

JIM BEAM PUMP STATION

6" FORCE MAIN

CONSTRUCT NEW PUMP STATION AND DECOMMISSION THE EXIST. WWTP

CITY OF FRANKFORT  
2012  
WASTEWATER FACILITIES PLAN

FIGURE 8-3  
ELKHORN MOBILE HOME PARK  
PUMP STATION & FORCE MAIN



SCALE : 1" = 2000'

DATE : JAN. 2014

DRAWN BY : SAB

CHECKED BY : JFG

SECTION 9  
CROSS CUTTER CORRESPONDENCE and MITIGATION

**Requirements and Recommendations**

Cross cutter letters have been received from the review agencies. Copies of the responses are included in Appendix G. Below is a summary of their comments:

- Kentucky State Historic Preservation Officer – Recommendation that an archaeological survey be done in any area that will be disturbed by construction that lies beyond the existing right of way.
- Kentucky Department of Fish and Wildlife Resources – Noted that the Gray Bat and the Peregrine falcon both known to occur within the project areas, but indicated that the likelihood of impacting their environment was minimal. Also recommended erosion and sediment control practices be used throughout construction.
- United States Army Corps of Engineers – Stated that the USACOE has jurisdiction over the “waters of the US”, and noted that the plans were too vague to determine if a UCACOE permit was required. They requested more detailed plans in the future to determine whether or not there is a need for a permit.
- US Fish and Wildlife Services – Noted that there are four (4) endangered species and one candidate for federal protection within the project areas. The USFWS could not make site specific determinations and recommendations based on the mapping provided.

SECTION 10  
EVALUATION of RECOMMENDED REGIONAL FACILITY PLAN

**Environmental Impacts**

There are forty nine (49) projects listed in Table 10-2. Of all those projects, all but seven will be replacement or rehabilitation projects that will be constructed in developed areas along corridors that have already been disturbed. Construction of these replacement or rehabilitation projects will occur in the same areas that were disturbed during construction of the original facility. Any harm to the environment will be small and limited to these pre-disturbed areas. Proper erosion and sediment control measures will be implemented during construction to minimize the effects on the environment.

The remaining seven projects consist of the Wet Weather Detention Facility (project # 29) that is currently under construction, and six sewer extensions to areas that are already developed and disturbed. Prior to designing these projects, environmental analysis will be done to determine if any endangered species or cultural resources will be impacted by constructing the project.

**Institutional Structure**

Frankfort is a Class 2 city, and possesses the legal authority to fully implement this entire plan. There are no other sanitation districts or incorporated cities within the planning area. However, a small portion of the planning area lies in Woodford County. There is an inter-local agreement between Woodford County Fiscal Court and Frankfort for the collection, treatment and disposal of wastewater from the small portion of Woodford County. Franklin County Fiscal Court, Woodford County Fiscal Court and the City of Frankfort are the only government bodies located within the planning area.

**Funding Plan**

The projects contained in this facility plan will be funded using the following sources:

- KIA grants and loans
- CDBG grants
- Bond issues
- EPA SPAP Grants
- Clean Water State Revolving Fund
- A portion of the monthly user fees (see Table 10-1)
- Monthly lateral fees

Depending on how the projects are funded, the user rates may only increase each year in accordance with the CPI, as outlined in Table 10-1 below. Those CPI increases are minimal, and were set with the assumption that low interest rate loans and grant money will be awarded to the City to offset a portion of the cost of those projects. Since the City has entered into a Consent Judgment with the US EPA, and this agreement has a limited timeline for compliance, the City may have to implement special rate increases that could take effect on January 1<sup>st</sup>, 2015 and January 1<sup>st</sup>, 2016. The number of these special rate increases and their amount will depend on how many grants and low interest rate loans the City receives during the planning period.

**TABLE 10-1**  
**FRANKFORT SEWER DEPARTMENT**  
**CURRENT and PROJECTED SEWER USER RATES**

Current Sewer Rate, beginning July 1, 2013	\$9.19 /1000 gallons of water usage
Projected Sewer Rate for July 1, 2014	\$9.37 /1000 gallons of water usage
Special 7.5% Sewer Rate adjustment January 1, 2015	\$10.08 /1000 gallons of water usage
Projected Sewer Rate (as of July 1, 2015)	\$10.28 /1000 gallons of water usage
Special 7.5% Sewer Rate adjustment January 1, 2016	\$11.05 /1000 gallons of water usage
Lateral assessment	\$4.00 /month

Notes:

1. The annual sewer rate adjustments are indexed to the Consumer Price Index (CPI). A CPI of 2% was used to calculate the projected sewer rates for July 1, 2014 and beyond.
2. There is no minimum annual rate increase.
3. In November of 2013, Frankfort eliminated a rate increase of 7.5% that was scheduled to take effect on 1/1/2014. This 7.5% increase is now scheduled for 1/1/2015. In the fall of 2014, the need for this increase will be re-evaluated. The rates shown above were calculated under the assumption that rates will increase 7.5% on 1/1/2015.
4. The 7.5% increase scheduled for 1/1/2016 remains in place.
5. Using the rates listed above, an FSD customer using 4,000 gallons of water per month would currently incur a monthly sewer bill of \$40.76 (4 X \$9.19 + \$4.00).

**TABLE 10-2  
FRANKFORT SEWER DEPARTMENT  
PRIORITIZED PROJECT LIST and COST ESTIMATES**

The Frankfort Sewer Department has identified and prioritized a list of projects that will enable the City to comply with the schedule as outlined in the Administrative Order. The majority of these projects, which are listed in Table 10-2, are expected to be completed over the next seven years. This “majority” falls into one of three categories:

- Rehabilitation, repair or replacement of existing waste water infrastructure. Other than “No Action”, there are no alternatives, so no alternative analysis was done for these projects. These projects are marked with an “(R)” in the prioritized projects listed in Table 10-2.
- Projects that are currently under design and the best alternative has been determined. These projects are marked with an “(D)” in the prioritized projects listed in Table 10-2.
- Combined Sewer Overflow (CSO) projects that are part of the Long Term Control Plan (LTCP). These projects consist of separating combined sewers or constructing capacity upgrades. The analysis of these alternatives was done in the CSO Plan. These projects are marked with an “(C)” in the prioritized projects listed in Table 10-2.

**0-5 Year Planning Period**

1. Upper Slickway Collection Line Capacity Upgrade (D)	\$2,000,000	
2. West Main Collection Line Rehabilitation (R)	\$550,000	SX21073048
3. Concrete Pipe Inspection and Repair (R)	\$5,000,000	
4. Kentucky Ave. Collector Rehabilitation (R)	\$4,900,000	SX21073059
5. East Main Collector Rehabilitation (R)	\$530,000	SX21073037
6. Prevention Park Pump Station Replacement (R)	\$440,000	SX21073047
7. Ridgeview Pump Station Replacement (R)	\$440,000	SX21073046
8. West Frankfort Pump Station Replacement (R)	\$3,100,000	SX21073038
9. Bentwoods Pump Station #1 Replacement (R)	\$480,000	
10. Fort Boone Plaza Pump Station Replacement (R)	\$275,000	
11. Silverlake Pump Station Replacement (R)	\$440,000	
12. Benson Creek Pump Station Replacement (R)	\$475,000	
13. Spring Hill Estates Sewer Extension (D)	\$3,500,000	
14. Juniper Hill Rehabilitation (Under construction)	\$650,000	SX21073052
15. Myrtle Ave. Rehabilitation (Under construction)	\$300,000	SX21073034
16. Willowcrest I & I Reduction (C)	\$400,000	
17. Two Creeks I & I Reduction (C)	\$1,100,000	
18. Lower Slickway I & I Reduction (C)	\$1,050,000	
19. Wilkinson Street Line Replacement (R)	\$1,500,000	
20. Ridgeview I & I Reduction (C)	\$350,000	
21. Crestwood I & I Reduction (C)	\$350,000	
22. Tierra Linda I & I Reduction (C)	\$350,000	
23. Two Creeks # 2 Pump Station and Force Main (R)	\$1,200,000	SX21073012
24. Old Lawrenceburg Road Pump Station Replacement (R)	\$1,100,000	

**TABLE 10-2 (cont'd)**  
**FRANKFORT SEWER DEPARTMENT**  
**PRIORITIZED PROJECT LIST and COST ESTIMATES**

25. Inverness Sewer Extension (D)	\$550,000	SX21073044
26. Miscellaneous Sewer Rehabilitation (R)	\$1,600,000	
27. CSO Long Term Control Plan Implementation (C)	\$3,250,000	
28. Louisville Road Stormwater Separation Phase 2 (R)	\$835,000	SX21073061
29. Wet Weather Detention Facility (Under Construction)	\$9,100,000	SX21073058
30. West Frankfort Interceptor Rehabilitation (R)	\$4,000,000	
31. East Frankfort Interceptor Rehabilitation (R)	\$1,500,000	SX21073008
32. Miami Trail Pump Station Replacement (R)	\$250,000	SX21073009
33. Hawkheegan Drive Sewer Extension (D)	\$200,000	
34. Country Lane Estates I & I Reduction (C)	\$400,000	
35. Capital Avenue Interceptor Rehabilitation (R)	\$425,000	
36. Forest Villas Siphon Capacity Upgrade (C)	\$875,000	
37. Bon Air Pump Station and Force main Replacement (R)	\$2,300,000	SX21073006
38. Benson CSO Separation (C)	\$1,060,000	SX21073063
39. Collins Lane I & I Reduction (C)	\$900,000	
40. Democrat Drive Rehabilitation (R)	\$550,000	

**6 – 10 Year Planning Period**

41. Old Soldier Lane Sewer Extension	\$50,000	
42. Strathmore Drive Sewer Extension	\$25,000	
43. Miscellaneous Sewer Rehabilitation (R)	\$1,600,000	
44. CSO Long Term Control Plan Implementation (C)	\$3,250,000	

**11 – 20 Year Planning Period**

45. Ewing Street Pump Station Replacement (R)	\$1,000,000	
46. Ewing St. Force Main Replacement (R)	\$1,500,000	
47. Capital Mobile Home Park & Elkhorn Mobile Home Park	\$2,200,000	
48. Miscellaneous Sewer Rehabilitation (R)	\$3,200,000	
49. CSO Long Term Control Plan Implementation (C)	\$6,500,000	

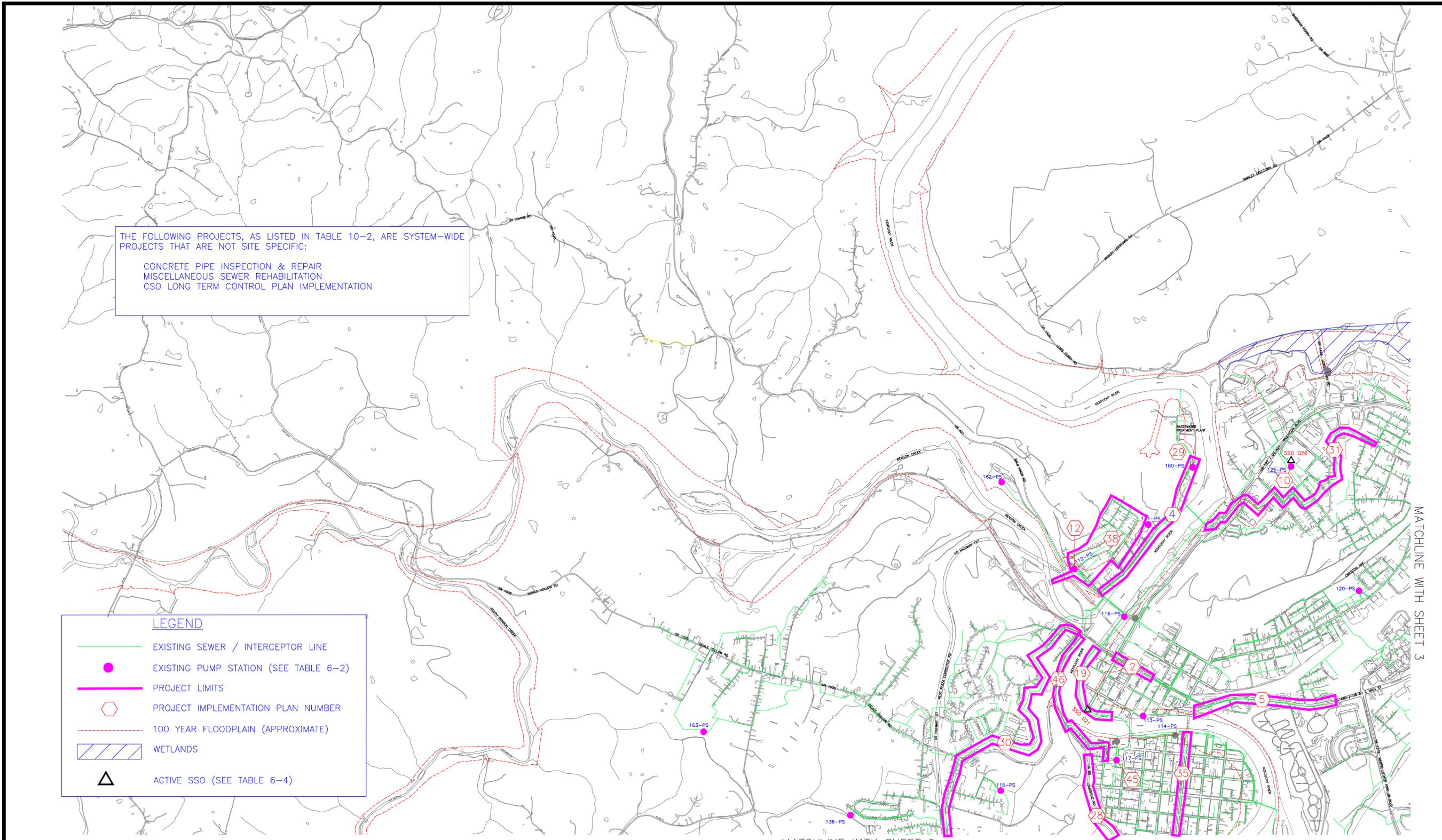
Note: The following projects listed above are system-wide project that are not site specific. These projects are not shown on Figures XI-1 through XI-4.

