SANITATION DISTRICT NO. 1

April 8, 2008

Acting Director of the Division of Enforcement
Department for Environmental Protection
300 Fair Oaks Lane
Frankfort, KY 40601

Chief, Environmental Enforcement Section
Environmental and Natural Resources Division
U.S. Department of Justice
601 D street NW
Washington, DC 20005
DOJ Case No. 90-5-1-1-08591

Chief, Water Program Enforcement Branch
Water Management Division
U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, S.W.
Atlanta, Georgia 30303

Re: Consent Decree Case No. 2:05-cv-00199-WOB

Dear Gentlemen:

Pursuant to the above-referenced Consent Decree, Sanitation District No. 1 (District) is required to submit an annual report on the implementation of the initial watershed projects identified in Exhibit D of the District's Consent Decree:

> **37. Initial Watershed Program Project List.** The District shall complete the initial watershed projects identified in ***Exhibit D*** as a requirement of this Consent Decree in accordance with the schedule set forth in ***Exhibit D.*** The District shall provide an annual report within twelve months of entry of this Consent Decree on implementation of these watershed projects. Thereafter and until these projects are complete, the District shall provide an annual report on its implementation progress within sixty days after each anniversary date of the initial report.

A certification as required by the Consent Decree is also enclosed (Consent Decree paragraph 38). The Cabinet and EPA have 90 days from receipt to review submittals unless the District receives notification before the expiration of the 90-day period that review will take longer (Consent Decree paragraph 44).

1045 Eaton Drive • Ft. Wright, Kentucky 41017-9681 • Ph: (859) 578-7450 • Fax: (859) 331-2436

I am confident in the integrity of the enclosed document, and I am certain that the initial watershed projects detailed in this report help further the mission and vision of the District by protecting water resources and enhancing the quality of life in Northern Kentucky.

If you have any questions or concerns, do not hesitate to contact me at 859-578-7465 or by e-mail at jeger@sd1.org.

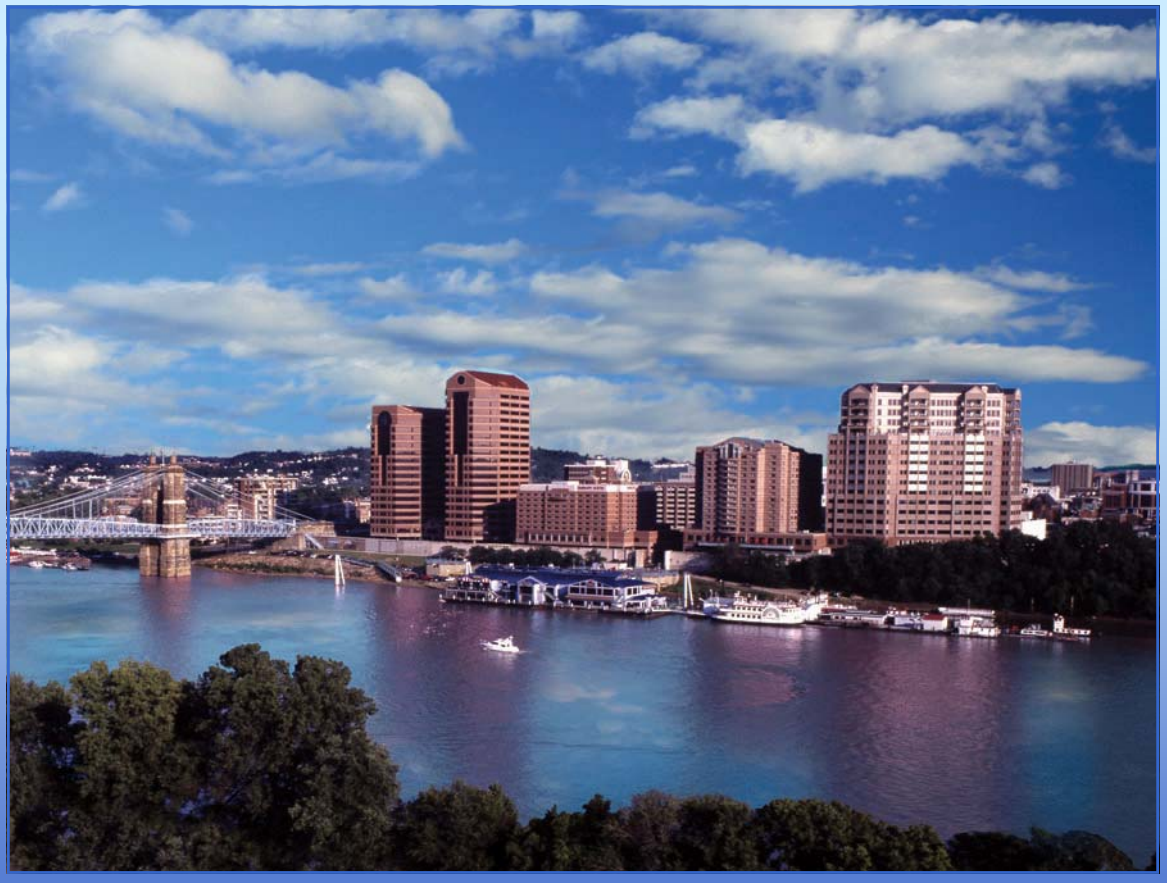
Best regards,

Jeffery A. Eger
General Manager

JAE/mm
Enclosures

Initial Watershed Projects
2008 Annual Report

Sanitation District No. 1
April 8, 2008



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CERTIFICATION

Initial Watershed Projects 2008 Annual Report
Consent Decree Case No. 2:05-cv-00199-WOB

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Jeffery A. Eger
General Manager

4/8/08
Date

COMMONWEALTH OF KENTUCKY

)ss.

COUNTY OF Kenton

The foregoing instrument was acknowledged before me this 8 day of April, 2008 by Jeffery A. Eger, General Manager of Sanitation District. No. 1.

