



State Revolving Fund Loan Programs Drinking Water, Wastewater, Nonpoint Source

PRELIMINARY DECISION OF CATEGORICAL EXCLUSION

TO ALL INTERESTED CITIZENS, ORGANIZATIONS AND GOVERNMENT AGENCIES:

EVANSVILLE WATER & SEWER UTILITY

EAST WASTEWATER TREATMENT PLANT IMPROVEMENTS PROJECT NEW CENTRIFUGES AND BUILDING REHABILITATION PROJECT

PRELIMINARY ENGINEERING REPORT F: PROJECT #4 SRF # WW 14 21 82 14

Date: September 26, 2014

Pursuant to IC 4-4-11, the State Revolving Fund (SRF) Loan Program has determined that the project described here and in the city's Preliminary Engineering Report F received by the SRF on June 12, 2014 will have no substantial negative environmental impact. Therefore, the SRF is issuing a preliminary decision of Categorical Exclusion from the requirements of substantive environmental review.

How were environmental issues considered?

The National Environmental Policy Act requires agencies disbursing Federal funds to include environmental factors in the decision making process. A summary of the project is attached for your review. The SRF's preliminary review has found that the proposed project does not require the preparation of either an Environmental Assessment or an Environmental Impact Statement.

Why is additional environmental review not required?

Our environmental review has concluded that significant environmental impacts will not result from the proposed action.

How do I submit comments?

Comments can be submitted to:

April Douglas,
Senior Environmental Manager
SRF Programs
317-234-7294; adouglas@ifa.in.gov

CATEGORICAL EXCLUSION

I. PROJECT IDENTIFICATION

Project Name and Address: **East Wastewater Treatment Plant Improvements Project – New Centrifuges and Building Rehabilitation Preliminary Engineering Report F Project #4**
Evansville Water and Sewer Utility
1 NW Martin Luther King Jr. Blvd., Room 104
Evansville, IN 47740-0001

SRF Project Number: WW 14 21 82 14

Authorized Representative: Mr. Allen Mounts, Director
Evansville Water and Sewer Utility

II. PROJECT LOCATION

Evansville is located in southeastern Vanderburgh County. The East Wastewater Treatment Plant (WWTP) Improvements Project in the Sludge Dewatering Unit– New Centrifuges and Building Rehabilitation project area is located in the Evansville South USGS 7.5' topographic quadrangle in Pigeon Township, T6S, R10W and section 31 (see Exhibits 1 and 2).

III. PROJECT NEED AND PURPOSE

The stabilized biosolids from the West WWTP are pumped to the East WWTP and combined with the stabilized biosolids at the East WWTP where it is stored in a sludge storage tank. The combined biosolids are then dewatered and stored on a covered sludge storage pad.

The Biosolids Dewatering Facility at the East WWTP includes: four 2.2 meter belt filter presses (BFPs); four sludge feed pumps; one dry polymer system; four polymer solution feed pumps and two 24-inch belt conveyors to transport the dewatered sludge to the sludge holding area prior to being transported off-site for disposal.

The Evansville Water & Sewer Utility (EW&SU) is currently replacing two of the BFPs (i.e., Nos. 3 and 4) with one centrifuge, which should be completed in August 2014. These two BFPs were replaced because they have reached the end of their useful service life and consequently have become inefficient. Therefore, the EW&SU has decided to replace the remaining two BFPs (i.e., Nos. 1 and 2) with two centrifuges, since they have also become inefficient due to age. Providing a consistent redundant dewatering system will increase efficiency towards operation and provide the needed upgrade to the solids handling system.

The proposed project includes: installing two screw conveyors to transfer dewatered biosolids from the proposed centrifuges to the existing belt conveyors; replacing three variable frequency drives (VFDs) located in the electrical room on the first floor; upgrading the electrical and controls associated with the Supervisory Control and Data Acquisition (SCADA) system; modifying the sludge feed piping, polymer feed piping, and wash water piping to the proposed centrifuges; demolishing and removing all unused equipment in the Biosolids Dewatering Building; installing a platform for the centrifuges to provide access for maintenance; painting and labeling all piping as well as painting all walls and ceilings; installing an overhead crane; replacing the dry polymer system with a liquid polymer feed systems; upgrading the ventilation system in the electrical room; installing grating in the polymer storage area; installing HVAC exhaust filtration system for odor control; rehabilitating the exterior structure of the building; and providing air conditioning in the electrical room that contains the new centrifuges and screw conveyor control panels.

