



State of Ohio Environmental Protection Agency

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October 27, 2009

Issuance of A Limited Environmental Review  
To All Interested Citizens, Organizations, and  
Government Agencies

City of Lima  
Allen County  
Mainline Sewer Lining  
CS 390519-0006

The purpose of this notice is to advise the public that Ohio EPA has reviewed the referenced project and finds neither a Supplemental Study (SS) nor an Environmental Assessment (EA) is required to implement the project as discussed in the attached Limited Environmental Review (LER). Consequently, a Finding of No Significant Impact is being issued for this project.

The Water Pollution Control Loan Fund program requires the inclusion of environmental factors in the decision-making process for project approval. Ohio EPA has done this by incorporating a detailed analysis of the environmental effects of the proposed action 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. A subsequent review by this Agency has found that the proposed action does not require the preparation of either an EA or an SS.

Our environmental review concluded that because the proposed project is limited in scope and meets all applicable criteria, a LER is warranted. Specifically:

- The proposed project will have no significant adverse environmental effect, nor will it adversely affect any specific resource type.
- It will not require extensive general or specific direct impact mitigation.
- It will not affect current design flow value, the existing service area, or the wastewater influent characteristics.
- It is clearly cost effective and will facilitate permit compliance.
- It is not controversial.
- It will not create a new or relocate an existing sanitary discharge to surface or ground water.

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director

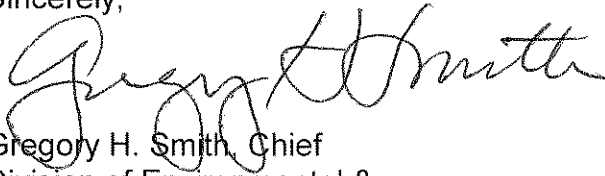
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- It will not result in any increase in the volume of discharge or loading of pollutants to receiving water.

The LER presents additional information on the proposed project, costs and the basis for our decision. Further information can be obtained by calling or writing the contact person listed on the back of the LER.

Upon issuance of this determination, loan award may proceed without being subject to further environmental review or public comment, unless information is provided which determines that environmental conditions on the proposed project have changed significantly.

Sincerely,

A handwritten signature in black ink, appearing to read "Gregory H. Smith". The signature is written in a cursive, flowing style.

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

LLER

**LIMITED ENVIRONMENTAL REVIEW**

**For  
City of Lima  
Allen County  
Sewer Mainline Lining and Laterals  
WPCLF Loan Number 390519-0006**



**Applicant: The Honorable David Berger, Mayor  
City of Lima  
50 Town Square  
Lima, OH 45801**

## Summary/Existing Need

The City of Lima proposes to line approximately 18,000 feet of 8-inch through 60-inch diameter sanitary sewer mainline with cured-in-place pipe (CIPP). This action is one of many sanitary sewer rehabilitation efforts whose purpose is to reduce the amount of wet-weather infiltration and inflow (I/I) into the city's sanitary sewer system, increase the efficiency and capacity of the sewer system, reduce sanitary sewer overflows (SSO), and contribute to improved treatment capacity and quality at the Lima wastewater treatment plant (WWTP).<sup>1</sup>

Lima's sewer service area covers Lima and portions of Allen County. Approximately 80 percent of Lima's collection system consists of combined sewers, which serve the older areas. Combined sewers are designed to carry both storm water and sewage. Separate sanitary sewers, which are designed to carry only sewage, serve the newer peripheral areas. Lima's sewers are generally made of vitrified clay pipe and concrete, with a few large-diameter sewers made of brick.

Both types of sewers were originally designed with overflow points. These overflow points, known as combined sewer overflows (CSOs) in the combined system and SSOs in the separate sanitary system, helped alleviate basement flooding and control flows to the WWTP by discharging wet-weather flows in excess of system capacity to the Ottawa River and its tributary, Pike Run. Several of the SSOs occur at pump stations outfitted to serve as overflow points, but most are unmetered and uncontrolled outfalls.

