NEBRASKA NATURAL RESOURCES COMMISSION

Water Sustainability Fund

Application for Funding

Section A.

ADMINISTRATIVE

PROJECT NAME: Inglewood Sanitary Flood Repair, Pump Improvements, Force & Gravity Main Improvements

SPONSOR'S *PRIMARY CONTACT INFORMATION* **(Not Consultant's)**

Sponsor Business Name: Village of Inglewood

Sponsor Contact's Name: Albert Nielsen, Chairman

Sponsor Contact's Address: 140 Boulevard Street Fremont, NE 68025

Sponsor Contact's Phone: 402-721-3124 (village office) 402-727-4720 (cell)

Sponsor Contact's Email: info@villageofinglewood.net

1. **Funding** amount requested from the Water Sustainability Fund:

Grant amount requested. $ 166,081

Other Funding:	FEMA	$342,244
	NEMA	$ 33,541
	Village	$104,449

- If requesting less than 60% cost share, what %? 60% of local cost share which is 26% of total project costs

If a loan is requested amount requested. $ NA

- How many years repayment period? NA
- Supply a complete year-by-year repayment schedule. NA

2. **Neb. Rev. Stat. § 2-1507 (2)**

Are you applying for a **combined sewer overflow project**? YES☐ NO☒

If yes:

- Do you have a Long Term Control Plan that is currently approved by the Nebraska Department of Environmental Quality? YES☐ NO☒
- Attach a copy to your application. NA
- What is the population served by your project? NA
- Provide a demonstration of need. NA
- **Do not complete the remainder of the application.**

3. **Permits Required/Obtained** Attach a copy of each that has been obtained. For those needed, but not yet obtained (box **"NO"** checked), 1.) State when you will apply for the permit, 2.) When you anticipate receiving the permit, and 3.) Your estimated cost to obtain the permit.

(N/A = Not applicable/not asking for cost share to obtain)
(Yes = See attached)
(No = Might need, don't have & are asking for 60% cost share to obtain)

G&P - T&E consultation (required)	N/A☐	Obtained: YES☐	NO☒
DNR Surface Water Right	N/A☒	Obtained: YES☐	NO☐
USACE (e.g., 404/other Permit)	N/A☒	Obtained: YES☐	NO☐
FEMA (CLOMR)	N/A☒	Obtained: YES☐	NO☐
Local Zoning/Construction	N/A☒	Obtained: YES☐	NO☐
Cultural Resources Evaluation	N/A☒	Obtained: YES☐	NO☐
Other (provide explanation below)	N/A☒	Obtained: YES☐	NO☐

We don't anticipate any issues with Threatened or Endangered species on this project as tree removal and working within the Platte River is not anticipated.

4. **Partnerships**

List each Partner / Co-sponsor, attach documentation of agreement:

Village of Inglewood, City of Fremont (connected sewer system); FEMA & NEMA (repair of damages from March 2019 flood event)

Identify the roles and responsibilities of each Partner / Co-sponsor involved in the proposed project regardless of whether each is an additional funding source.

City of Fremont – Provides treatment for the sewage and undertakes general maintenance of the system (agreement is provided in attachments) FEMA & NEMA – Funding Agency for a portion of the force main and lift station improvement sections of the project that were damaged during the March 2019 Flood Event. The Village is still working with FEMA on the project and funding has not been obligated yet.

5. **Other Sources of Funding**

Identify the costs of the entire project, what costs each other source of funding will be applied to, and whether each of these other sources of funding is confirmed. If not, please identify those entities and list the date when confirmation is expected. Explain how you will implement the project if these sources are not obtained.

The total cost for the lift station, force main, and gravity main improvements is estimated at $646,325. The costs are shown in the attached cost opinion. FEMA & NEMA will fund repairs from flood damage and the Village is coordinating with FEMA on a Hazard Mitigation proposal that will allow the force main to be re-routed and reduce capacity issues with an existing lift station downstream of Inglewood. The amount to be funded by FEMA & NEMA is shown in the opinion of cost. The WSF grant will leverage funding from the FEMA Public Assistance Grant/Mitigation Program and will include Construction Engineering Services, Overhead, and NDEE Permitting Fees for the lift station and force main improvements, gravity main improvements. Design Services for the improvements are currently underway and will be funded solely by the Village since the work will be done prior to award of the grant. Any of the project components that will not be funded by these grants will addressed using bonds taken out by the village.

6. **Overview**

In 1,000 words *or less*, provide a brief description of your project including the nature/purpose of the project and its objectives. Do not exceed one page!

