

3.3 BEARGRASS CREEK – MUDDY FORK

This report is an update to the *WATERS of Jefferson County Report – July 1, 1999 to June 30, 2000*. For additional information on the Muddy Fork of Beargrass Creek Watershed, refer to the *WATERS of Jefferson County Report – July 1, 1999 to June 30, 2000* located on the CD in Appendix I.

Exhibit 6 illustrates several features of the Municipal Separate Storm Sewer System (MS4), Combined Sewer Overflow (CSO), and Sanitary Sewer Overflow (SSO) Programs in the Muddy Fork of Beargrass Creek Watershed.

Figure 7. Muddy Fork Watershed



3.3.1 HISTORY, DEMOGRAPHIC AND COMMUNITY INFORMATION

Refer to the *WATERS of Jefferson County Report – July 1, 1999 to June 30, 2000*.

3.3.2 HYDROLOGY AND FLOODING

There are approximately 1.1 square miles of flood hazard area (area within the 100-year Federal Emergency Management Administration (FEMA) Floodplain) and there are an estimated 285 structures located within this floodplain.

Refer to the *WATERS of Jefferson County Report – July 1, 1999 to June 30, 2000*.

3.3.2.1 Flood Prevention Measures

There are three site detention basins in the Muddy Fork of Beargrass Creek Watershed and no regional detention basins. These detention basins are for small local developments. These basins are typically too small to generate measurable water quality benefits from retrofitting.

3.3.3 STATUS OF WATER QUALITY

Refer to the *WATERS of Jefferson County Report – July 1, 1999 to June 30, 2000*.

3.3.4 WATER QUALITY IMPACTS

Water quality data collected during this reporting period and the last reporting period, has been analyzed. The majority of the data was collected with minimonitors from the ambient monitoring sites. A summary of the water quality violations for all of Jefferson County can be found in the *WATERS of Jefferson County Report – July 1, 2000 to June 30, 2001 CD* located in Appendix I.

3.3.4.1 Point Source

Table 26 summarizes point sources in the Muddy Fork of Beargrass Creek Watershed.

Table 26. Summary of Point Sources – Muddy Fork of Beargrass Creek Watershed – 3rd Qtr 1999 to 3rd Qtr 2000

<i>Sanitary Sewer Overflows</i>	<i>Combined Sewer Overflows</i>	<i>Storm Water Outfalls</i>	<i>General Permittees</i>	<i>Significant Industrial Users</i>	<i>Wastewater Treatment Plants</i>
Recurring: 2 Investigated: 4 Eliminated: 0	3	Year Sampled: 1994 Total: 60 Contaminated: 0	1	2	MSD Regional: NA MSD small: NA Private: 6

SSO fact sheets are located in Appendix V.

3.3.4.2 Non-Point Source

Refer to the *WATERS of Jefferson County Report – July 1, 1999 to June 30, 2000*.

3.3.4.3 Habitat and Biological Quality

During the reporting period algae and macroinvertebrates were sampled at the ambient stream monitoring locations. Algae were sampled six different times (three days at a time) at the ambient monitoring sites. Three-day growth rates, maximum carrying capacity, community structure, and biomass estimates are being analyzed for each sample. The algal and macroinvertebrate samples have been processed, but the taxonomic data will not be ready until the next reporting period. All algal and macroinvertebrate data will be included in the *WATERS of Jefferson County Report – July 1, 2001 to June 30, 2002*.

3.3.5 TRACKING CHANGES IN WATER QUALITY

Refer to the *WATERS of Jefferson County Report – July 1, 1999 to June 30, 2000*.

3.3.6 MS4 PROGRAM – CO-PERMITTEES

There are five co-permittees in the Muddy Fork of Beargrass Creek Watershed that are responsible for fulfilling the requirements of the MS4 Permit. The co-permittees include:

- City of St. Matthews
- City of Louisville
- Jefferson County
- Kentucky Transportation Cabinet, District Five
- MSD

Following are watershed-specific highlights from the co-permittees' MS4 Programs. Only those permit elements that have highlights are listed. For highlights that are not watershed-specific, refer to the MS4 Programmatic section of the *WATERS Report*. All MS4 Permit activities for each of the co-permittees is detailed in Appendix III.

3.3.6.1 City of St. Matthews

Refer to the *WATERS of Jefferson County Report – July 1, 1999 to June 30, 2000* for information on the City of St. Matthews.

There are no watershed-specific MS4 activities to highlight for St. Matthews during the reporting period.

3.3.6.2 City of Louisville



Refer to the *WATERS of Jefferson County Report – July 1, 1999 to June 30, 2000* for information on the City of Louisville.

There are no watershed-specific MS4 activities to highlight for the City of Louisville during the reporting period.

3.3.6.3 Jefferson County



Refer to the *WATERS of Jefferson County Report – July 1, 1999 to June 30, 2000* for information on Jefferson County.

There are no watershed-specific MS4 activities to highlight for Jefferson County during the reporting period.

3.3.6.4 Kentucky Transportation Cabinet, District Five

Refer to the *WATERS of Jefferson County Report – July 1, 1999 to June 30, 2000* for information on the Kentucky Transportation Cabinet, District Five (KyTC).

