

# ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

# VALPARAISO CITY UTILITIES EKPCF Expansion and Sturdy Road Lift Station Replacement Project SRF Project WW 24 01 64 01

# DATE: April 19, 2024

# TARGET PROJECT APPROVAL DATE: May 20, 2024

# I. INTRODUCTION

The above entity has applied to the Clean Water State Revolving Fund (SRF) Loan Program for a loan to finance all or part of the Clean Water project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA, which can also be viewed in color at <u>http://www.in.gov/ifa/srf/</u>.

# II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The SRF Wastewater Program has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 5-1.2-3, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

# III. COMMENTS

All interested parties may comment upon the EA/FNSI. Comments must be received at the address below by the target approval date above. Significant comments may prompt a reevaluation of the preliminary FNSI; if appropriate, a new FNSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FNSI as appropriate. Comments regarding this document should be sent within 30 days to:

> April Douglas Environmental Review Coordinator State Revolving Fund 100 N. Senate Ave. IGCN 1275 Indianapolis, IN 46204 317-234-7294 adouglas@ifa.in.gov

# ENVIRONMENTAL ASSESSMENT

## **I. PROJECT IDENTIFICATION**

Project Name and Address:	EKPCF Expansion and Sturdy Road Lift Station Replacement Project Valparaiso City Utilities 205 Billings Street Valparaiso, IN 46383
SRF Project Number:	WW 24 01 64 01
Authorized Representative:	Steve Poulos, Executive Director

## **II. PROJECT LOCATION**

The proposed project is located in Porter County, Center township, Valparaiso USGS Quadrangle. The EKPCF project is located in Township 35N, Range 6W, and Sections 23 and the Sturdy Road Lift Station is located Section 30, Township 35N, Range 5W, and Sections 23, 25 and 26, Township 35N, Range 6W. See **Figures 1 through 3**.

#### **III. PROJECT NEED AND PURPOSE**

The Valparaiso City Utilities Elden Kuehl Pollution Control Facility (EKPCF) expansion project will increase the average design flow rate from 8.0 MGD to 10.0 MGD, and the peak design flow rate from 18.0 MGD to 22.5 MGD. The project will address equipment that is deteriorating, outdated, and incorrectly sized; will increase facility reliability and efficiency; will address current and 20-year flow projections; and will allow the City to comply with their Combined Sewer Overflow (CSO) Long Term Control Plan and discharge permit requirements.

The Sturdy Road Lift Station and force main are past their useful life. Force main breaks and clogging of pumps occur frequently. The station is located near a creek that impairs access during flooding events. The station discharges to the Horse Prairie Lift Station, resulting in double pumping. Replacement and upsizing of the Sturdy Road Lift Station will ease operations, allow force main routing directly to the EKPCF, and accommodate existing and 20-year flow from the eastern and southern sections of the City.

## **IV. PROJECT DESCRIPTION**

The EKPCF expansion project includes:

- Tertiary filter replacement with Cloth Media Disk Filtration (CMDF) system, including removal of existing sand filters, repurposing two existing tanks for flocculation, and new phosphorus removal chemical feed system;
- Aeration process improvements, including replacement diffusers, blowers, and air header;
- Waste activated sludge thickening, including two automated centrifuge units, feed pumps, thickened sludge pumps and piping, and demolition of existing dissolved air floatation system;
- Anaerobic digester rehabilitation, including replacement jet mixing systems, west digester membrane cover, east digester floating cover, and tank structural repair;

- Pipe gallery structural repairs;
- Backup generator and automatic transfer switch;
- Electrical and controls upgrades, including MCC and switch gear replacement, and new SCADA system; and
- Site piping, including plant drain modifications.

The Sturdy Road Lift Station replacement project includes:

- New lift station with pumping capacity of 8.2 MGD;
- Control building;
- Electrical and controls, including SCADA system;
- Backup generator;
- Approximately 12,700 LF of 24-inch diameter force main with air release valves and connections; and
- Demolition of existing station.

# V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

Total cost of this project is estimated to be approximately \$57,060,000. Valparaiso City Utilities will finance the project with a loan from the Clean Water SRF Loan Program for a term and annual fixed interest rate to be determined at loan closing. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

# VI. DESCRIPTION OF EVALUATED ALTERNATIVES

The EKPCF was assessed for various alternatives, including No Action, Existing Plant Optimization, EKPCF Expansion, Alternative WWTP Sites, Regionalized Treatment Plant, and Treatment Technologies.