The Village of Inglewood is conducting lift station, force main, and gravity main restorations and improvements following damages occurring from record flooding in March of 2019. A series of levee breaks along the Platte River inundated Inglewood's sewer system, causing the lift station to take on significant amounts of silt and to run continuously for about 2 weeks. The condition of the lift station

and pumps was evaluated, and it was determined that the overtaxed pumps would need to be replaced as a result of the flooding. The force main is being replaced due to debris in the pipe that got through the pumps. Inglewood's sewer system is maintained by Fremont, NE and the system ultimately discharges wastewater to the Fremont Wastewater Treatment Plant. The Inglewood lift station discharges flow to another lift station downstream, Fremont's Brady lift station. The Brady lift station was stated as over-capacity by Fremont as a result of city expansion and increased system inundation due to flooding. Fremont has requested that the Village of Inglewood force main be re-routed to a gravity sewer nearby which will flow directly to the treatment plant. This improvement will increase the length of the force main from 745' to 1992' and will upsize the diameter of the force main from 4" to 6". A pump on/off meter was attached to the Inglewood Lift Station to gain a better estimate of average wastewater flows and peak hourly wastewater flows into the lift station. Data collection found that the Inglewood lift station pumps are currently under-sized for the current and future peak-hourly flow conditions in Inglewood. To accommodate future flow conditions and increased head conditions due to the new force main hydraulics, the pumps in the lift station will be upsized from the current duty point of 125 GPM to the proposed duty point of 225 GPM. A topographical capacity evaluation of the gravity sewer immediately upstream of the lift station found that the sewers are undersized and sloped too shallow to accommodate the existing and future peak hourly flows. As a result, about 400' of gravity sewer influent to the lift station will be upsized from 8" diameter to 12" diameter. The project will provide for increase capacity that will accommodate growth within the Village corporate limits. These improvements will also relieve capacity issues at the Brady Lift Station in Fremont reducing the potential for overflows of sewage to adjacent streets, storm sewers and property. .

7. Project Tasks and Timeline

Identify what activities will be conducted to complete the project, and the anticipated completion date.
For multiyear projects please list (using the following example):

Tasks	Year 1$	Year 2$	Pre-Grant*	Total $ Amt.
Study			$3,800	$3,800
Design			$71,300	$71,300
Permits	$2,605			$2,605
Overhead	$10,020			$10,020
Constr. Eng	$56,000			$56,000
Construction	$200,000	$301,000		$501,000
Close-out		$1,600		$1,600
			TOTAL	$646,325

* Costs not eligible for reimbursement
Year 1 – Grant Award to June 30, 2021
Year 2 – July 1, 2021 to June 30 2022

- What activities (Tasks) are to be completed.
- An estimate of each Tasks expenditures/cost per year.
- Activities in years 4 through project completion under a single column.

Design	Fall 2020 (NOT WSF funded)
Permitting	December 2020
Bidding	December 2020/January 2021
Construction	Spring/Summer 2021
Close out	Summer 2021

8. **IMP**

Do you have an **Integrated Management Plan** in place, or have you initiated one? ☐ NO☐ Sponsor is not an NRD☒

9. List of attachments:

A – Interlocal Agreement(s) for Water/Sewer Services between Village of Inglewood and City of Fremont & Letter from City of Fremont on Force Main Connection Change
B – Project Opinion of Cost
C – Inglewood Sewer Capacity and Condition Study
D – 30% design plans for lift station/force main project
E – Preliminary design plans for gravity main project
F – Village local cost commitment letter

Section B.

DNR DIRECTOR'S FINDINGS

Prove Engineering & Technical Feasibility

(Applicant must demonstrate compliance with Title 261, CH 2 - 004)

1. Does your project include physical construction (defined as moving dirt, directing water, physically constructing something, or installing equipment)?
YES☒ NO☐

If you answered "YES" you must answer all questions in section 1.A.
If you answer "NO" you must answer all questions in section 1.B.

If "YES", it is considered mostly structural, so answer the following:

1.A.1 Insert a feasibility report to comply with Title 261, Chapter 2, including engineering and technical data; Included as Attachment C is the Inglewood Sewer Capacity and Condition Study completed by JEO and dated July 28th 2020.