Three alternatives were evaluated for the project, including the “No Action” alternative.

The “No Action” alternative was rejected since the dewatering equipment has exceeded its useful service life and will continue to deteriorate and upgrades are needed to the Biosolids Dewatering Building.

The “Installation of One Centrifuge and Other Improvements” alternative involves the replacement of the two remaining BFPs with one centrifuge and the use of the other centrifuge that will be in operation in August. These two centrifuges will have sufficient capacity to handle the dewatering process. However, since both have to operate 22 hours per day for 5-days or 16 hours for 7-days an unforeseen situation may occur when one may have to be taken out of service with no backup. On this basis, this alternative was rejected.

The selected “Installation of Two Centrifuges and Other Improvements” alternative involves the replacement of the two remaining BFPs with two centrifuges and the use of the other centrifuge making a total of three centrifuges. Three centrifuges will provide the sludge dewatering operation with more flexibility and also provide the ability to handle the daily sludge production with one unit out of service.

IV. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

A. Selected Plan Cost Summary

<u>Construction Components</u>	<u>Costs</u>
Mobilization/Demobilization	\$ 200,000
Two Centrifuges	1,240,000
Two Screw Conveyors	120,000
Replacement of Three VFDs	45,000
Two Centrifuge Platforms	40,000
Three Liquid Polymer Systems	150,000
Overhead Crane	150,000
Ventilation System Upgrade	200,000
Odor Control HVAC Exhaust System	270,000
Electrical and Controls for SCADA	400,000
Piping, Fittings and Valves	25,000

Structure/Supports	25,000
Painting and Coatings	300,000
Exterior Repairs to Biosolids Dewatering Bldg.	190,000
Miscellaneous	235,000
Demolition/Restoration/Installation	<u>235,000</u>
Subtotal Costs	\$ 3,825,000
	Contingencies
	<u>\$ 382,500</u>
Total Estimated Construction Costs	\$ 4,207,500

Non- Construction Costs	
Construction Administration Fees	\$ 120,000
Project Inspection	180,000
Plant Start-Up	<u>35,000</u>
Total Non-Construction Costs	\$ 335,000

Total Estimated Project Costs \$ 4,542,500

- B. Evansville will borrow \$4,542,000 from the State Revolving Fund Loan Program through a 20-year loan at a fixed interest rate to be determined at the time of loan closing. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

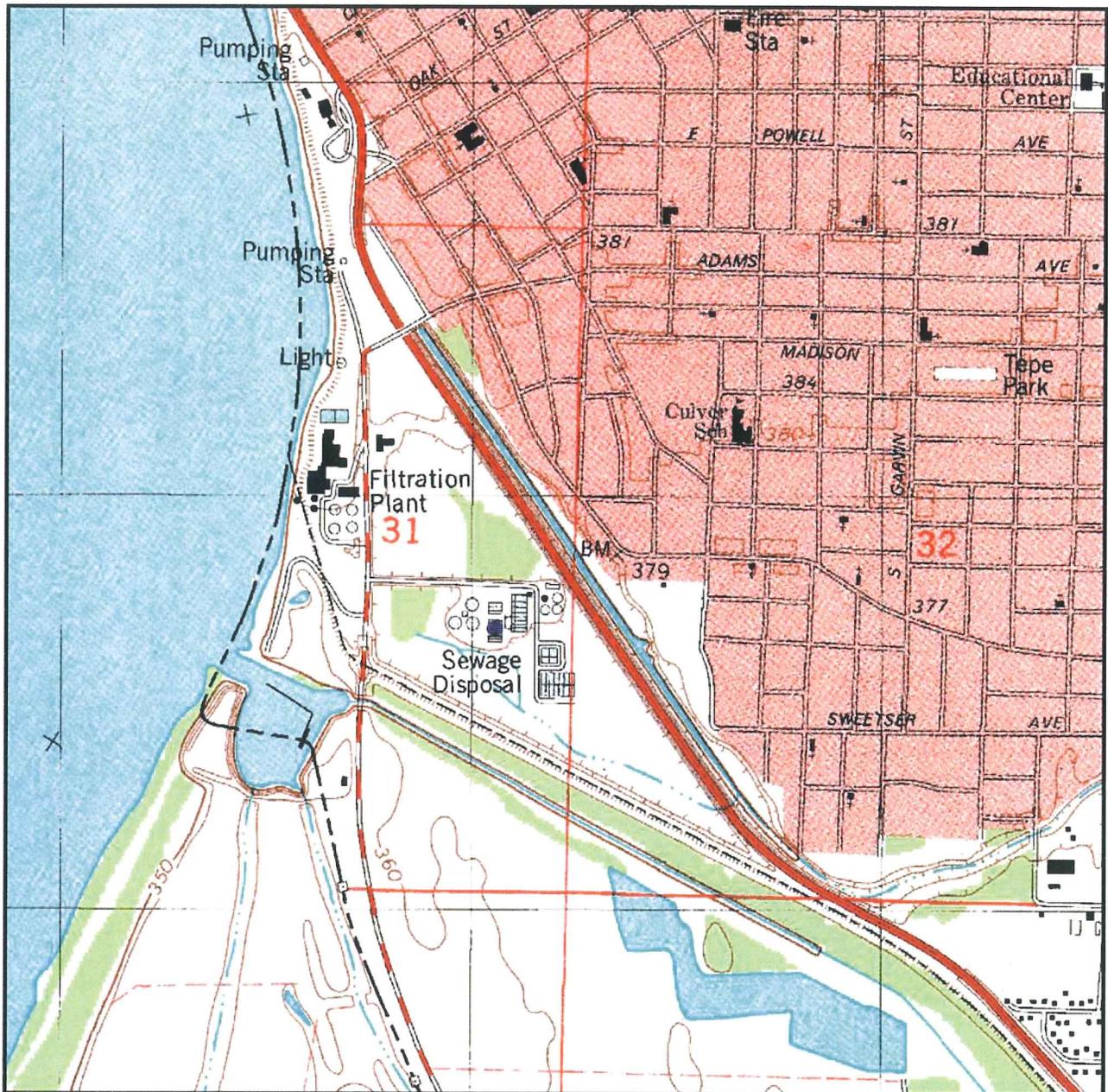
V. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