In 1995, under Ohio EPA Findings and Orders, Lima began a three-phase SSO control program that was outlined in the 1995 *Sanitary Sewer Overflow Abatement Master Plan*. The first phase was the elimination of I/I from the sanitary system, with a goal of sixty-five percent reduction in I/I citywide. Between 1995 and 2000, check valves were installed, eight SSOs were permanently closed, numerous storm water catch basins and house drains were disconnected from sanitary sewers, and sanitary sewer pipe and manholes were rehabilitated. Post-rehabilitation studies of the sanitary sewers showed that an actual reduction in I/I of approximately 40 percent was achieved.

The second and third phases of the SSO control program include flow monitoring and elimination of the remaining SSOs. The city routinely conducts flow monitoring and inspection of its sewers. Besides meeting the objectives of the Master Plan, by doing the inspection and monitoring, the city is gathering information to support a CSO Long-Term Control Plan (LTCP). In the course of its inspections, the city has identified a number of sewer spans throughout town that, if lined, would further reduce I/I and bring the total I/I reduction closer to the original target of sixty-five percent.

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<sup>1</sup> Infiltration/inflow (I/I) is clear water that enters a sewer system through cracks in the pipe, open joints, and other underground sources (infiltration); or through manhole lids, storm sewer cross connections, and other direct connections (foundation drains, downspouts, etc.) to the sanitary sewer (inflow).

The city is tempering its sixty-five percent goal with the realization that even if I/I is excluded in one spot, it can re-emerge in another, thus offsetting any reductions made through specific rehabilitation efforts. However, the spans selected for rehabilitation in the proposed project are so damaged that it is cost-effective to rehabilitate them not only from the standpoint of excluding I/I, but from the standpoint of maintaining sound sewer infrastructure. Furthermore, the city's I/I reduction efforts should be viewed as being effective when carried out in conjunction with the other control options that will be recommended in the CSO LTCP. Continued identification and rehabilitation of problem spans is also consistent with the city's NPDES permit requirement to minimize overflows.

### **Proposed Project**

To address the identified sewer problems, Lima decided that it is more cost-effective to line the damaged sewers than to replace them. There are several methods for lining sewers. The method Lima chose for this project is cured-in-place pipe, which involves inserting a flexible fabric resin-coated tube into the existing sewer main and the laterals, then curing it to form a bonded liner. The CIPP material is then cut robotically from within the pipe to re-connect the service laterals that extend from each building to the newly-lined sewer.

The attached Sanitary Sewer Lining Overview shows the spans that will be lined. The specific street locations are Ann Way (labeled A on the map), South Primrose Place (B), Mt. Holyoke Avenue (C), Willard Avenue (D), South Cable Road (E), Elm Street and Hill Street Alley (F), West Seventh Street (G), West High Street (H), Courtlandt Avenue (I), South Jameson Avenue (J), Wendell Avenue (K), Ewing Avenue (L), North Elizabeth Street (M), Oakland Parkway (N), and North Central Avenue (O).

