

**Environmental Assessment Worksheet
Upper Hocking Wastewater Treatment Plant, Pump Station
and Force Main
City of Lancaster, Fairfield County, Ohio
August 2008**



2. Grantee

This project is proposed by the City of Lancaster, Division of Water Pollution Control to provide treatment of separated sewer areas in accordance with the Long Term Control Plan Addendum dated March 2005 and the NPDES permit for the Lawrence Street Water Pollution Control Facility effective June 1, 2007. The project will be managed by the Lancaster Stormwater Management Program. Correspondence should be directed to

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Project Description

The proposed project is the construction of a 2 MGD advanced wastewater treatment plant, 1207 L.F. of 36 inch effluent line, an 8 MGD pump station, 13,400 L.F of 18 inch force main, 13,420 L.F. of 14 inch force main and related equipment to serve the northwest portion of the City located above the combined sewer system.

3. Project Location

The project is located in the City of Lancaster, Fairfield County, Ohio. Construction of the Upper Hocking Wastewater Treatment Plant is proposed to be contained within the City owned property along Lateral D between Camp Ground Road and Collins Road. The pump station will be construction will be contained on City owned property located at the southwest corner of Pierce Avenue and River Way Drive. The force mains will connect the pump station and the Upper Hocking Wastewater Treatment Plant within easements along the Hocking River and Lateral D.

4. Purpose and Need for Proposed Action

Prior to 1995, the primary focus of wastewater in the City of Lancaster was providing service to growth areas and upgrading the existing wastewater treatment plant to meet discharge limits. In 1995, the City began a Wastewater Collections System Evaluation to address basement flooding, evaluate system capacity and begin work to comply with anticipated Ohio EPA regulations. In 1997, as part of the Wastewater Plant's NPDES permit, Ohio EPA required that a Combined Sewer System Long Term Control Plan (LTCP) be completed by June 1, 2000. The plan was to include four areas:

- Characterization of the combined sewer system
- Assessment of the impacts on the area streams
- Evaluation of the impacts of future sewer extensions
- Determination of Public concerns related to Combined Sewer Overflows (CSOs)

The LTCP was submitted on May 31, 2000. The plan recommended abandoning two CSOs, modifying two CSOs, separating the sewers in the downtown and Lake Allen area and providing some system maintenance. The cost of the proposal was \$5.3 million. This plan was based on the demonstrative approach to CSOs as stated in US EPA Combined Sewer Policy.

Separation of the sewers in the downtown area was completed 2002. This project consisted of sewer separation as part of the downtown revitalization project and construction of a new South Broad Street storm sewer. Also in 2002, three CSOs identified in the LTCP were removed and one was modified.

Three years later, Ohio EPA determined that compliance with the US EPA policy was not acceptable. As part of the permit issued in 2003, Ohio EPA required submission of a plan to eliminate 4 CSOs, treat increased peak flows at the wastewater treatment plant and provide complete treatment for flows from new and existing separated sewer areas. The plan was to be submitted by March 1, 2005. The Long Term Control Plan Addendum was submitted February 28, 2005. The plan called for separation of the Lake Allen sewer system, construction of the Upper Hocking Wastewater Treatment Plant to divert separate sewer areas, construction of two express sewers and equalization basins at the Lawrence Street Wastewater Treatment Plant. The recommendations of the Long Term Control Plan Addendum were incorporated into the Lawrence Street NPDES permit effective June 1, 2007.

Alternative Ways of Meeting Objectives

A Master Plan for Water and Wastewater was completed and incorporated into a 208 Areawide Waste Treatment Management Plan in 2005. Five alternatives were evaluated for this project. These alternatives include

No New Satellite Water Pollution Control Facility
New Upper Hocking Water Pollution Control Facility
New Hunters Run Water Pollution Control Facility with YMCA Pump Station Upgrade
New Hunters Run Water Pollution Control Facility without YMCA Pump Station Upgrade

These alternatives are described below. Please note that the separation of the Lake Allen area was completed in 2007.

No New Satellite Water Pollution Control Facility

Under this alternative the existing wastewater collection facility would be utilized to its full capacity. Construction in this alternative would include three express sewers to serve separately sewered areas, two new lift stations, separation of sewers in the Lake Allen area, a 3.6 MGD treatment plant expansion and approximately 224,802 feet of sewers.