Linda Hamberg
NOTARY PUBLIC

State at Large County, Kentucky

My commission expires: May 9, 2010

1045 Eaton Drive • Ft. Wright, Kentucky 41017-9681 • Ph: (859) 578-7450 • Fax: (859) 331-2436

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INITIAL WATERSHED PROJECTS
2008 ANNUAL REPORT

April 8, 2008

Sanitation District No. 1
1045 Eaton Drive
Ft. Wright, KY 41017

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LIST OF ACRONYMS AND ABBREVIATIONS

CSO	Combined Sewer Overflow
District	Sanitation District No. 1
I/I	Inflow and Infiltration
SSO	Sanitary Sewer Overflow

SECTION 1. INTRODUCTION

On April 18, 2007, Sanitation District No. 1 (District) entered into a Consent Decree with the U.S. Environmental Protection Agency, the U.S. Department of Justice, and the Kentucky Environmental and Public Protection Cabinet to address sanitary sewer overflows (SSOs) and combined sewer overflows (CSOs) in an effort to improve water quality throughout the District's service area. A significant component to jumpstarting this effort was to identify capital projects that had already commenced or were scheduled to commence while the Consent Decree was still under negotiation that would aid in achieving the overarching goals of the legal agreement. These projects were termed "initial watershed projects," and the District committed itself to completing these projects within the time frames specified in Exhibit D of the Consent Decree (see Appendix A). Pursuant to the Consent Decree, the District is required to submit annual reports on its implementation of the initial watershed projects until all projects are complete**.** This is the District's first Initial Watershed Projects Annual Report.

SECTION 2. OVERVIEW OF INITIAL WATERSHED PROJECTS

There are a total of 51 initial watershed projects. These projects have start dates as early as 2003 and anticipated completion dates as late as 2013. Out of the 51 projects, 34 are complete, nine are under construction, and eight are under design. Cumulatively, it is projected that the District's initial watershed projects will total more than $430 million in capital spending.

Appendix B provides detailed schedules, descriptions, and costs for each of the 51 projects. Additionally, photographs for a select number of more recent and substantial projects can be found in Appendix C.

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APPENDIX A:

Consent Decree Exhibit D

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Exhibit D - Initial Watershed Projects

	[illegible]		
C-042-00	Strawberry Pump Station Elimination	2005	2006
C-438-01	Beechwood Outfall Sewer Replacement	2006	2007
	[illegible]		
C-006-00	Eastern Regional - Design and Construction of Eastern Regional Outfall Sewer	2005	2008
C-054-00	Eastern Regional - Contract 1--Pond Creek Force Main and Gravity Sewer to Eastern Regional WWTP	2005	2008
C-056-00	Eastern Regional - Contract 2--Kahn's Gravity Sewer and Gravity Sewer to the Pond Creek PS	2005	2008
C-073	U.S. 27 at Summit Assessment	2005	2008
C-075-00	Eastern Regional - Contract 3--Riley Force Main and Gravity Sewer to the ERWWTP	2006	2009
C-076-00	Eastern Regional - Contract 4--Alex Licking Gravity Sewer to Contract 1	2006	2009
C-077-00	Eastern Regional - Contract 5--Sunset Force Main and Gravity Sewer, Alex-Licking Force Main	2006	2009
C-078-00	Eastern Regional - Contract 6--Pond Creek Pump Station	2005	2008
C-079-00	Eastern Regional - Contract 7--Riley Road #2 Pump Station	2006	2009
C-080-00	Eastern Regional - Contract 8--Alex-Licking and Sunset Pump Stations	2006	2009
C-081-00	Parkside Pump Station Relocation	2005	2008
C-426-00	Eastern Regional Wastewater Treatment Plant	2004	2008
C-414-17	Highland Heights Pump Station Study	2005	2006
C-620-01	Wilson/Waterworks Road Relief Sewer Study	2005	2008
C-607-01	Pinehill/Skyview Terrace Sewer	2005	2006

C-001-00	Western Regional Conveyance System to Western Regional WWTP	2008	2013
C-002-00	Western Regional - Sunnybrook Sewer	2008	2013
C-003-00	Western Regional - Frogtown Interceptor Sewer (from Sunnybrook Dr. to Frogtown Rd.)	2010	2014
C-004-00	Western Regional - South Fork Gunpowder Interceptor Sewer and Rosetta Sewer	2008	2013
C-005-00	Western Regional - Narrows Road Diversion Pump Station	2008	2013
C-030-00	Western Regional - KDOT - Turkeyfoot Road Force Main	2003	2006
C-037-00	Western Regional - Union Sewer (North and South)	2007	2013
C-038-00	Western Regional - Gunpowder Interceptor Sewer	2008	2013
C-039-00	Western Regional - Richwood Sewer and Force Main	2008	2013
C-063-00	Western Regional - Turkeyfoot Industrial Road Force Main	2007	2013
C-414-02	American Sign Pump Station Rehabilitation	2006	2008
C-424-00	Western Regional Wastewater Treatment Plant	2008	2013
C-068-00	Allen Fork Collection System - Phase I Improvements	2006	2009
C-031	Duncan Drive Assessment Project	2005	2007

[illegible]	[illegible]	[illegible]	[illegible]
	Combined Sewer Overflow Projects		
C-014-00	Banklick Pump Station Screening Facility	2004	2006
C-036-01	Stevenson Road Relief Sewer Project Phase II	2004	2006
C-040-05	Latonia Combined Sewer Separation	2006	2009
C-046-00	Licking River Sewer Crossing Study	2005	2007
C-072-00	McMillan Pump Station Removal	2005	2006
C-414-16	Meyer Road Pump Station Rehabilitation	2006	2008
C-414-43	Macke Pump Station Rehabilitation	2006	2008
C-414-45	Richwood Pump Station Improvements	2005	2006
C-480-02	Patton Street Sewer Study	2005	2006
C-615-01	South Hills Outfall	2006	2008
	[illegible] Projects		
C-475-00	Grit Chamber Projects	2006	2010
	[illegible] Projects		
S-577-01	Fort Wright Illicit Discharge Removal	2004	2007
C-040-03	Fort Wright Sanitary Sewer Rehabilitation	2004	2007
C-458-00	Fort Wright Outfall Sewer - Phase II	2003	2006

