



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

PRELIMINARY DECISION OF CATEGORICAL EXCLUSION

TO ALL INTERESTED CITIZENS, ORGANIZATIONS AND GOVERNMENT AGENCIES:

**TOWN OF SPEEDWAY
Wastewater Treatment Plant Improvements
SRF # WW091454904**

Date: January 18, 2011

Target Project Approval Date: January 19, 2011

Pursuant to IC 4-4-11, the State Revolving Fund (SRF) Loan Program has determined that the project described here and in the Town of Speedway Preliminary Engineering Report submitted to the SRF 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 (NEPA) 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 EA or an EIS.

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:

Amy Henninger, Senior Environmental Manager
SRF Programs
317-232-6566; ahenning at ifa.in.gov

**CATEGORICAL
EXCLUSION**

I. PROJECT IDENTIFICATION

Project Name and Address: Wastewater Treatment Plant Improvement
Town of Speedway
1450 N Lynhurst Dr
Speedway, IN 46224

SRF Project Number: WW0914549 04

Authorized Representative: Barbara A. Lawrence, Town Manager

II. PROJECT LOCATION

All construction activities for the proposed project will be within the Town of Speedway Wastewater Treatment Plant (WWTP) property and in areas that have been previously disturbed. The project locations are as follows:

<u>Site</u>	<u>Quad Map</u>	<u>Section</u>	<u>Range</u>	<u>Township</u>
WWTP	Indy West	5	15N 3E	Wayne

III. PROJECT NEED AND PURPOSE

The Wastewater Treatment Plant is a Class IV pure oxygen activated sludge facility that operates under a National Pollutant Discharge Elimination System (NPDES) Permit No. IN0032972. The facility has been modified over the past 17 years. The current facility has a design average capacity of 7.5 MGD with a peak sustained secondary capacity of 8.9 MGD. Flows above the peak sustained rating result in a secondary by-pass at Outfall 101 after primary treatment and are blended with secondary effluent prior to disinfection. **Figure II** provides a flow schematic of the processes. The main issue that must be addressed is the recycle ammonia load. The existing anaerobic digestion process followed by the dewatering adds a significant mass loading of ammonia nitrogen into the secondary process. The inability of the aeration process to treat the ammonia stresses the nitrification towers to the point where effluent ammonia can exceed NPDES permit limits. A comprehensive engineering analysis of each of the major treatment processes and evaluation of multiple alternatives resulted in the following conclusions:

“No Action” alternative and multiple feasible alternatives were evaluated for each of the proposed projects. A ‘no action alternate’ is not a viable option. In order to maintain WWTP performance reliability and compliance with NPDES requirements, the proposed modifications and improvements must be completed. Following are the recommendations for improvements and upgrades to the treatment processes. These recommendations are based upon the following criteria:

Urgent Priority: Those improvements necessary to maintain compliance with NPDES permit requirements and to maintain current operations. The following are to be constructed first, as part of the proposed 2011 financing:

1. **UNOX Aeration Tanks** -The recommendations for this process area would include the following:
 1. Installation of a new 125 HP compressor to maintain system reliability.
 2. Replacement of the instrument air treatment system with new refrigerated type.
 3. Replacement of the automatic pressure controls to reduce operational costs. This would include new PLC controls, oxygen analyzer, sensors and control valves.
 4. The top deck of the aeration tanks must be repaired to maintain original design headspace pressure.
 5. Replacement of the existing impellers with new high efficiency design.
 6. Installation of new VFD units for each mixer to reduce energy utilization.
 7. Installation of new cooling system and pumps.

A preliminary energy and operational analysis was conducted which would indicate that the implementation of these recommendations will result an energy efficiency of approximately 40% compared to the existing system. These UNOX Aeration improvements qualify categorically towards Green project reserve for energy efficiency.