**No Action:** The No Action alternative is not practical, environmentally sound or economical. Many of the EKPCF processes are well past their useful life and are beginning to fail structurally or can no longer perform as designed or intended. Continued operation under the current conditions could lead to permit violations, environmental degradation and a sewer ban for the community. Therefore, this alternative was eliminated from consideration.

**Existing Plant Optimization:** Components of the EKPCF are in need of immediate repair or replacement to continue sustained operation. In addition, future flows and loadings to the plant are expected to exceed the design capacity. Hydraulic and biological modeling determined that EKPCF staff already run the plant at optimized operation, within constraints of failing processes. For these reasons, this alternative was eliminated from consideration.

**EKPCF Expansion:** This is the selected alternative to address equipment that is deteriorating, outdated, and incorrectly sized; increase facility reliability and efficiency; address current and 20-year flow projections; and allow the City to comply with their CSO Long Term Control Plan and discharge permit requirements.

Alternative WWTP Sites: The EKPCF is on a 25-acre site with adjacent property that could be acquired and used for future expansion. Efforts to build a new plant on a different site would require re-route of the incoming sewers and force mains, costs to build all new structures and facilities, and increased environmental impacts. This alternative is not feasible and was eliminated from consideration.

**Regionalized Treatment Plant:** The EKPCF currently receives wastewater flow from satellite communities in the county. Further regionalization and combination of utilities is not feasible and was eliminated from consideration.

**Treatment Technologies:** Filter technologies included sand filtration and cloth disc filtration. Cloth disc filters provide a higher treatment capacity in a smaller footprint; therefore cloth disc filters was selected. Ferric chloride and PAC are both considered feasible alternatives for chemical feed. Analysis of EDPM membrane fine bubble diffusers, hyperboloid moxer/aeratiors and ultra-fine bubble differs were analyzed for the aeration system. Fine bubble diffusers were selected since the staff is familiar with their operation and the technology has a long history of successful operation. For replacing the existing DAF units for WAS thickening, centrifuges, rotary drum thickers, and volute screw press thickeners were compared. Centrifuges were selected because they are fully automated and highest solids capture rate. Of the mixer technologies reviewed for the anaerobic digesters, the jet mixing system was most cost effective because other technologies would require retrofitting the tanks and the staff would need to learn how to operate the new type of equipment. Fixed, floating and membrane type covers were reviewed for the west digester cover. The staff prefers to continue gas capture which the membrane covers will allow.

Two alternatives were evaluated for the Sturdy Road Lift Station.

**No Action:** The No Action alternative is not practical, environmentally sound or economical. Force main breaks would continue and the lift station would routinely need maintenance. In addition, the reserve capacity of the lift station will continue to decrease. The City would not meet their water quality standard or be in compliance. Therefore, this alternative was eliminated from consideration.

**Sturdy Road Lift Station Replacement:** This is the selected alternative to ease operations, allow force main routing directly to the EKPCF, and accommodate existing and 20-year flow from the eastern and southern sections of the City. Force main alternate paths were also considered, with Alternate 2 being selected locating the lift station on the west side of Sturdy Road.

# VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

# A. Direct Impacts of Construction and Operation

**Disturbed/Undisturbed Land**: All areas have been previously disturbed by previous construction activity or subject to an archaeological survey.

**Structural Resources (Figures 2 & 3):** Construction and operation of the project will not alter, demolish or remove historic properties. 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 National Historic Preservation Act is: "*no historic properties affected.*"

**Surface Waters (Figures 4, 5 & 6):** The project will not adversely affect outstanding state resource waters listed in 327 IAC 2-1.3-3(d), exceptional use streams listed in 327 IAC 2-1-11(b), Natural, Scenic and Recreational Rivers and Streams listed in 312 IAC 7-(2), or Salmonid Streams listed in (327 IAC 2-1.5-5(a)(3) or streams on the Outstanding River List for Indiana.

Wetlands (Figures 7, 8 & 9): Mitigation measures to lessen and compensate for wetland impacts cited in comment letters about the project from the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.

**Floodplain (Figures 10, 11 & 12):** The project will not include dredge or fill in the floodway without a permit from IDNR Division of Water. No change in grade will occur within the floodplain.