### **Implementation**

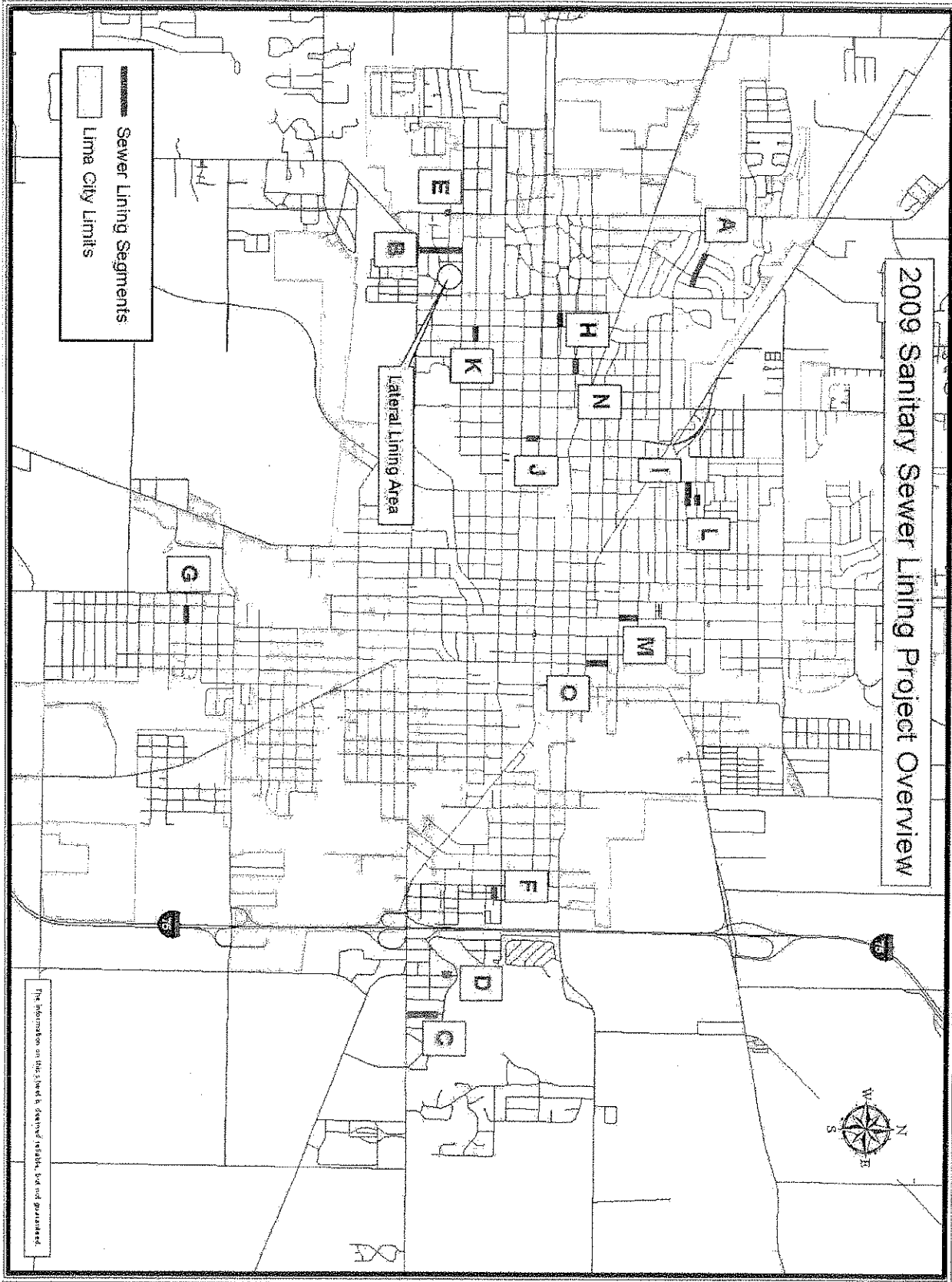
The engineering estimate of total project cost is \$700,000. This project is eligible for a maximum of \$350,000 in American Recovery and Reinvestment Act (ARRA) "stimulus" funds. The city will not need to repay the ARRA funds, which are termed "principal forgiveness" loans. The city will pay for the balance of the project costs from its own funds. By using ARRA money and local funds to pay for the project, Lima will save approximately \$1,061,631 in principal and interest payments compared to financing the work with a market-rate (4.42%) loan.

Because the city will not need to borrow to cover project costs, no debt will be added to the rates paid by Lima's wastewater customers. The average residential wastewater bill<sup>2</sup> in Lima is \$338 annually.

Construction is expected to begin in February, 2010, and take approximately six months to complete.

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<sup>2</sup> This is the figure reported in the 2007 Water and Sewer Rate Study. It is based on a monthly water usage of 7,756 gallons or 1,037 cubic feet.

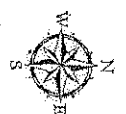


2009 Sanitary Sewer Lining Project Overview

Sewer Lining Segments  
 Lima City Limits

Lateral Lining Area

The information on this sheet is deemed reliable, but not guaranteed.