The project will occur in a previously disturbed area and will not affect endangered species or their habitat, streams, wetlands, or the 100-year floodplain.

Construction and operation of the project will not alter, demolish or remove historic properties (see Exhibits 3 and 4). If any visual or audible impacts to historic properties occur, they will be temporary and will not alter the characteristics that qualify such properties for inclusion in or eligibility for the National Register of Historic Places. The SRF's finding pursuant to Section 106 of the Historic Preservation Act is: "no historic properties affected"

VI. PUBLIC PARTICIPATION

A properly noticed public hearing was held at the Evansville Vanderburgh Public Library-North Park Branch on June 25, 2014, at 5:30 p.m. to discuss the Preliminary Engineering Report. There were no comments raised about Project # 4 at the hearing and no written comments were received.



LEGEND

● EXISTING EASTSIDE WWTP



0 500' 1000' 2000'



SCALE: 1" = 1000'

DATE: 04/20/14

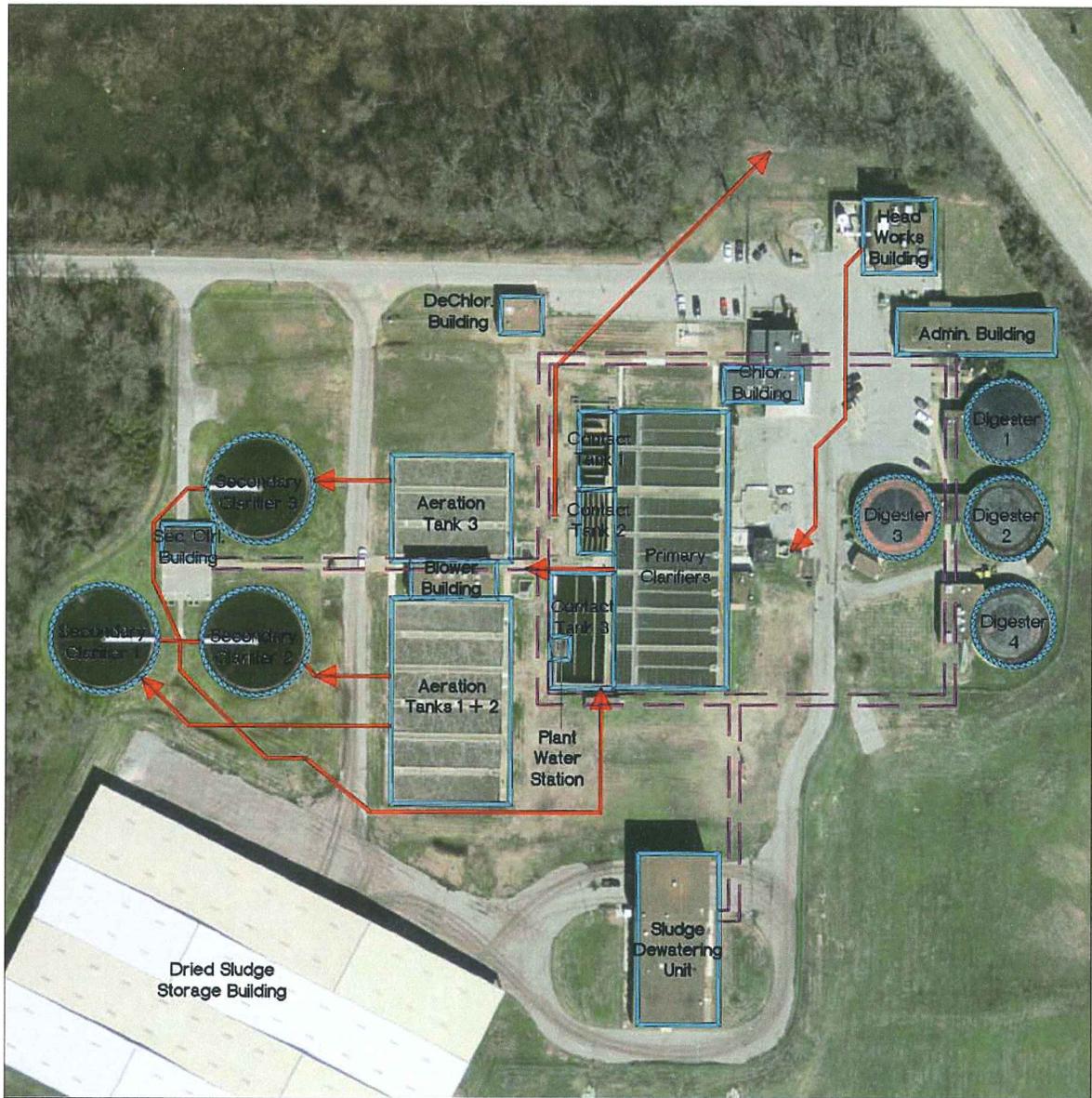
DIRECTOR: C. V. BROWN, III
 PROJECT NO.: 100
 DATE: 04/20/14



CITY OF EVANSVILLE WATER AND SEWER UTILITY
 PRELIMINARY ENGINEERING REPORT F, PROJECT No. 4
 EAST WWTP IMPROVEMENTS PROJECT

GENERAL TOPOGRAPHY MAP

EXHIBIT
1



AERIAL: SPRING 2013

LEGEND

- Existing Piping
- Tunnel



0 75' 150' 300'



SCALE: 1" = 150'

SCALE: 1"