- 3. Concrete Pipe Inspection and Repair
- 26. Miscellaneous Sewer Rehabilitation
- 27. CSO Long Term Control Plan Implementation
- 42. Miscellaneous Sewer Rehabilitation
- 43. CSO Long Term Control Plan Implementation
- 48. Miscellaneous Sewer Rehabilitation
- 49. CSO Long Term Control Plan Implementation.

THE FOLLOWING PROJECTS, AS LISTED IN TABLE 10-2, ARE SYSTEM-WIDE PROJECTS THAT ARE NOT SITE SPECIFIC:  
 CONCRETE PIPE INSPECTION & REPAIR  
 MISCELLANEOUS SEWER REHABILITATION  
 CSO LONG TERM CONTROL PLAN IMPLEMENTATION

**LEGEND**

-  EXISTING SEWER / INTERCEPTOR LINE
-  EXISTING PUMP STATION (SEE TABLE 6-2)
-  PROJECT LIMITS
-  PROJECT IMPLEMENTATION PLAN NUMBER
-  100 YEAR FLOODPLAIN (APPROXIMATE)
-  WETLANDS
-  ACTIVE SSO (SEE TABLE 6-4)



MATCHLINE WITH SHEET 2

MATCHLINE WITH SHEET 3

2013 WASTEWATER FACILITIES PLAN – FRANKFORT, KY

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 4064	DATE: MAY 2012
SCALE: 1" = 1000'	
DESIGNED BY	NAME DATE
DRAWN BY	JFG
CHECKED BY	JFG
RECORD DWGS.	RCB



3 HMB CIRCLE  
 FRANKFORT, KENTUCKY  
 (502) 695-9800  
 (502) 695-9810 FAX

FIGURE 10-1  
 SANITARY COLLECTION SYSTEM MAP  
 AND IMPLEMENTATION PLAN MAP

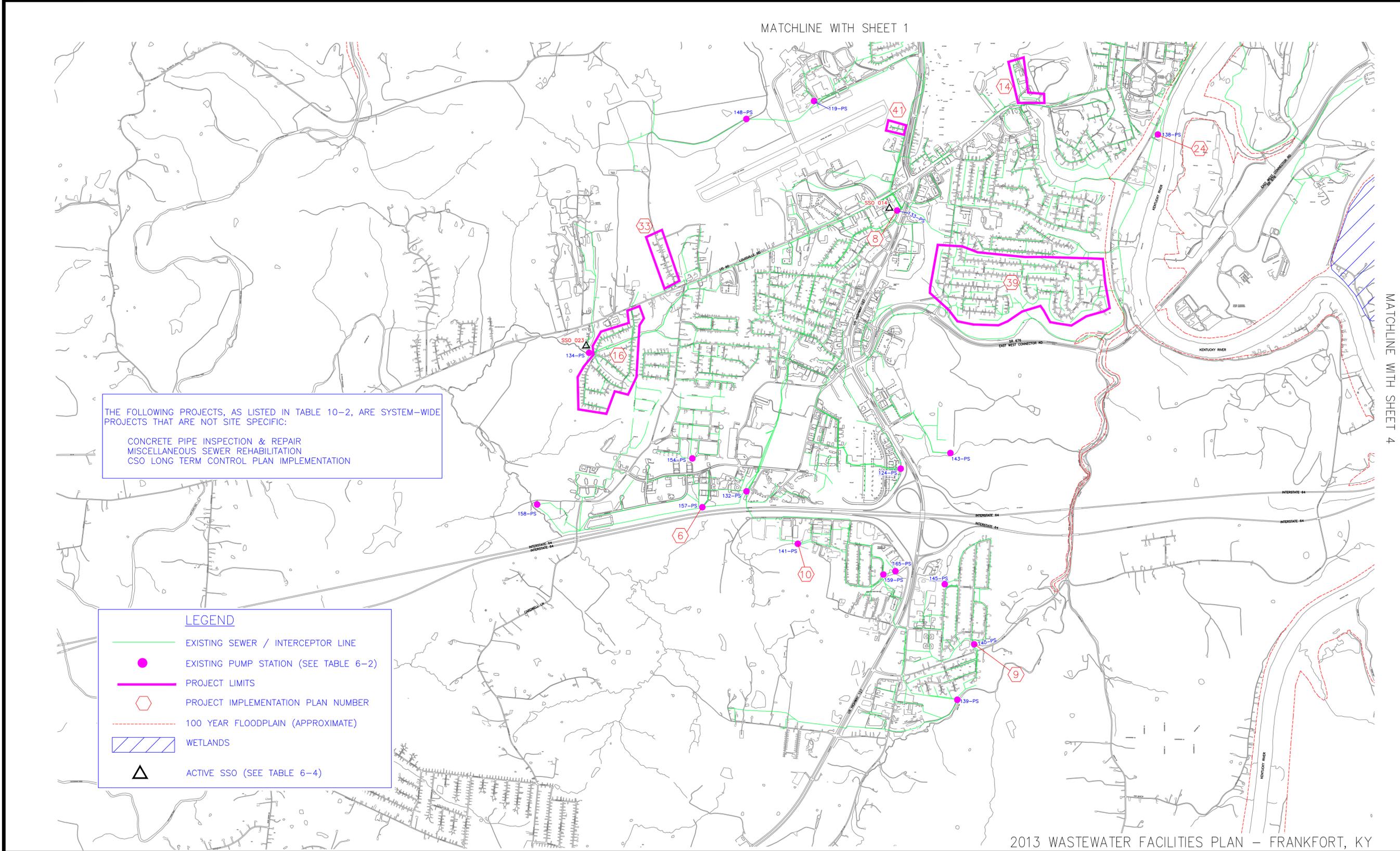
MATCHLINE WITH SHEET 1

MATCHLINE WITH SHEET 4

THE FOLLOWING PROJECTS, AS LISTED IN TABLE 10-2, ARE SYSTEM-WIDE PROJECTS THAT ARE NOT SITE SPECIFIC:  
 CONCRETE PIPE INSPECTION & REPAIR  
 MISCELLANEOUS SEWER REHABILITATION  
 CSO LONG TERM CONTROL PLAN IMPLEMENTATION

**LEGEND**

-  EXISTING SEWER / INTERCEPTOR LINE
-  EXISTING PUMP STATION (SEE TABLE 6-2)
-  PROJECT LIMITS
-  PROJECT IMPLEMENTATION PLAN NUMBER
-  100 YEAR FLOODPLAIN (APPROXIMATE)
-  WETLANDS
-  ACTIVE SSO (SEE TABLE 6-4)



2013 WASTEWATER FACILITIES PLAN - FRANKFORT, KY

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

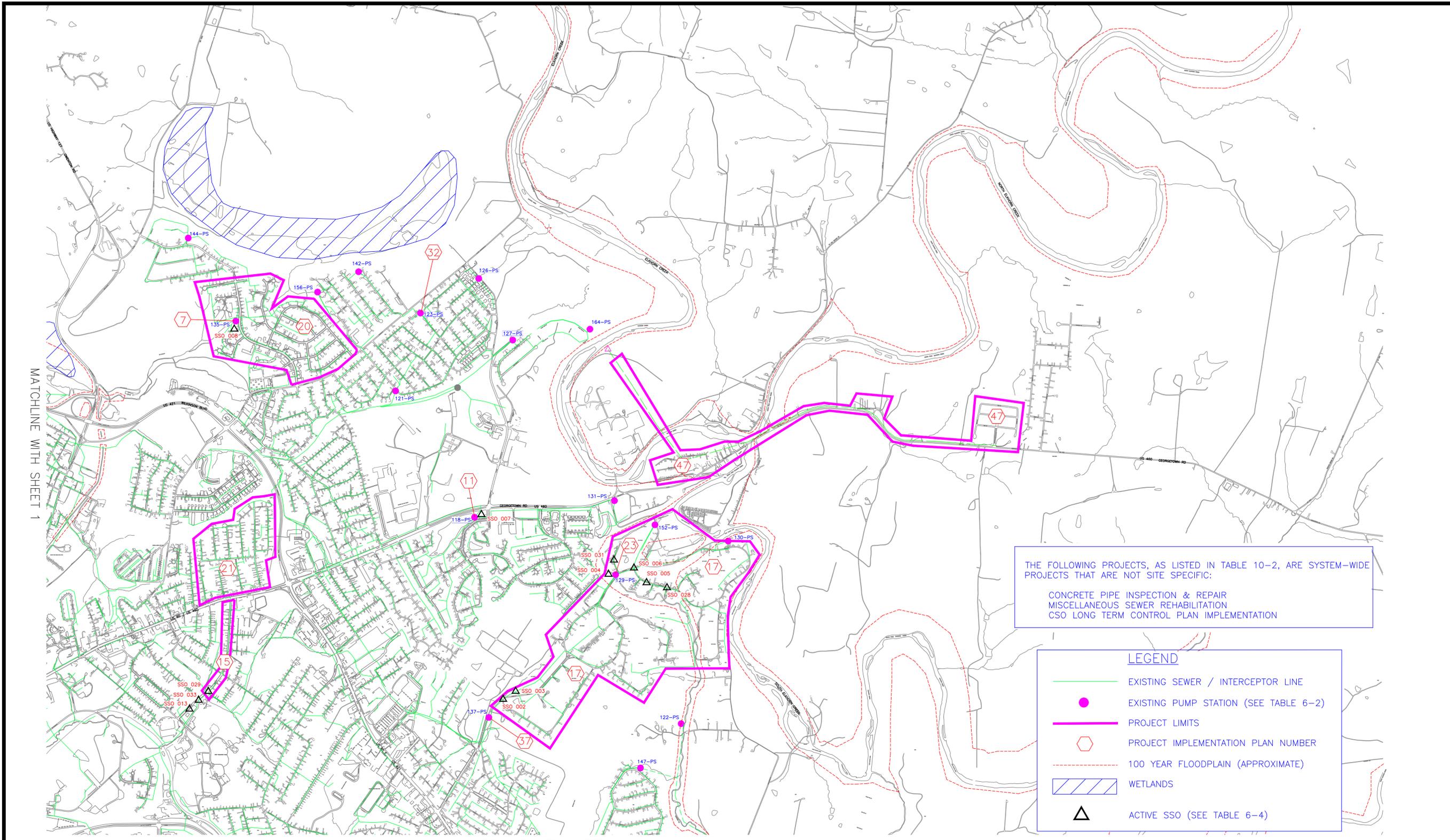
PROJECT: 4064	DATE: MAY 2012	
SCALE: 1" = 1000'		
DESIGNED BY	NAME	DATE
DRAWN BY	JFG	
CHECKED BY	JFG	
RECORD DWGS.	RCB	



3 HMB CIRCLE  
 FRANKFORT, KENTUCKY  
 (502) 695-9800  
 (502) 695-9810 FAX

**FIGURE 10-2**  
 SANITARY COLLECTION SYSTEM MAP  
 AND IMPLEMENTATION PLAN MAP

SHEET  
 2  
 OF  
 4



MATCHLINE WITH SHEET 1

MATCHLINE WITH SHEET 4

THE FOLLOWING PROJECTS, AS LISTED IN TABLE 10-2, ARE SYSTEM-WIDE PROJECTS THAT ARE NOT SITE SPECIFIC:  
 CONCRETE PIPE INSPECTION & REPAIR  
 MISCELLANEOUS SEWER REHABILITATION  
 CSO LONG TERM CONTROL PLAN IMPLEMENTATION

**LEGEND**

- EXISTING SEWER / INTERCEPTOR LINE
- EXISTING PUMP STATION (SEE TABLE 6-2)
- PROJECT LIMITS
- PROJECT IMPLEMENTATION PLAN NUMBER
- - - 100 YEAR FLOODPLAIN (APPROXIMATE)
- ▨ WETLANDS
- ▲ ACTIVE SSO (SEE TABLE 6-4)

2013 WASTEWATER FACILITIES PLAN – FRANKFORT, KY

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 4064	DATE: MAY 2012	
SCALE: 1" = 1000'		
DESIGNED BY	NAME	DATE
DRAWN BY	JFG	
CHECKED BY	JFG	
RECORD DWGS.	RCB	