## Public Participation

At one of Lima's regularly-held neighborhood focus group meetings on October 6, 2009, city officials mentioned that the lining project is one of several public works projects for which Lima is seeking public funding. The project was not discussed in depth, but the mention of it did not spark questions or adverse comment from the audience of approximately twenty residents. When the city is ready to start the project, it will notify individual residents in the newspaper and by door to door contact. Because this project will not raise sewer rates and because the work will be carried out manhole-to-manhole in the roads with little impact to residents other than temporary water use restrictions, public participation beyond this is not considered necessary. This environmental document has been posted on the city's website with a contact person listed at Ohio EPA for anyone wishing to gather additional information.

## Conclusion

The proposed improvements constitute a general project type (minor upgrading of existing facilities) that qualifies for a Limited Environmental Review (LER). Specifically, they involve sewer lining that meets the following additional LER criteria:

**The project will have no significant adverse environmental effects, will not adversely affect high value environmental resources and will not require extensive general or specific impact mitigation.** Since the proposed project is limited to sewer lining work that does not require excavation, it will not involve tree removal, wetland filling, work in surface waters or any other activity that could impact natural features or high value resources. The project also will not affect cultural resources, nor will it result in an expansion of the service area, so no secondary development impacts to agricultural land or other current land uses will occur.

Of specific interest, the project is within the historic range of the Indiana bat (federal-endangered species) and the bald eagle (state-endangered species). However, the project as designed will not affect the Indiana bat because it will involve no removal of suitable wooded habitat, while the nearest known bald eagle nest is at least 7.7 miles from the work areas, so eagles will not be impacted, either.

**The project is not controversial:** A sewer rate increase will not be needed specifically to pay for this project. The environmental impacts, and the effects on the neighborhood during construction, will be minimal and short-lived. There has been no adverse response to the city's public outreach efforts. The proposed project is consistent with the 208 areawide water quality management plan for Allen County.

**The project is clearly cost-effective:** The city's sanitary sewers are known to have excessive I/I. The city has found that it is cost-effective to reduce I/I by rehabilitating the portions of the sewer system that contribute to the excessive I/I, thus reducing overflows and reducing the extraneous flow that is sent to the WWTP. In this case, the sewers that have been selected for this round of rehabilitation have been found to contribute to

excessive I/I. Furthermore, this project is being carried out in conjunction with an increase in storm sewer conveyance capacity that will greatly reduce inflow into sanitary sewers. The combination of storm sewer relief and rehabilitation of the sanitary sewers will create a situation in which I/I is no longer excessive.

**The project does not involve a new or relocated discharge to surface or ground water, involve any increase in the volume of discharge or the loading of pollutants from an existing source or new facilities, or provide capacity to serve a design population thirty percent greater than the current design population of the wastewater system.** The purpose of the project is to rehabilitate existing sewers in order to improve their function and eliminate sewage overflows, not to add system capacity, extend service, or create new discharge points.

In addition, Executive Order 12898, "Federal Action to Address Environmental Justice in Minority Populations," requires proposed federal actions to identify, address and avoid disproportionately high and adverse human health or environmental effects on minority and low-income populations. This project involves sewer lining work in various locations throughout the existing wastewater system. No particular segment of the community will face additional adverse impacts, or be deprived of environmental benefits, compared to any other segment. Based on the scope of the project, no significant adverse impacts with respect to minority or low-income populations will occur due to the project.

The planning activities for the proposed project have identified no potentially significant short-term or long-term adverse impacts to the quality of the human environment or to sensitive resources (floodplains, wetlands, riparian areas, woodlands, prime or unique agricultural lands, aquifer recharge zones, archaeologically or historically significant sites, or threatened or endangered species.) This project equally serves the residents of the project area by helping restore fully-functioning local sewers, and improves the overall performance of the city's sewer system by helping eliminate wet-weather flow problems.

For further information, please contact:

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