



Pete Ricketts
Governor

STATE OF NEBRASKA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Jim Macy

Director

Suite 400, The Atrium
1200 'N' Street
P.O. Box 98922

Lincoln, Nebraska 68509-8922

Phone (402) 471-2186

FAX (402) 471-2909

website: <http://deq.ne.gov>

CLEAN WATER STATE REVOLVING LOAN FUND PROGRAM (CWSRF)

FINDING OF NO SIGNIFICANT IMPACT

TO: All Interested Citizens, Government Agencies and Public Groups

In accordance with the Nebraska Clean Water State Revolving Fund environmental review process, which is based on the National Environmental Policy Act, an environmental review has been performed on the proposed agency action below.

This information reviews the environmental impact likely from a project. This project is planned to be federally funded through your tax dollars; therefore, you are entitled to take part in its review. If you have concerns about the environmental impact of this project, please provide them at this time. The Nebraska Department of Environmental Quality encourages public input in this decision-making process.

PROJECT NAME:	Water Reclamation Facility	
	York, Nebraska	
APPLICANT:	City of York	
COUNTY:	York County	
POPULATION:	7766	
CWSRF PROJECT NUMBER:		C317983
TOTAL PROJECT AMOUNT:		\$19,865,000
ESTIMATED CWSRF LOAN AMOUNT:		\$19,355,000
OTHER COSTS		\$510,000

The City of York (City) owns and operates a wastewater treatment facility (WWTF) for treatment of organics, suspended solids, and ammonia. Most of the infrastructure of the WWTF, originally constructed in 1935 with subsequent additions and modifications, has reached the end of its useful life. The City is proposing to construct a new Water Reclamation Facility (WRF). The City has applied for funding for the above-referenced project through the Clean Water State Revolving Fund (CWSRF) program administered by the Nebraska Department of Environmental Quality (NDEQ). This project is included on the Priority List in the CWSRF State Fiscal Year 2016 Intended Use Plan (IUP) and ranked with 96 points.

The City of York is located in York County in eastern Nebraska approximately 50 miles west of Lincoln and three miles north of Interstate 80. The current population (2010 census) served by City sewer is 7766. The Bureau of Business Research projects an increase in population of four percent over the next 20 years. The design population for year 2036 is 8080.

York collects and treats approximately 1.2 million gallons of wastewater each day from 2771 residencies and 473 businesses. Their sanitary sewer collection system consists of about 62 miles of sewer mains and four lift stations. The existing WWTF utilizes head works, solids settling, fixed-film processes (roughing filters and rotating biological contactors), and chemical disinfection. Bio-solids are processed with a gravity thickener followed by anaerobic digestion, then storage prior to land application. Majority of the wastewater treatment plant components are 35 years old or older and are

past their 20 year design life.

York's existing WWTF effluent is discharged to Beaver Creek, Segment BB3-10400 of the Big Blue River Basin. The Nebraska Water Quality Standards assign the following beneficial uses to Segment BB3-10400: Class B warm water aquatic life, Class A agricultural and aesthetics. Aquatic life in this segment is impaired. The City's National Pollutant Discharge Elimination System (NPDES) permit effective October 1, 2013, follow technology based standards for BOD and TSS limits; whereas, Ammonia, E. coli and Total Residual Chlorine (TRC) follow water quality standards. Ammonia limits vary with the season, and the summer limit is the most stringent with a monthly limit of 2.15 mg-N/L and a daily maximum limit of 4.32 mg/l. The City has occasionally exceeded the E. Coli numerical limit.

An annual average flow of 1.40 million gallons per day and a maximum month flow of 1.6 million gallons per day are used to design the proposed WRF. The treatment process is Biological Nutrient Removal (BNR) with a future backup alum feed system for additional phosphorus removal. Reed beds will provide the backbone for bio-solids processing. The existing pumping station will be rehabilitated at the existing facility and will pump flow to the new site. The existing facilities will be demolished and/or abandoned with little recovery and/or reuse of existing infrastructure.