DIRECTOR: DAVID B. BISHOP, P.E. | LICENSE: 100
 PROJECT: PROJECT 4 - EAST WWTP IMPROVEMENTS
 DATE: 06/20/14

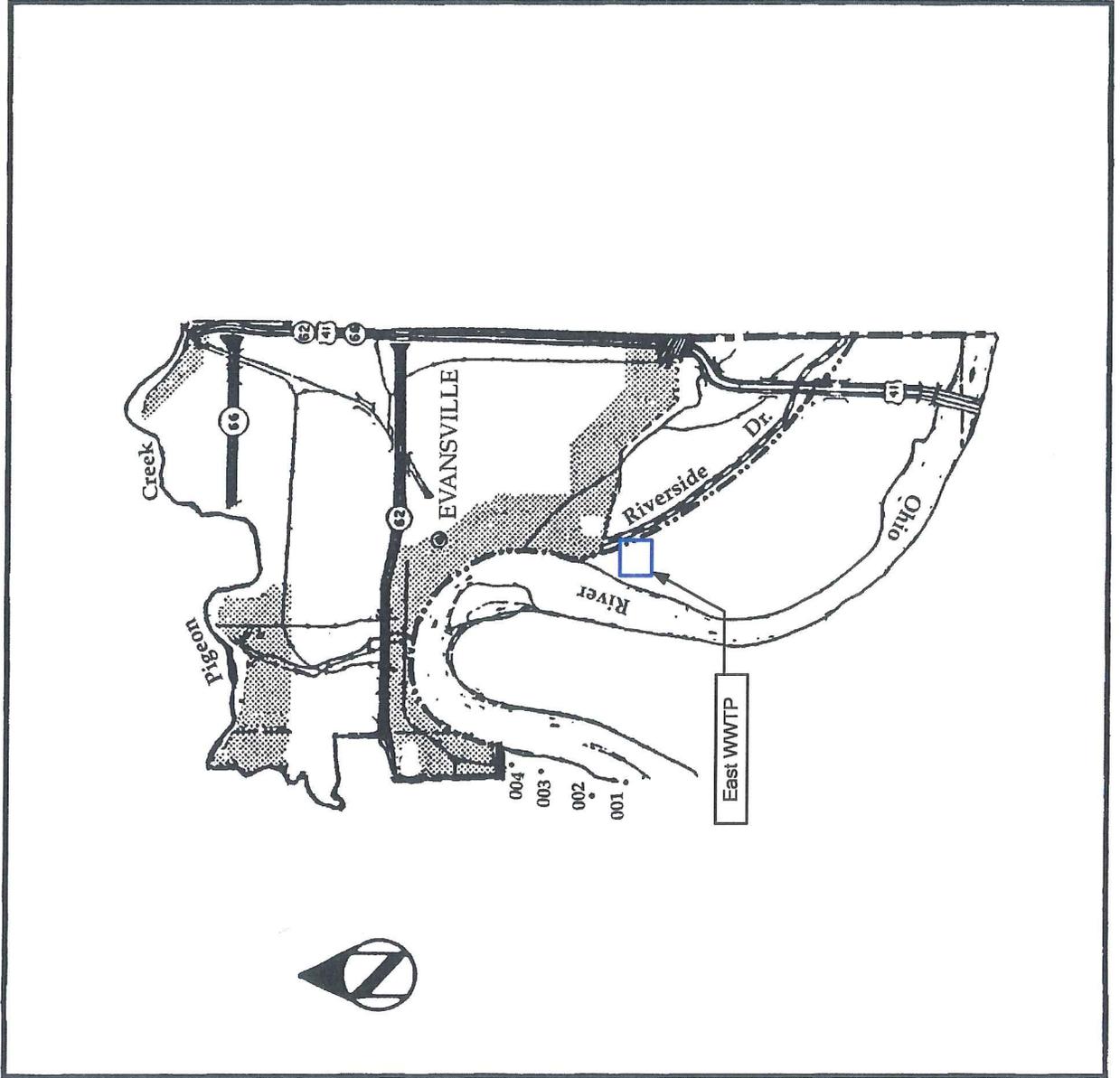


CITY OF EVANSVILLE WATER AND SEWER UTILITY
 PRELIMINARY ENGINEERING REPORT F, PROJECT No. 4
 EAST WWTP IMPROVEMENTS PROJECT

EXISTING SITE LAYOUT

**EXHIBIT
 2**

Pigeon Township (35001-004)



Pigeon Township, Vanderburgh County's smallest township, is located in the south central section of the county on a bend of the Ohio River. It was organized in 1818 and was named for Pigeon Creek which flows through the area. Pigeon Township includes the county seat of Evansville so that the township's history and development is closely associated to that of Evansville.

From the year 1812, when land was purchased for what was hoped to be a major regional shipping port, through its formative years and its eventual emergence as a thriving commercial and industrial center, Evansville has dominated the social, commercial, religious, industrial and political spheres of the tri-state area.

The city's development is reflected in its vast collection of significant historic buildings from the downtown's monumental government buildings to significant African-American and German neighborhoods, to the many gracious streetcar neighborhoods of the early twentieth century, to the scores of industrial buildings which employed the thousands of workers who flocked to the city. All these historic resources provide a glimpse into the evolution of one of the state's most architecturally significant cities.

When Hugh McGary purchased over 400 acres of wooded land on a bend in the Ohio River in 1812, he envisioned the development of major shipping center. By 1814, the community of Evansville was named the county seat of the newly organized Warrick County and its future looked bright. However, this optimism was short lived, the town lost its designation with the organization of two additional counties and Evansville languished until 1818 when Vanderburgh County was organized with Evansville as its county seat. By 1819, the town's population reached over 100 and during the following decade, Evansville took on the appearance

Evansville Scattered Sites (5338 - 504)