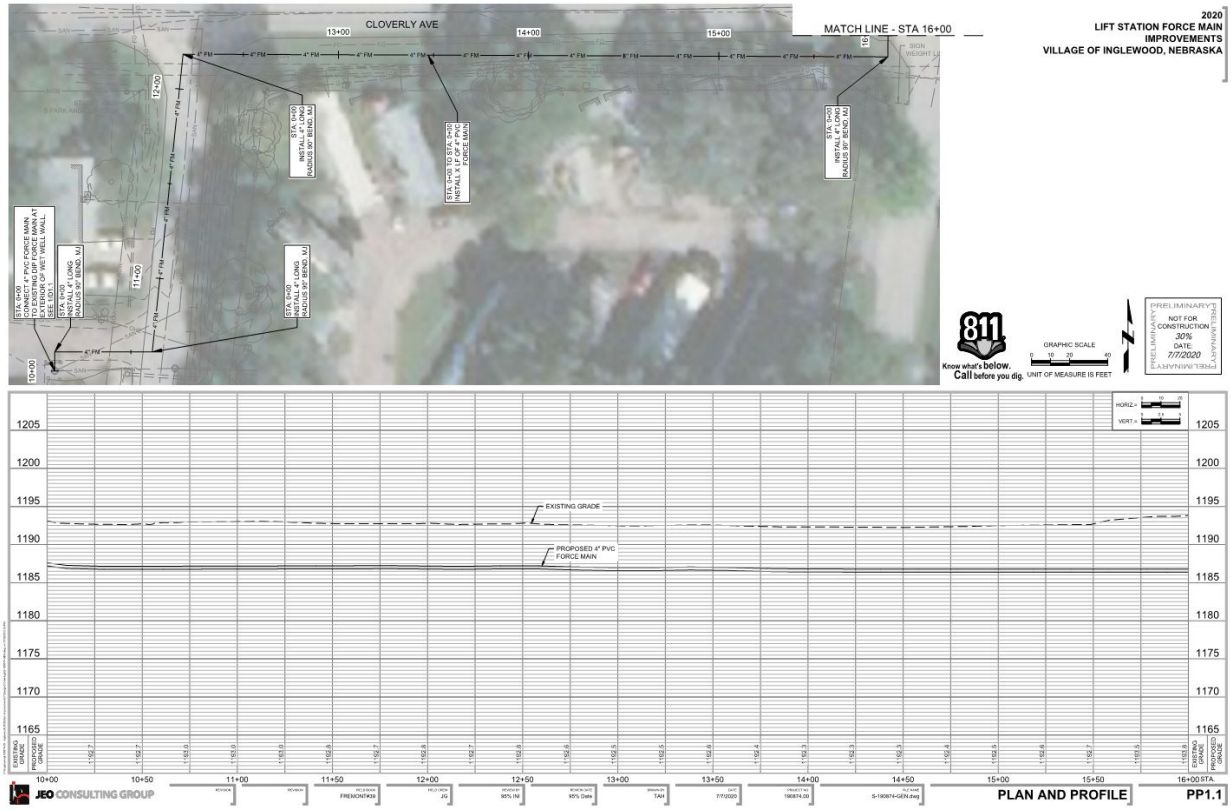
1.A.2 Describe the plan of development (004.01 A);
Lift station improvements, force main improvements, and gravity main improvements may be completed under one project. If they are separated, gravity improvements may be included with a village paving project on the same street. Lift station improvements will include the removal of existing pumps at the duty point of 125 GPM and replacement with pumps sized for the projected growth scenario outlined in Attachment C. Proposed pumps will have a duty point of 225 GPM. Force main improvements will include the installation of 1992' of 6" force main to bring the lift station to a new discharge point. A lift station downstream of the Inglewood lift station is over-capacity and changing of the discharge point of the force main will reduce stress on the system downstream. The new force main will be installed via horizontal directional drilling. A gravity system capacity evaluation showed that the gravity system was installed at an elevation flatter than recommended by 10 State Standards and was undersized to accommodate the existing and projected peak hourly flows of the village. The gravity system will be improved by upsizing about 390' of 8" diameter gravity sewer to 12" diameter gravity sewer. The gravity system improvements will be installed via pipe bursting. The road overlaying the gravity system components for improvement is prosed for replacement though the replacement must be phased as to allow for uninterrupted access to the rural fire station. Gravity main installation via open cut will not allow for phased construction of the road and uninterrupted service to the fire station, so pipe bursting installation will be used so that the fire station can still deploy trucks and protect the community from fires.

1.A.3 Include a description of all field investigations made to substantiate the feasibility report (004.01 B);
An evaluation including a summary of the lift station history and condition, damages to the system from the March 2019 record flooding, adequacy of the system for future growth of the village, and recommendations for improving the system for future was conducted. Findings included the fact that the lift station was shut off for over two weeks and then run for 15 days straight. Due to debris and damages occurred during these atypical operating conditions, new pumps are recommended. Also the force main will need to be rerouted to relieve capacity constrains on the City of Fremont's Brady lift station downstream. A pump-hour meter was installed to establish the existing and peak design flows through the lift station. Results indicate that the system capacity is lacking adequate design capacity for the current flow conditions and any future flows that are expected to be added to the system. Design efforts have been initiated for the pump replacements, force main reroutes, and gravity main replacements. A topographical survey including utility locates and investigation was completed during the study phase (Attachment C). Because the proposed linear work is short, geotechnical investigation was not considered necessary to feasibly complete the work.

1.A.4 Provide maps, drawings, charts, tables, etc., used as a basis for the feasibility report (004.01 C);
A site map, snip of a 30% Force Main Design Plan and Profile Sheet, and a picture of the lift station wet-well are presented below. See Attachment C for further information.

1.A.5 Describe any necessary water and/or land rights including pertinent water supply and water quality information (004.01 D);
The proposed wastewater system improvements will be installed within the public ROW of the village of Inglewood and the city of Fremont.

1.A.6 Discuss each component of the final plan (004.01 E);
Investigative work and preliminary design has been completed (example 30% Force main Design Plan and Profile shown below). The final design is still being developed, anticipated completion Fall of 2020. Construction to follow, anticipated to be completed in 2021, contingent on funding.



1.A.7 When applicable include the geologic investigation required for the project (004.01 E 1);
With the limited length of sewer work and the proposed use of boring methods for installation, a geotechnical investigation was not required on this project.

1.A.8 When applicable include the hydrologic data investigation required for the project (004.01 E 2);
The work will be above the ground water table and or should have no impact to the area.

1.A.9 When applicable include the criteria for final design including, but not limited to, soil mechanics, hydraulic, hydrologic, structural, embankments and foundation criteria (004.01 E 3).
Refer to Attachment C for information regarding force main, gravity main, and pump sizing.