	North, East and Central Watershed Projects		
C-044-00	Dry Creek Treatment Plant - Grit Removal Modifications	2004	2006
C-024-00	Large Diameter Sewer Assessment Program - Phase III	2005	2007
C-040-06	Brookwood Subdivision SSES Study	2005	2006
C-040-08	Southern Kenton Drainage Study	2005	2007
C-090	Wilson Road Sewer Assessment Project	2005	2006
C-484	Apple Drive Outfall Sewer	2005	2006
	North, East, West and Central Watershed Projects		
C-480-01	Bluegrass Swim Club Sewer Separation	2005	2008

APPENDIX B:

Project Descriptions Spreadsheet

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Initial Watershed Projects

CIP Code	CIP Title	Project Manager	Anticipated Start Date	Anticipated Completion Date	Actual Completion Date	Project Description	Impact on Overflow Reduction	Project Cost	Status
North Watershed Projects									
C-042-00	Strawberry Pump Station Elimination	Bob Wilson	2005	2006	2005	The elimination of this station will help to attenuate the flow throughout the gravity portion which will address surcharging in the system.	See Project Description	$175,000	Complete
C-438-01	Beechwood Outfall Sewer Replacement	Darleen McGuire	2006	2007	2007	This project will eliminate Infiltration and Inflow (I/I) from the creek and eliminate one SSO and several suspected SSOs. The project will also remove I/I from the downstream combined sewer system.	See Project Description	$2,290,842	Complete
East Watershed Projects									
C-054-00	Eastern Regional - Contract 1--Pond Creek Force Main and Gravity Sewer to Eastern Regional WRF	Darleen McGuire	2005	2008	2007	This project provides wet weather flow capacity to eliminate sanitary sewer overflows in the collection system by upsizing existing sewers. The design concept of the entire Eastern Regional System is around "Transport and Treat" with equalization at the new treatment plant. The intent is to eliminate SSOs in that system improving water quality in the local streams. This project also eliminates the existing Pond Creek Wastewater Treatment Plant and allows for the immediate removal of the Dairy Mart Wastewater Treatment Plant.	The sewer improvements and new treatment plant in the Eastern Regional system will eliminate all overflows throughout this system in a typical year.	$5,742,200	Complete
C-056-00	Eastern Regional - Contract 2--Kahn's Gravity Sewer and Gravity Sewer to the Pond Creek Pump Station	Darleen McGuire	2005	2008	2007	This project provides wet weather flow capacity to eliminate sanitary sewer overflows in the collection system by upsizing existing sewers. The design concept of the entire Eastern Regional System is around "Transport and Treat" with equalization at the new treatment plant. The intent is to eliminate SSOs in that system improving water quality in the local streams. This project also eliminates the existing Southern Campbell County Wastewater Treatment Plant (2330TP1). It will allow for future elimination of package plants in close proximity to the new gravity portions of this sewer.	The sewer improvements and new treatment plant in the Eastern Regional system will eliminate all overflows throughout this system in a typical year.	$4,265,825	Complete
C-073-00	US 27 at Summit Assessment	Bob Wilson	2005	2008	2006	This project extended sanitary sewer service to eliminate 12 failing septic systems from this area.	See Project Description	$353,291	Complete
C-075-00	Eastern Regional - Contract 3--Riley Force Main and Gravity Sewer to the ERWRF	Darleen McGuire	2006	2008	n/a	This project provides wet weather flow capacity to eliminate sanitary sewer overflows in the collection system by upsizing existing sewers. The design concept of the entire Eastern Regional System is around "Transport and Treat" with equalization at the new treatment plant. The intent is to eliminate SSOs in that system improving water quality in the local streams. This project will also eliminate a major SSO (2230PS3) from the existing Riley Road Pump Station.	The sewer improvements and new treatment plant in the Eastern Regional system will eliminate all overflows throughout this system in a typical year.	$6,102,900	Under Construction
C-076-00	Eastern Regional - Contract 4--Alex Licking Gravity Sewer & Force Main to Contract 1	Bob Wilson	2006	2009	n/a	This project provides wet weather flow capacity to eliminate sanitary sewer overflows in the collection system by upsizing existing sewers. The design concept of the entire Eastern Regional System is around "Transport and Treat" with equalization at the new treatment plant. The intent is to eliminate SSOs in that system improving water quality in the local streams. This project will eliminate a major SSO (2200PS1) from the existing Alex-Licking Pump Station.	The sewer improvements and new treatment plant in the Eastern Regional system will eliminate all overflows throughout this system in a typical year.	$4,754,222	Under Construction
