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CLEAN WATER STATE REVOLVING FUND PROGRAM

FINDING OF NO SIGNIFICANT IMPACT

TO: All Interested Citizens, Government Agencies and Public Groups

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

This environmental review is required due to the proposed use of Federal funds for the project and citizens are entitled to participate in the review. If you have concerns about the environmental impact of this project, please provide your comments at this time. The Nebraska Department of Environmental Quality encourages public input in this decision-making process.

PROJECT NAME:	Missouri River Wastewater Treatment Plant Schedule B Improvements for Combined Sewer Overflow Control Program
APPLICANT:	City of Omaha, Nebraska
COUNTY:	Douglas
2010 CENSUS POPULATION:	408,958
CWSRF PROJECT NUMBER:	C317734
TOTAL PROJECT AMOUNT:	$90,915,000
ESTIMATED CWSRF LOAN AMOUNT:	$40,000,000

The city of Omaha is making extensive wastewater collection and treatment system improvements to control overflows from its combined sewer system. The City has applied for a Clean Water State Revolving Fund (CWSRF) loan to assist in funding improvements needed at the Missouri River Wastewater Treatment Plant.

The Omaha-Council Bluffs metropolitan area has a population of approximately 875,000 with about 75 percent of the population in Omaha's sewer service area. Combined sewers, rather than separate sanitary and storm sewers, are found in the older, eastern part of the service area. The combined sewer system service area covers approximately 43 square miles. These sewers convey dry weather flows, primarily domestic and pretreated industrial wastewater, and some wet weather flows to Omaha's Missouri River Wastewater Treatment Plant and Papillion Creek Wastewater Treatment Plant. When the combination of wet weather runoff and sanitary wastewater exceeds available sewer or treatment capacity, a portion of the wastewater overflows directly from designed overflow points into surface waters with little or no treatment. There are 19 combined sewer overflow (CSO) outfalls to the Missouri River and 10 CSO outfalls to tributaries of Papillion Creek. While many different types of contaminants can be present in CSO's, pathogens, which are monitored using the indicator organism *Escherichia Coli,* are of particular concern.

Missouri River Wastewater Treatment Plant effluent is discharged to Segment MT1-10000 of the Missouri River. Combined wastewater exceeding the Missouri River plant secondary treatment capacity is also discharged to this segment from CSO 102, the primary clarifier diversion outfall. Effluent from the Papillion Creek Wastewater Treatment Plant is also discharged to MT1-10000. The Nebraska Water Quality Standards assign the following beneficial uses to Segment MT1-10000: recreation, Class A warm water aquatic life, public drinking water, Class A agricultural and industrial water supply and aesthetics. Aquatic life in this segment is impaired by cancer risk and hazard index compounds.

The City has addressed problems associated with combined sewers for over 20 years. Some initial efforts emphasized reduction or elimination of localized problems, such as sewer surcharging resulting in street flooding or sewer backups into homes, with limited benefits to surface waters. Other projects directly reduced the number and magnitude of CSO events or improved their quality. The City received its first National Pollutant Discharge Elimination System (NPDES) permit for the combined sewer system in 2002. The permit has been reissued with changes several times. Improvements to reduce overflow events and improve treatment have been mandated. The Consent Order signed by the city of Omaha and the Nebraska Department of Environmental Quality (NDEQ) in 2007 called for a comprehensive plan to meet the NPDES permit requirements and full implementation of the plan by October 2024. The completion date has been extended to 2027 due to impacts of flooding in 2011.

The Long Term Control Plan (LTCP) for the Omaha Combined Sewer Overflow Control Program, which is dated October 2009, established an acceptable level of CSO control based on environmental and economic considerations. The plan objectives are treatment of combined flows to meet Missouri River *E. coli* stream standards for the recreation season, capture of more than 85 percent of the overflow and average no more than four overflow events annually. The extensive list of projects identified to reach these goals include (a) structural and nonstructural measures to reduce pollutant loadings at the source, (b) sewer separation projects and other collection system improvements, (c) treatment system improvements to provide some level of treatment for more of the flow that exceeds secondary treatment capacity and (d) temporary storage for wet weather flows prior to treatment. The cost of these improvements is currently estimated at about $1.9 billion.