This alternative was eliminated due to limited room for expansion at the existing Wastewater Treatment Plant and the need to construct substantial sewers and force mains.

New Upper Hocking Water Pollution Control Facility

For this alternative a new wastewater treatment facility would be built north of town along the Hocking River and separately sewered areas would be diverted away from the existing combined sewer area. Construction in this alternative would include three express sewers to serve separately sewered areas, two new pump stations, separation of sewers in the Lake Allen area, a 13 MGD treatment plant and approximately 208,253 feet of sewers.

This was the selected alternative based on the ability to increase water quality in the Hocking River, avoiding degradation in Hunters Run, diversion of flows from the combined sewer system and the need to construction less sanitary sewer.

New Hunters Run Water Pollution Control Facility with YMCA Pump Station Upgrade

This alternative involves the construction of a new wastewater treatment plant on Hunter's Run, two new pump station, three express sewers and approximately 235,595 feet of sanitary sewer, expansion of the existing YMCA pump station and separation of the Lake Allen area. It would divert flows from the west part of town to the new 6.75 MGD plant or to an express sewer reducing flows in the combined sewer system.

This alternative was rejected due to discharge limitations for Hunters Run that would limit the size of the wastewater treatment plant.

New Hunters Run Water Pollution Control Facility without YMCA Pump Station Upgrade

Similar to the above alternative, except the capacity of the proposed Upper Hocking pump station would be increased and no expansion will be constructed at the YMCA pump station. The construction would also include the separation of the Lake Allen area, construction of three express sewers a new 6.75 MGD wastewater treatment plant and approximately 235,595 feet of sanitary sewer.

6. Project Magnitude Data

The Project consists of the construction, equipping and furnishing of a 2 MGD advanced wastewater treatment plant, a pump station, a force main, and an outfall sewer to serve the northwest portion of the City located above the combined wastewater and water system along with a septage receiving station located at the Lawrence Street Water Pollution Control Facility.

7. Permits and Approvals Required

The following permits, approvals and financial assistance for the project are required.

<u>Unit of Government</u>	<u>Application</u>	<u>Status</u>
US Fish and Wildlife	Endangered Species	Received
Army Corps of Engineers	404 Permit	Received
Ohio DNR	Endangered Species	Received
Ohio EPA	Permit to Install	Under Review
	NPDES Permit	Received
	Isolated Wetlands	Received
	Construction Stormwater	Submit at Bidding
	Industrial Stormwater	Submit at Operation
Ohio HPO	Archeological Clearance	Received
Ohio Public Works Commission	SCIP Grant	Received
City of Lancaster	Right-of-Way Permit	Contractor submits
City of Lancaster	Floodplain Development	Submit with Plans
City of Lancaster	Zoning Clearance	Under Review
City of Lancaster	Well Head Protection	Submit with Plans
City of Lancaster	Building Permit	Submit with Plans
City of Lancaster	2008 Bond Issuance	Under Review

8. Land Use

The project involves three separate areas; the wastewater treatment plant site, the pump station site and the force main route. The wastewater treatment plant site is currently vacant land and is occupied by an electric substation. The pump station site is vacant land. The force main alignment land use is generally agricultural land. Of the remaining land use, one parcel is a city park, one is open space, one parcel is railroad right of way, and two parcels are vacant land. All of the force main is located in the flood hazard area and is not developable land.

9. Cover Types

The treatment plant site is wooded/forested and brush grasslands. Two wetlands have been identified on the site. Also located on the site is the South Central Power substation.

The pump station site was formerly a forested site that was cleared prior to the purchase by the City. The site is not brush and grassland.

The force main alignment is through vacant, grassland or agricultural line. The entire alignment is within the flood fringe or floodway.

