



Environmental
Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

4PC00007C

FILE COPY

May 23, 2011

Mr. John Geller
Utilities Director
City of Heath
70 Dorsey Mill Road
Heath, OH 43056

Dear Mr. Geller:

Attached is a report for a Reconnaissance Inspection that Suzanne Matz and I from this office performed May 4, 2011, at the City of Heath Wastewater Treatment Plant (WWTP). During the inspection we met with you and with David Brenner and Dan Stofan of your staff.

It was good to see work that has been completed for Phase I of the WWTP improvements project. This work will help provide consistent wastewater discharge permit compliance.

Attachment "A" in this report lists effluent limitation violations which occurred during the period of time extending from May 1, 2010, through April 30, 2010. Attachment "B" in this report describes in greater detail improvements that the city will be working on in the future.

If you have questions regarding this report I can be reached by telephone at 614-728-3850 or by e-mail at jan.rice@epa.ohio.gov.

Sincerely,

Jan A. Rice
Environmental Specialist
Compliance/Enforcement Group
Division of Surface Water
Central District Office

c: David Brenner, Superintendent

JAR/nsm HEATH 5-4-11

Central District Office
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, OH 43216-1049

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614 | 728 3898 (fax)
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NPDES Compliance Inspection Report

A. NATIONAL DATA SYSTEM CODING

Watershed	Permit No.	NPDES No.	Month/Day/Year	Inspection Type	Inspector	Facility Type
Licking River	4PC00007*JD	OH0025763	5/4/11	R	S	1

B. FACILITY DATA

Name and Location of Facility Inspected	Entry Time	Permit Effective Date
City of Heath Wastewater Treatment Plant 719 Licking View Drive Heath, Ohio 43056	9:15 A.M.	7/1/06
	Exit Time	Permit Expiration Date
	10:35 A.M.	1/31/11

Name(s) and Title(s) of On-Site Representative(s)	Phone Number(s)
John Geller, Utilities Director	(o) 740-522-1677 (c) 740-403-6100
Dave Brenner, Superintendent	(o) 740-522-4802 (c) 740-403-6103
Dan Stofan, Lab Manager/Pretreatment Coordinator	(o) 740-522-4802
Name(s) Address and Title(s) of Operator of Record	Phone Number(s)
Dave Brenner, 719 Licking View Drive, Heath, Ohio 43056	(o) 740-522-4802 (c) 740-403-6103
Name, Address and Title of Responsible Official	Phone Number
Mark Johns/Mayor 1287 Hebron Road, Heath, Ohio 43056	(o) 740-522-1420

C. AREAS EVALUATED DURING INSPECTION (S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

- S Permit – the wastewater discharge permit is in the process of being renewed by Ohio EPA.
- N Records/Reports
- N Operations & Maintenance
- S Facility Site Review – in 2010 the permittee submitted a Permit to Install to Ohio EPA for Phase 1 WWTP improvements costing approximately \$4,200,000. Improvements construction was well underway at the time of this inspection. Attachment "B" of this report provides more information regarding the scope of planned improvements.
- N Collection System
- N Flow Measurement
- N Laboratory
- S/N Effluent/Receiving Waters – effluent limitation violations have been few for the period of time extending from 5/1/10 through 4/30/11 and are listed in Attachment "A" of this report.
- N Sludge Storage/Disposal
- N Pretreatment
- N Compliance Schedules
- N Self-Monitoring Program
- N Plant Equipment

Jan Rice

Inspector, Jan Rice, Ohio EPA, Central District Office

5/23/11

Date

Erin Sherer

Reviewer, Erin Sherer, Compliance & Enforcement Supervisor
Ohio EPA, Central District Office

5/23/11

Date

Attachment "A"

City of Heath
Effluent Limitation Violations
5/1/10 – 4/30/11

Permit No	Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
4PC00007*JD	October 2010	001	80082	CBOD 5 day	30D Conc	10	11.025	10/1/2010
4PC00007*JD	October 2010	001	00530	Total Suspended Solids	7D Conc	30	30.375	10/8/2010
4PC00007*JD	October 2010	001	80082	CBOD 5 day	7D Conc	15	15.6666	10/8/2010