There are no watershed-specific MS4 activities to highlight for KyTC during the reporting period.

3.3.6.5 MSD



Refer to the *WATERS of Jefferson County Report – July 1, 1999 to June 30, 2000* for information on MSD.

Post Construction Controls, MSD

The Upper River Road Multi-Use Trail is complete.

Public Education/Outreach Program, MSD

MSD provides the Beargrass Creek Clean Sweep with gloves, garbage bags, and equipment to haul away large items. MSD also pays to have the debris landfilled.

Monitoring, MSD

The Monitoring at Indian Hills is ongoing. Monitoring will continue at these sites for approximately two more years.

A summary of the water quality data collected during the current and previous reporting periods can be found in *WATERS of Jefferson County Report – July 1, 1999 to June 30, 2000* CD in Appendix I.

3.3.7 CSO PROGRAM – MSD

CSO Projects

MSD conducted the following projects during the reporting period as part of the CSO Program:

Solids and Floatables Design Project – The proposed project will control solids and floatables from CSOs 132 and 167 that discharge directly upstream of the Downtown Waterfront by direct discharge to the Lower Beargrass Creek downstream of the Beargrass Creek Flood Pumping Station. This project provided preliminary engineering and final plans and specifications for the facilities. The design was completed in September 2001. Construction for this project is not currently scheduled within the next five-year capital program.

RTC Program Planning – As discussed in the CSO Program Section Phase 2 of the Real Time Control (RTC) Strategy Study was completed in fiscal year 2001 and included an evaluation of Region 1. The section also addresses planned RTC activities.

CSO Planning

CSO Project Planning is reviewed and revised on an annual basis. The following projects are included in the current 5-year plan approved by the MSD Board:

- CSO General Services – fiscal year 2002
- CSO General Services – fiscal year 2003
- CSO General Services – fiscal year 2004

CSO Education

CSO public education activities in the Muddy Fork of Beargrass Creek Watershed include:

- Implementing a CSO Public Information and Notification Program.
- MSD is exploring opportunities with the local Health Department relative to health advisories when CSOs are discharging.
- MSD is committed to continuing public education efforts relative to the CSO Program. The Beargrass Creek Area Team and their consistent interaction with the public will enhance these efforts.
- CSO Program presentation to Greater Louisville, Inc.

CSO Related Costs

Table 27 summarizes the CSO Program related costs for the reporting period and projected costs for the next three years in the Muddy Fork of Beargrass Creek Watershed.

Table 27. CSO Program Related Cost for July 2000 – June 2004, Muddy Fork of Beargrass Creek Watershed

<i>CSO Program</i>	<i>July 2000 – June 2001</i>	<i>July 2001 – June 2002</i>	<i>July 2002 – June 2003</i>	<i>July 2003 – June 2004</i>
Solids and Floatables Design Project	\$231,573	\$0	\$0	\$0
Total*	\$231,573	\$0	\$0	\$0

3.3.8 SSO PROGRAM – MSD

SSO Projects

MSD conducted the following projects during the reporting period as part of the SSO Program:

High School Inflow Source Identification Program - The 2001 High School Program inspected 27,515 LF of interceptor finding seven possible pipe defects and 26 defected manholes in the Muddy Fork watershed. The students also placed 109 catch basin markers in the Windy Hills and Mockingbird Valley areas.

Middle Fork 2 Remediation – Under this project the following rehabilitation took place in the Muddy Fork watershed.

- 809 LF of cured-in-place sewer main rehabilitation.
- 14 cured-in-place lateral rehabilitations.
- 53 manhole chimney seal installations

SSO Planning

SSO Project Planning is revised constantly based on the results of ongoing investigations and rehabilitation projects. The following projects are included in the current 5-year plan approved by the MSD Board:

- *I/I General Services – fiscal year 2002*
- *I/I General Services – fiscal year 2003*
- *I/I General Services – fiscal year 2004*

SSO Education

No specific public meetings were held during the reporting period.

SSO Related Costs

Table 28 summarizes the SSO Program related costs for the reporting period and projected costs for the next three years in the Muddy Fork of Beargrass Creek Watershed.

Table 28. SSO Program Related Costs for July 1999 to June 2003 – Muddy Fork of Beargrass Creek Watershed

<i>SSO Program</i>	<i>July 1999 – June 2000</i>	<i>July 2000 – June 2001</i>	<i>July 2001 – June 2002</i>	<i>July 2002 – June 2003</i>
High School Inflow Source Identification Program*	\$215,581	\$0	\$0	\$0
Middle Fork 2 Remediation*	\$481,928	\$50,000	\$0	\$0
I/I General Services*	\$854,439	\$830,043	\$400,000	\$250,000
<i>Total*</i>	<i>\$1,551,948</i>	<i>\$880,043</i>	<i>\$400,000</i>	<i>\$250,000</i>

*Only portions of these funds were expended in the Muddy Fork watershed.

EXHIBIT #6

Muddy Fork of Beagrass Creek Watershed

Exhibit #6 may be downloaded at:

<http://www.msdlouky.org/insidemsd/waters/2001/exhibit6.pdf>  (1.1Mb)