The LTCP projects include improvements at the Missouri River Wastewater Treatment Plant. These improvements are scheduled for completion by 2017. Schedule B of the Missouri River plant improvements include a new headworks facility and primary treatment modifications to treat a peak-hour wet weather flow of 150 million gallons per day, additional odor controls for the primary clarifiers and a chemical building and chlorine contact basin to disinfect primary effluent flows exceeding the 64 million gallon per day capacity of the plant's secondary treatment system.

The Nebraska Department of Environmental Quality (NDEQ) has offered a loan to the city of Omaha to assist in funding the Missouri River plant Schedule B improvements. The proposed project is included in the FY2014 Clean Water State Revolving Fund (CWSRF) Intended Use Plan. The proposed 20-year, $40,000,000 CWSRF loan would have an interest rate of 1.5 percent plus an annual administration fee of 0.5 percent of the loan balance.

Sewer user revenues will be pledged to repay the loan. Omaha has adopted a series of annual sewer rate increases to fund the CSO program. Residential users currently pay about $29.22 per month in sewer use fees based on a water use of 5,000 gallons. A scheduled increase will bring this charge to $36.61 in 2014. Further increases are planned with fees in excess of $50 per month anticipated as more of the LTCP is implemented.

An extensive public participation program contributed to development of the LTCP. The program included public meetings, media events, presentations at neighborhood organizations; bilingual materials were utilized. A CSO website was established. Advisory panels were established as focal points and to facilitate the evaluation of alternatives. Efforts were made to acquire input from individuals and business with diverse concerns. The LTCP was provided to the public for a 30-day review period prior to a public meeting held on August 18, 2009. Approximately 100 people attended this meeting. Public concerns included impacts during construction and, in particular, project costs and sewer fee increases.

The Missouri River plant improvements are an important part of the implementation of Omaha's LTCP and will help to achieve compliance with the 2007 Consent Order and their discharge permit. It will result in improved treatment of Omaha's CSO's and improve water quality in the Missouri River. Improved water quality in the river could benefit pallid sturgeon, an endangered species.

Some of the plant improvements will be located within the existing plant boundary, but other features will be built between South 10th Street and the Missouri River. Palustrine Forested Temporarily Flooded wetlands have been identified in this area. The chlorination/dechlorination chemical building, chlorination contact basin and primary clarifier odor control facility, along with related driveways, piping and grading for these facilities, will collectively impact approximately 2.24 acres of wetlands identified at the site. Migratory bird species have been identified at the site.

The environmental review did not indicate a significant negative impact would result from the proposed action. The City has applied for a Clean Water Act Section 404 individual permit. Mitigation of the impact to wetlands is proposed by restoration of 1.5 times the impacted area at a similar site near the treatment facility. Protection of nesting migratory birds and storm water pollution control measures will be required during construction. No recorded historical or archaeological sites would be affected by construction. There will be no negative impact to stream flow or fish and wildlife habitat or to threatened and endangered species. The project will not impact flood flows. There would be no impact on ground water or on prime farmland. Impacts to the human environment will be minimal with no segment of the community impacted disproportionately. Chemical use and grit and sludge production at the plant will increase to some extent; the chemicals used and grit and sludge disposal practices will be similar to that currently utilized.

This action is taken on the basis of careful review of the Long Term Control Plan, draft Section 404 individual permit application and other supporting documents 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 disagreeing with the above environmental decision may submit comments to Ron Smaus of the NDEQ at ronald.smaus@nebraska.gov or 402-471-4252 during this period.

Signed this 12th day of July, 2013.

