities are affected; and which effects on these resources are important from a cumulative effects perspective.*

The Roth Industrial Park located in the southern section of the City is a growing industrial area, with businesses looking to expand and locate in South Sioux City. The Roth Industrial Park encompasses nearly 1200-acres, with approximately 600-acres already in shovel ready condition. Businesses currently occupy approximately 100-acres including: Beef Products, Inc. (BPI) now known as “empirical” along with Indregion which starts production in March 2020 and Richardson Milling which is ongoing. Additional industries are located in this area but these will have the majority of waste produced.

**D. MITIGATION**

*Describe methods to be employed to reduce impacts to any and all adverse impacts identified in Section C. List all mitigation measures that would be implemented to minimize impacts to environmental resources from project implementation.*

No negative or adverse impacts are identified in Section C. No mitigation efforts are listed at this time.

**E. LIST OF ATTACHMENTS**

*The following checklist is a list of required and optional attachments to the Environmental Narrative as described in the sections above. The items listed in the optional section may be required by EDA at a later date to complete the project review and selection process, so it is recommended that you provide them now if they are currently available. While the documents listed below are the most frequently required for scoping determinations, EDA reserves the right to request additional items that are not listed below when necessary.*

*Applicants are not required to contact other governmental agencies for environmental or historical resources consultation until directed by EDA, though any interagency coordination letters that may be currently available should be provided. **EDA expects that all Applicants whose projects are selected for further evaluation will proceed with consultations in an expeditious manner. As such, Applicants should have the required information prepared for submission immediately upon notification of selection by EDA.** If you determine prior to application that your project may affect environmental or historical resources, you may contact the appropriate Regional Environmental Officer to determine if early interagency consultation is appropriate.*

*Please refer to the applicable Federal Funding Opportunity for unique requirements for each individual grant competition and a list of documents required for submittal with the application.*

**Checklist of Optional Environmental Documents that should be submitted with Application if available (will expedite review and selection process):**

The following Attachments are provided:

**Attachments**

**Uploaded with SF-424**

- A. SF424-14. Areas affected
- B. SF424.15. Nexus

**Uploaded with 900 Form**

- C. Non-EDA funding Commitment – Nebraska Department of Environment and Energy – State Revolving Loan Fund (B.10.d) (NEED)
- D. FEMA - 4420 DR, Nebraska Disaster Declaration as of 10/10/2019 (C.4.e.)

**Uploaded with 900C – Construction Form**

- E. Metropolitan Area Review – Siouxland Interstate Metropolitan Planning Council Letter (A.2)
- F. Budget Breakdown (C.11)
- G. Nebraska State Historical Preservation Office (SHPO) (F.) (Archeology Study results; final SHPO needed)
- H. Environmental Narrative and Applicant Certification Clause (G.1)

**Attachments**

1. Wastewater Treatment Map Views
  - a. Site Location
  - b. Site layout
  - c. Site relative to other industries
2. Wetland Affected Area Map
3. Preliminary Engineer Review / Feasibility Study, September 24, 2019
4. PER - JEO Part 1. Wetland Delineation Report, April 2019
5. PER - JEO Part 2. Wetland Delineation Report, April 2019
6. PER - JEO Part 3. Wetland Delineation Report, April 2019
7. USACE – Letter and Permit Documentation
8. Additional Environmental Review Documentation received
  - a. Tribal Communication (Ponca and Winnabago)
  - b. NE Department of Natural Resources
  - c. US Department of Interior – Fish and Wildlife
  - d. NE Department of Aeronautics



- e. Copies of other letters sent
- 9. Letter – Sioux City, Iowa discontinuance of wastewater treatment regional facility usage
- 10. Copy of 30-day Public Meeting Notice, Copy of Minutes, results
- 11. Letters supporting Economic Impacts of the project (B.8.c., B.9),
  - a. Ingredion
  - b. Empirical formerly Beef Processors Inc.
  - c. Richardson’s Milling
- 12. Recent and Current Economic Development Investments (2015-2019)

**Appendix A: Applicant Certification Clause**

The applicant represents and certifies that it has used due diligence to determine that the description of the project site described herein is accurate with respect to the presence or absence of contamination from toxic and hazardous substances. The term "site" includes the entire scope of the project, including future phases of the project and all areas where construction will occur.