If “NO”, it is considered mostly non-structural, so answer the following:

1.B.1 Insert data necessary to establish technical feasibility (004.02); NA

1.B.2 Discuss the plan of development (004.02 A); NA

1.B.3 Describe field or research investigations utilized to substantiate the project conception (004.02 B); NA

1.B.4 Describe any necessary water and/or land rights (004.02 C); NA

1.B.5 Discuss the anticipated effects, if any, of the project upon the development and/or operation of existing or envisioned structural measures including a brief description of any such measure (004.02 D). NA

Prove Economic Feasibility

(Applicant must demonstrate compliance with Title 261, CH 2 - 005)

2. Provide evidence that there are no known means of accomplishing the same purpose or purposes more economically, by describing the next best alternative. The only other option for this project is to coordinate with the City of Fremont to make improvements to the Brady Lift Station to increase its capacity. If that is done, the relocation of the force main would not be required. The improvements to increase capacity would cost significantly more than the proposed project and would provide the same benefit to the village.

3. Document all sources and report all **costs** and **benefit data** using current data, (commodity prices, recreation benefit prices, and wildlife prices as prescribed by the Director) using both dollar values and other units of measurement when appropriate (environmental, social, cultural, data improvement, etc.). The period of analysis for economic feasibility studies is the project life, up to fifty (50) years; *or*, with prior approval of the Director up to one hundred (100) years, (Title 261, CH 2 - 005).

Benefits include increased capacity to size the system for current and projected (with future development in the village) peak hourly flows. These improvements also prevent the cost of damages due to potential sewer backups. This benefits the Village of Inglewood which depends on the lift station for all sewer conveyance. The improvements also benefit the City of Fremont because the Brady lift station will no longer be taxed over-capacity and users will benefit from a decreased risk of sewer backups or sewage overflow outside of the lift station into streets/storm sewer. The resulting available capacity at each lift station will allow for the growth and economic development of both communities.

3.A Describe any relevant cost information including, but not limited to the engineering and inspection costs, capital construction costs, annual operation and maintenance costs, and replacement costs. Cost information shall also include the estimated construction period as well as the estimated project life (005.01).

Study and Engineering Design for the lift station and force/gravity main improvements will be completed in Fall of 2020. The total cost of this portion of the project is estimated at $75,100. Overhead services, bidding, and permitting

will be completed in December/January of 2020/2021. Construction Engineering, Construction and Project Close out will be completed in the Spring/Summer of 2021. The estimated cost of construction is $501,000. Engineering fees for the bidding and construction phases are $70,225. Maintenance costs are estimated at less than $1000 per year for the life of lift station pumps, force main, and gravity main. Occasional maintenance may be necessary to clean the lift station wet well, force main, and influent gravity sewer.

3.B Only primary tangible benefits may be counted in providing the monetary benefit information and shall be displayed by year for the project life. In a multi-purpose project, estimate benefits for each purpose, by year, for the life of the project. Describe intangible or secondary benefits (if any) separately. In a case where there is no generally accepted method for calculation of primary tangible benefits describe how the project will increase water sustainability, in a way that justifies economic feasibility of the project such that the finding can be approved by the Director and the Commission (005.02).

By expanding the capacity of the pumps in the Inglewood lift station, further expansion and economic development of the community will be possible. By changing the discharge point of the force main, the Brady Lift station will have more available capacity, allowing for further expansion and economic development in Fremont. Greater available capacity at each lift station will reduce the risk of backups at residences and businesses, reducing the potential cost of such damages. By detaching the Inglewood and Brady lift stations, each station can be serviced independently of the other, reducing maintenance costs. Expansion of the influent gravity system to the lift station will reduce the risk of sewer backups in Inglewood as the community expands. These improvements will reduce the risk of sewage being released into floodwaters should a similar flood event occur again. Also, these systems being correctly sized to handle the anticipated flows significantly reduces the risk of sewage backups or sewage overflows into the nearby at grade storm sewer systems and nearby streams/rivers.

3.C Present all cost and benefit data in a table to indicate the annual cash flow for the life of the project (005.03).

The Village of Inglewood does not current budget for maintenance costs since they are completed by the City of Fremont as part of the interlocal agreement (Attachment A). The City of Fremont also bills and collects all fees related to the treatment of sanitary sewage. The proposed pumps will be more efficient than the existing pumps and costs to maintain should be the same or less than what the City of Fremont currently budgets.

3.D In the case of projects for which there is no generally accepted method for calculation of primary tangible benefits and if the project will increase water sustainability, demonstrate the economic feasibility of such proposal by such method as the Director and the Commission deem appropriate (005.04). (For example, show costs of and describe the next best alternative.)

These improvements will increase the available capacity of the Inglewood and Brady lift stations. They will allow for expansion and economic development of each community. They will reduce the risk of sewer backups and the associated costs for these damages, thus eliminating costs for repairs to homeowners. They will increase flood resilience in the communities by working towards reducing the ground water/storm water infiltration in the existing clay sanitary sewer mains.

Prove Financial Feasibility

(Applicant must demonstrate compliance with Title 261, CH 2 - 006)

4. Provide evidence that sufficient funds are available to complete the proposal.
The Village of Inglewood is current working with FEMA to complete their review and obligate funds for the repairs to damage. The village anticipates this funding to be obligated later in 2020. Any funds that the village is committing to this project will be provided by issuing a general obligation bond to be repaid by the Village levy over the next 10 years. Please see Attachment F for information on the funding and commitments by the Village and status of FEMA approvals.