State of Ohio Environmental Protection Agency

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Columbus, OH 43216-1049

April 23, 2010

DRAFT FINDING OF NO SIGNIFICANT IMPACT
TO ALL INTERESTED CITIZENS, ORGANIZATIONS,
AND GOVERNMENT AGENCIES

City of Heath, Ohio
Wastewater Treatment Plant Improvements - Phase I
CS390439-0005

The purpose of this notice is to seek public input and comments on Ohio EPA's preliminary decision that a Supplemental Environmental Study is not required to implement the recommendations discussed in the attached Environmental Assessment of a wastewater facilities plan submitted by the County identified above.

How were environmental issues considered?

The Water Pollution Control Loan Fund program requires the inclusion of environmental factors in the decision-making process. Ohio EPA has done this by incorporating a detailed analysis of the environmental effects of the proposed alternatives in its review and approval process. Environmental information was developed as part of the facilities plan, as well as through the facilities plan review process and during site inspections. The Agency's preliminary Environmental Assessment found that the project does not require the preparation of a Supplemental Environmental Study.

Why is a Supplemental Environmental Study not required?

Our environmental review concluded that significant environmental impacts will not result from the action. Any adverse impacts have either been eliminated by changes in the facilities plan or will be reduced by the implementation of the mitigative measures discussed in the attached Assessment.

How do I get more information?

A map depicting the location of the

Ted Strickland, Governor
Lea Fisher, Lieutenant Governor
Chris Kortese, Director

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project is included as part of the Environmental Assessment. The Environmental Assessment presents additional information on the project, alternatives that were considered, impacts of the action, and the basis for our decision. Further information can be obtained by calling or writing the contact person listed in the back of the Environmental Assessment.

How do I submit comments?

Any comments supporting or disagreeing with this preliminary decision should be submitted to me at the letterhead address. We will not take any action on this facilities plan for 30 calendar days from the date of this notice in order to receive and consider any comments.

What happens next?

In the absence of substantive comments during this period, our preliminary decision will become final. The community will then be eligible to receive loan assistance from this agency.

Please bring any information that you feel should be considered to our attention. We appreciate your interest in the environmental review process.

Sincerely,

for 

Gregory H. Smith, Chief
Division of Environmental & Financial Assistance

Attachment

ENVIRONMENTAL ASSESSMENT

A. Project Identification

Name: City of Heath
Wastewater Treatment Plant Improvements - Phase I

Address: The Honorable Mayor Mark Johns
City of Heath
1287 Hebron Road
Heath, Ohio 43056

WPCLF Loan No.: CS390439-0005

B. Project Summary

The City of Heath is requesting a low-interest loan through Ohio's Water Pollution Control Loan Fund (WPCLF) to finance construction activities associated with upgrade of its existing wastewater treatment plant (WWTP), located off Licking View Drive. These improvements are necessary to maintain compliance with Chapter 6111 of the Ohio Revised Code and to comply with City's National Pollutant Discharge Elimination System (NPDES) permit. The attached figure depicts the location of the project.

The environmental review conducted by Ohio EPA, described in this document, indicates the proposed project will not result in significant adverse environmental impacts. The project plan includes mitigative measures that will help protect environmental resources, while project implementation will assure continued and reliable operation and maintenance of the WWTP.

The City anticipates construction of the WWTP improvements will begin in June 2010 and be completed by January 2012. The total project cost is estimated to be \$4,200,000. The City qualifies for a standard, below-market interest rate WPCLF loan, currently fixed at 3.25%.

C. Proposed Project

1. Existing Conditions

The existing Heath WWTP is an activated sludge secondary treatment facility that discharges to the South Fork Licking River. The WWTP has a permitted average design flow of 1.75 million gallons per day (MGD), with a peak design flow of 7.0 MGD. The WWTP was constructed in phases beginning in the early 1960s. A

major upgrade to the entire facility was completed in 1991, with additional improvements undertaken in 1997. The most recent upgrade to the facility was in 2005, when the City made improvements to the plant's solids handling, dewatering and storage facilities and equipment.