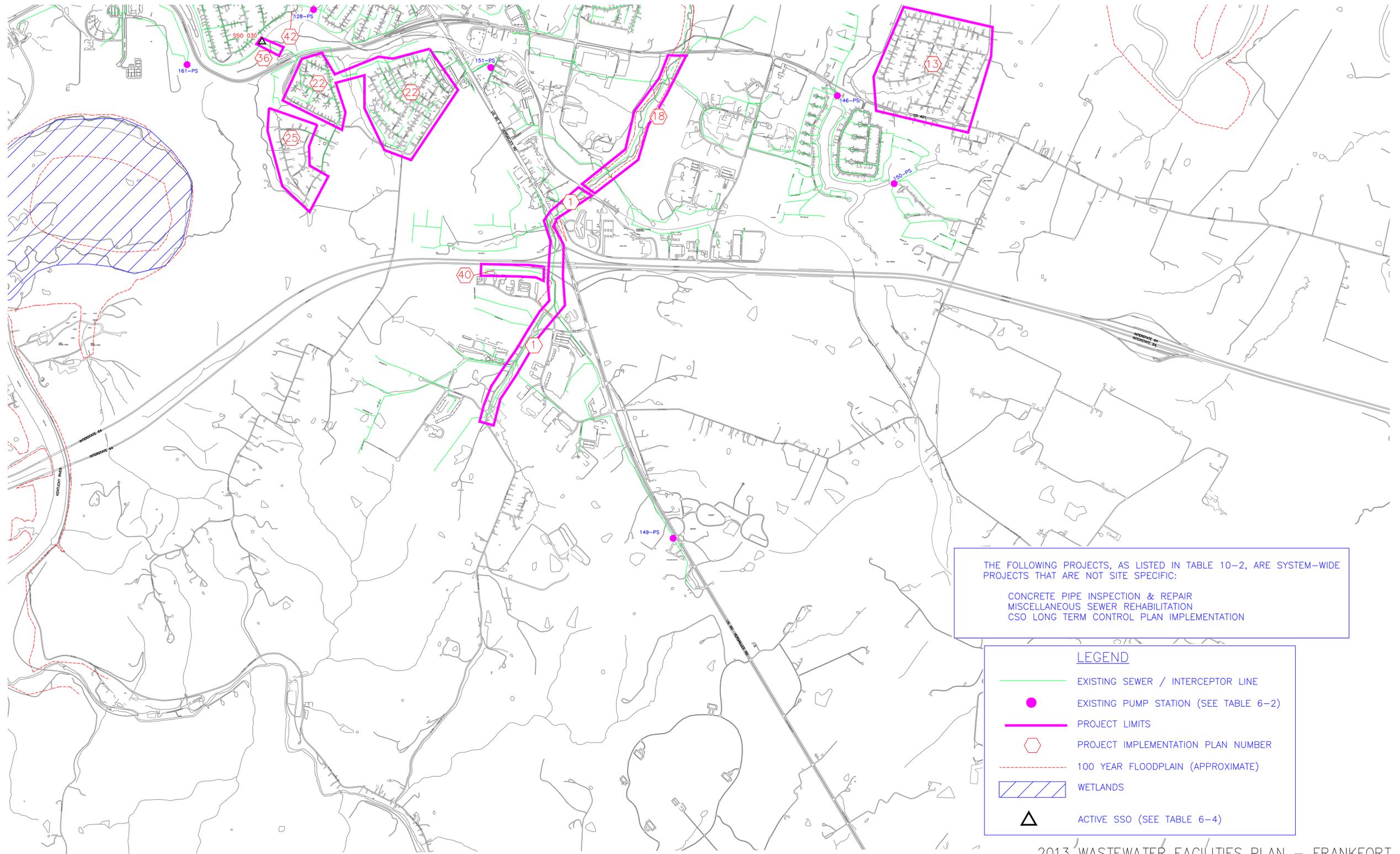
3 HMB CIRCLE  
 FRANKFORT, KENTUCKY  
 (502) 695-9800  
 (502) 695-9810 FAX

**FIGURE 10-3**  
 SANITARY COLLECTION SYSTEM MAP  
 AND IMPLEMENTATION PLAN MAP

SHEET  
 3  
 OF  
 4

MATCHLINE WITH SHEET 3

MATCHLINE WITH SHEET 2



2013 WASTEWATER FACILITIES PLAN – FRANKFORT, KY

NO.	DATE	REVISIONS	CHK'D	APPR'D	DATE

PROJECT: 4090.01 DATE: MAY 2012		
SCALE: NTS		
DESIGNED BY	NAME	DATE
DRAWN BY	JFG	
CHECKED BY	JFG	
RECORD DWGS.	RCB	



3 HMB CIRCLE  
FRANKFORT, KENTUCKY  
(502) 695-9800  
(502) 695-9810 FAX

FIGURE 10-4  
SANITARY COLLECTION SYSTEM MAP  
AND IMPLEMENTATION PLAN MAP

SHEET  
4  
OF  
4

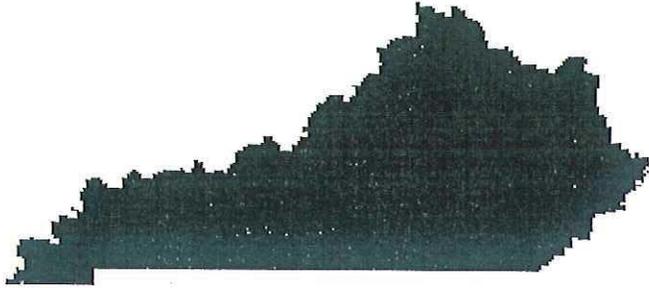
APPENDIX A

KPDES PERMIT

for the

E.C. McMANNIS WWTP

901-B-W  
KPDES



KENTUCKY POLLUTANT  
DISCHARGE ELIMINATION  
SYSTEM

PERMIT

PERMIT NO.: KY0022861  
AI NO.: 1393

AUTHORIZATION TO DISCHARGE UNDER THE  
KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to Authority in KRS 224,

City of Frankfort - Frankfort Sewer Department  
1200 Kentucky Avenue  
Frankfort, Kentucky 40601

FILE COPY

is authorized to discharge from a facility located at

E. C. McManis Wastewater Treatment Plant  
1200 Kentucky Avenue  
Frankfort, Franklin County, Kentucky

to receiving waters named

Kentucky River at mile point 64.5

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, III, and IV hereof. The permit consists of this cover sheet, and Part I 6 page(s), Part II 14 page(s), Part III 1 page(s), and Part IV 3 page(s).

This permit shall become effective on November 1, 2006.

This permit and the authorization to discharge shall expire at midnight, October 31, 2011.

September 29, 2006  
Date Signed

David W. Morgan, Director  
Division of Water

Lloyd R. Cress  
Commissioner

A1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to discharge from Outfall number: Wastewater Treatment Plant (Effluent Requirements).

Such discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTICS</u>	<u>DISCHARGE LIMITATIONS</u>				<u>MONITORING REQUIREMENTS</u>		
	lbs/day Monthly Avg.	Weekly Avg.	Other Units (Specify) Monthly Avg.	Weekly Avg.	Measurement Frequency	Sample Type	Sampling Location
Flow, Design (9.9 MGD)	N/A	N/A	Report	Report	Continuous	N/A	Influent & Effluent
Biochemical Oxygen Demand (5-day), Carbonaceous	2065	3139	25 mg/l	38 mg/l	3/Week	Composite	Influent & Effluent
Total Suspended Solids	2478	3718	30 mg/l	45 mg/l	3/Week	Composite	Influent & Effluent
Escherichia Coli (#/100 ml)	N/A	N/A	130	240	3/Week	Grab	Effluent
Ammonia (as N)							
Summer (May 1 thru October 31)	826	1239	10 mg/l	15 mg/l	3/Week	Composite	Influent & Effluent
Winter (November 1 thru April 30)	1652	2478	20 mg/l	30 mg/l			
Dissolved Oxygen shall not be less than 5 mg/l					3/Week	Grab	Effluent
Total Phosphorus (as P)							
Kentucky River Flow > 800 cfs	N/A	N/A	Report <sup>2</sup>	Report <sup>2</sup>	1/Week	Composite	Effluent
470 < Kentucky River Flow < 800 cfs	N/A	N/A	2.0 mg/l <sup>2</sup>	3.0 mg/l <sup>2</sup>	1/Week	Composite	Effluent
Kentucky River Flow < 470 cfs	N/A	N/A	1.0 mg/l <sup>2</sup>	1.5 mg/l <sup>2</sup>	1/Week	Composite	Effluent
Kentucky River Flow (cfs)	N/A	N/A	Report	Report	1/Day	Instant	USGS Gage
Total Kjeldahl Nitrogen, as mg/l N	N/A	N/A	Report	Report	1/Month	Composite	Effluent
Chronic Toxicity (TU <sub>c</sub> )				4.80 <sup>1</sup>	1/Quarter	Grab	Effluent

In addition to the specified limits, the monthly average effluent CBOD<sub>5</sub> and suspended solids concentration shall not exceed 15% of the respective monthly average influent concentration (85% removal).

The pH of the effluent shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored three times per week by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

The effluent shall not cause a visible sheen on the receiving water.

<sup>1</sup> Daily maximum

<sup>2</sup> Applicable from May 1<sup>st</sup> through October 31<sup>st</sup>.

A2. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUATION)

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to discharge from Outfall number: Wastewater Treatment Plant (Effluent Requirements).

Such discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTICS</u>	<u>DISCHARGE LIMITATIONS</u>				<u>MONITORING REQUIREMENTS</u>		
	lbs/day		mg/l		<u>Measurement Frequency</u>	<u>Sample Type</u>	<u>Sampling Location</u>
	<u>Monthly Avg.</u>	<u>Daily Max.</u>	<u>Monthly Avg.</u>	<u>Daily Max.</u>			
Lead, Total Recoverable	N/A	N/A	Report	Report	1/Quarter*	Composite	Effluent
Cadmium, Total Recoverable	N/A	N/A	Report	Report	1/Quarter*	Composite	Effluent
Copper, Total Recoverable	N/A	N/A	Report	Report	1/Quarter*	Composite	Effluent
Zinc, Total Recoverable	N/A	N/A	Report	Report	1/Quarter*	Composite	Effluent
Hardness (as mg/l CaCO <sub>3</sub> )	N/A	N/A	Report	Report	1/Quarter*	Composite	Effluent

\* Monitoring shall be done in conjunction with biomonitoring.

A3. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to administer a pretreatment program.

The permittee shall monitor the influent, and effluent as specified below:

<u>EFFLUENT CHARACTERISTICS</u>	<u>DISCHARGE LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>		
	Monthly Avg.	Daily Max.	Measurement Frequency	Sample Type	Sampling Location
Arsenic, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Cadmium, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Chloride	Report	Report	1/Year	Composite	Influent & Effluent
Chromium, Hexavalent	Report	Report	1/Year	Composite	Influent & Effluent
Chromium, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Copper, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Cyanide, Free (Amenable)	Report	Report	1/Year	Grab	Influent & Effluent
Iron, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Lead, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Mercury, Total Recoverable*	Report	Report	1/Year	Grab	Influent & Effluent
Nickel, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Oil & Grease	Report	Report	1/Year	Grab	Influent & Effluent
Phenols, Total	Report	Report	1/Year	Grab	Influent & Effluent
Phosphorus (as P)	Report	Report	1/Year	Composite	Influent & Effluent
Selenium, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Silver, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent
Zinc, Total Recoverable	Report	Report	1/Year	Composite	Influent & Effluent

\* Mercury sampling and testing shall be done by EPA method number 1631.

A4. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to administer a pretreatment program.

The permittee shall monitor the sludge as specified below:

<u>EFFLUENT CHARACTERISTICS</u>	<u>DISCHARGE LIMITATIONS</u> mg/kg or other		<u>MONITORING REQUIREMENTS</u>		
	<u>Monthly</u> <u>Avg.</u>	<u>Daily</u> <u>Max.</u>	<u>Measurement</u> <u>Frequency</u>	<u>Sample</u> <u>Type</u>	<u>Sampling</u> <u>Location</u>
Arsenic, Total Dry Weight	Report	Report	1/Year	Grab	Sludge
Cadmium, Total Dry Weight	Report	Report	1/Year	Grab	Sludge
Chromium, Total Dry Weight	Report	Report	1/Year	Grab	Sludge
Copper, Total Dry Weight	Report	Report	1/Year	Grab	Sludge
Lead, Total Dry Weight	Report	Report	1/Year	Grab	Sludge
Mercury, Total Dry Weight	Report	Report	1/Year	Grab	Sludge
Molybdenum, Total Dry Weight	Report	Report	1/Year	Grab	Sludge
Nickel, Total Dry Weight	Report	Report	1/Year	Grab	Sludge
Phosphorus, Total Dry Weight	Report	Report	1/Year	Grab	Sludge
Selenium, Total Dry Weight	Report	Report	1/Year	Grab	Sludge
Silver, Total Dry Weight	Report	Report	1/Year	Grab	Sludge
Zinc, Total Dry Weight	Report	Report	1/Year	Grab	Sludge
pH, standard units	Report*	Report**	1/Year	Grab	Sludge
Solids, Total Dry Weight, metric tons	Report	Report	1/Year	Grab	Sludge
Solids, Total, percent	Report***	Report	1/Year	Grab	Sludge
Sludge Disposed of by Incineration, MT/Y	Report****	Report	1/Year	Grab	Sludge
Sludge Disposed of by Landfill, MT/Y	Report****	Report	1/Year	Grab	Sludge
Sludge Disposed of by Other Method, MT/Y	Report****	Report	1/Year	Grab	Sludge

\* Instantaneous Minimum

\*\* Instantaneous Maximum

\*\*\* Annual Average

\*\*\*\* Annual Total

MT/Y Metric Tons Per Year

B. CSO MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to discharge from outfall numbers 002, 003, 004, 006, 007, 009, 010, 011, 012, 013, 014, 015, 016, 017, 018, 019. Discharges resulting from overflows shall be during periods of wet weather only and also meet the requirements outlined in PART II.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>OVERFLOW CHARACTERISTICS</u>	<u>MONITORING REQUIREMENTS</u>
	<u>Monthly Total</u>
Number of events <sup>1</sup>	Report
Event duration (hours)	Report
Area rainfall (inches)	Report
Estimated overflow volume (gallons)	Report <sup>2</sup>

- <sup>1</sup> An event is a discharge from a combined sewer outfall. A wet weather event is a discharge that occurs in direct response from rainfall or snowmelt. A dry weather event is a discharge that occurs for reasons other than rainfall or snowmelt. For the purposes of this monitoring form, all events will be totaled on a monthly basis for each combined sewer outfall.
- <sup>2</sup> Volume estimation method for quantifying overflow events should be a system-wide method to provide consistency for reporting at each outfall.
- <sup>3</sup> (If applicable, flow bypassed around WWTP units shall be reported on monthly monitoring reports. The most significant bypass event for the month shall be reported as a flow rate. See Part II, Page 14 for details.)