5. Provide evidence that sufficient annual revenue is available to repay the reimbursable costs and to cover OM&R (operate, maintain, and replace). The City of Fremont receives payment from village of Inglewood residents for sanitary sewer services and these funds are used to pay for operation and maintenance.

6. If a loan is involved, provide sufficient documentation to prove that the loan can be repaid during the repayment life of the proposal. A loan is not requested for this project.

7. Describe how the plan of development minimizes impacts on the natural environment (i.e. timing vs nesting/migration, etc.).
Buy planning to bore of the new force main and pipe bursting techniques for the gravity main, the project will limit the disturbance to the adjacent property. It will also reduce the need for pumping of ground water since the trench areas will be limited to the bore pits. Also, these methods will reduce the need for habitat destruction and tree removal or trimming.

8. Explain how you are qualified, responsible and legally capable of carrying out the project for which you are seeking funds.
The village of Inglewood has hired JEO Consulting Group to design and oversee the construction of the proposed improvements which will follow all local and state design regulations.

9. Explain how your project considers plans and programs of the state and resources development plans of the political subdivisions of the state.

By partnering with the City of Fremont to have a regional wastewater treatment plant, the two communities are reducing redundancies with similar systems in the same area.

10. Are land rights necessary to complete your project? YES☐ NO☒
The village and the City own the property.

If yes:

10.A Provide a complete listing of all lands involved in the project. NA

10.B Attach proof of ownership for each easements, rights-of-way and fee title currently held. NA

10.C Provide assurance that you can hold or can acquire title to all lands not currently held. NA

11. Identify how you possess all necessary authority to undertake or participate in the project.
The Village of Inglewood is the owner of the system and had entered into an agreement with the City of Fremont to maintain the system and treat the sewage. (attachment A). All proposed work is located within the Street Right of Way for either the Village of Inglewood or the City of Fremont.

12. Identify the probable consequences (environmental and ecological) that may result if the project is or is not completed. There is the potential consequence of sewer backups in Inglewood and Fremont if a peak hourly flow event exceeds the capacity of the lift station or the lift station fails and stops functioning. Failure to expand the system will limit the growth of the communities and stagnate economic development. Failure to expand the systems will leave the system more vulnerable to flooding. The associated cost of community-wide sewer backups or flooding will be a major economic burden for the communities. Sewer backups or overflows would cause raw sewage to spill into the storm drain system and into area waterways; this is an EPA violation and ecological detriment.

Section C.

NRC SCORING

In the NRC's scoring process, points will be given to each project in ranking the projects, with the total number of points determining the final project ranking list.

The following 15 criteria constitute the items for which points will be assigned. Point assignments will be 0, 2, 4, or 6 for items 1 through 8; and 0, 1, 2, or 3 for items 9 through 15. Two additional points will be awarded to projects which address issues determined by the NRC to be the result of a federal mandate.

Notes:

- The responses to one criterion ***will not*** be considered in the scoring of other criteria. Repeat references as needed to support documentation in each criterion as appropriate. The 15 categories are specified by statute and will be used to create scoring matrixes which will ultimately determine which projects receive funding.

- There is a total of 69 possible points, plus two bonus points. The potential number of points awarded for each criteria are noted above. Once points are assigned, they will be added to determine a final score. The scores will determine ranking.

- The Commission recommends providing the requested information and the requests are not intended to limit the information an applicant may provide. An applicant should include additional information that is believed will assist the Commission in understanding a proposal so that it can be awarded the points to which it is entitled.

Complete any of the following (15) criteria which apply to your project. Your response will be reviewed and scored by the NRC. Place an N/A (not applicable) in any that do not apply, an N/A will automatically be placed in any response fields left blank.

1. Remediates or mitigates threats to drinking water;
   - Describe the specific threats to drinking water the project will address.
   - Identify whose drinking water, how many people are affected, how will project remediate or mitigate.
   - Provide a history of issues and tried solutions.
   - Provide detail regarding long-range impacts if issues are not resolved.

   The Village of Inglewood is conducting lift station, force main, and gravity main restorations and improvements following damages occurring from record flooding in March of 2019. A series of levee breaks along the Platte River inundated Inglewood's sewer system, causing the lift station to take on significant amounts

of silt and to run continuously for about 2 weeks. The condition of the lift station and pumps was evaluated, and it was determined that the overtaxed pumps would need to be replaced as a result of the catastrophic flooding. The force main is being replaced due to debris in the pipe that got through the pumps. Increasing the capacity of the lift station and gravity main will reduce the risk of sewer backups and overflows. Sewer overflows will cause raw sewage to enter homes, the stormwater drainage system, and surface water. This is a public health concern because people will be likely to contact raw sewage in their homes or in surface water. In some circumstances, it may be possible for these sewer overflows to enter the drinking water conveyance system, though this is unlikely. These improvements will primarily benefit Inglewood's population of about 400. Secondary benefits by reducing load on the Brady Lift Station will expand this benefit to the population of Fremont; about 26,000.