In March 2009, the City prepared a Master Plan for improvements to its WWTP for the next 20 years, broken into the following three phases:

Phase I: Maintenance-related improvements, enhancement and optimization of the current WWTP

Phase II: Major replacement of equipment that has reached its useful life

Phase III: Increased permitted capacity for future loads and flows

The major portion of work to address deficiencies with Phase I involve the existing screenings building. Retained screenings are removed from the mechanical bar screen based upon set time periods rather than the upstream water level, which causes significant head-loss during high flow periods, which results in large debris and rags entering the WWTP. Staff has difficulty maintaining the mechanical screen and screenings compactor, due to limited access and to equipment placement within the existing screenings building. The existing mechanical screen was installed as a retrofit in the 90s during the plant upgrade and was installed in the channel originally intended to be the bypass channel. Placing the original mechanical screen in this channel has resulted in accessibility, operation and maintenance issues with the screening equipment. The screen element spacing is wider than what is typically considered a fine screen, which allows additional debris to be carried through the treatment process, potentially interfering with certain components. Conveyance of screenings from the screening compactor to the dumpster with the existing discharge chute system is also problematic and needs modification. In addition, the scum concentrator has a large footprint and restricts maintenance access inside the screenings building. Lastly, the raw influent wastewater sampling is taken in the raw influent wet-well, which is downstream of the mechanical bar screen and includes all plant recycles. The City would like to modify this set up for better sampling control.

Phase II will replace grit pumps, valves and appurtenances, the grit classifier, dewatering screw, jet pumps and the non-potable water system processes. Phase II will be implemented within the next 6 to 10 years. Phase III will address hydraulic expansion and modification by replacing the existing raw influent pumps and return activated sludge pumps, installing clarifier settling enhancements, replacing the collection system mechanism, constructing a new clarifier, installing a new UV system, and replacing electrical equipment. These improvements will be necessary

in the next 15 to 20 years.

2. Alternatives Analysis

Three alternatives were evaluated for the screenings building rehabilitation or replacement to implement the Phase I improvements.

Alternative 1 – Rehab existing screenings building with new fine screens

Alternative 1 would involve rehabilitation of the existing screenings building by installing a new fine screen, and addressing the operations and maintenance issues outlined in the "Existing Conditions" section of this document. Advantages of this alternative include low cost with minimal new construction, increased maintenance access and reuse of the existing screenings building and pump station assets. Disadvantages include operational issues with the existing wastewater flow while installing the new screen, required relocation of the scum concentrator, and the need for HVAC upgrades in the existing screenings building to eliminate odors and reduce corrosion. Estimated cost of this alternative is \$1,400,000.

Alternative 2 – Construct new screenings building with new fine screens

Alternative 2 would involve construction of a new screenings building and installation of new fine screens. Advantages of a new screenings building would solve or eliminate concerns with the existing building as outlined previously, minimize disruption to existing treatment processes, avoid relocation of the scum concentrator, and reuse an existing pump station. Disadvantages include higher cost than Alternative 1, and minimal space available on the existing WWTP footprint to construct the building. Estimated cost of this alternative is \$2,000,000.

Alternative 3 – Construct new screenings building with new fine screens and incorporate new raw water influent pump station with building

Alternative 3 would involve construction of a new screenings building, installation of new fine screens and incorporation of a new raw water influent pump station building. Advantages of Alternative 3 include elimination of deficiencies with the current screenings building as outlined previously, and provision of both new screenings facilities and a raw influent pump station. Disadvantages include high capital costs compared to the other alternatives, minimal space available on the existing WWTP footprint to construct the building, and a large adverse impact on plant operations during startup of the new facility. This option also does not reuse existing infrastructure assets. Estimated cost of this alternative is \$3,600,000.