Sincerely,

Michael J. Linder
Director

MJL/rs

Attachments: Environmental Assessment
Distribution List
Figure

ENVIRONMENTAL ASSESSMENT DOCUMENT

A. Project Identification:

Project Name: Missouri River Wastewater Treatment Plant Schedule B Improvements for Combined Sewer Overflow Program
Applicant: City of Omaha, Nebraska
Project No.: C317734
City: Omaha **County:** Douglas **State:** Nebraska
Total Project Amount: $90,915,000
Potential CWSRF Loan: $40,000,000

B. Community Description:

Location: The city of Omaha is located in Douglas County in east-central Nebraska adjacent to the Missouri River. Combined storm and sanitary sewers are found in the older areas of the city, generally east of 76th Street. This is an urban area with a mixture of residential, commercial, industrial and miscellaneous land uses. Omaha's combined sewer service area totals about 43 square miles.

Population, Present and Projected, and Design Year: The 2010 census population for Omaha is 408,958, a 4.9 percent increase from 2000. The population of the combined sewer service area is estimated at 110,000 and this population is not expected to change considerably in the future.

Current Methods of Waste Treatment: Omaha is served by a wastewater collection system that includes some combined sewers and two major wastewater treatment facilities and one smaller facility. There are about 850 miles of combined sewers in the City. Dry weather flows and some wet weather flows are conveyed for treatment at Omaha's Missouri River Wastewater Treatment Plant and Papillion Creek Wastewater Treatment Plant. The Missouri River Wastewater Treatment Plant serves the eastern part of the City and has an average flow of about 26 million gallons per day. The Papillion Creek Wastewater Treatment Plant serves much of the Papillion Creek watershed in Douglas and Sarpy counties, including the western part of Omaha and the communities of Bellevue, Bennington, Boys Town, Gretna, La Vista and Papillion. The average flow to this facility is about 62 million gallons per day.

When the combination of sanitary wastewater, which includes domestic and pretreated industrial wastewater, and wet weather runoff exceeds available sewer or treatment capacity, a portion of the wastewater overflows directly into surface waters with little or no treatment. Designed overflow points and overflow events are referred to as combined sewer overflows (CSO's). There are 19 CSO outfalls to the Missouri River and 10 CSO outfalls to tributaries of Papillion Creek. Baseline conditions were estimated in 2002 with an average of 3.50 billion gallons per year of combined sewage overflows to receiving streams during 86 CSO events. The CSO's can contribute significant loadings of various contaminants; pathogens, which are monitored using the indicator organism *Escherichia Coli,* are of particular concern. Omaha has worked to address CSO

problems for over 20 years. Some initial efforts emphasized reduction or elimination of localized problems, such as surcharging resulting in street flooding or sewer backups into homes, with limited benefits to surface waters. Other projects directly reduced the number and magnitude of CSO's or improved their quality. Screening facilities have been installed at several of the CSO overflow points.

Receiving Stream: Missouri River Wastewater Treatment Plant effluent is discharged to Segment MT1-10000 of the Missouri River. Combined wastewater exceeding the Missouri River plant secondary treatment capacity is also discharged to this segment from CSO 102, the primary clarifier diversion outfall. Effluent from the Papillion Creek Wastewater Treatment Plant is also discharged to MT1-10000. The Nebraska Water Quality Standards assign the following beneficial uses to Segment MT1-10000: recreation, Class A warm water aquatic life, public drinking water, Class A agricultural and industrial water supply and aesthetics. Aquatic life in this segment is impaired by cancer risk and hazard index compounds.