Groundwater: The project will not impact a drinking water supply or sole source aquifer.

**Plants and Animals**: The proposed project items will be implemented to minimize impact to non-endangered species and their habitat. Mitigation measures cited in comment letters from the Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.

Prime Farmland: The project will not convert prime farmland.

Air Quality: Construction activities may generate some noise, fumes and dust, but should not significantly affect air quality.

**Open Space and Recreational Opportunities**: The project will neither create nor destroy open space or recreational opportunities.

Lake Michigan Coastal Program: The project will not affect the Lake Michigan Coastal Zone.

**National Natural Landmarks:** Construction and operation of the proposed project will not affect National Natural Landmarks.

# **B.** Indirect Impacts

The town's Preliminary Engineering Report (PER) states: *The Sturdy Road Lift Station project is intended to address existing wastewater infrastructure needs. However, the EKPCF Upgrade does include a treatment capacity increase request.* 

The City of Valparaiso, through the authority of its council, planning commission or other means, will anticipate that future development, as well as future supply, storage distribution or treatment works projects connecting to SRF-funded facilities will not adversely affect sensitive environmental resources. The Town will require new development and treatment works projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service (USFWS), IDNR, IDEM, and other environmental review authorities.

# C. Comments from Environmental Review Authorities

In correspondence dated November 3, 2023, the Indiana Department of Natural Resources Division of Historic Preservation and Archaeology stated:

Pursuant to Indiana Code 5-1.2-10, Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108), and 36 C.F.R. Part 800, the Indiana State Historic Preservation Officer ("Indiana SHPO") is conducting an analysis of the materials dated and received by the Indiana SHPO October 4, 2023, for the above indicated project in the City of Portage, Portage Township, Porter County, Indiana.

Based on our analysis, it has been determined that no historic properties will be altered, demolished, or removed by the proposed project.

Additionally, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the National Register of Historic Places ("NRHP") within the proposed project area; and we concur with the opinion of the archaeologist, as expressed in the Phase Ia archaeological field reconnaissance survey report (Stillwell, 06/27/2023), that no further archaeological investigations appear necessary at this proposed project area.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

In correspondence dated March 1, 2024, the United States Fish and Wildlife Service stated:

This responds to your letter received on February 22, 2024, requesting our comments on the aforementioned project. The project consists of the replacement of the Sturdy Road Lift Station and the associated force main in the City of Valparaiso.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U.S. Fish and Wildlife Service's Mitigation Policy.

The existing lift station is adjacent to the headwater stream of Sagers Lake and is affected by periodic inundation; it also pumps to a second pumping station to the west rather than directly to the wastewater treatment plant (WWTP), resulting in double pumping. The new, larger Study Road Lift Station will be on upland, away from the stream and associated wetlands, and will be able to pump the effluent directly to the WWTP through the new 24-inch force main.

The force main will follow a railroad and US 30 to Horse Prairie Avenue, where it will turn north to West Street, then northwest overland parallel to Salt Creek to the WWTP. The force main installation will utilize a combination of horizontal directional drilling (HDD) and open cut methods, including bores under US 30 and a railroad. The section between West Street and the railroad will be through a forested wetland. The project description in IPaC indicates that HDD would be used in this wetland area, but it is not stated if trees will need to be removed due to the installation. If trees will need to be cut to provide an open right-of-way for maintenance access, we believe that the loss of the forested wetland component should be mitigated through the purchase of credits (forested wetlands) from the Indiana Department of Natural Resources' Stream and Wetland Mitigation Program.

# ENDANGERED SPECIES

The proposed project is within the range of the Federally endangered Indiana bat (Myotis sodalis) and northern long-eared bat (Myotis septentrionalis) and the proposed endangered tricolored bat (Perimyotis subflavus). There are no records of any of these species within the project area. Although there are woodlands within the vicinity, including the forested wetland between West Street and the railroad, the overall site is densely developed urban habitat, and we would not expect the listed bats to be present. Therefore, we concur with the determination that the project is not likely to adversely affect these bat species.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation.

Due to the lack of suitable habitat, none of the bird species listed in the IPac Resource List are likely to be present.

We appreciate the opportunity to comment on this proposed project. If project plans change such that fish and wildlife habitat may be affected, please recoordinate with our office as soon as possible.