2. Meets the goals and objectives of an approved integrated management plan or ground water management plan;
   - Identify the specific plan that is being referenced including date, who issued it and whether it is an IMP or GW management plan.
   - Provide the history of work completed to achieve the goals of this plan.
   - List which goals and objectives of the management plan the project provides benefits for and how the project provides those benefits.

   The Lower Platte North Natural Resources District Voluntary Integrated Management Plan was adopted by the LPNNRD and the Nebraska Department of Natural Resources in 2018. In the LPNNRD sustainable water resources are critically important. Water users include domestic, agriculture, industry, recreation, and wildlife; all such users rely on readily available water resources. The protection of this invaluable resource is paramount to preserving the standard of living, environmental health, and community vitality for District residents and future generations. The flood of 2019 highlighted the highest risk infrastructure and several of those damaged structures were in Inglewood. By disconnecting the Inglewood lift station from the Brady lift station, maintenance of both systems will be simpler and less costly. Impacts will be reduced in the event of a failure of either system. To prepare for these improvements, the Village of Inglewood contracted with JEO Consulting Group to review their sanitary sewer system to determine needed improvements that would allow the community to grow and better serve their residents. That study is provided in Attachment C. in the event of a failure of either system. This project helps LPNNRD meet the following goals and objectives of the VIMP: Objective 2.1.6 Evaluate current and project future water demands of all water users to assess instream flow within the NRD and comply with downstream requirements. By not polluting surface water and groundwater with raw sewage it will help protect instream flows. Objective 3.2.3 Collaborate with municipalities and industrial users on development or refinement of water conservation plans. The infrastructure improvements will be a collaborative effort between the village of Inglewood and the City of Fremont.

3. Contributes to water sustainability goals by increasing aquifer recharge, reducing aquifer depletion, or increasing streamflow;

   List the following information that is applicable:
   - The location, area and amount of recharge;
   - The location, area and amount that aquifer depletion will be reduced;
   - The reach, amount and timing of increased streamflow. Describe how the project will meet these objectives and what the source of the water is;
   - Provide a detailed listing of cross basin benefits, if any.

   Aquifer recharge, depletion, and increased streamflow will not be affected by the improvements. The improvements will, however, reduce the risk of sewer overflows and potential contamination of surface water and groundwater with raw sewage.

4. Contributes to multiple water supply goals, including, but not limited to, flood control, agricultural use, municipal and industrial uses, recreational benefits, wildlife habitat, conservation of water resources, and preservation of water resources;
   - List the goals the project provides benefits.
   - Describe how the project will provide these benefits
   - Provide a long range forecast of the expected benefits this project could have versus continuing on current path.

   This project will protect surface water and groundwater by preventing raw sewage from entering into the environment. The goal of the project is to increase resilience in the wastewater systems of Inglewood and Fremont to handle flood scenarios, since both areas are within the flood plain for the Platte River. Increasing the capacity of the lift station will allow for the growth of the village over the 15 to 20-year lifespan of the proposed pumps. Changing the discharge point of the lift station frees capacity in the Brady lift station, thus allowing the lift stations to function independently and reducing risk of backups in Fremont's system as well. The potential economic impact of a system-wide sewer backup could be a huge economic burden, and this risk will be greatly reduced over the next 20 years. In addition, with the gravity main improvements, replacement of an existing clay pipe with a new PVC pipe that will reduce the infiltration during high groundwater events.

5. Maximizes the beneficial use of Nebraska's water resources for the benefit of the state's residents;
   - Describe how the project will maximize the increased beneficial use of Nebraska's water resources.
   - Describe the beneficial uses that will be reduced, if any.
   - Describe how the project provides a beneficial impact to the state's residents.

   Reducing the risk of sewer overflows to surface water would provide a great benefit to Fremont. Fremont has several beautiful lakes that are well known throughout the state. Decoupling the two lift stations and reducing risk of backups will greatly reduce the risk of raw sewage contaminating these water features and allow residents currently on a septic system to hook into the Village or City systems when desired, further reducing the potential for contamination.

6. Is cost-effective;
   - List the estimated construction costs, O/M costs, land and water acquisition costs, alternative options, value of benefits gained.
   - Compare these costs to other methods of achieving the same benefits.
   - List the costs of the project.
   - Describe how it is a cost effective project or alternative.

Task/Project Component	Cost	Completion Date
Project Study & Design Services	$75,100	Fall of 2020
Bidding and Permitting Services	$11,405	December/January 2021
Construction Engineering & Close Out	$48,800	Spring/Summer 2021
Overhead (fiscal, legal)	$10,020	Spring/Summer 2021
Lift Station/Force Main Construction	$323,000	Spring/Summer 2021
Gravity Main Construction	$178,000	Spring/Summer 2021
Operation and Maintenance of Lift Station/Force Main	$1,000 (annually)	

Engineering for the study and design was completed prior to award of the grant and is not included in the grant funding request (paid 100% by the Village). The alternative solution to the capacity issues at the Brady Lift Station, would be an addition or replacement to the lift station. The cost for that is significantly higher than the proposed re-routing of the Inglewood sewer flow. Occasional maintenance may be necessary to clean the lift station wet well, force main, and influent gravity sewer. Modern construction techniques, (horizontal directional drilling and pipe bursting) will be used to reduce the overall cost of the project by reducing the need for pavement replacement, as well as reduce dewatering volumes, reduce community impact, and allow for the continued operation of the Rural Fire Station. These construction methods were compared to the traditional method of trenched installation, and the overall benefits of the modern techniques will outweigh traditional techniques by reducing cost and reducing community impact.