10. Fish, Wildlife and Ecologically Sensitive Resources

There are six streams within the construction area as follows

Stream 1 Lateral D	Avoided
Stream 2 Hocking River	20 LF Permanent Outfall Structure
Stream 2 Hocking River	10 LF Force Main Crossing (temporary impact)
Stream 2 Hocking River	25 LF Force Main Crossing (temporary impact)
Stream 2 Hocking River	35 LF Force Main Crossing (temporary impact)
Stream 3 Ohio Canal	20 LF Force Main Crossing (temporary impact)
Stream 4 Lateral B	8 LF Force Main Crossing (temporary impact)
Stream 5 Unnamed	5 LF Force Main Crossing (temporary impact)
Stream 6 Unnamed	20 LF Water Control Structure for Wetlands Mitigation
Total	123 LF

A 404 permit from the U.S. Army Corps of Engineers has been received.

An endangered species review was conducted by both the United States Department of the Interior and the Ohio Department of Natural Resources. The Department of Interior identified the area as in the range of two endangered, threatened or candidate species; the Indiana Bat (endangered) and the clubshell mussel (endangered). Only the Indiana Bat is potentially impacted in areas where potential and identified roost areas were found. The Department of Interior has advised that trees that are potential roosts be saved when possible. Where trees are removed, they need to be removed between September 15 and April 15. The Ohio Department of Natural Resources found no records of rare or endangered species in the project area although the Division of Wild Life identified the area as in the historic range of the Indiana bat (endangered), eastern massauga (state endangered), clubshell mussel (endangered) and the bobcat (state endangered). The Division of Wildlife advised if the massauga or bobcat were encountered to stop work and notify the Division.

11. Historic Preservation

The project does not have the potential to affect resources listed or eligible for listing the National Register of Historic Places.

12. Environmental Justice

There are no residential areas impacted by the project.

13. Physical Impacts on Water Resources

The project will involve several stream crossings along with a permanent outfall on the Hocking River and a diversion structure for the wetlands mitigation on the unnamed tributary to the Hocking River at Lawrence Street. A 404 Permit has been received from the U.S. Army Corps of Engineers.

The Treatment Plant will treat 2.0 MGD of sewage from the Northwest area of the City. The discharge of the treated wastewater will be the Hocking River at the railroad crossing near Lithopolis Road and governed by an NPDES permit. An antidegradation review was done by Ohio EPA as part of the NPDES permit process and found no impact.

The pump station site is located within the Well Head Protection Zone 2 meaning it is within the 5 year time of travel zone to the Miller Park wellfield. Under the well head protection program, the pump station is allowed but additional review for the chemical storage, emergency generator and biofilter will be required. A well head protection review will be done as part of the building plan review.

14. Wetlands

Five wetlands were identified within the project area. Two wetlands are located along the force main alignment with the remaining being located at the Wastewater Treatment site.

Wetland 1 is an isolated 5.50 acre Category 1 site at the east side of the site north of the access road. Approximately 0.02 acres of this wetland will be disturbed.

Wetland 2 is a 0.97 acre modified Category 2 site on the north side of the property. Approximately 0.14 acres will be temporarily impacted by outfall sewer construction and 0.29 acres will be permanently impacted by plant construction.

Wetland 3 is an isolated 0.17 acre Category 1 site on the west side of the site. The entire wetland will be impacted by force main construction.

Wetland 4 is a 0.06 acre Category 1 wetland located on the north bank of the Hocking River south of the CSX railroad line. The entire wetland will be impacted by force main construction.

Wetland 5 is a 0.13 acre Category 1 wetland located east of the pump station site. This wetland will not be disturbed.

Mitigation of the wetland impact is proposed. The mitigation will involve construction of 1.24 acres of non-forested wetlands on City property adjacent to the Hocking River at Lawrence Street.

Work in Wetland 1 and Wetland 3 is covered by an Ohio EPA isolated wetland permit. Work in Wetland 2 and 4 are covered by a U.S. Army Corps of Engineers 404 permit.

15. Water Use

The project is already served by the City of Lancaster Water System. There will be no abandonment of water wells. As part of the wastewater treatment plant project a waterline will be extended through the site. This will serve the plant and loop the water system from Camp Ground Road to Collins Road. This extension is part of the Water Master Plan. Some trench dewatering may be required during construction, depending on the seasonal water table.

16. Water-related Land Use Management District

A portion of the project is located within the 100-year flood plain and floodway for Hocking River, Lateral D, and Lateral B.

The wastewater plant construction will occur outside the floodway. The pump station will be constructed in the Special Flood Hazard Area flood fringe and will be elevated above the 100 year flood elevation.