C. SCHEDULE OF COMPLIANCE

The permittee shall achieve compliance with all requirements on the effective date of this permit unless specified in some form of enforceable mechanism.

**STANDARD CONDITIONS FOR KPDES PERMIT**

The permittee is also advised that all KPDES permit conditions in KPDES Regulation 401 KAR 5:065, Section 1 will apply to all discharges authorized by this permit.

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal and local agencies.

It is the responsibility of the permittee to demonstrate compliance with permit parameter limitations by utilization of sufficiently sensitive analytical methods.

The conditions of 401 KAR 5:065, Section 1 are expressly listed as follows:

(1) Duty to Comply.

(a) General requirement. The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of KRS Chapter 224, among which shall be the following remedies: enforcement action, permit revocation, revocation and reissuance, or modification; or denial of a permit renewal application.

(b) Specific duties.

1. The permittee shall comply with effluent standards or prohibitions established under 40 CFR Part 129 as of July 1, 2001, as adopted without change, within the time provided in the federal regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

2. Any person who violates a permit condition as set forth in the KPDES administrative regulations shall be subject to penalties under KRS 224.99-010(1) and (4).

(2) Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit as required in 401 KAR 5:060, Section 1.

(3) Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with conditions of this permit.

(4) Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(5) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control and related appurtenances which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also shall include adequate laboratory controls, and appropriate quality assurance procedures. This provision shall require the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only if the operation is necessary to achieve compliance with the conditions of the permit.

(6) Permit actions. The permit may be modified, revoked and reissued, or revoked for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or a notification of planned changes or anticipated noncompliance, shall not stay any permit condition.

(7) Property rights. This permit shall not convey any property rights of any kind, or any exclusive privilege.

(8) Duty to provide information. The permittee shall furnish to the cabinet, within a reasonable time, any information which the cabinet may request to determine whether cause exists for modifying, revoking and reissuing, or revoking this permit, or to determine compliance with this permit. The permittee shall also furnish to the cabinet, upon request, copies of records required to be kept by this permit.

(9) Inspection and entry. The permittee shall allow the cabinet, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records pertinent to the KPDES program are or may be kept;

(b) Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this permit;

(c) Inspect at reasonable times any facilities, equipment, including monitoring and control equipment, practices, or operations regulated or required under this permit; and

(d) Sample or monitor at reasonable times, for the purposes of assuring KPDES program compliance or as otherwise authorized by KRS Chapter 224, any substances or parameters at any location.

(10) Monitoring and records.

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report, or application. This period may be extended by request of the cabinet at any time.

(c) Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;

2. The individuals who performed the sampling or measurements;

3. The dates analyses were performed;

4. The individual who performed the analyses;

5. The analytical techniques or methods used; and

6. The results of the analyses.

(d) Monitoring shall be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.

(e) Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be subject to penalties under KRS 224.99-010(4).

(11) Signatory requirement. All applications, reports, or information submitted to the cabinet shall be signed and certified as indicated in 401 KAR 5:060, Section 9. Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties under KRS 224.99-010(4).

(12) Reporting requirements.

(a) Planned changes. The permittee shall give notice to the cabinet as soon as possible of any planned physical alteration or additions to the permitted facility. Notice shall be required only if:

1. The alteration or addition to a permitted facility may meet one (1) of the criteria for determining whether a facility is a new source in 401 KAR

5:080, Section 5; or

2. The alteration of addition could significantly change the nature of increase the quantity of pollutants discharged. This notification only applies to pollutants which are subject either to effluent limitations in the permit, or to notification requirements under 401 KAR 5:080, Section 5.

(b) Anticipated noncompliance. The permittee shall give advance notice to the cabinet of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Transfers. The permit shall not be transferable to any person except after notice to the cabinet. The cabinet may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate other requirements as may be necessary under KRS Chapter 224.

(d) Monitoring reports. Monitoring results shall be reported at the intervals specified in the permit. Monitoring results shall be reported as follows:

1. Monitoring results shall be reported on a Discharge Monitoring Report (DMR).
2. If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
3. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the cabinet in the permit.

(e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.

(f) Twenty-four (24) hour reporting. The permittee shall follow the provisions of 401 KAR 5:015 and shall orally report any noncompliance which may endanger health or the environment, within twenty-four (24) hours from the time the permittee becomes aware of the circumstances. This report shall be in addition to and not in lieu of any other reporting requirement applicable to the noncompliance. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The cabinet may waive the written report on a case-by-case basis if the oral report has been received within twenty-four (24) hours. The following shall be included as events which shall be reported within twenty-four (24) hours:

1. Any unanticipated bypass which exceeds any effluent limitation in the permit, as indicated in subsection (13) of this section.
2. Any upset which exceeds any effluent limitation in the permit.
3. Violations of a maximum daily discharge limitation for any of the pollutants listed by the cabinet in the permit to be reported within twenty-four (24) hours, as indicated in 401 KAR 5:065, Section 2(7).

(g) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this subsection, when monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this subsection.

(h) Other information. Where the permittee becomes aware that it failed to submit any relevant fact in a permit application, or submitted incorrect information in a permit application or in any report to the cabinet, it shall promptly submit these facts or information.

(13) Occurrence of a bypass.

(a) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. This type of bypass shall not be subject to the provisions of paragraphs (b) and (c) of this subsection.

(b) Notice.

1. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass. Compliance with this requirement constitutes compliance with 401 KAR 5:015, Section 1.

2. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in subsection (12)(f) of this section, twenty-four (24) hour notice. Compliance with this requirement constitutes compliance with 401 KAR 5:015, Section 4.

(c) Prohibition of a bypass.

1. Bypassing shall be prohibited, and the cabinet may take enforcement action against a permittee for bypass, unless:

- a. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition shall not be satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- c. The permittee submitted notices as required under paragraph (b) of this subsection.

2. The cabinet may approve an anticipated bypass, after considering its adverse effects, if the cabinet determines that it will meet the three (3) conditions listed in subparagraph 1a, b, and c of this paragraph.

(14) Occurrence of an upset.

(a) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of paragraph (b) of this subsection are met.

(b) Conditions necessary for a demonstration of an upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the permittee can identify the causes of the upset;
2. The permitted facility was at the time being properly operated;
3. The permittee submitted notice of an upset as required in subsection (12)(f) of this section; and
4. The permittee complied with any remedial measures required under subsection (4) of this section.

(c) Burden of proof. In any enforcement proceeding, the permittee seeking to

establish the occurrence of an upset shall have the burden of proof.

(15) Additional conditions applicable to specified categories of KPDES permits. The following conditions, in addition to others set forth in this administrative regulation, shall apply to all KPDES permits within the categories specified below:

(a) Existing manufacturing, commercial, mining, and silvicultural dischargers. In addition to the reporting requirements under subsections (12), (13), and (14) of this section, any existing manufacturing, commercial, mining, and silvicultural discharger shall notify the cabinet as soon as it knows or has reason to know:

1. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- a. 100 micrograms per liter (100 µg/l);
- b. 200 micrograms per liter (200 µg/l) for acrolein and acrylonitrile; 500 micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one (1) milligram per liter (1 mg/l) for antimony;
- c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 401 KAR 5:060, Section 2(7);
- d. The level established by the cabinet in accordance with 401 KAR 5:065, Section 2(6).

2. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- a. 500 micrograms per liter (500 µg/l);
- b. One (1) milligram per liter (1 mg/l) for antimony;
- c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 401 KAR 5:060, Section 2(7); or
- d. The level established by the cabinet in accordance with 401 KAR 5:065, Section 2(6).

(b) POTWs.

1. POTWs shall provide adequate notice to the cabinet of the following:

- a. Any new introduction of pollutants into that POTW from an indirect discharger which would be subject to the KPDES administrative regulations if it were directly discharging those pollutants; or
- b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

2. For purposes of this paragraph, adequate notice shall include information on the quality and quantity of effluent introduced into the POTWs and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

### POTW REQUIREMENTS

NOTE: The following requirements apply only to Publicly-Owned Treatment Works.

#### SLUDGE DISPOSAL

Sludge shall be disposed of in accordance with 40 CFR Part 503 and 401 KAR 45.

#### PROHIBITIVE DISCHARGES

Under no circumstances shall the permittee allow discharge of the following into the system:

- a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW);
- b. Pollutants which will cause corrosive structural damage to the POTW, but in no case, discharges with a pH lower than 5.0;
- c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in sewers, or other interference with operation of the POTW;
- d. Any pollutant, including oxygen demanding pollutants (BOD<sub>5</sub>, etc.), released in a discharge at such a volume or strength as to cause interference in the POTW;
- e. Heat in amounts which will inhibit biological activity in the POTW, but in no case, heat in such quantities that the influent to the sewage treatment works exceeds 104° F (40° C);
- f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
- g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and,
- h. Any trucked or hauled waste, except at discharge points designated by the POTW.

PRETREATMENT

A. Program Requirements

1. The permittee shall be responsible for the performance of all pretreatment requirements contained in 401 KAR 5:057, Section 6 and pursuant to 40 CFR Part 403, and shall be subject to enforcement actions, penalties, fines, and other remedies by the state, as provided in the Clean Water Act (hereafter the "Act"). The permittee shall implement and enforce its approved POTW pretreatment program. The permittee's approved POTW pretreatment program is hereby made an enforceable condition of this permit. The state may initiate enforcement action against a POTW and against an industrial user for noncompliance with applicable standards and requirements as provided in KRS 224.16-050(1), 224.70-110, and 224.73-120, and pursuant to the Act.
2. The permittee shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the Act. The permittee shall cause industrial users subject to federal categorical standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge.
3. The permittee shall perform the pretreatment functions as required in 401 KAR 5:057, Section 6 and 40 CFR Part 403 including, but not limited to:
  - a. Implement the necessary legal authorities as provided in 401 KAR 5:057, Section 6(4)(a). This includes, among other things, the authority to:
    - (1) Deny or condition new or increased contributions of pollutants or changes in the nature of pollutants (401 KAR 5:057, Section 6(4)(a)(1));
    - (2) Require compliance with applicable pretreatment standards (401 KAR 5:057, Section 6(4)(a)(2));
    - (3) Control through permit to ensure compliance (401 KAR 5:057, Section 6(4)(a)(3));
    - (4) Require the development of compliance schedules and submission of reports (401 KAR 5:057, Section 6(4)(a)(4));
    - (5) Carry out inspection, surveillance, and monitoring procedures (401 KAR 5:057, Section 6(4)(a)(5));
    - (6) Obtain remedies for noncompliance by industrial users (401 KAR 5:057, Section 6(4)(a)(6)).
  - b. Implement the programmatic functions as provided in 401 KAR 5:057, Section 6(4)(b). This includes:
    - (1) An industrial waste survey (401 KAR 5:057, Section 6(4)(b)(1 and 2));
    - (2) Notification of appropriate federal, state and/or local standards or limitations (401 KAR 5:057, Section 6(4)(b)(3));
    - (3) Receipt and analysis of self-monitoring reports and other notices, (401 KAR 5:057, Section 6(4)(b)(4));
    - (4) POTW compliance sampling and analysis (401 KAR 5:057, Section 6(4)(b)(5));
    - (5) Noncompliance investigations and enforcement (401 KAR 5:057, Section 6(4)(b)(6));
    - (6) Public participation (401 KAR 5:057, Section 6(4)(b)(7)).

- c. Provide the required funding, equipment, and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3) and 403.9(b)(4).
4. The permittee shall adopt and enforce local limits that will protect the treatment works against interference, pass-through, and sludge contamination. Local limits shall be revised as necessary by the permittee as provided in 40 CFR 122.21 and CFR 403.5.