C-077-01	Eastern Regional - Contract 5--Sunset Force Main and Gravity Sewer	Jim Turner	2006	2009	n/a	This project provides wet weather flow capacity to eliminate sanitary sewer overflows in the collection system by upsizing existing sewers. The design concept of the entire Eastern Regional System is around "Transport and Treat" with equalization at the new treatment plant. The intent is to eliminate SSOs in that system improving water quality in the local streams. This project will also eliminate a major SSO (2200PS1) from the existing Alex-Licking Pump Station.	The sewer improvements and new treatment plant in the Eastern Regional system will eliminate all overflows throughout this system in a typical year.	$458,300	Under Design
C-078-00	Eastern Regional - Contract 6--Pond Creek Pump Station	Darleen McGuire	2005	2008	2007	This project provides wet weather flow pumping capacity to eliminate sanitary sewer overflows in the collection system by upsizing existing sewers and providing a new pump station. The design concept of the entire Eastern Regional System is around "Transport and Treat" with equalization at the new treatment plant. The intent is to eliminate SSOs in that system improving water quality in the local streams.	The sewer improvements and new treatment plant in the Eastern Regional system will eliminate all overflows throughout this system in a typical year.	$4,112,572	Complete
C-079-00	Eastern Regional - Contract 7--Riley Road #2 Pump Station	Brandon Vatter	2006	2009	n/a	This project provides wet weather flow pumping capacity to eliminate sanitary sewer overflows in the collection system by upsizing existing sewers and providing a new pump station. The design concept of the entire Eastern Regional System is around "Transport and Treat" with equalization at the new treatment plant. The intent is to eliminate SSOs in that system improving water quality in the local streams. This project will eliminate a major SSO (2230PS3) from the existing Riley Road Pump Station.	The sewer improvements and new treatment plant in the Eastern Regional system will eliminate all overflows throughout this system in a typical year.	$10,151,400	Under Construction
C-080-00	Eastern Regional - Contract 8--Alex-Licking and Sunset Pump Stations	Jim Turner	2006	2009	n/a	This project provides wet weather flow capacity to eliminate sanitary sewer overflows in the collection system by upsizing existing sewers and providing two new pump stations. The design concept of the entire Eastern Regional System is around "Transport and Treat" with equalization at the new treatment plant. The intent is to eliminate SSOs in that system improving water quality in the local streams. This project will eliminate a major SSO (2200PS1) from the existing Alex-Licking Pump Station.	The sewer improvements and new treatment plant in the Eastern Regional system will eliminate all overflows throughout this system in a typical year.	$2,197,400	Phase 1 Under Construction Phase 2 Under Design
C-081-00	Parkside Pump Station Relocation	Darleen McGuire	2005	2008	2007	This project allows for the elimination of the existing Southern Campbell County Wastewater Treatment Plant (2330TP1). It will allow for future elimination of package plants in close proximity to the new gravity portions of this sewer.	See Project Description	$870,000	Complete
C-426-00 & 01	Eastern Regional Water Reclamation Facility	Chris Novak	2004	2008	2008	This project consists of a new wastewater treatment plant to treat dry and wet weather flows from the collection system. This project will receive flow from the new collection system serving to eliminate SSOs in the Eastern Regional collection system. The design concept of "Transport and Treat" is being built to include equalization at this new treatment plant. The elimination of four treatment plants plus the new infrastructure will accommodate the future elimination of many smaller package treatment plants in the Eastern Regional system. This project will also accommodate the future elimination of many failing septic systems in this region. The end result is improvement of water quality in the local streams.	The sewer improvements and new treatment plant in the Eastern Regional system will eliminate all overflows throughout this system in a typical year.	$39,589,000	Under Construction
C-414-17	Highland Heights Pump Station Study	Brandon Vatter	2005	2006	2006	This study will evaluate the redirection of flows from parts of the separate sewer and combined sewer systems to areas of the system with available capacity. This project will identify potential solutions to bring CSOs in the area into compliance with the 1994 CSO policy and reduce the activity of the downstream CSOs. This project will also identify potential solutions to at least three known SSOs and several suspected SSOs.	See Project Description	$335,688	Complete
C-620-01	Wilson/Waterworks Road Relief Sewer Study	Jim Turner	2005	2008	2007	This study will evaluate alternatives to increasing wet weather capacity in the existing sanitary and combined sewers in order to reduce the activity of one known CSO, eliminate at least one SSO, current basement backups, and several suspected SSOs.	See Project Description	$43,679	Complete
C-607-01	Pinehill/Skyview Terrace Sewer	Bob Wilson	2005	2006	2005	This project was completed to replace a failing sewer in a landslide behind several houses. The project eliminated broken pipe that was leaking sewage in the backyards.	See Project Description	$263,610	Complete