C. Project Description:

Purpose: Omaha received its first National Pollutant Discharge Elimination System (NPDES) permit for CSO's in 2002. It has been reissued with changes several times. The City is required to control the CSO's. They have enacted required minimum controls and developed a Long Term Control Plan (LTCP). The LTCP for the Omaha Combined Sewer Overflow Control Program, which is dated October 2009, established an acceptable level of CSO control based on environmental and economic considerations. The goal is to treat combined flows to meet Missouri River *E. coli* stream standards for the recreation season, capture more than 85 percent of the overflow and average no more than four overflow events annually. The LTCP identifies an extensive list of projects to reach these objectives. They include (a) structural and nonstructural measures to reduce pollutant loadings at the source, (b) sewer separation projects and other collection system improvements, (c) treatment system improvements to provide some level of treatment for more of the flow that exceeds secondary treatment capacity and (d) temporary storage for wet weather flows prior to treatment. Implementation of the LTCP was to be completed by October 2024 but the schedule has been extended to 2027 due to impacts of flooding in 2011. The cost of these improvements is currently estimated at about $1.9 billion.

Type: The LTCP projects include improvements at the Missouri River Wastewater Treatment Plant. These improvements are scheduled for completion by 2017. Schedule B of the Missouri River plant improvements include a new headworks facility and primary treatment modifications, additional odor controls for the primary clarifiers and a chemical building and chlorine contact basin to disinfect primary effluent flow exceeding the 64 million gallon per day capacity of the plant's secondary treatment system.

Design Factors: The Missouri River Wastewater Treatment Plant Schedule B improvements are being designed to provide treatment for up to 150 million gallons of combined wet weather wastewater per day with an instantaneous peaking factor of about 1.2.

D. Alternatives Considered:

Types: Four levels of control of CSO's were considered in development of the LTCP. More than 20 different technologies were arranged to make up over 1,000 alternatives. Alternatives for the Missouri River plant improvements included different locations and arrangement of the new structures.

Reasons for Selection of Proposed Alternative: The selected level of control was based on Federal requirements and economic considerations. The Missouri River Wastewater Treatment Plant improvements were selected based on consideration of existing facilities and plant layout, constructability and economic and environmental factors.

E. Environmental Impact Summary:

Primary:

Construction: Some of the plant improvements will be located within the existing plant boundary, but other features will be built between South 10th Street and the Missouri River. Palustrine Forested Temporarily Flooded wetlands have been identified in this area. The chlorination/dechlorination chemical building, chlorination contact basin and primary clarifier odor control facility, along with related driveways, piping and grading for these facilities will collectively impact approximately 2.24 acres of wetlands identified at the site. Migratory bird species have been identified at the site. Temporary impacts that may be caused by construction include noise and dust and a limited potential for soil erosion and fuel and oil spills.

Environmental: The project will have a positive impact on the environment by reducing the CSO pollutant load entering the Missouri River. Improved water quality in the river could benefit to pallid sturgeon, an endangered species. Chemical use at the plant and grit and sludge to be handled and disposed of will increase somewhat. The Fish and Wildlife Service expressed concerns about the use of use of chlorine for disinfection.

Financial: A Clean Water State Revolving Fund (CWSRF) loan is proposed to partially fund the project. The project is listed in the FY20142 CWSRF Intended Use Plan. Principal and interest payments on a 1.5 percent, 20-year term loan for $40,000,000 would total $2,322,412 per year. In addition, an administrative fee of 0.5 percent of the loan balance will be assessed each year. Sewer user revenues will be pledged to repay the loan. Omaha has adopted annual increases of their sewer rates over the last few years to fund the expanding CSO program. Residential users currently pay about $29.22 per month in sewer use fees based on a water use of 5,000 gallons. A scheduled increase will bring this charge to $36.61 in 2014; further increases are planned with fees in excess of $50 per month anticipated as more of the LTCP is implemented. Approximately $0.78 of the monthly residential user fee would be needed for principal and interest payments and the fee for the proposed loan in the first year.

Secondary:

Population Impacts: The area is fully developed and the proposed project is not expected to have a significant impact on population.

Land Use and Trends: The impacts on land use and trends are expected to be minor. The improvements will include construction on several acres of Missouri River flood plain.

Environmental: Although some of the improvements will be built in the flood plain, impacts to flood flows will not be significant. No impacts to ground water are anticipated. There will be little or no impact to residents in the area.