B. Semi-Annual Reporting

1. The permittee shall submit semi-annually a pretreatment report to the state. The report due on March 1st shall describe the permittee's pretreatment program activities over the previous year and shall cover the period January through December. The report due on September 1st shall describe the permittee's pretreatment program activities over the previous six (6) months and shall cover the period January through June. In the event that the permittee is not in compliance with any conditions or requirements of this permit, then the permittee shall also include the reasons for noncompliance and state how and when the permittee shall comply with such conditions and requirements. Each report shall contain, but not be limited to, the following information:
  - a. Analytical results of the POTW's influent, effluent, and sludge (including sludge from lagoons) annually, by the 28th of January, for those pollutants identified under Section 307(a) of the Act which are known or suspected to be discharged by industrial users, and for any nonpriority pollutants which the permittee believes may be causing or contributing to interference, pass-through, or adversely impacting sludge quality. The report shall include all pollutants identified on KPDES Discharge Monitoring Report (DMR) for pretreatment influent, effluent, and sludge scan. The frequency of analysis shall not exceed twelve months.
  - b. A discussion of upset, interference, or pass-through incidents, if any, at the POTW treatment plant which the permittee knows or suspects were caused by industrial users of the POTW system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the industrial user(s) responsible.
  - c. The cumulative number of industrial users that the permittee has notified regarding baseline monitoring reports and the cumulative number of industrial user responses.
  - d. An updated list of the permittee's industrial users including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The permittee shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to federal categorical standards and which set(s) of standards are applicable. The permittee shall characterize the compliance status of each industrial user by employing the following descriptions:
    - (1) In compliance with baseline monitoring report requirements (where applicable);
    - (2) Consistently achieving compliance;
    - (3) Inconsistently achieving compliance;
    - (4) Significantly violated applicable pretreatment requirements as defined by 40 CFR 403.8(f)(2)(vii);

- (5) On a compliance schedule to achieve compliance (include the date final compliance is required);
  - (6) Not achieving compliance and not on a compliance schedule;
  - (7) The permittee does not know the industrial user's compliance status (with explanation).
- e. A summary of the inspection and sampling activities conducted by the permittee during the past six (6) months to gather information and data regarding industrial users. The summary shall include:
- (1) The names of industrial users subject to surveillance by the permittee and an indication of whether they were inspected, sampled, or both and the frequency of these activities at each user; and
  - (2) The conclusions or results from the inspection or sampling of each industrial user.
- f. A summary of the compliance and enforcement activities during the past six (6) months, the summary shall include the names of the industrial users affected by the following actions:
- (1) Warning letter or notices of violation;
  - (2) Administrative orders;
  - (3) Civil actions;
  - (4) Criminal actions;
  - (5) Assessment of monetary penalties. For each industrial user identify the amount of the penalties;
  - (6) Restriction of flow to the POTW; or
  - (7) Disconnection from discharge to the POTW.
- g. A description of any significant changes in operating the pretreatment program which differ from the information in the permittee's approved pretreatment program including, but not limited to changes concerning: the program's administrative structure; local industrial discharge limitations; monitoring program or monitoring frequencies; legal authority or enforcement policy; funding mechanisms; resource requirements; or staffing levels.
- h. A summary of the semi-annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.
- i. A summary of public participation activities to involve and inform the public. This shall include a copy of the annual publication of significant violations, if such publication was needed to comply with 40 CFR 403.8(f)(2)(vii).
- j. A description of any changes in sludge disposal methods and a discussion of any concerns not described elsewhere in the report.
- k. Any other information deemed as pertinent by the state in effectively administering an approved pretreatment program.
2. A signed copy of this report shall be submitted by the due dates to the state at the address shown below:

Kentucky Department for Environmental Protection  
Division of Water, KPDES Branch  
14 Reilly Road, Frankfort Office Park  
Frankfort, Kentucky 40601

### Combined Sewer Overflows & Long Term Control Plan (LTCP)

Combined sewer overflows (CSOs) are point sources subject to NPDES permit requirements including both technology-based and water quality-based requirements of the Clean Water Act. CSOs are not subject to secondary treatment regulations applicable to publicly owned treatment works.

The permittee is authorized to discharge from the overflow(s) stated below:

<u>Outfall Number</u>	<u>Latitude/Longitude</u>	<u>Street Location</u>	<u>Receiving Water</u>
002	38°11'30"/84°52'06"	Fourth Street	Kentucky River
003	38°11'41"/84°52'10"	St. Johns Court	Kentucky River
004	38°11'45"/84°52'15"	Murray Street	Kentucky River
006	38°11'47"/84°52'27"	Capital Avenue	Kentucky River
007	38°11'45"/84°52'46"	Ewing Street	Kentucky River
009	38°11'49"/84°52'50"	Washington Street	Kentucky River
010	38°12'14"/84°52'45"	Mero Street	Kentucky River
011	38°12'26"/84°52'42"	Major Street	Kentucky River
012	38°12'16"/84°53'04"	Benson Avenue	Benson Creek
013	38°12'29"/84°52'30"	Glen Willis Property	Kentucky River
014	38°12'06"/84°52'54"	Broadway	Kentucky River
015	38°12'34"/84°52'34"	Wilson Street	Kentucky River
016	38°12'27"/84°51'24"	Holmes Street	Penitentiary Branch
017*	38°12'25"/84°52'34"	Goedecke Property	Kentucky River
018	38°12'17"/84°52'50"	Kentucky Ave	Kentucky River
019	38°11'50"/84°52'38"	Buffalo Alley P.S.	Kentucky River

\* Outfall 017 is filled with sand and is not functional. It is scheduled for elimination in 2006 or 2007.

The above referenced outfalls shall comply with the following conditions:

- A. Satisfy the objectives of the 1989 EPA Combined Sewer Overflow Control Strategy:
- (1) ensure that if CSOs occur, they occur only as a result of wet weather;
  - (2) bring all wet weather CSO discharges into compliance with technology-based and water quality-based requirements of the Clean Water Act; and
  - (3) minimize the impacts of CSOs on water quality, aquatic biota, and human health.
- B. The permittee shall evaluate current conditions, determine impacts, study control technologies, analyze financial concerns, and prepare a Long-Term Control Plan (LTCP) to meet the water quality-based requirements of the Clean Water Act in accordance with the CSO Control Policy. The CSO Control Policy is incorporated by reference in 401 KAR 5:002, Section 3(1).

The LTCP shall be submitted to the Division of Water for review and approval in accordance with the pending Consent Judgement with the Division of Water. The LTCP shall be expeditiously implemented, reflecting a schedule approved by the Division of Water. Thereafter, the permittee shall maintain a current operation and maintenance plan, updated to reflect system modifications, on file at the publicly-owned treatment works (POTW) or other acceptable location.

The objectives of the LTCP are: (1) ensure that if CSOs occur, they occur only as a result of wet weather; (2) bring all wet weather CSO discharges into compliance with technology-based and water quality-based requirements of the Clean Water Act; and (3) minimize the impacts of CSOs on water quality, aquatic biota, and human health.

The following nine elements are the recommended components for a LTCP. The permittee shall develop an LTCP that will provide for the attainment of water quality standards.

1. Characterization, monitoring, and modeling of the combined sewer system.
  - a. The permittee shall conduct an assessment of each active CSO to determine the existing conditions and collection system characteristics.
  - b. Flow monitoring shall be conducted at a number of locations to allow for an adequate estimation of flows within the entire combined sewer system.
  - c. Sampling at selected CSOs shall be conducted to determine pollutant loads.
2. Public Participation.
  - a. The LTCP shall include public participation efforts that adequately informs and actively involves the public. Comments from persons interested in water quality or abatement issues associated with CSO discharges should be considered when selecting CSO controls. The affected public includes ratepayers, industrial users of the sewer system, persons who reside downstream from the CSOs, persons who use and enjoy these downstream waters, and any other interested persons.
  - b. Public participation programs shall provide the public with the following: information on CSO assessments, water quality impacts, abatement alternatives cost, and related issues.
3. Consideration of sensitive areas.

The permittee shall give highest priority to controlling overflows to sensitive areas. This includes Outstanding National Resource Waters, Outstanding Resource Waters, waters with threatened or endangered species, waters with primary contact recreations, and public drinking water intakes downstream of the outfall locations or their designated protection areas. For these areas the LTCP should:

  - a. Prohibit new or significantly increased overflows.
  - b. Eliminate or relocate overflows to sensitive areas wherever physically and economically possible, except where elimination or relocation provides less environmental protection than additional treatment; or
  - c. If permittee cannot achieve above requirement, then provide the necessary level of treatment to meet water quality standards or existing and designated uses for remaining overflows.
4. Evaluation of alternatives to meet Clean Water Act requirements using either the "Presumption" approach or the "Demonstration" approach, as outlined by the CSO Control Policy. In the LTCP, the permittee shall consider a reasonable range of alternatives.

Some alternatives include:

- a. Evaluate controls that would be necessary to reduce the average number of overflows per year; or
- b. Evaluate controls that achieve 100% capture, 90% capture, 85% capture, 80% capture, and 75% capture for treatment; and

c. Evaluate expansion of POTW secondary and primary capacity in the CSO abatement alternative analysis.

5. Cost/Performance Considerations.

The permittee shall develop appropriate cost/performance curves to demonstrate the relationship among a comprehensive set of reasonable control alternatives. The permittee shall perform an analysis to determine where the increment of pollution reduction achieved in the receiving water diminishes compared to the increased cost.

6. Operation Plan.

The permittee shall revise the operation and maintenance program developed as part of the Nine Minimum Controls to include the agreed upon long-term CSO controls. The revised program shall maximize the removal of pollutants during and after each precipitation event using all available facilities within the collection and treatment system.

7. Maximizing Treatment at the Existing POTW.

The permittee shall analyze the alternatives for maximizing the delivery of flows during wet weather to the publicly owned treatment works (POTW). This may enable the permittee to eliminate or minimize overflows to sensitive areas and would ensure that combined sewer flows receive at least primary treatment prior to discharge.

8. Implementation Schedule.

An implementation schedule for completion of recommended CSO abatement technologies and programs must be included in the LTCP. Due to the nature of emerging CSO abatement technologies, changing growth patterns and financial conditions within communities, and other unforeseen factors, the schedule must include periodic updates and reviews of the LTCP. These updates allow the permittee to modify the implementation plan based on results of the compliance monitoring program and experience gained, while continuing to focus on the original goals of the LTCP. The permittee shall include a copy of the proposed budget needed to accomplish the recommended CSO implementation program in the LTCP submittal.

9. Post Construction Compliance Monitoring Program.

As part of the LTCP, the selected CSO controls shall include a post-construction water quality monitoring program adequate to verify compliance with Kentucky water quality standards and protection of designated uses as well as to ascertain the effectiveness of CSO controls. The permittee shall submit to the Division of Water for approval a plan that details the monitoring protocols to be followed, including the necessary effluent and ambient monitoring, and where appropriate, other monitoring protocols such as biological assessments, whole effluent toxicity testing, and sediment sampling.

- C. The permittee shall continue the implementation of the following technology-based nine minimum controls to reduce CSOs and the effects CSOs have on receiving water quality. Annual updates of the Combined Sewer Operational Plan (CSOP) will remain a requirement regardless of long-term control status. The permittee shall prepare an annual report on the CSOP detailing only NMC implementation unless otherwise specified by the Division of Water. The CSOP annual report shall be submitted by the permittee to the Division of Water no later than November 1 of each year.

Nine Minimum Controls (NMC):

1. Proper operation and regular maintenance programs for the sewer system and the CSOs;  
The permittee shall implement proper operation and maintenance programs for the sewer system and all CSO outfalls to reduce the magnitude, frequency, and duration of CSOs. The program shall consider regular sewer inspections; sewer, catch basin, and regulator cleaning; equipment and sewer collection system repair or replacement, where necessary; and disconnection of illegal connections.
2. Maximum use of the collection system for storage;  
The permittee shall implement procedures that will maximize use of the collection system in order to reduce the magnitude, frequency, and duration of CSOs.
3. Review and modification of pretreatment requirements to assure CSO impacts are minimized;  
The permittee shall evaluate the CSO impacts from non-domestic users and take appropriate steps to minimize such impacts.
4. Maximization of flow to the WWTP for treatment;  
The permittee shall operate the WWTP at maximum treatable flow during all wet weather flow conditions to reduce the magnitude, frequency, and duration of CSOs. The permittee shall deliver all flows to the treatment plant within the constraints of the treatment capacity of the WWTP.
5. Prohibition of CSOs during dry weather. A dry weather overflow (DWO) is a combined sewer overflow that occurs during dry weather flow conditions;  
Dry weather overflows from CSO outfalls are prohibited. Each dry weather overflow must be reported to the permitting authority as soon as the permittee becomes aware of the overflow. When the permittee detects a dry weather overflow, the permittee shall begin corrective action immediately. The permittee shall inspect the dry weather overflow each subsequent day until the overflow has been eliminated.
6. Control of solid and floatable materials in CSOs;
7. Pollution prevention;
8. Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts;
9. Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls. Monitoring data shall include collection of data that will be used to document the existing baseline conditions upon which the LTCP will be based. The data shall include:
  - (a) Characteristics of combined sewer system including the population served by the combined portion of the system and locations of all CSO outfalls in the combined sewer system (CSS);

- (b) Total number of CSO events and the frequency and duration of CSOs for a representative number of events;
- (c) Locations and designated uses of receiving water bodies;
- (d) Water quality data for receiving water bodies; and
- (e) Water quality impacts directly related to CSOs (e.g. floatables wash-up episodes, fish kills).