3. Selected Alternative

Based upon the advantages, disadvantages and proposed costs outlined above, Alternative 2 was selected as the cost-effective alternative for the project, and the one that will best enable the City to meet the short- and long-term needs of the WWTP, including implementation of future phases. Construction of a new screenings building will alleviate current concerns with the existing building configuration, namely with the limited maintenance access and restricted footprint for screen installation. While the major portion of the project is to replace the screenings building, the project will also allow for replacement of failed influent pump station piping valves and appurtenances, improvement of scum handling, addition of one new blower and dissolved oxygen control system to significantly reduce aeration energy requirements, addition of a new waste activated sludge pump and control system to improve activated sludge process control, improvements to the disinfection building and the sodium bisulfite storage area to enhance disinfection control, and installation and reuse of an existing emergency generator (from the City's Water Treatment Plant) to provide backup power supply to the WWTP.

4. Implementation

A permit-to-install (PTI) is expected to be issued for the project within the next few weeks. The City intends to begin construction in June 2010, and complete it by January 2012.

D. Environmental Impact of the Proposed Project

A complete environmental review of the proposed project was performed, and each environmental attribute is addressed below. Mitigative measures have been included, where needed. The project should not result in any secondary impacts to any of these resources, since it was designed primarily to handle existing flows and improve existing processes.

1. Major Land Forms

The proposed project will be located on the existing WWTP site and will not impact any major land forms. In addition, all disturbed areas will be returned to pre-existing contours following installation. Therefore, no significant adverse impacts to land forms will result from construction of the project.

2. Surface and Ground Water

The WWTP currently discharges to the South Fork Licking River, which is classified in Ohio's Water Quality Standards as warmwater habitat.¹ Recent sampling results have indicated that the river is in full attainment of its warmwater habitat status downstream of the Heath WWTP outfall. The proposed project will help maintain water quality standards in the South Fork Licking River.

Sediment and erosion controls will be used throughout construction of the WWTP improvements to minimize run-off from construction-related activities. The site will also be properly restored following construction. Therefore, no significant adverse impacts to surface water should result from implementation of the WWTP project.

Some subsurface dewatering may be required to construct the treatment plant components, but should not occur to any extensive degree, so no major diminishment of local ground water resources is expected. The discharge of fuels, vehicle lubricants, or other potentially harmful materials that could contaminate ground water will be prohibited. In addition, there should be no impact to private ground water wells in the area as a result of construction, due to the relative distance of the WWTP from private wells. Therefore, no significant adverse impacts to ground water will result from construction of the proposed WWTP project.

3. Terrestrial and Aquatic Habitat

Threatened and endangered species records were reviewed for the projects by the Ohio Department of Natural Resources (ODNR). The following species were identified to have been previously present in Licking County, but not necessarily in the vicinity of the project site:

Indiana bat – Federally-endangered mammal species
Black bear – State-endangered mammal species
Eastern massasauga – Federal candidate snake species, state-endangered
Golden-winged warbler – State-endangered bird species
Bald eagle – Federal bird species of concern, state-endangered

Suitable terrestrial habitat for the Indiana bat and golden-winged warbler does not exist at the WWTP; therefore, the project is unlikely to impact these species. ODNR does not believe the project will impact the black bear, should it be present, due to the mobility of the species. Due to the location of the project, ODNR does not believe the eastern massasauga will be impacted by the project, since this species resides primarily in more wetland habitat areas, rather than maintained lawn areas such as exists at the WWTP site. Suitable aquatic and terrestrial habitat

¹ Warmwater habitats are capable of supporting and maintaining a balanced, integrated, adaptive community of typical warmwater aquatic organisms.

exists for these species along the adjacent South Fork Licking River but will not be impacted by the project. No in-stream or near-stream work will occur that could affect aquatic habitat. Therefore, no significant adverse impacts to threatened or endangered species or their habitats should occur as a result of the proposed project.

4. Land Use and Agriculture

While Licking County is rural and contains a lot of farmland, none will be directly impacted by the proposed project, since it will be constructed on the existing plant site. It is not anticipated that the addition of the required components at the WWTP will cause significant indirect impacts, as the purpose of the project is for operational maintenance and optimization improvements, not to facilitate additional growth and development. Therefore, no significant direct or indirect adverse impacts to land use or agriculture should result from construction of the project.