Environmental Justice: This project has been planned to ensure that no segment of the community's population suffers disproportionately from human health or environmental effects.

Mitigation measures necessary to eliminate adverse environmental effect: The City has applied for a Clean Water Act Section 404 individual permit. Mitigation of the impact to wetlands is proposed by restoration of 1.5 times the impacted area at a similar site near the treatment facility. The construction documents will require the contractor to comply with the Migratory Bird Treaty Act. A construction storm water runoff permit and related erosion control measures will be required for this project since more than one acre of land will be disturbed. The improvements will include odor controls. No wastewater bypasses will be allowed during construction.

Irreversible and Irretrievable Commitment of Resources: The resources committed to the project include construction materials and energy needed to build and operate the new facilities.

F. Measure Taken to Insure Environmental Soundness:

Public Involvement: An extensive public participation program contributed to development of the LTCP. The program included public meetings, media events, presentations at neighborhood organizations; bilingual materials were utilized. A website was established. Advisory panels were established as focal points and to facilitate the evaluation of alternatives. Efforts were made to acquire input from individuals and business with diverse concerns. The LTCP was provided to the public for a 30-day review period prior to a public meeting held on August 18, 2009. Approximately 100 people attended this meeting.

Public Opposition or Opinions: The public provided input on problem areas and feedback on potential alternatives; concerns included impacts during construction and, in particular, project costs and sewer fee increases.

Coordination and Documentation with Other Agencies and Special Interest Groups:

Long Term Control Plan: October 1, 2009
Prepared by: Omaha CSO Program Management Team

Federal: US Fish and Wildlife Service
US Army Corps of Engineers

State: Nebraska Department of Environmental Quality
Nebraska Game and Parks Commission
Nebraska State Historical Society

Local: City of Omaha

Consulting Engineers: CH2M HILL
HDR Engineering, Inc.
Lamp, Rynearson & Associates

Public Groups: Omaha CSO Community Basin Panel
Omaha CSO Basin Advisory Panels

Other: Eastern Shore Tribe

G. Positive Environmental Effects to be Realized from the Proposed Project: The Missouri River plant improvements are an important part of the implementation of Omaha's LTCP and will help to achieve compliance with their discharge permit and regulatory requirements. It will result in improved treatment of Omaha's CSO's and improve water quality in the Missouri River. Improved water quality in the river could benefit to pallid sturgeon, an endangered species.

H. Reasons for Concluding there will be no Significant Impacts: Review of the LTCP and supporting documents indicates that the project will result in positive effects and benefits with no significant negative impacts. The City has applied for a Section 404 permit and proposes to mitigate the impact to wetlands. Protection of nesting migratory birds and storm water pollution control measures will be required during construction. No recorded historical or archaeological sites will be affected. There will be no negative impact to stream flow or fish and wildlife habitat or to threatened and endangered species. The project will have no significant impact on flood flows. No land will be purchased or taken out of production. There will be no impact on ground water. The improvements will include odor controls. Impacts to the human environment will be minimal with no segment of the community impacted disproportionately. Chemicals to be used for chlorination/ dechlorination are already in use at the plant. Grit and sludge handling and disposal practices now in use at the plant will be used for the additional materials.