7. Helps the state meet its obligations under interstate compacts, decrees, or other state contracts or agreements or federal law;
   - Identify the interstate compact, decree, state contract or agreement or federal law.
   - Describe how the project will help the state meet its obligations under compacts, decrees, state contracts or agreements or federal law.
   - Describe current deficiencies and document how the project will reduce deficiencies.

   The proposed project does not complete any obligations oner an interstate compact, decree or other state agreement. The increased capacity does allow for a reduction is sewer backups or spills outside of the system which are against state regulation.

8. Reduces threats to property damage or protects critical infrastructure that consists of the physical assets, systems, and networks vital to the state or the United States such that their incapacitation would have a debilitating effect on public security or public health and safety;
   - Identify the property that the project is intended to reduce threats to.
   - Describe and quantify reductions in threats to critical infrastructure provided by the project and how the infrastructure is vital to Nebraska or the United States.

- Identify the potential value of cost savings resulting from completion of the project.
- Describe the benefits for public security, public health and safety.

These improvements greatly reduce the risk of sewer backups to the Village of Inglewood and the City of Fremont as well as prevent potential sewage overflows in the sewer system. Sewer backups can be a public health risk by exposing the public to raw sewage. The economic impact of a system-wide sewer backup can be detrimental for a community, with the potential to destroy houses and businesses. Decoupling the lift stations will allow for independent service and maintenance of the two pieces of infrastructure, providing lower maintenance costs and greater flood resilience. Installation via horizontal directional drilling and pipe bursting will reduce pavement replacements, reduce construction footprint, reduce road closures, reduce risk of erosion, reduce amount of dewatering, and allow for the continued operation of the Rural Fire Station. This will result in reduced impact to the community and greater resilience to fire, medical and rescue calls throughout construction.

9. Improves water quality;
   - Describe what quality issue(s) is/are to be improved.
   - Describe and quantify how the project improves water quality, what is the target area, what is the population or acreage receiving benefits, what is the usage of the water: residential, industrial, agriculture or recreational.
   - Describe other possible solutions to remedy this issue.
   - Describe the history of the water quality issue including previous attempts to remedy the problem and the results obtained.

   Sewer backups and overflows will cause raw sewage to enter the storm drainage system, which will eventually reach surface water. This is a violation of the Existing NPDES permit. Such pollution in high enough quantities can damage surface water ecology. This benefit will serve Inglewood, Fremont, and the surrounding populations.

10. Has utilized all available funding resources of the local jurisdiction to support the program, project, or activity;
    - Identify the local jurisdiction that supports the project.
    - List current property tax levy, valuations, or other sources of revenue for the sponsoring entity.
    - List other funding sources for the project.

    The Village of Inglewood: Population 325, Municipal tax levy 0.070642, Property valuation $16,150,696

WSF amount requested.		$166,092
Other Funding:	FEMA	$342,244
	NEMA	$ 33,541
	Village	$104,449

11. Has a local jurisdiction with plans in place that support sustainable water use;
    - List the local jurisdiction and identify specific plans being referenced that are in place to support sustainable water use.
    - Provide the history of work completed to achieve the goals of these plans.
    - List which goals and objectives this project will provide benefits for and how this project supports or contributes to those plans.
    - Describe and quantify how the project supports sustainable water use, what is the target area, what is the population or acreage receiving benefits, what is the usage of the water: residential, industrial, agriculture or recreational.
    - List all stakeholders involved in project.
    - Identify who benefits from this project.

    Neither the Village of Inglewood, City of Fremont or Dodge County have a Water Sustainability Plan. They coordinate with the Lower Platte North NRD in relation to Ground water usage and development.

12. Addresses a statewide problem or issue;
    - List the issues or problems addressed by the project and why they should be considered statewide.
    - Describe how the project will address each issue and/or problem.
    - Describe the total number of people and/or total number of acres that would receive benefits.
    - Identify the benefit, to the state, this project would provide.

    This project started as a result of the devastation from March 2019 flooding. The 2019 flood event showed that flood resilience needs to be improved throughout the state. Capacities of the Inglewood and Brady lift stations will be greatly increased as a result of these improvements, so the populations of Inglewood and Fremont will benefit from the increased flood resilience.

13. Contributes to the state's ability to leverage state dollars with local or federal government partners or other partners to maximize the use of its resources;
    - List other funding sources or other partners, and the amount each will contribute, in a funding matrix.
    - Describe how each source of funding is made available if the project is funded.
    - Provide a copy or evidence of each commitment, for each separate source, of match dollars and funding partners.
    - Describe how you will proceed if other funding sources do not come through.

    By providing for an alternative design/discharge route for the sewage and utilizing the FEMA Hazard Mitigation program we can leverage federal and state emergency management funds to complete the work. The partnership between the Village of Inglewood and the City of Fremont also allows for a single treatment system and removes redundancy in adjacent systems.