1. Is the site currently, or has it in the past 50 years, been used for any of the following operations or activities?
  - a. Generation of hazardous substances or waste?  
 Yes  No
  - b. Treatment, storage (temporary or permanent), or disposal of solid or hazardous substances or waste?  
 Yes  No
  - c. Storage of petroleum products?  
 Yes  No
  - d. Used/waste oil storage or reclamation units?  
 Yes  No
  - e. Research or testing laboratory?  
 Yes  No
  - f. Ordinance research, testing, production, use, or storage?  
 Yes  No
  - g. Chemical manufacturing or storage?  
 Yes  No
  - h. Weapons or ammunition training, use, or testing?  
 Yes  No
  - i. Iron works/foundry?  
 Yes  No
  - j. Railroad yard?  
 Yes  No
  - k. Industrial or manufacturing operation?  
 Yes  No

If any of the above operations ever occurred at the site, and if appropriate cleanup or other mitigation actions were performed in accordance with the local, State, and federal laws, please attach documentation of these actions.

**Appendix A: Applicant Certification Clause**

---

2. Do wells draw from an underlying aquifer to provide the local domestic water supply?  
 Yes  No
3. Has a federal, State, or local regulatory authority ever conducted an environmental assessment, environmental impact statement, or a preliminary assessment/site inspection, or similar environmental surveyor inspection report at the site? If yes, please list here and attach copies of these reports or results.  
 Yes  No
- 1) Terracom has conducted Archeological Testing as requested by NE SHPO, results yet to be received
  - 2) JEO Consulting Group, Inc. conducted Wetland Delineation Report, April 2019, results Attached
  - 3) \_\_\_\_\_
  - 4) \_\_\_\_\_
  - 5) \_\_\_\_\_
4. Have any environmental or OSHA citations or notices of violation been issued to a facility at the site? If yes, please attach copies.  
 Yes  No
5. Have any unauthorized releases of hazardous substances occurred at any facility at the site which resulted in notification of the EPA's National Response Center?  
 Yes  No
6. Is any material containing asbestos or lead paint located at the site? If yes, please attach information concerning State and federal regulatory compliance.  
 Yes  No
7. Is there any equipment (electrical transformers, etc.) containing polychlorinated biphenyls (PCB) on the site? If yes, please attach a description of the equipment.  
 Yes  No
8. Are there underground or above ground storage tanks on the site? If yes, please attach a detailed description, including the number of underground storage tanks on the site, whether the tanks have been inspected (or removed) and the results of such inspections.  
 Yes  No
9. Has the site been tested for radon? If yes, please attach results.  
 Yes  No

**Appendix A: Applicant Certification Clause**

10. Have there been, or are there now any environmental investigations by federal, State or local government agencies that could affect the site in question? If yes, please attach available information.

\_\_\_\_\_ Yes  X  No

The applicant acknowledges that this certification regarding hazardous substances and/or waste is a material representation of fact upon which EDA relies when making and executing an award. EDA reserves the right to terminate any award made in conjunction with the representations contained herein if, at any time during the useful life of the project, EDA becomes aware of the presence of hazardous materials or waste at the site, or that hazardous materials or waste have been inappropriately handled thereon.

Further, if it is determined at any time that the presence of hazardous materials or waste, or handling thereof, has been misrepresented, EDA may pursue other available legal remedies against the applicant.

City of South Sloux City

Applicant's Name

Rod Koch, Mayor

Name and Title of Applicant's Authorized Representative

  
Signature of Applicant's Authorized Representative

12/30/2019  
Date