The influent pump station at the existing WWTF will be maintained and upgraded for use with the new WRF. A forcemain/gravity sewer will transport sewage from the existing WWTF to the proposed BNR WRF. A few components (replacement of rectangular configuration clarifier mechanism in existing tankage and related minor work and replacement of existing motor starters, motor controllers and panel boards) at the existing WWTF will be repaired in order to maintain NPDES compliance during construction of the new BNR WRF. The proposed conveyance pipe extends from the existing WWTF east along Road 12 to Road O where it extends south to the proposed WRF. The site for the proposed WRF is approximately 34 acres in size, approximately 0.9 miles south of Road 12 along the west side of Road O in York County. The proposed BNR WRF will include fine screening and grit removal. Fine screening will be accomplished using a perforated plate screen. Grit removal will be accomplished using either a forced vortex grit unit or a multi-tray vortex grit removal unit. A manual screen will be located in a bypass channel adjacent to the in-channel fine screen in the head works facility at the new plant site. This will allow flow to bypass the fine screen and grit removal equipment, for maintenance or emergencies. An Activated Sludge BNR without primary clarification was selected as the treatment process. The treatment process consists of anaerobic, anoxic, and aeration basins and mixed liquor return (MLR) streams. The anoxic MLR stream brings effluent from the anoxic zone to the anaerobic zone to promote the biological phosphorus removal process. The aerobic MLR stream recycles from the aerobic zone to the anoxic zone. This MLR allows for denitrification of the nitrified aeration basin contents and for nitrogen reduction. The BNR treatment process will be followed by two 60-foot secondary clarifiers. Chlorination/dechlorination will be used for disinfection of the effluent. A holding pit adjacent to the head works at the new treatment plant will be available to receive septage. Septage will be pumped into the influent flow stream at the head works of the WRF. Bio-solids from the treatment plant will be first directed to an aerobic solids holding tank where the waste solids will undergo partial aerobic digestion. A reed bed system is proposed to be used for final bio-solids treatment. This system consists of beds upon which liquid bio-solids are applied and native phragmites reed plants are grown. The reeds take up nutrients and moisture from the liquid solids for sustenance and thus reduce the bulk of the material. The bio-solids from the aerobic holding tank will be pumped to a multi-cell reed bed system, which will store, dewater, and stabilize the solids with a resultant storage volume of

approximately 10 years.

Based on procedures established in the 2016 IUP, the City of York is eligible to receive \$19,355,000 in CWSRF loan funds at an interest rate of 1.50% plus the 1.00% administration fee on the outstanding principal balance per year for a 20-year term. The impact to York's sewer user charge is estimated as follows: York's current residential sewer user charge is a Bi-Monthly Customer Charge of \$30.00 plus a usage charge of \$1.21 per 100 cubic feet. Ordinance No. 2136 implemented this sewer user charge on October 15, 2015. Revenues generated by sewer user rates will be used to pay the debt service due to the CWSRF loan. The City proposes to implement annual sewer rate increases in the next 5 years using the recommendations in the rate study prepared by Utility Financial Solutions dated July 23, 2015. Sewer user rates in year 2020 are estimated to be a Bi-Monthly Customer Charge of \$48.25 plus a usage charge of \$1.95/100cubic feet. Projected Typical Bi-Monthly sewer rate for a residential customer in 2020 is estimated to be \$72.33.

The City conducted a public hearing on this project on October 29, 2015, having the required 30 day advertised notice. Twelve citizens attended the public hearing. The Engineering Consultant (HDR) and the City presented the project and the associated impact to the sewer rates. The citizens had several questions regarding the project and the associated impact on the environment. Questions related to the Reed Beds and their potential impact on the environment was posed. There were questions associated with the impact of flow of water in Beaver Creek. The impact of construction of the forcemain on traffic on Road O was mentioned. These questions/issues and the associated response by HDR/City are discussed in depth in the Environmental Assessment.

HDR sent out ten requests for comment to related state and federal agencies, seven responses were received. The Nebraska Department of Natural Resources (NDNR) indicated that surface water appropriation A12282R is appurtenant to the proposed project location. NDNR indicated that, there is one public supply and six registered wells within the 1000-foot spacing. NDNR also indicated that the project is located within the 100 year floodplain and /or the floodway. The Natural Resource Conservation Service (NRCS) reviewed the area (34 acres) for the proposed WRF and determined that the site involved prime farmland. Approximately 80 percent (27.14 of 33.48 acres) of the impacted site is or has been farmed (managed for a scheduled harvest or timber activity) more than five of the past ten years. A Farmland Conversion Impact Rating was requested by NRCS. The Nebraska State Historical Preservation Office (NESHPO) indicated that the proposed project has some potential to impact cultural resources listed on the National Register or eligible for such listing. NESHPO requested that the entire 34 acres for the proposed WRF be surveyed by a professional archaeologist, with the resulting report then reviewed by NESHPO. The U.S. Fish and Wildlife Service (Service) indicated that the project may impact the northern long-eared bat (NLEB). To avoid impacting NLEB, the Service recommends tree clearing activities outside of the pup season from June 1 through July 31. The Department of Army, Corps of Engineers indicated that a Clean Water Act Section 404 permit is required to place fill material into any water of the United States in the project area. The Pawnee Nation of Oklahoma indicated that effective April 1, 2014; the Pawnee Nation Office of Historic Preservation implemented a new Research Fee schedule for all new Section 106 consultations and undisturbed collocated sites. The Nebraska Game & Parks Commission (NGPC) indicated that the park adjacent to the existing WWTF is encumbered under the Land and Water Conservation Fund Act (LCWF) Section 6(f)(3). The proposed project includes all lines to be underground near Beaver Creek Park property, therefore; as long as lines are buried as presented in the plans NGPC has received and as long as the parkland is returned to its pre-existing condition, if encroached upon, there is no further action needed to proceed under LWCF Section 6(f)(3). The NGPC provided permission to continue