5. Floodplain and Wetlands

The existing WWTP is located within the 100-year floodplain of the South Fork Licking River, but is flood-protected by a dike surrounding the WWTP. The proposed improvements will be located within the diked area of the facility, and as such will not be impacted by flood events at or below the 100-year flood elevation. There are no wetlands in the project areas that could be impacted. Therefore, no significant impacts to floodplains or wetlands are expected to occur as a result of proposed project implementation.

6. Archaeological and Historical Resources

A review of the proposed project was conducted in consultation with the Ohio Historic Preservation Office (OHPO). Based upon this review, Ohio EPA determined that the proposed project does not have a reasonable probability of affecting any properties listed or eligible for listing on the National Register of Historic Places. Based upon these findings, there should be no significant short or long-term impacts to archaeological or historical resources due to project construction.

7. Air Quality

Licking County is currently in attainment with all federal air quality pollutant standards except for ozone. In addition to ozone, pollutants monitored for air quality are: particulates, sulfur dioxide, nitrogen oxide, lead, and carbon monoxide.

The proposed project may result in a temporary increase of dust and fumes from

construction activities. This will be mitigated using standard construction control practices, such as dust suppressants and use of properly-operated equipment in good working order. With these mitigative measures in place, effects on air quality will be short-term, ending when construction is complete; therefore, no significant adverse impact to air quality will result from project implementation. With regard to long-term air quality, the State Implementation Plan (SIP) for non-attainment areas will address how to achieve compliance with the national ozone standard. The SIP will be updated by 2013 to comply with the more stringent ozone standard that was recently established.

8. Noise, Traffic, and Aesthetics

An increase in noise levels may be noticeable in the project area during construction. However, construction will only take place during normal work day hours to help minimize disturbance, and these impacts will be short-term in duration, ending when construction is complete. The proposed project will not increase operational noise levels at the WWTP, so no long-term adverse impacts are expected. Therefore, no significant adverse impacts with respect to noise should result from project construction.

A short-term increase in traffic may be noticeable in the area due to delivery of equipment and materials during construction. It is not anticipated traffic flow will be significantly impacted.

No major recreational features, designated natural areas, or scenic rivers are located within the project areas. Adverse impacts to aesthetics will not result from the project, as the work will take place at the existing WWTP site.

9. Local Economy

The existing monthly sewer rates for a Heath customer using 1,037 cubic feet of water per month would be \$54.24, or \$650.88 per year. In comparison, the statewide average for a household using the same amount per month would be \$40.75 or \$489 annually. The median household income (MHI) for Heath is \$40,120. Sewer rates represent 1.6% of the MHI, which is above the statewide average for sewer service. Other nearby communities charge the following for these services, annually: Pataskala - \$442; Newark-\$278; Granville - \$363; Hebron - \$809; Johnstown - \$605; and, Utica - \$555. The City does not anticipate increasing rates further at this time.

E. Public Participation

The following agencies have reviewed, and were provided an opportunity to

comment on, the proposed project:

- Ohio Environmental Protection Agency
- Ohio Department of Natural Resources
- Ohio Historic Preservation Office

The proposed project has been the topic of numerous City Council meetings and articles have appeared in the *Newark Advocate*. No public controversy is known to exist regarding the project.

F. Reasons for a Preliminary Finding of No Significant Impact

Based upon Ohio EPA's review of the planning information and the materials presented in this Environmental Assessment, it is concluded that there will be no significant adverse impacts from the proposed project as they relate to the environmental features discussed previously. Through avoidance of environmentally-sensitive areas and the use of mitigative measures as outlined in this document, the impacts from construction should generally be short-term and insignificant. Since the proposed project is designed to accommodate existing wastewater flow, as opposed to providing capacity for substantial future growth, no secondary or cumulative adverse impacts are expected.

Project implementation will help with ease of operation and maintenance of the facility, and continued compliance with the City's NPDES permit for the WWTP.

G. Questions or Comments

For further information or comments regarding this document or the projects discussed herein, please contact:

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TO THE WHOLE OF THE UNITED STATES