D. Overflow Event Reporting.

- 1. The permittee shall submit monthly totals for CSO overflow events. See Part I, Page I-5 for details.
- 2. Wet weather-related treatment plant bypasses shall be monitored and reported to the Regional Office in accordance with the provisions of 401 KAR 5:015. A CSO-related bypass may be necessary and/or unavoidable for treatment plants with existing primary treatment capacity that significantly exceeds the capacity of the secondary treatment units in order to prevent high flows from adversely affecting the operation and performance of processes at the WWTP. Bypasses are prohibited unless the permittee can demonstrate the provisions listed under 401 KAR 5:065, Section 1 (13) (c) are applicable. Analysis of the feasibility and applicability of a CSO-related bypass should be performed during the development of the LTCP. Bypass events should be documented in the annual CSOP as part of NMC#4.

E. CSO LTCP Annual Report.

- 1. Unless otherwise specified in some form of enforceable mechanism, the permittee shall submit a progress report indicating the status of the LTCP development as part of the annual report for the CSOP. In addition, the progress report shall include an assessment of previous CSO control and prior completed long-term work, if applicable.
- 2. The permittee shall prepare an annual report detailing the implementation of the final LTCP. The annual report shall be submitted by the permittee to the Division of Water by January 31 of each year, for the previous year, following the receipt of said LTCP by the Division of Water.
- 3. If the permittee chooses to implement measures (that would normally otherwise be contained in the LTCP) that produce significant improvements in water quality prior to submission and approval of the LTCP by the Division of Water, the permittee shall detail these measures in a report that shall be submitted to the Division of Water and standard Division of Water review/approvals will apply.

F. Ohio River Valley Water Sanitation Commission

For CSOs with the Ohio River as the receiving water, the permittee shall also submit copies of LTCP and CSOP correspondence to:

ORSANCO  
5735 Kellogg Avenue  
Cincinnati, Ohio 45228

G. CSO Reopener Clause

This permit may be modified to ensure compliance with technology based and/or water quality based requirements, as outlined in the CSO Control Policy.

### OTHER REQUIREMENTS

A. Reporting of Monitoring Results

Monitoring results obtained during each monitoring period must be reported on a preprinted Discharge Monitoring Report (DMR) Form that will be mailed to you. The completed DMR for each monitoring period must be sent to the Division of Water at the address listed below (with a copy to the appropriate Regional Office) postmarked no later than the 28th day of the month following the monitoring period for which monitoring results were obtained.

Division of Water  
Frankfort Regional Office  
643 Teton Trail, Suite B  
Frankfort, Kentucky 40601  
ATTN: Supervisor

Environmental & Public Protection Cabinet  
Dept. for Environmental Protection  
Division of Water/KPDES Branch  
14 Reilly Road, Frankfort Office Park  
Frankfort, Kentucky 40601

B. Reopener Clause

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under 401 KAR 5:050 through 5:080 and KRS 224, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

**PART IV  
CHRONIC CONCERNS  
Biomonitoring**

In accordance with PART I of this permit, the permittee shall initiate, within 30 days of the effective date of this permit, or continue the series of tests described below to evaluate wastewater toxicity of the discharge from Outfall 001.

1. Test Requirements

- A. The permittee shall perform one (1) short-term fathead minnow (Pimephales promelas) growth test and one (1) short-term daphnid (Ceriodaphnia sp.) life-cycle test. Tests shall be conducted with appropriate replicates of 21% effluent, a control and a minimum of four (4) evenly spaced effluent concentrations. If the permit limit is less than 100% effluent and greater than or equal to 75% effluent, then one (1) concentration should be 100%. If the permit limit is less than 75% effluent, the permit limit concentration shall be bracketed with two (2) concentrations above and two (2) concentrations below. The selection of the effluent concentrations is subject to revision by the Division. Controls shall be tested concurrently with effluent testing using a synthetic water. The analysis will be deemed reasonable and good only if the minimum control requirements are met (i.e. >80% survival; 60% adults with 3 broods and 15 or more young/surviving female for the Ceriodaphnia test; an average 0.25 mg weight for the minnow growth test). Any test that does not meet the control acceptability criteria shall be repeated as soon as practicable within the monitoring period (i.e. monthly or quarterly). Noncompliance with the toxicity limit will be demonstrated if the IC<sub>25</sub> (inhibition concentration) for reproduction or growth is less than 21% effluent
- B. Tests shall be conducted on both species at the frequency specified in PART I of this permit.

A minimum of three (3) twenty-four hour composite samples will be collected at a frequency of one (1) sample every other day, or at a frequency to be determined by the permitting authority. For example, the first sample would be used for test initiation, day 1, and for test solution renewal on day 2. The second sample would be used for test solution renewal on days 3 and 4. The third sample would be used for test solution renewal on days 5, 6, and 7. The lapsed time from collection of the last aliquot of the composite and its first use for test initiation, or for test solution renewal shall not exceed 36 hours. Composite samples shall be refrigerated during collection and maintained at 6°C until used.

If after at least six (6) tests, it can be determined that Ceriodaphnia or the Fathead minnow is more sensitive, a request for testing of only that organism can be made to the Division. Upon approval, that organism can be chosen as representative and all subsequent tests can be conducted on only that organism.

2. Reporting Requirements

Results of all tests conducted with any organism shall be reported according to the most recent format provided by the Division of Water (Appendix 10 of 'Methods for Culturing and Conducting Toxicity Tests with *Pimephales promelas* and *Ceriodaphnia dubia* (Fifth Edition)' KDOW, January 2002). Test results shall be submitted to the Division of Water with the next regularly scheduled discharge monitoring report.

3. Chronic Toxicity

If noncompliance with the toxicity limit occurs ( $IC_{25}$  for reproduction or growth is less than 21% effluent), the permittee must conduct a second test within 15 days of the first failure. This test will be used in evaluating the persistence of the toxic event and the possible need for a toxicity reduction evaluation (TRE).

If the second test demonstrates noncompliance with the toxicity limit, the permittee will be required to perform accelerated testing as specified in the following paragraphs.

Complete four (4) additional tests within 90 days of failure of the second test to evaluate the frequency and degree of toxicity. The results of the two (2) tests specified above and of the four (4) additional tests will be used for purposes of this evaluation.

If results from two (2) of any six (6) tests show a significant noncompliance with the chronic limit ( $\geq 1.2$  times the  $TU_c$ ), or results from four (4) of any six (6) tests show chronic toxicity (as defined in 1.A), a Toxicity Reduction Evaluation (TRE) will be required.

The permittee shall provide written notification, within five (5) days of the completion of accelerated testing to the Division of Water, that toxicity persisted and that a TRE would be initiated or that toxicity did not persist and the normal testing would resume.

Should toxicity not prove persistent during the accelerated testing, but reoccur within 12 months of the initial failure at a level  $\geq 1.2$  times the  $TU_c$ , then a TRE shall be initiated without further accelerated testing.

4. Toxicity Reduction Evaluation (TRE)

Having determined the effluent to be toxic, the permittee shall develop and implement an acceptable plan for the identification and treatability of the toxicant(s) within 90 days of completion of accelerated testing. The plan shall be developed in accordance with EPA guidance provided in the following EPA publications and submitted for DEP review and comment:

Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program. March 27, 2001.

Toxicity Reduction Evaluation Guidance For Municipal Wastewater Treatment Plants. August 1999.

Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures. February 1991.

Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures. February 1989.

Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures. February 1989.

Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (TRES). March 1989.

Abstracts of Toxicity Reduction Evaluations. March 1989.

The plan shall include Toxic Identification Evaluation (TIE) procedures, treatability studies, and evaluations of: chemical usage including changes in types, handling and suppliers; operational and process procedures; housekeeping and maintenance activities; and raw materials. The TRE will establish an implementation schedule not to exceed 24 months for completion of these activities. The implementation schedule shall include monthly progress reports and a final report.

Upon the completion of the TRE, the permittee shall submit a final report detailing the findings of the TRE and the actions to be taken to prevent the reoccurrence of toxicity. This final report shall include: the toxicant(s), if any are identified; treatment options; operational changes; and the proposed resolutions including an implementation schedule not to exceed 180 days.

Should the permittee determine the toxicant(s) and/or a workable treatment prior to the conclusion of the TRE, the permittee will notify, within five (5) days, the Division of Water and take appropriate actions to implement the solution within 180 days of determination.

5. Test Methods

All test organisms, procedures and quality assurance criteria used shall be in accordance with Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (Fourth Edition), EPA-821-R-02-013, or the most recent edition of this publications.



ERNIE FLETCHER  
GOVERNOR

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WATER  
14 REILLY ROAD  
FRANKFORT, KENTUCKY 40601-1190  
www.kentucky.gov

LAJUANA S. WILCHER  
SECRETARY

FACT SHEET

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM  
PERMIT TO DISCHARGE TREATED WASTEWATER  
INTO WATERS OF THE COMMONWEALTH

KPDES No.: KY0022861    Permit Writer: Daniel Hardin    Date: September 29, 2006  
AI No.: 1393

1. SYNOPSIS OF APPLICATION

a. Name and Address of Applicant

City of Frankfort - Frankfort Sewer Department  
1200 Kentucky Avenue  
Frankfort, Kentucky 40601

b. Facility Location

E. C. McManis Wastewater Treatment Plant  
1200 Kentucky Avenue  
Frankfort, Franklin County, Kentucky

c. Description of Applicant's Operation

Facility is a municipal wastewater treatment plant engaged in collection, treatment, and disposal of sanitary and industrial wastewaters.

d. Production Capacity

9.9 MGD (design)  
24.0 MGD (peak)

e. Description of Existing Pollution Abatement Facilities

Outfall 001                    - Sanitary and pretreated industrial wastewaters are treated by the McManis Wastewater Treatment Plant. Treatment process consists of screening, grit removal, oxidation ditches, clarification, alum addition, ozone disinfection, and post aeration. Solids are processed by: aerobic digestion, belt filter press, landfarm, and landfill disposal.

Outfalls 002, 003, 004 - These outfalls are combined sewer overflows.

Outfalls 006, 007, 009 - These outfalls are combined sewer overflows.

Outfalls 010 thru 019 - These outfalls are combined sewer overflows.

jm

f. Permitting Action

This is a reissuance of a major KPDES permit for a municipal wastewater treatment plant. Included in this action is the imposition of combine sewer overflow (CSO) requirements.

2. RECEIVING WATER

a. Name/Mile Point

Outfall 001 discharges to the Kentucky River at mile point 64.5

Outfalls 002, 003, 004, 006, 007, 009, 010, 011, 013 thru 015, and 017 thru 019 discharge to the Kentucky River between mile points 67.2 and 65.1.

Outfall 012 discharges to Benson Creek.

Outfall 016 discharges to an Unnamed Tributary of Penitentiary Branch.

b. Stream Segment Use Classifications

The receiving waters are classified as Warmwater Aquatic Habitat, Primary/Secondary Contact Recreation, and Domestic Water Supply

c. Stream Categorization

The receiving waters are categorized as High Quality.

d. Stream Low Flow Conditions

The 7Q10 low flow conditions of the Kentucky River and the Unnamed Tributary of Penitentiary Branch are 175 cfs and 0.0 cfs, respectively. The Louisville Water Company is the nearest downstream public drinking water intake located at mile point 386.7 of the Ohio River.