2. **Sludge Storage Tank**- The recommendations for this process area include conversion of the sludge storage tank to a Storage-Nitrification-Denitrification-Reactor (SNDR) by the following changes to this process:
 1. Addition of positive displacement blowers, a jet aeration system and pH and ORP instruments to the existing digested storage tank.
 2. Addition of blower automation to maintain target pH and ORP levels to assure nitrification/ denitrification.
 3. Addition of a cover to the storage tank.
 4. Addition of an off gas treatment system which would include a blower, mist scrubber and biofilter.
3. **SCADA** -The existing SCADA system was reviewed with the original system integrator and an approach was identified for upgrading the control systems. As an urgent priority, completion of a detailed Master Planning Report has been identified.
4. **Structural Repairs**- The Structural Evaluation Study established the repair scope and schedule. Due to the age of the various structures, these repairs must be completed to maintain the life of the treatment facility.
5. **Electrical/Collection System** - It is recommended that the existing Chapel Hill Pump Station be upgraded by providing new standby power generation to maintain service since power outages have been frequent.

Based upon the current position of IDEM on Water Quality Standards, no immediate changes are anticipated to the Towns permit limits which will expire in November 2012.

It is projected that the flows generated in the **future will not greatly affect the current average daily flows**. This does not factor in any future sewer separation project(s) the Town may complete.

Future Flow Projections

	Average Daily Flow	Peak Day Flow
Current	5,773,000 GPD	11,710,000 GPD
Additional	85,000 GPD	171,000 GPD
Total	5,858,000 GPD	11,881,000 GPD

IV. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

A. Estimated Cost Summary

Construction (Urgent Priorities)	\$ 2,286,400
Construction Contingency	230,840
Total non Construction	<u>628,760</u>
Total Estimated Project Cost for <u>Urgent Priorities</u>	\$ 3,146,000

B. Town of Speedway will finance the Urgent Priorities project with a 20-year loan from the State Revolving Fund (SRF) Loan Program at an 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.

C. The following is an estimated cost breakdown for the components of the proposed Urgent Priorities that may qualify towards EPA Green Project Reserve (GPR) and the SRF Program GPR Sustainability Incentive:

GPR Project Costs

Item	Description	Estimated Cost
1	UNOX Process Upgrades	\$ 1,310,000
2	SDNR Process	\$ 705,000
	Estimated Construction	\$ 2,015,000
	Contingency (10%)	\$ 201,500
	Estimated Total Construction	\$ 2,216,500
	Non Construction Costs Planning/Design	\$ 328,530
	Total GPR Project Related Costs (81%)	\$ 2,545,030
	Total Urgent Priorities Project Costs	\$ 3,146,000

V. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

All construction activities for the proposed project will be within the town of Speedway WWTP property and in areas that have been previously disturbed. The project will not

affect streams, wetlands, wooded areas, the 100-year floodplain or a Sole Source Aquifer and will not convert prime farmland. These projects have no potential to affect historic sites (see Exhibit 1). The SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "no historic properties affected."

The Preliminary Engineering Report (PER) states: *Mitigation measures to lessen siltation and erosion and compensation cited in comment letters about the Project from the Marion County Soil Conservation Service, IDNR and US Fish & Wildlife will be implemented.*

VI. PUBLIC PARTICIPATION

Properly noticed public meetings were held at 6:00 p.m. on September 17, September 29, October 15, and October 20, 2009 at the Speedway Town Hall Auditorium, 1450 North Lyhurst Drive. The Preliminary Engineering Report and the CSO LTCP Implementation Projects were discussed during the meetings and public input was solicited.