Initial Watershed Projects

CIP Code	CIP Title	Project Manager	Anticipated Start Date	Anticipated Completion Date	Actual Completion Date	Project Description	Impact on Overflow Reduction	Project Cost	Status
West Watershed Projects									
C-001-00	Western Regional Conveyance System to Western Regional WRF	Brandon Vatter	2008	2013	n/a	This project diverts flow from the existing Lakeview Pump Station sewer service area, which experiences sanitary sewer overflows at the station and from manholes upstream and addresses current SSOs upstream of the existing Gunpowder Pump Station. The diverted flow will be conveyed and stored within a new approximately 8.5 feet diameter tunnel to the new Western Regional Treatment Plant. The Lakeview Pump Station service area pumps both combined and separate flows to the collection system so this project will: (1) free up capacity at the Dry Creek Treatment Plant; and (2) increase capacity in the conveyance system tributary to Lakeview, decreasing overflows in this system.	Western Regional Sewer Improvements will reduce total volume of Consent Decree listed overflows in the Lakeview Service Area by 68% in a typical year based on the preliminary not fully calibrated hydraulic model.	$149,853,575	Under Design
C-002-00	Western Regional - Sunnybrook Sewer	Brandon Vatter	2008	2013	n/a	Diverts flow from the Lakeview Pump Station service area, which experiences overflows at the station and from manholes upstream. Lakeview also pumps both combined and separate flows to the collection system so this project will: (1) free up capacity at the Dry Creek Treatment Plant; and (2) increase capacity in the conveyance system tributary to Lakeview, decreasing overflows in this system.	Western Regional Sewer Improvements will reduce total volume of Consent Decree listed overflows in the Lakeview Service Area by 68% in a typical year based on the preliminary not fully calibrated hydraulic model.	$8,060,000	Under Design
C-003-00	Western Regional - Frogtown Interceptor Sewer (from Sunnybrook Dr. to Frogtown Rd.)	Brandon Vatter	2010	2014	n/a	Diverts flow from the Lakeview Pump Station service area, which experiences overflows at the station and from manholes upstream. Lakeview also pumps both combined and separate flows to the collection system so this project will: (1) free up capacity at the Dry Creek Treatment Plant; and (2) increase capacity in the conveyance system tributary to Lakeview, decreasing overflows in this system.	Western Regional Sewer Improvements will reduce total volume of Consent Decree listed overflows in the Lakeview Service Area by 68% in a typical year based on the preliminary not fully calibrated hydraulic model.	$7,018,000	Under Design
C-004-00	Western Regional - South Fork Gunpowder Interceptor Sewer and Rosetta Sewer	Brandon Vatter	2008	2013	n/a	Diverts flow from the Lakeview Pump Station service area, which experiences overflows at the station and from manholes upstream. Lakeview also pumps both combined and separate flows to a combined system so this project will: (1) free up capacity at the Dry Creek Treatment Plant; and (2) increase capacity in the conveyance system tributary to Lakeview, decreasing overflows in this system.	Western Regional Sewer Improvements will reduce total volume of Consent Decree listed overflows in the Lakeview Service Area by 68% in a typical year based on the preliminary not fully calibrated hydraulic model.	$19,888,000	Under Design
C-005-00	Western Regional - Narrows Road Diversion Pump Station	Brandon Vatter	2008	2013	n/a	Diverts flow from the Lakeview Pump Station service area, which experiences overflows at the station and from manholes upstream. It also eliminates two known SSOs and several suspected SSOs. Lakeview also pumps both combined and separate flows to a combined system so this project will: (1) free up capacity at the Dry Creek Treatment Plant; and (2) increase capacity in the conveyance system tributary to Lakeview, decreasing overflows in this system.	Western Regional Sewer Improvements will reduce total volume of Consent Decree listed overflows in the Lakeview Service Area by 68% in a typical year based on the preliminary not fully calibrated hydraulic model.	$12,065,000	Under Design
C-030-00	Western Regional - KDOT - Turkeyfoot Road Force Main	Brandon Vatter	2003	2006	2005	Diverts flow from the Lakeview Pump Station service area, which experiences overflows at the station and from manholes upstream. Lakeview also pumps both combined and separate flows to a combined system so this project will: (1) free up capacity at the Dry Creek Treatment Plant; and (2) increase capacity in the conveyance system tributary to Lakeview, decreasing overflows in this system.	Western Regional Sewer Improvements will reduce total volume of Consent Decree listed overflows in the Lakeview Service Area by 68% in a typical year based on the preliminary not fully calibrated hydraulic model.	$997,893	Complete
C-037-00	Western Regional - Union Sewer (North and South)	Darleen McGuire	2007	2013	2008	Diverts flow from the Lakeview Pump Station service area, which experiences overflows at the station and from manholes upstream. Lakeview also pumps both combined and separate flows to a combined system so this project will: (1) free up capacity at the Dry Creek Treatment Plant; and (2) increase capacity in the conveyance system tributary to Lakeview, decreasing overflows in this system.	Western Regional Sewer Improvements will reduce total volume of Consent Decree listed overflows in the Lakeview Service Area by 68% in a typical year based on the preliminary not fully calibrated hydraulic model.	$7,575,341	Complete
C-038-00	Western Regional - Gunpowder Interceptor Sewer	Bob Wilson	2008	2013	n/a	Diverts flow from the Lakeview Pump Station service area, which experiences overflows at the station and from manholes upstream. It also addresses current overflows from the existing Gunpowder Pump Station (Manhole 2380001). Lakeview also pumps both combined and separate flows to a combined system so this project will: (1) free up capacity at the Dry Creek Treatment Plant; (2) increase capacity in the conveyance system tributary to Lakeview, decreasing overflows in this system.	Western Regional Sewer Improvements will reduce total volume of Consent Decree listed overflows in the Lakeview Service Area by 68% in a typical year based on the preliminary not fully calibrated hydraulic model.	$16,595,000	Under Construction
C-039-00	Western Regional - Richwood Sewer and Force Main	Brandon Vatter	2008	2013	n/a	Diverts flow from the Lakeview Pump Station service area, which experiences overflows at the station and from manholes upstream. Lakeview also pumps both combined and separate flows to a combined system so this project will: (1) free up capacity at the Dry Creek Treatment Plant; and (2) increase capacity in the conveyance system tributary to Lakeview, decreasing overflows in this system.	Western Regional Sewer Improvements will reduce total volume of Consent Decree listed overflows in the Lakeview Service Area by 68% in a typical year based on the preliminary not fully calibrated hydraulic model.	$5,710,000	Under Design