**3A. REPORTED DISCHARGE AND PROPOSED LIMITS**

Description of Discharge - Outfall Number 001 - Wastewater Treatment Plant (Effluent Requirements)

<u>Effluent Characteristics</u>	<u>Reported Discharge</u>			<u>Proposed Limits</u>		<u>Applicable Water Quality Criteria and/or Effluent Guidelines</u>
	<u>Average Annual Value</u>	<u>Lowest Monthly Value</u>	<u>Highest Monthly Value</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	
Flow, MGD (Design Flow = 9.9 MGD)	6.5	4.0	14.6	Report	Report	401 KAR 5:065, Section 2(8)
Kentucky River Flow (cfs)	N/R	N/R	N/R	Report	Report	401 KAR 5:065, Section 2(8)
CBOD <sub>5</sub> (mg/l)	5.7	3.3	12.4	25	38	401 KAR 5:031, Section 4 401 KAR 5:045, Sections 3 and 5
TSS (mg/l)	16.7	5.7	35.4	30	45	401 KAR 5:045, Section 3
Escherichia Coli (#/100 ml)	N/R	N/R	N/R	130	240	401 KAR 5:031, Section 7 401 KAR 5:045, Section 4 401 KAR 5:080, Section 1(2)(c)2
Ammonia (as mg/l N), Summer (May 1 thru October 31)	0.22	0.15	0.70	10	20	401 KAR 5:031, Section 4
Winter (November 1 thru April 30)	0.42	0.17	2.64	20	30	401 KAR 5:045, Section 3
Dissolved Oxygen (mg/l)	N/R	6.1	N/R	Not less than 5		401 KAR 5:031, Section 4 401 KAR 5:045, Section 3
pH, standard units	N/R	6.11	8.01	6.0 (min)	9.0 (max)	401 KAR 5:031, Section 4 401 KAR 5:045, Section 3
Total Phosphorus (as mg/l P) Kentucky River Flow > 800 cfs				Report <sup>1</sup>	Report <sup>1</sup>	401 KAR 5:065, Section 2(8)
470 < Kentucky River Flow < 800 cfs	2.25	0.14	4.95	2.0 <sup>1</sup>	3.0 <sup>1</sup>	401 KAR 5:080, Section 1(2)(c) 2
Kentucky River Flow < 470 cfs				1.0 <sup>1</sup>	1.5 <sup>1</sup>	
Total Kjeldahl Nitrogen (as mg/l N)	N/R	N/R	N/R	Report	Report	401 KAR 5:065, Section 2(8)
Chronic Toxicity (TU <sub>c</sub> )	<1.00	<1.00	<1.00	4.80 (Daily Maximum)		401 KAR 5:029, Section 4 401 KAR 5:031, Section 4
Total Recoverable Cadmium (mg/l)	< 0.0002	N/R	<0.0005	Report	Report	401 KAR 5:065, Section 2(8)
Total Recoverable Copper (mg/l)	0.013	N/R	0.020	Report	Report	401 KAR 5:065, Section 2(8)
Total Recoverable Lead (mg/l)	0.0015	N/R	0.010	Report	Report	401 KAR 5:065, Section 2(8)
Total Recoverable Zinc (mg/l)	0.068	N/R	0.092	Report	Report	401 KAR 5:065, Section 2(8)
Hardness (as mg/l CaCO <sub>3</sub> )	N/R	215	N/R	Report	Report	401 KAR 5:065, Section 2(8)

Reported Discharge values were compiled from thirty-two (32) months of DMR data, starting with January 2003.

The abbreviation N/R means Not Reported

The abbreviation CBOD<sub>5</sub> means Carbonaceous Biochemical Oxygen Demand (5-day).

<sup>1</sup> Applicable for May 1 through October 31

3B. METHODOLOGY USED IN DETERMINING LIMITATIONS

a. Serial Number

Outfall 001 Wastewater Treatment Plant (Effluent Requirements)

b. Effluent Characteristics

Flow (MGD)	Kentucky River Flow
CBOD <sub>5</sub>	Total Suspended Solids
Escherichia Coli	Dissolved Oxygen
pH	Total Phosphorus (as P)
Ammonia Nitrogen	Total Kjeldahl Nitrogen (TKN)
Total Recoverable Cadmium	Total Recoverable Copper
Total Recoverable Lead	Total Recoverable Zinc
Hardness	Chronic Toxicity

c. Pertinent Factors

This municipality has an approved pretreatment program.

This facility uses ozone for disinfection purposes.

d. Monitoring Requirements

Flow monitoring shall be conducted continuously by recorder.

The influent and the effluent shall be monitored three times per week by 24-hour composite sampling for the following pollutants: Carbonaceous Biochemical Oxygen Demand (5-day), Total Suspended Solids, Ammonia Nitrogen.

The following pollutants shall be monitored three times per week by grab sample at the effluent: Escherichia Coli, pH, and Dissolved Oxygen.

Total Phosphorus shall be monitored once per week by 24-hour composite sample.

Total Kjeldahl Nitrogen (TKN) shall be monitored once per month by 24-hour composite sample.

Chronic Toxicity shall be monitored quarterly by three (3) Grab samples collected every other day.

The following pollutants to be monitored shall be monitored quarterly by 24-hour composite sample: Total Recoverable Cadmium, Total Recoverable Copper, Total Recoverable Lead, Total Recoverable Zinc, and Hardness concurrent with whole effluent toxicity testing.

e. Justification of limits

The Kentucky regulations cited below have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes.

pH

The effluent limitations for the above permit parameter are consistent with 401 KAR 5:031, Section 4 and 401 KAR 5:045, Section 4.

Escherichia Coli and Fecal Coliform Bacteria

The limits for Escherichia Coli are consistent with the requirements of 401 KAR 5:031, Section 7, 401 KAR 5:0454, Section 4 and 401 KAR 5:080, Section 1(2)(c)2. The removal of Fecal Coliform Bacteria is consistent with the requirements of 401 KAR 5:080, Section 1(2)(c)2. Although Fecal Coliform Bacteria has been used as an indicator of fecal contamination it does contain other species that are not necessarily fecal in origin. EPA recommends Escherichia Coli, which is specific to fecal material from warm blooded animals, as the best indicator of health risks from contact with recreational waters. Therefore, it is the "Best Professional Judgment" (BPJ) of the Division of Water that Escherichia Coli replace Fecal Coliform Bacteria on this permit.

Ammonia Nitrogen, Dissolved Oxygen

The effluent limitations for the above permit parameters are consistent with 401 KAR 5:031, Section 4 and 401 KAR 5:045, Section 3.

Total Phosphorus

The effluent limitations for the above permit parameter are consistent with 401 KAR 5:065, Section 2(8) and 401 KAR 5:080, Section 1(2)(c)2. Phosphorus limits apply to the WWTP effluent to prevent eutrophication at critical low flow values. The permittee is still required to keep records of stream flow data and chemical addition data as stated in the 1998 letter from Division of Water to Frankfort. This data can be requested for review by Division of Water if necessary. Monitoring of Total Kjeldahl Nitrogen will also be added to the permit.

Flow, Kentucky River Flow, Total Recoverable Cadmium, Total Recoverable Lead, Total Recoverable Zinc, and Hardness

The monitoring requirements for the above permit parameters are consistent with 401 KAR 5:065, Section 2(8).

Total Recoverable Copper

The monitoring requirements for the above permit parameter are consistent with 401 KAR 5:031 and 401 KAR 5:065, Section 2(8). A reasonable potential analysis was performed that compared monitoring data against expected effluent requirements. Monitoring data from the permittee's Discharge Monitoring Report (DMR) was used. One high sample from September 2003 was excluded from the reasonable potential analysis because it was considered an outlier and not representative of the data. The Steady State Toxics Wasteload Allocation Model (SSTWAM2004) generated the expected effluent requirements for the ten samples documented between January 2003 and September 2005. The monitoring frequency will continue in conjunction with biomonitoring.

**4A. REPORTED DISCHARGE AND PROPOSED LIMITS**

Description of Discharge - Outfall Number 001 - Wastewater Treatment Plant (Pretreatment Requirements)

<u>Effluent Characteristics</u>	<u>Reported Discharge</u>		<u>Proposed Limits</u>		<u>Applicable Water Quality Criteria and/or Effluent Guidelines</u>
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	
Total Recoverable Arsenic (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Total Recoverable Cadmium (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Chloride (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Hexavalent Chromium (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Total Recoverable Chromium (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Total Recoverable Copper (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Free Cyanide (Amenable) (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Total Recoverable Iron (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Total Recoverable Lead (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Total Recoverable Mercury (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Total Recoverable Nickel (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Oil & Grease (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Total Phenols (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Total Phosphorus (as mg/l P)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Total Recoverable Selenium (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Total Recoverable Silver (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Total Recoverable Zinc (mg/l)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6

The abbreviation N/R means Not Reported on renewal application.

4B. METHODOLOGY USED IN DETERMINING LIMITATIONS

a. Serial Number

Outfall Number 001 - Wastewater Treatment Plant (Pretreatment Requirements)

b. Effluent Characteristics

Total Recoverable Cadmium	Total Recoverable Copper
Total Recoverable Lead	Total Recoverable Zinc
Acute Toxicity	Total Recoverable Arsenic
Chloride	Hexavalent Chromium
Total Recoverable Chromium	Free Cyanide (Amenable to Chlorination)
Total Recoverable Iron	Total Recoverable Mercury
Total Recoverable Nickel	Oil & Grease
Total Phenols	Total Recoverable Selenium
Total Recoverable Silver	

c. Pertinent Factors

This municipality has an approved pretreatment program.

d. Monitoring Requirements

Influent and effluent 24-hour composites samples shall be collected annually for the following pollutants: Total Recoverable Arsenic, Total Recoverable Cadmium, Chloride, Hexavalent Chromium, Total Recoverable Chromium, Total Recoverable Copper, Total Recoverable Iron, Total Recoverable Lead, Total Recoverable Nickel, Total Recoverable Molybdenum, Total Phosphorus (as P), Total Recoverable Selenium, Total Recoverable Silver, and Total Recoverable Zinc.

Influent and effluent grab samples shall be collected annually for the following pollutants: Free Cyanide (Amenable to Chlorination), Total Recoverable Mercury, Oil & Grease, pH, and Total Phenols.

e. Justification of limits

The Kentucky regulations cited below have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes.

Total Recoverable Arsenic, Total Recoverable Cadmium, Chloride, Hexavalent Chromium, Total Recoverable Chromium, Total Recoverable Copper, Free Cyanide (Amenable to Chlorination), Total Recoverable Iron, Total Recoverable Lead, Total Recoverable Mercury, Total Recoverable Nickel, Molybdenum, Oil & Grease, pH, Total Phenols, Total Phosphorus (as P), Total Recoverable Selenium, Total Recoverable Silver, Total Recoverable Zinc, Percent Total Sludge Solids, and Annual Amount of Sludge Disposed

The monitoring requirements for the above permit parameters are applicable to municipal wastewater treatment plants that have pretreatment programs, as per 401 KAR 5:057, Section 6. Monitoring requirements are applicable for the municipal plant influent, effluent, and sludge in order to monitor potential interference, pass-through, or adverse impact on sludge quality.

**5A. REPORTED DISCHARGE AND PROPOSED LIMITS**

Description of Discharge - Outfall Number 001 - Wastewater Treatment Plant (Pretreatment Sludge Requirements)

<u>Effluent Characteristics</u>	<u>Reported Discharge</u>		<u>Proposed Limits</u>		<u>Applicable Water Quality Criteria and/or Effluent Guidelines</u>
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	
Arsenic, Total Dry Weight (mg/kg)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Cadmium, Total Dry Weight (mg/kg)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Chromium, Total Dry Weight (mg/kg)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Copper, Total Dry Weight (mg/kg)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Lead, Total Dry Weight (mg/kg)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Mercury, Total Dry Weight (mg/kg)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Molybdenum, Total Dry Weight (mg/kg)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Nickel, Total Dry Weight (mg/kg)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
pH (standard units)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Total Phosphorus (as mg/l P)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Selenium, Total Dry Weight (mg/kg)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Silver, Total Dry Weight (mg/kg)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Zinc, Total Dry Weight (mg/kg)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Solids, Total Dry Weight (MT/Y)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Solids, Total (percent)	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
Sludge Disposal Method (MT/Y)					
By Incineration	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
By Landfill	N/R	N/R	Report	Report	401 KAR 5:057, Section 6
By Other Method	N/R	N/R	Report	Report	401 KAR 5:057, Section 6

The abbreviation N/R means Not Reported on renewal application.  
 The abbreviation MT/Y means metric tons per year.

5B. METHODOLOGY USED IN DETERMINING LIMITATIONS

a. Serial Number

Outfall Number 001 - Wastewater Treatment Plant (Pretreatment Sludge Requirements)

b. Sludge Characteristics

Cadmium, Total Dry Weight	Arsenic, Total Dry Weight
Chromium, Total Dry Weight	Copper, Total Dry Weight
Lead, Total Dry Weight	Mercury, Total Dry Weight
Molybdenum, Total Dry Weight	Nickel, Total Dry Weight
pH	Total Phosphorus
Selenium, Total Dry Weight	Silver, Total Dry Weight
Zinc, Total Dry Weight	Solids, Total Dry Weight
Solids, Total (percent)	Sludge Disposal Method

c. Pertinent Factors

This municipality has an approved pretreatment program.

d. Monitoring Requirements

The sludge shall be monitored annually by grab sample for the following pollutants: Cadmium, Total Dry Weight, Arsenic, Total Dry Weight, Chromium, Total Dry Weight, Copper, Total Dry Weight, Lead, Total Dry Weight, Mercury, Total Dry Weight, Molybdenum, Total Dry Weight, Nickel, Total Dry Weight, pH, Total Phosphorus, Selenium, Total Dry Weight, Silver, Total Dry Weight, Zinc, Total Dry Weight, Solids, Total Dry Weight, Solids, Total (percent), and Sludge Disposal Method

e. Justification of limits

The Kentucky regulations cited below have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes.

Cadmium, Total Dry Weight, Arsenic, Total Dry Weight, Chromium, Total Dry Weight, Copper, Total Dry Weight, Lead, Total Dry Weight, Mercury, Total Dry Weight, Molybdenum, Total Dry Weight, Nickel, Total Dry Weight, pH, Total Phosphorus, Selenium, Total Dry Weight, Silver, Total Dry Weight, Zinc, Total Dry Weight, Solids, Total Dry Weight, Solids, Total (percent), and Sludge Disposal Method

The monitoring requirements for the above permit parameters are applicable to municipal wastewater treatment plants that have pretreatment programs, as per 401 KAR 5:057, Section 6. Monitoring requirements are applicable for the municipal plant influent, effluent, and sludge in order to monitor potential interference, pass-through, or adverse impact on sludge quality.