In correspondence dated March 22, 2024, the Department of Natural Resources Environmental Unit stated:

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

## Regulatory Assessment:

This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile. To determine if a permit will be required, the Indiana Floodplain Information Portal (INFIP) is a mapping application developed by the DNR, Division of Water to generate a Floodplain Analysis and Regulatory Assessment (FARA) that provides floodplain information. The portal is on the Division of Water's webpage at infip.dnr.in.gov.

## Natural Heritage Database:

The Natural Heritage Program's data have been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Fish and Wildlife Comments:

Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

## A) Wetlands

Due to the presence or potential presence of wetland habitat on site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and the US Army Corps of Engineers (USACE) 404 program.

# B) Habitat Loss and Fragmentation

The proposed project path will cut through multiple wetlands and forested areas. Habitat loss is a major factor in the decline of wildlife and habitat fragmentation is one of the main mechanisms in habitat degradation and loss. Habitat fragmentation creates smaller, more isolated habitat areas of lower habitat value for wildlife as compared to large, contiguous habitats. Fragmentation allows non-native species and predators access to the forest's interior which is vital habitat for many neotropical migratory songbird species and can negatively affect the long-term viability of wildlife populations with limited mobility. Where possible, instead of entering wetlands, floodways, and forest, utilize previously disturbed areas such as roadway right of way or turf grass lawns.

# C) Riparian Habitat

We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at: https://www.in.gov/nrc/files/IB-17.pdf.

Impacts to non-wetland forest of one (1) acre or more in a rural or urban area should be mitigated at a minimum 2:1 ratio based on area of impact. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. Impacts under 0.10 acre in an urban area should be mitigated by replacing trees that are 10" diameter-at-breast height (dbh) or greater by planting five trees, 1" to 2" in dbh, for each tree which is removed that is 10" dbh or greater. Seeding and stabilizing disturbed areas is required regardless of the impact amount and location. If floodway impacts to forested wetland and non-wetland habitat areas combine to be 0.10 acres or more, mitigation should be done and coordinated with the biologist, as needed.

The mitigation site should be located in the floodway, downstream of the one (1) square mile drainage area of that stream (or another stream within the 8-digit HUC, preferably as close to the impact site as possible) and adjacent to existing forested riparian habitat.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native

herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.

2. Minimize and contain within the project limits in-channel disturbance and the clearing of trees and brush.

3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.

4. Do not cut any trees suitable for Indiana Bat or Northern Long-eared Bat roosting (3 inches or greater diameter-at-breast height, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.

5. All excavated material must be properly spread or completely removed from the project site such that erosion and off-site sedimentation of the material is prevented.

6. Minimize the movement of resuspended bottom sediment from the immediate project area.

7. Do not deposit or allow construction/demolition materials or debris to fall or otherwise enter the waterway. Any incidental fallen material or debris in the waterway must be removed within 24 hours using best management practices, particularly lifting material out of the waterway and not dragging it across the streambed whenever possible.

8. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.

9. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

10. Do not excavate or place fill in any riparian wetland.

In correspondence dated March 31, 2023, the Natural Resources Conservation Service stated:

The proposed Lift Station Replacement and New Force Main project in the City of Valparaiso, Porter County, Indiana, as referred to in your letter received March 27, 2023, will not cause a conversion of prime farmland.

# VIII. MITIGATION MEASURES

Valparaiso City Utilities' PER states:

As determined appropriate, precautions shall be taken during construction to prevent erosion and sediment transport. Efforts shall be made during construction to minimize disturbance of stream and wetlands. Mitigation measures suggested in comment letters received from the reviewing agencies will be implemented as determined appropriate. Project plans shall include requirements for construction sequencing, as well as permanent and temporary erosion control measures. All disturbed areas shall be restored to their pre-construction condition where possible. All vegetated areas shall be permanently seeded and maintained as necessary until vegetation is established. If dewatering is necessary, water shall be pumped through a filter bag prior to discharge into a swale or storm sewer. Applicable permits shall be obtained prior to construction. The Town shall routinely

inspect the construction area to provide the appropriate measures are taken to minimize erosion and sediment transport off-site.

## **IX.** PUBLIC PARTICIPATION

A properly noticed public hearing was held on May 9, 2023, at 5:00 pm at the Board of Directors Meeting to discuss the PER. There were no questions on this project during the hearing. No written comments were received during the 5-day comment period following the hearing.



Figure 1