Initial Watershed Projects

CIP Code	CIP Title	Project Manager	Anticipated Start Date	Anticipated Completion Date	Actual Completion Date	Project Description	Impact on Overflow Reduction	Project Cost	Status
C-063-00	Western Regional - Turkeyfoot Industrial Road Force Main	Bob Wilson	2007	2013	n/a	Diverts flow from the Lakeview Pump Station service area, which experiences overflows at the station and from manholes upstream. Lakeview also pumps both combined and separate flows to a combined system so this project will: (1) free up capacity at the Dry Creek Treatment Plant; and (2) increase capacity in the conveyance system tributary to Lakeview, decreasing overflows in this system.	Western Regional Sewer Improvements will reduce total volume of Consent Decree listed overflows in the Lakeview Service Area by 68% in a typical year based on the preliminary not fully calibrated hydraulic model.	$3,917,000	Phase 1 & Phase 2 Under Design
C-414-02	American Sign Pump Station Rehabilitation	Jim Turner	2006	2008	n/a	This project constructs a new pump station to replace an existing high maintenance intensive pump station. The new pump station is sized to provide additional wet weather capacity to eliminate a constructed sewer bypass upstream and will provide back-up power to the pump station via an onsite engine generator.	The new pump station is sized to provide additional wet weather capacity to eliminate a constructed sewer bypass upstream.	$408,000	Under Construction
C-424-00	Western Regional Water Reclamation Facility	Chris Novak	2008	2013	n/a	The new Western Regional Treatment Plant will receive and treat diverted flow from the Lakeview Pump Station and Gunpowder Pump Station service areas, which experience overflows at the stations and from manholes upstream. The treatment plant is being sized initially to treat 20 mgd dry weather flow and 30 mgd peak wet weather flow. Flows above this peak flow will be stored in the upstream tunnel (project C-001). Future upgrades to the treatment plant will allow treatment capacity up to 45 mgd dry weather flow and 60 mgd peak wet weather flow. The existing Lakeview Pump Station service area pumps both combined and separate flows to the collection system so this project will: (1) free up capacity at the Dry Creek Treatment Plant, thereby allowing additional CSO area flows to be treated; and (2) increase capacity in the conveyance system tributary to Lakeview and the Gunpowder Pump Stations, decreasing overflows in this system.	Western Regional Sewer Improvements will reduce total volume of Consent Decree listed overflows in the Lakeview Service Area by 68% in a typical year based on the preliminary not fully calibrated hydraulic model.	$85,212,000	Under Design
C-068-00	Allen Fork Collection System - Phase I Improvements	Brandon Vatter	2006	2009	2007	This project provides wet weather flow sanitary sewer capacity to eliminate sanitary sewer overflows in the collection system by upsizing existing sewers. This project also constructs a new pump station to intercept flows and provide additional dry and wet weather pumping capacity in order to reduce upstream and downstream SSOs. This project will address two known SSOs and several suspected SSOs in the Burlington area.	This project will reduce Consent Decree listed overflow volumes by 50% in a typical year based on the preliminary not fully calibrated hydraulic model.	$7,291,396	Complete
C-031-00	Duncan Drive Assessment Project	Bob Wilson	2005	2007	2006	This project extended sanitary sewer service to eliminate 35 failing septic systems from this area.	See Project Description	$953,892	Complete
Central Watershed Projects									
C-014-00	Banklick Pump Station Screening Facility	Bob Wilson	2004	2006	2005	This project installed a new bar screen to remove solids and floatables that were clogging the pumps and preventing the pump station from running properly during wet weather. The pump station can now run continuously without clogging, reducing the frequency of suspected SSOs and known CSOs upstream.	See Project Description	$1,229,384	Complete
C-036-01	Stevenson Road Relief Sewer Project Phase II	Bob Wilson	2004	2006	2006	This project was constructed to increase the wet weather capacity in the Lakeview Pump Station service area collection system to reduce the frequency and volume of two known SSOs and several suspected SSOs.	See Project Description	$2,071,298	Complete
C-040-05	Latonia Combined Sewer Separation	Darleen McGuire	2006	2009	2007	This project provides sewer separation through the construction of a new storm sewer to separate and intercept storm water flow to keep it out of the combined sewers in Latonia. This project will eliminate existing basement backups in this area and reduce the overflow volume from downstream CSOs.	Eliminate existing basement backups & bring one CSO into compliance with control policy.	$2,639,272	Complete
C-046-00	Licking River Sewer Crossing Study	Brandon Vatter	2005	2007	2007	This study will evaluate alternatives and identify potential cost-effective solutions to increasing wet weather capacity in the existing sanitary and combined sewer service areas in order to eliminate 10 SSOs, several suspected SSOs, and CSOs and known basement backups.	See Project Description	$156,508	Complete
C-072-00	McMillan Pump Station Removal	Darleen McGuire	2005	2006	2005	This project provided increased dry and wet weather sewer capacity by constructing a new sewer to eliminate an existing maintenance intensive pump station and to eliminate resulting upstream sanitary sewer overflows.	The new pump station is sized to provide additional wet weather capacity to eliminate sanitary sewer overflows upstream.	$673,723	Complete
C-414-16	Meyer Road Pump Station Rehabilitation	Jim Turner	2006	2008	2008	This project constructs a new pump station and force main to replace an existing high maintenance intensive pump station. The new pump station is sized to provide additional wet weather capacity to eliminate sanitary sewer overflows upstream and will provide back-up power to the pump station via an onsite engine generator.	The new pump station is sized to provide additional wet weather capacity to eliminate sanitary sewer overflows upstream.	$277,000	Complete
C-414-43	Macke Pump Station Rehabilitation	Jim Turner	2006	2008	2008	This project constructs a new pump station to replace an existing high maintenance intensive pump station. The new pump station is sized to provide additional wet weather capacity to eliminate a constructed bypass and will provide back-up power to the pump station via an onsite engine generator.	The new pump station is sized to provide additional wet weather capacity to eliminate sanitary sewer overflows upstream.	$301,000	Complete
C-414-45	Richwood Pump Station Improvements	Bob Wilson	2005	2006	2005	Provided additional dry and wet weather pumping capacity at the pump station to reduce the frequency of overflows upstream. This project also eliminated odor complaints by installing a new oxygen-based odor control system to reduce hydrogen sulfide in the waste stream and the resulting odors.	See Project Description	$287,316	Complete
C-480-02	Patton Street Sewer Study	Brandon Vatter	2005	2006	2006	This study will evaluate alternatives within the Patton Street Pump Station combined sewer service area to bring four CSOs into compliance with the 1994 CSO control policy, eliminate river water intrusion into the combined sewers and interceptors during high river levels, rehabilitate existing deteriorated rock sewers, and examine pilot project alternatives to provide floatable capture and control from the CSOs.	See Project Description	$176,178	Complete
C-615-01	South Hills Outfall	Brandon Vatter	2006	2008	2007	This project constructs a new 24-inch sewer via horizontal directional drilling on grade (first in the country of this size and slope) to eliminate a CSO at a street intersection. This new sewer will divert combined sewer flows off of the Lakeview Pump Station service area and into the Bromley Pump Station combined sewer service area, thereby consolidating flows within the combined system and reducing overflows upstream of the Lakeview Pump Station. This project also eliminates a failing sewer located within a landslide area that has resulted in past sanitary sewer overflows.	Eliminate one CSO and decrease Lakeview Pump Station bypass overflows by 6.2% based on the preliminary not fully calibrated hydraulic model.	$2,695,400	Complete