A development permit as required by the Lancaster Codified Ordinances will be submitted for approval.

17. Erosion and Sedimentation

Erosion and sediment control will be required for the project to protect the various stream corridors. The contractor will install appropriate erosion control devices including inlet protection on catch basins, ditch protection in swales and silt fence along the various streams. and seeding and mulching on disturbed soils. A sediment pond will be constructed at the treatment plant site. No dirt will be placed in any stream. Long term erosion control will include seeding and mulching and a detention pond at the treatment plant and pump station sites.

18. Water Quality-Surface Water Runoff

Increased run off will occur at the treatment plant and pump station site due to the new structures. Detention ponds will be constructed at each site to meet water quality requirements.

19. Water Quality-Wastewaters

The new plant is being constructed to divert flow from the combined sewer system and reduce overflows.

Sewage will discharge to the Hocking River. The advanced secondary treatment plant is designed for a flow of 2 MGD with equalization. The plant will operate under NPDES permit number 4PD00102*AD.

20. Geologic Hazards and Soil Conditions

The project is located adjacent to the Hocking River and Lateral D. The area is listed in the 1979 201 Facility Plan as part of the Central lowland till plain of the Wisconsin Stage. These areas are characterized by mostly undulating with many areas that are nearly level.

The bedrock consists of fine-grained Cuyahoga Sandstone and interbedded shale.

Soils in the area include Aetna Silt Loam, Fox Loam, Beaucoup Silty Clay Loam, Ockley Silt Loam and Urban unclassified soils. These are all typical of floodplain soils. The Ground Water Pollution Potential of Fairfield County Ohio Report 41 published by the Ohio Department of Natural Resources shows that the DRASTIC potential ratings across the county in the range of 0-200. DRASTIC ratings are used as a tool for comparing sites for land use planning. The higher the rating, the higher the pollution potential. According the report, the DRASTIC ratings range from 178 at the pump station site to 150 along the force main route and at the treatment plant site.

21. Solid Wastes, Hazardous Wastes and Storage Tanks

Solid waste generated by this project will be limited to construction materials generated by the contractor and excess excavation. The contractor will be required to practice good housekeeping practices to handle construction materials including covering loads and dumpsters. Excess excavation will be disposed by the contractor at approved fill sites.

22. Traffic

The only impact on traffic will be temporary related to construction. No street closings are planned.

23. Vehicle-Related Air Emissions

There will be no increase in vehicle-related air emissions related to this project.

24. Stationary Source Air Emissions

As part of this project an emergency generator will be installed at both the treatment plant and the pump station to allow operations in case of a power failure. This will create air emissions when it is operated. Emissions will comply with Ohio EPA air pollution regulations.

25. Odors, Noise and Dust

Odors, noise and dust will be generated during the 33 month construction period. The impacts will be limited to the construction area and will be minimized by good construction practices. The contractor will be required to minimize dust through dust control, street maintenance and seeding and mulching. Odors will be limited to equipment emissions. Construction hours will be limited to minimize noise impacts.

26. Nearby Resources

There are no resources located in the project or potentially impacted by the project.

27. Visual Impacts

There are no visual impacts related to this project.

28. Compatibility with Plans and Land Use Regulations

The project area is completely developed and complies with the City Land Use Plan and Zoning Regulations. The area is also complies with the approved Lancaster 208 Plan.

29. Impact on Infrastructure and Public Services

As part of this project a waterline will be extended from Campground Road to provide water service and fire protection. The line will continue to Collins Road to provide a loop service for the entire area.

30. Cumulative Impacts

The project is designed to be expandable as demand increases in the service area as delineated in the Lancaster 208 Plan. There is currently no schedule for future expansion.

31. Relocation

No relocation is required by this project.

32. Population Characteristics

There will be no changes to the population characteristics due to this project.

33. Community Structures and Institutions

There will be no impact on Community Structures or Institutions related to this project.

34. Quality of Life

The proposed project will increase the quality of life in the project area by reducing combined sewer overflows. Water quality will also improve in the Hocking River.

35. Other Potential Environmental Issues

There are no other potential environmental issues related to this project.

I hereby certify that:

The information contained in this document is accurate and complete to the best of my knowledge. The Environmental Assessment describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions.

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