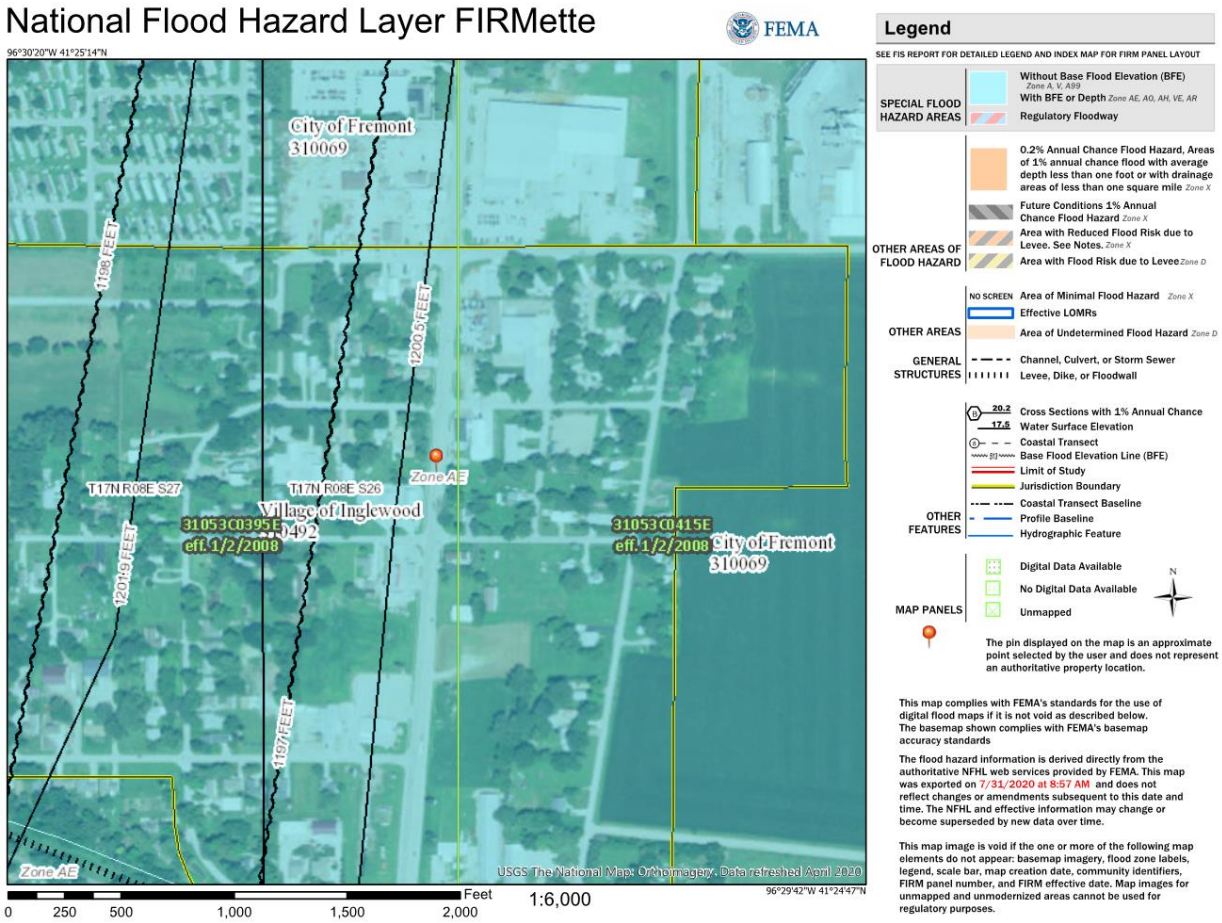
WSF amount requested.		$166,092
Other Funding:	FEMA	$342,244
	NEMA	$ 33,541
	Village	$104,449

14. Contributes to watershed health and function;
    - Describe how the project will contribute to watershed health and function in detail and list all of the watersheds affected.

    Environmentally sensitive construction techniques will reduce environmental impacts to the area watershed. Horizontal Directional Drilling and Pipe Bursting construction techniques greatly reduce the amount of open trenching used. This will reduce the amount of silt and soil that enters area surface water. They will also greatly reduce dewatering needs, which reduces the amount of groundwater (potentially contaminated) which must be discharged into area surface water.

15. Uses objectives described in the annual report and plan of work for the state water planning and review process issued by the department.
    - Identify the date of the Annual Report utilized.
    - List any and all objectives of the Annual Report intended to be met by the project
    - Explain how the project meets each objective.

    The Annual report and Plan of Work were dated September 2018. The project supports the objective of the Annual Report. The project will increase resilience in the wastewater systems of Inglewood and Fremont to handle flood scenarios, since both areas are within the flood plain for the Platte River, see map below.



16. Federal Mandate Bonus. If you believe that your project is designed to meet the requirements of a federal mandate which furthers the goals of the WSF, then:
    - Describe the federal mandate.
    - Provide documentary evidence of the federal mandate.
    - Describe how the project meets the requirements of the federal mandate.
    - Describe the relationship between the federal mandate and how the project furthers the goals of water sustainability.

    At this time, the proposed project does not appear to meet any federal mandates