Initial Watershed Projects

CIP Code	CIP Title	Project Manager	Anticipated Start Date	Anticipated Completion Date	Actual Completion Date	Project Description	Impact on Overflow Reduction	Project Cost	Status
North & East Watershed Projects									
C-475-00	Grit Chamber Projects	Bob Wilson	2006	2010	n/a	This project constructs three grit chambers to capture grit and other debris within the main sewer interceptors along the Ohio and Licking Rivers to maximize flows in the collection system and to the Dry Creek Treatment Plant. One has already been installed just upstream from our Bromley Pump Station and is working effectively to capture grit and other debris for removal and to maximize flow to the pump station and treatment plant.	See Project Description	$4,048,000	Phase 1 & 2 Complete Phase 3 Under Construction
North & Central Watershed Projects									
S-577-01	Fort Wright Illicit Discharge Removal	Bob Wilson	2004	2007	2006	This program assists us in addressing both SSOs and CSOs by developing sewer separation projects to remove storm water from the sanitary and combined sewers.	Eliminated three illicit discharges and reduced private source I/I by 30%.	$1,511,896	Complete
C-040-03	Fort Wright Sanitary Sewer Rehabilitation Phase 1	Bob Wilson	2004	2007	2006	This project was a result of the above project and installed new sanitary and storm sewers to separate sanitary and storm flows in this area. This project resulted in eliminating sewage from getting into existing storm sewers and the local creeks and reduced the wet weather flow tributary to the Lakeview Pump Station service area, thereby reducing overflows downstream.	Eliminated three illicit discharges and reduced private source I/I by 30%.	$1,658,368	Complete
C-458-00	Fort Wright Outfall Sewer - Phase II	Bob Wilson	2003	2006	2006	This project constructed a new sanitary sewer to remove the existing sanitary sewer from the creek, thereby reducing I/I from storm and creek water into the sanitary sewer.	Eliminated three illicit discharges and reduced private source I/I by 30%.	$976,218	Complete
North, East & Central Watershed Projects									
C-044-00	Dry Creek Treatment Plant - Grit Removal Modifications	Chris Novak	2004	2006	2005	This project was constructed to increase the treatment capacity of the preliminary treatment system at the Dry Creek Treatment Plant. This, along with diverting flows from Lakeview Pump Station service area, will help maximize flows to the Dry Creek plant.	See Project Description	$2,747,358	Complete
C-024-00	Large Diameter Sewer Assessment Program - Phase III	Brandon Vatter	2005	2007	2006	This program is helping us prioritize and evaluate the condition of the combined and separate sewer systems in order to maximize flows in our system and identify areas that need rehabilitation and/or replacement with the goal of reducing and addressing the frequency of overflows from our CSOs and SSOs.	See Project Description	$500,000	Complete
C-040-06	Brookwood Subdivision SSES Study	Brandon Vatter	2005	2006	2006	This study evaluated the sanitary sewer and storm sewers in the Brookwood subdivision to identify locations of storm water I/I into the separate sanitary sewer system in order to identify projects to be performed to remove this identified I/I. Flows from this area are tributary to the Lakeview Pump Station service area. This project will reduce I/I, which will result in reducing the frequency and overflow volumes of downstream SSOs.	See Project Description	$136,751	Complete
C-040-08	Southern Kenton Drainage Study	Brandon Vatter	2005	2007	2006	This study will evaluate alternatives and identify potential cost-effective solutions to increasing wet weather capacity in the existing sanitary sewer portion of the Lakeview Pump Station service area in order to eliminate the Lakeview Pump Station bypass and the upstream SSOs.	See Project Description	$245,471	Complete
C-090-00	Wilson Road Sewer Assessment Project	Bob Wilson	2005	2006	2005	This project extended sanitary sewer service to eliminate six failing septic systems from this area.	See Project Description	$144,223	Complete
C-484-00	Apple Drive Sewer Outfall	Bob Wilson	2005	2006	2006	This project extended sanitary sewer service to remove a package treatment plant.	See Project Description	$489,080	Complete
North, East, West & Central Watershed Projects									
C-480-01	Bluegrass Swim Club Sewer Separation	Bob Wilson	2005	2008	2007	This project will separate existing storm water connections to our sanitary sewers in Fort Wright, thereby reducing wet weather flows in our sanitary sewer system. This project will reduce the frequency and volume of downstream SSOs and CSOs.	This project, along with the South Hills Outfall Project, eliminated one CSO and decreased Lakeview Pump Station bypass overflows by 6.2% based on the preliminary not fully calibrated hydraulic model.	$905,136	Complete

APPENDIX C:

Project Photo Album

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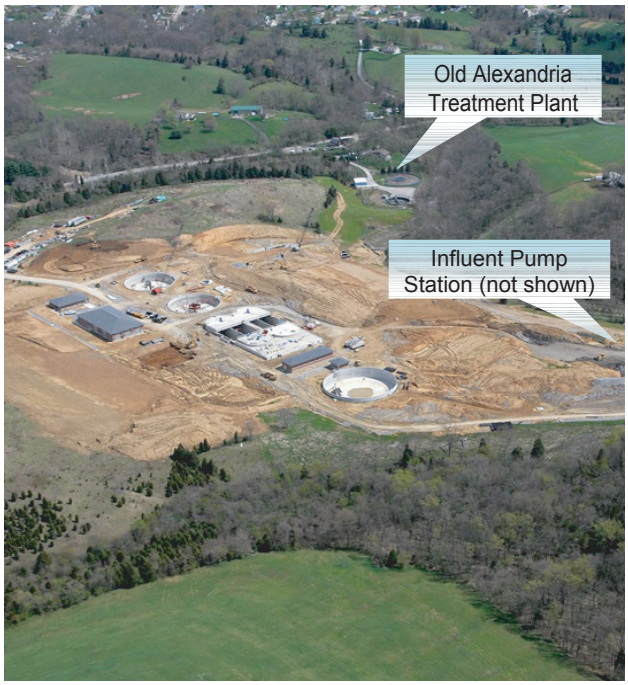
Eastern Regional Water Reclamation Facility



The Eastern Regional Water Reclamation Facility (ERWRF) in Southern Campbell County and associated collection system upgrades will eliminate approximately eight million gallons of annual overflow volume and provide adequate sewer service for future growth.

The influent pumping station at ERWRF is utilized to transfer wastewater to downstream treatment units located at higher elevations. The station has a total of five pumps - two pumps with a capacity of 8 million gallons per day (mgd) and three pumps with a capacity of 4 mgd.

The Administration Building at the ERWRF contains a laboratory, locker rooms, control room, break room / training room, and utility room.

The equalization basin shown above provides 1.7 million gallons of wet weather storage and is used to reduce the occurrences of hydraulic surges, as well as balance waste stream flows through the biological treatment process.

Eastern Regional Water Reclamation Facility

This diesel Kohler generator at the ERWRF is utilized to meet the backup power needs of the facility and is able to operate the entire plant for an unlimited amount of time. The total cost of the generator was $690,000.

Ultraviolet disinfection technology is used at the ERWRF to destroy disease causing pathogens. There are two channels of ultraviolet lamps at the facility that have the capacity of treating a total of 24 mgd of average daily flow.