with the project as outlined in the project plan.

The proposed WRF will be designed and constructed such that the WRF will be constructed outside the 100-year floodplain. The appropriate flood plain permit for construction of the proposed WRF will be obtained from the area flood plain administrator, if necessary. The proposed project is a mechanical WRF and should therefore not impact the area wells in an adverse manner. The only component of the proposed WRF, which could have any impact to area wells are the Reed Beds. The Reed Beds will have an under drain and liner system that will direct the filtrate to the head works and therefore should not have an adverse impact on area groundwater. The Farmland Conversion Impact Rating form AD-1006 was completed by the NRCS and HDR. The proposed WRF in York County scored 80 out of 160 points on the Farmland Conversion Impact Rating Form. Further coordination with NRCS is not necessary. HDR completed an Endangered Species Habitat survey. The survey resulted in the identification of potential NLEB and whooping crane habitat. No other protected species, or associated habitat, was identified. To avoid impacting NLEB, the City may restrict tree clearing activities outside of the pup season from June 1 through July 31 as recommended by USFWS. Whooping crane would likely avoid project construction during its migration periods of March 10 through May 10 and September 16 through November 16. If sighted, the contractor will be required to avoid disturbance and should contact USFWS to notify them of the sighting. Historic property background research was conducted for a one-mile Study Area surrounding the project's Area of Potential Effects (APE). Additionally, pedestrian inventory and subsurface testing was conducted on approximately 32 acres of proposed project land to identify potential archaeological resources that may be eligible for listing on the National Register of Historic Places (NRHP). One archeological site (25YK35) was identified during subsurface testing. Site 25YK35 consists of a prehistoric lithic isolated find. The site has no characteristics of significance that would make it eligible for listing on the NRHP. Based on applied research and investigation, the WRF project is provided a finding of No Historic Properties Affected. The archaeologist's report was provided to the NESHPO and Pawnee Nation Office of Historic Preservation. HDR prepared a Wetland Delineation Report. Delineations identified fourteen (14) wetlands, totaling 0.66 acre, and seven (7) defined stream channels/waterways. The majority of identified wetlands occur in roadside ditches along the proposed conveyance pipeline. Only two wetlands, totaling 0.036 acre, occur north/east of Beaver Creek and within the study area of the proposed facility. Based on these findings, and preliminary discussions with the U.S. Army Corps of Engineers, the ultimate project will likely qualify for Clean Water Act Section 404 Nationwide Permit (NWP) authorization via either NWP 7: Outfall Structures and Associated Intake Structures, or NWP12: Utility Line Activities.

The environmental impact will be positive, as the proposed WRF is expected to provide treatment, which will maintain compliance with NPDES permit limitations. The proposed WRF is designed to provide for removal of phosphorus and nitrogen and will therefore meet more stringent NPDES permit limitations that are anticipated in the future. Therefore water quality in Beaver Creek should improve. No significant negative impact has been identified. Consequently, a preliminary decision has been made that an EIS will not be prepared.

This action is taken on the basis of careful review of the facility plan, the environmental assessment and other supporting data, which are on file in the office of the Nebraska Department of Environmental Quality. These are available for public review upon request. A copy of the environmental assessment is attached. The NDEQ will not take any administrative action on the project for at least 30 calendar days from the date signed. Persons having a comment on this determination are encouraged to submit directly to Gautam Bhadbhade of the NDEQ (email

gautam.bhadbhade@nebraska.gov or phone (402) 471-4207) during this period.

Signed this 20th day of November, 2015.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Macy". The signature is written in a cursive style with a large, sweeping initial "J".

Jim Macy
Director

JM/gmb

Attachments: Environmental Assessment
Distribution List
Maps