Ronald J Amaya P.E.
Reviewing Engineer

July 8, 2013
Date

FINDING OF NO SIGNIFICANT IMPACT DISTRIBUTION LIST

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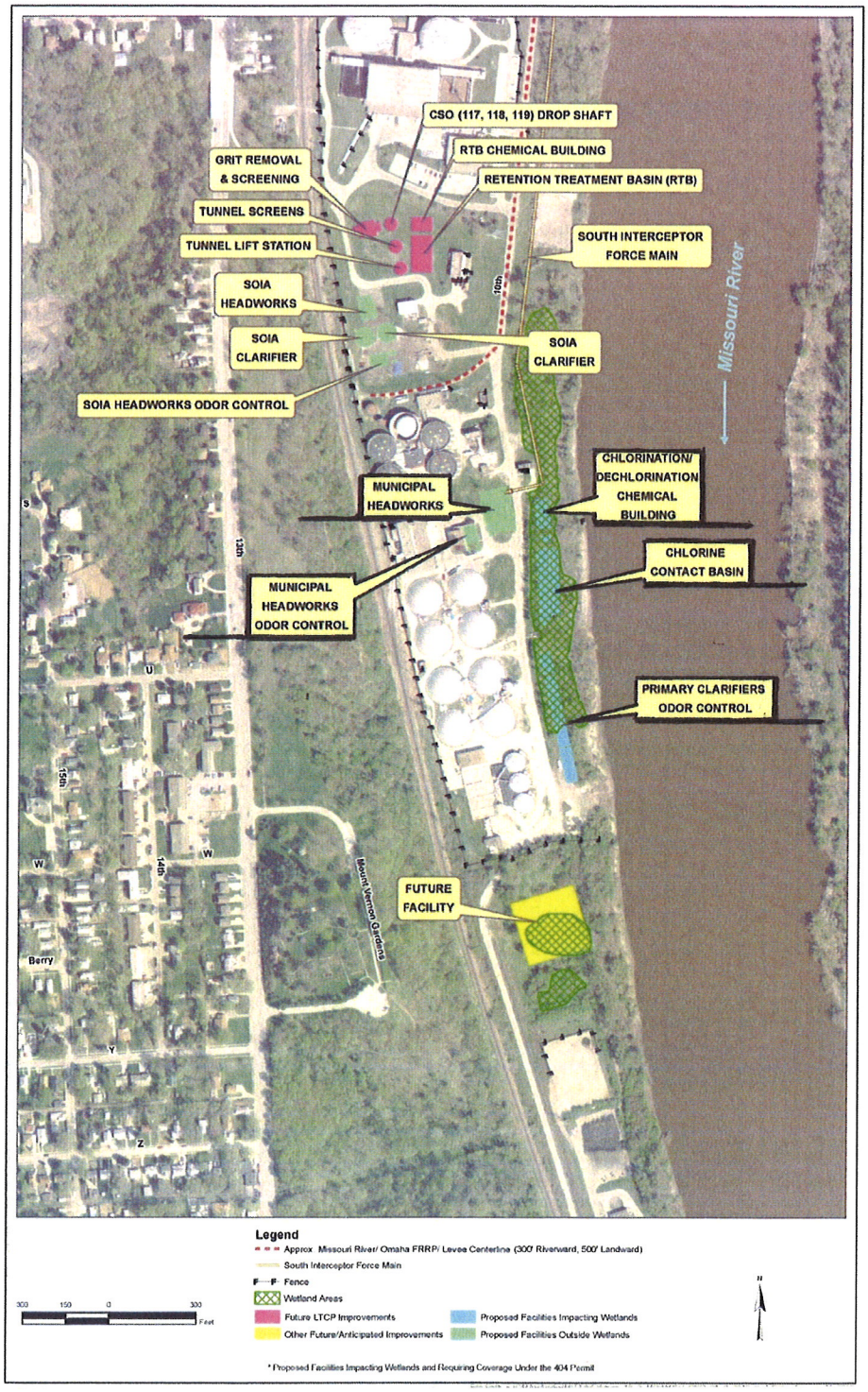
LOCAL NEWSPAPER
(Public Information Only not for Public Notice)
Omaha World-Herald
1314 Douglas Street
Omaha, NE 68102

LOCAL NATURAL RESOURCE DISTRICT
Papio Missouri NRD
8901 S. 154th Street
Omaha, NE 68138-3621



MISSOURI RIVER WASTEWATER TREATMENT SCHEDULE B IMPROVEMENTS

FOR CONTROLLED SEWER OVERFLOW CONTROL