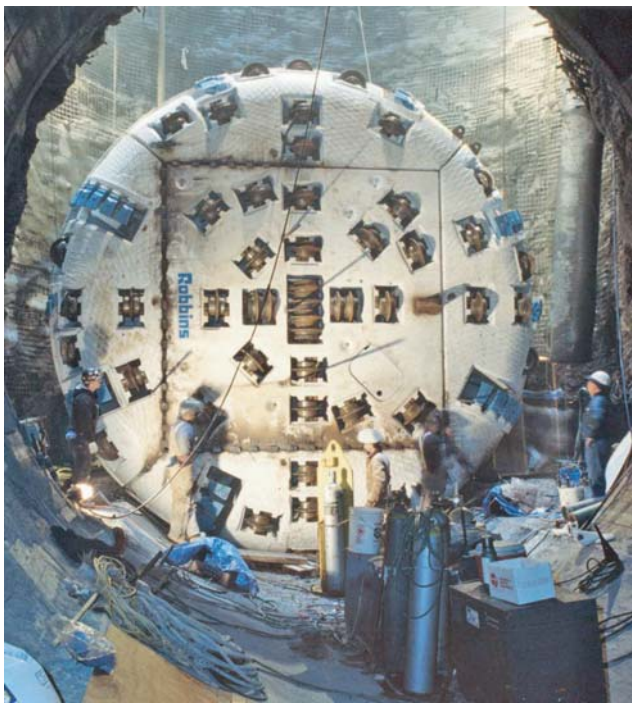
After being treated with ultraviolet technology, the treated effluent travels through these aeration ladders where dissolved oxygen is added to the flow prior to final discharge into the environment.

The ERWRF began discharging into Brush Creek on September 28, 2007 and is currently treating an average of 1.3 mgd. The treated effluent leaves the facility from the above structure and travels over a bed of rocks prior to entering the creek.

Western Regional Conveyance System

Flow to the new Western Regional Water Reclamation Facility (scheduled for operation in 2013) will be conveyed and stored within a new tunnel. The tunnel will be approximately 8.5 feet in diameter, 6.9 miles long, and located up to 350 feet underground.

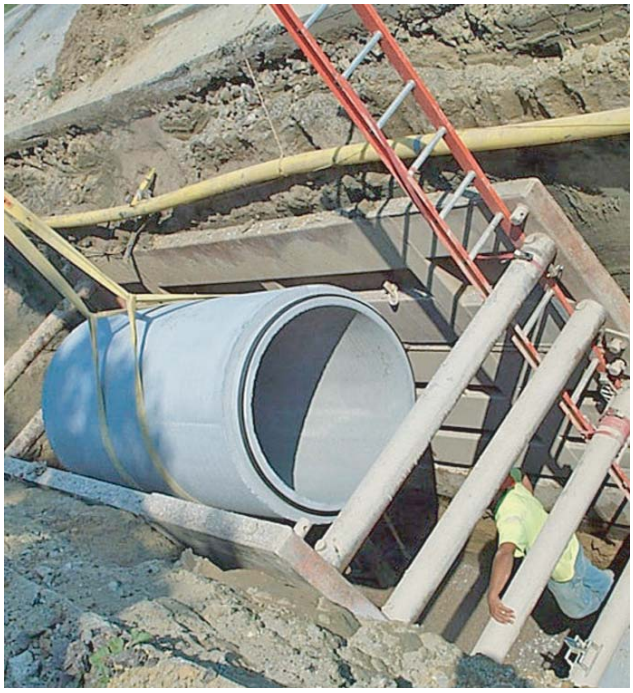
The majority of the construction work on the tunnel will be completed by using tunnel boring machines (similar to the one shown above) that have the ability to drill through an average of 60 to 100 feet of rock per day.



Tunnel construction reduces surface disruption by utilizing boring machines to drill through the earth. Because the tunnel is mostly several hundred feet underground, it relies entirely on gravity flow and has minimal energy costs.

The tunnel (similar to the one pictured above) will provide for diversion of flow from our existing collection system and storage of excess wet weather flow. Construction of the tunnel should take approximately three-and-a-half years and is scheduled to commence in early 2009.

Latonia Combined Sewer Separation



The Latonia Combined Sewer Separation project provided sewer separation through the construction of a new storm sewer to separate and intercept storm water flow to eliminate basement backups and reduce combined sewer overflows in Latonia, KY.

Installing the new separate storm sewers helped eliminate existing basement backups in the area and reduce the overflow volume from downstream combined sewer overflows.

Manhole being core drilled to accept 48” concrete storm water pipe. Construction of 3,700’ of pipe diverted storm water flow from the combined sewer system. Pipe sizes ranged from 12” – 60”.

Catch basin core drilled to accept 12” storm water lead into the new storm water system. Twenty-one catch basins were installed to redirect storm water flow.

Pump Stations

The Macke, Meyer, and American Sign Pump Stations were constructed to replace existing high maintenance intensive pump stations. These new stations are sized to provide additional wet weather capacity to eliminate constructed bypasses and sanitary sewer overflows.

Six foot diameter wet well being lowered into position at the Macke Pump Station. This wet well replaced the existing four foot diameter wet well, adding additional wet weather capacity.

Piping systems within in the valve vaults at the pump stations were painted to protect them from corrosion.

The Macke, Amercian Sign, and Meyer Road Pump Stations are each provided with back-up power via an onsite engine generator.

South Hills Outfall

A new 24-inch sewer was constructed via horizontal directional drilling on grade and was the first in the country of this size and slope.

Stockpiled 24” inside diameter high density polyethylene pipe in 50 feet lengths prior to fusing. 1,724 feet of pipe were installed via horizontal directional drilling at a grade of 1.89% and a depth up to 100 feet.

The new sewer will eliminate a combined sewer overflow at a street intersection and reduce combined sewer flows to our Lakeview Pump Station by diverting and consolidating flows within the downstream combined sewer system.

In addition to the elimination of the combined sewer overflow, this project also eliminated a failing sewer located within a landslide area that has resulted in past sanitary sewer overflows.