Apr 10, 2008 - 6:58am

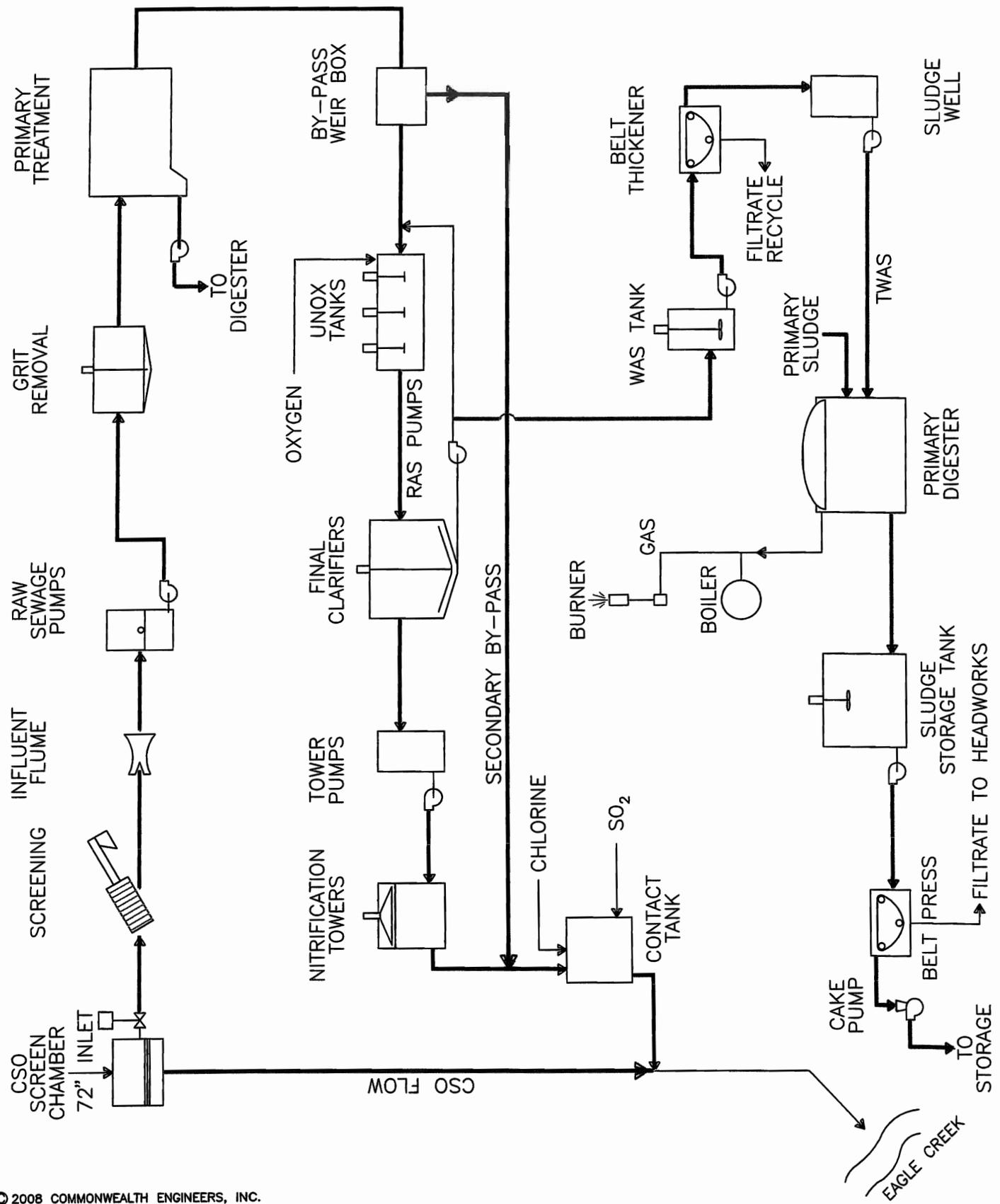
© 2008 COMMONWEALTH ENGINEERS, INC.
PER Figures.dwg 1



COMMONWEALTH

**TOWN OF SPEEDWAY, INDIANA
WASTEWATER UTILITY IMPROVEMENTS**

**FIGURE II
FLOW SCHEMATIC**



Wayne Township — Map #17

Sites #55777-55836