**6A. REPORTED DISCHARGE AND PROPOSED LIMITS**

Description of Discharge - Outfall Numbers 002, 003, 004, 006, 007, 009 thru 019 Combined Sewer Overflows

<u>Effluent Characteristics</u>	<u>Reported Discharge</u>			<u>Proposed Limits</u>		<u>Applicable Water Quality Criteria and/or Effluent Guidelines</u>
	<u>Average Annual Value</u>	<u>Lowest Monthly Value</u>	<u>Highest Monthly Value</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	
Number of overflow events	N/R	N/R	N/R	Monthly Total		401 KAR 5:065, Section 2(8)
Event duration (hours)	N/R	N/R	N/R	Monthly Total		401 KAR 5:065, Section 2(8)
Area rainfall (inches)	N/R	N/R	N/R	Monthly Total		401 KAR 5:065, Section 2(8)
Estimated discharge volume (gallons)	N/R	N/R	N/R	Monthly Total		401 KAR 5:065, Section 2(8)

The abbreviation N/R means Not Reported, as the permittee was not previously required to report.

Overflow events at CSO locations are required to be reported to the DOW Field Office pursuant to 401 KAR 5:015. This information is also a requirement of the Nine Minimum Controls and should be included in the annual CSOP report.

An event is a discharge from a combined sewer outfall. A wet weather event is a discharge that occurs in direct response from rainfall or snowmelt. A dry weather event is a discharge that occurs for reasons other than rainfall or snowmelt. For the purposes of this monitoring form, all events will be totaled on a monthly basis for each combined sewer outfall.

Volume estimation method for quantifying overflow events should be a system-wide method to provide consistency for reporting at each outfall.

A parameter for wet weather flow bypasses at the WWTP has been added to monthly monitoring reports. Only the most significant (maximum) bypass event for the month will be required to be documented as a flow rate (MGD).

6B. METHODOLOGY USED IN DETERMINING LIMITATIONS

a. Serial Number

Outfall Numbers 002, 003, 004, 006, 007, 009 thru 019 Combined Sewer Overflows

b. Effluent Characteristics

Number of overflow events	Event duration
Area rainfall	Estimated discharge volume

c. Pertinent Factors

A portion of Frankfort's collection system is combined, meaning that it is designed to collect sanitary wastewater, stormwater, and urban runoff. The collection system is designed to transport all flows to the wastewater treatment plant during periods of dry weather. However, during periods of heavy rain, the collection system routinely overflows through constructed outfalls into rivers and streams prior to the headworks of the treatment plant. These outfall locations are permitted and are called combined sewer overflows, or CSOs.

Combined sewer overflows (CSOs) are point sources subject to NPDES permit requirements including both technology-based and water quality-based requirements of the Clean Water Act. CSOs are not subject to secondary treatment regulations applicable to publicly owned treatment works.

An EPA/DOW joint inspection of Frankfort's combined sewer system was performed in August 2004. As a result, additional enforceable mechanisms will be required to achieve and maintain compliance with the KPDES discharge permit and 1994 federal CSO Control Policy. An integral part of this process is the development of a Long-Term Control Plan (LTCP) for the abatement of wet weather overflows from the combined sewer system. Public participation will be crucial to the ultimate success of the CSO controls selected by the permittee, given the potential financial impact to the affected public.

d. Monitoring Requirements

Monthly Totals of: Number of overflow events, Event duration, Area rainfall, and Estimated discharge volume shall be reported.

e. Justification of limits

The Kentucky regulations cited below have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes.

Number of overflow events, Event duration, Area rainfall, and Estimated discharge volume

The monitoring requirements for these occurrences are consistent with the requirements of 401 KAR 5:065, Section 2(8).

7. ANTIDegradation:

The development of this permit commenced prior to the April 12, 2005 EPA approval of Kentucky's Antidegradation Regulation promulgated on September 8, 2004. Therefore, previous antidegradation requirements are applicable. The conditions of 401 KAR 5:029, Section 1(1) have been satisfied by this permit action. A review under Section 1(2), (3), and (4) is not applicable.

8. PROPOSED COMPLIANCE SCHEDULE FOR ATTAINING EFFLUENT LIMITATIONS

The permittee will comply with all effluent limitations by the effective date of the permit.

9. PROPOSED SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE

Special POTW requirements apply for all Publicly-Owned Treatment Works.

Sludge shall be disposed of in accordance with 40 CFR Part 503 and 401 KAR 45.

The permittee shall not allow prohibited discharges into the system.

This municipality has an approved pretreatment program. The permittee shall be responsible for the performance of all pretreatment requirements contained in 401 KAR 5:057, Section 6 and pursuant to 40 CFR Part 403.

10. PERMIT DURATION

Five (5) years.

11. PERMIT INFORMATION

The application, draft permit, fact sheet, public notice, comments received, and additional information is available from the Division of Water at 14 Reilly Road, Frankfort Office Park, Frankfort, Kentucky 40601.

12. REFERENCES AND CITED DOCUMENTS

All material and documents referenced or cited in this fact sheet are a part of the permit information as described above and are readily available at the Division of Water Central Office. Information regarding these materials may be obtained from the person listed below.

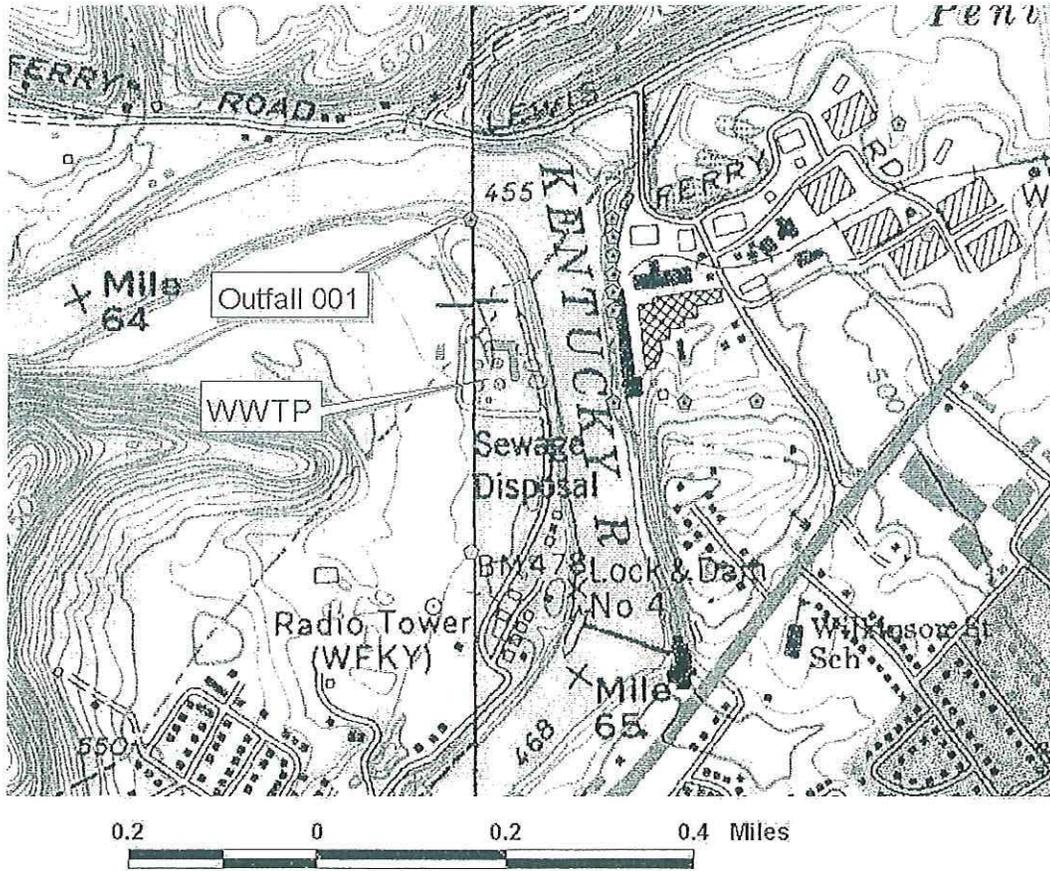
13. CONTACT

For further information on the draft permit or comment process, contact the individual identified on the Public Notice or the Permit Writer - Daniel Hardin at (502) 564-2225, extension 432, or email [daniel.hardin@ky.gov](mailto:daniel.hardin@ky.gov).

14. PUBLIC NOTICE INFORMATION

Please refer to the attached Public Notice for details regarding the procedures for a final decision, deadline for comments and other information required by 401 KAR 5:075, Section 4(2)(e).

### E.C. McManis Wastewater Treatment Plant

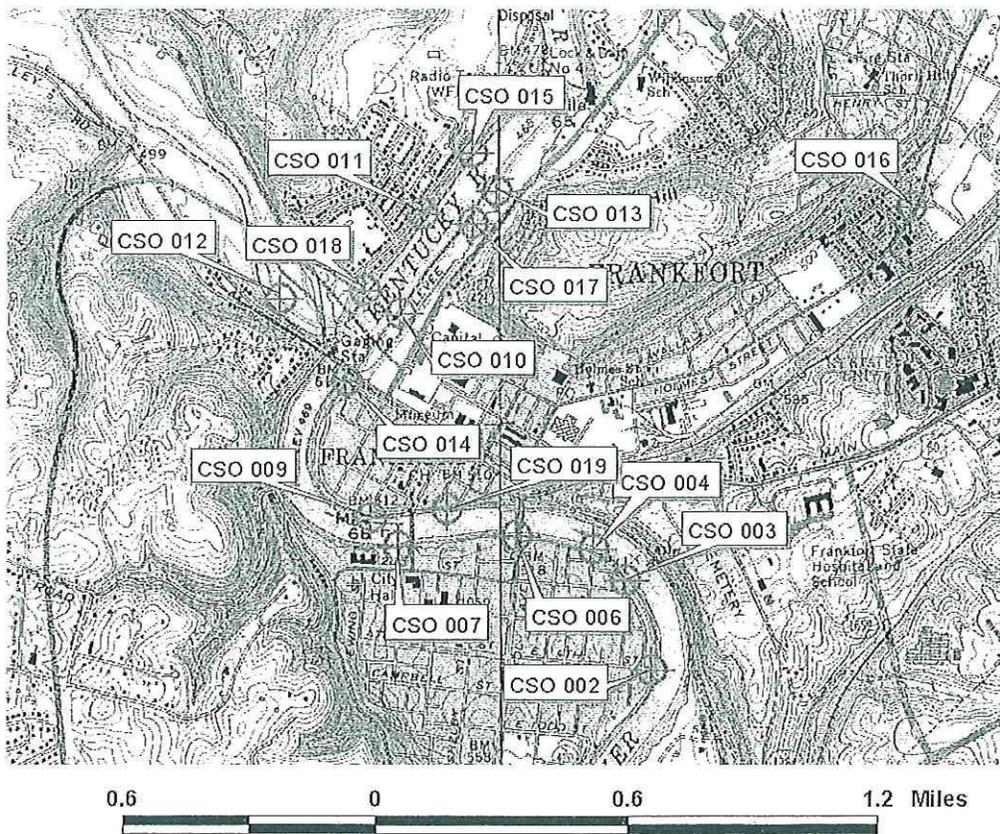


- KPDES Facility
- ⊕ Active
  - ⊕ General
  - ⊕ Inactive
  - ⊕ KPDES Outfall
  - ⊙ Combined Sewers



Outfall Locations for Frankfort Combined Sewer System

### Frankfort CSO locations



STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL - INPUTS

Permit Writer Dan Hardin  
 Date Entered 8/9/2006  
 Facility Name City of Frankfort, E. C. McManis WWTP  
 KPDES Number KY0022861  
 Outfall Number 001  
 Case Number 1  
 Status:  
 Is this an existing facility – Enter “E”  
 Is this an existing facility with an increase in pollutant load – Enter “I”  
 Is this a new facility – Enter “N”  
 Is this a regional facility with an approved up-to-date 201 plan – Enter “R”  
 Has the permittee made a successful alternatives analysis/socioeconomic demonstration – Enter “A” E

Receiving Water Name Kentucky River  
 Discharge Mile Point 64.5  
 Public Water Supply Name Louisville Water Company  
 Intake Water Name Ohio River  
 Intake Mile Point 386.7  
 Total Effluent Flow (Q<sub>T</sub>) 9.9 MGD  
 Receiving Water 7Q10 (Q<sub>RW7Q10</sub>) 175 cfs  
 Receiving Water Harmonic Mean (Q<sub>RWHM</sub>) 1130 cfs  
 Receiving Water pH 7.5  
 Receiving Water Temperature 20.00 °C  
 Intake Water 7Q10 (Q<sub>IW7Q10</sub>) 10600 cfs  
 Intake Water Harmonic Mean (Q<sub>IWHM</sub>) 49000 cfs  
 Effluent Hardness 215 (as mg/l CaCO<sub>3</sub>)  
 Receiving Water Hardness 130 (as mg/l CaCO<sub>3</sub>)  
 Zone of Initial Dilution (ZID) 1  
 Mixing Zone (MZ) 0.333  
 Acute to Chronic Ratio (ACR) 0.1  
 Impaired No  
 Permittee agrees to accept no mixing zone for bioaccumulative or persistent pollutants prior to 09/08/2014 Yes

Calculation Methodology

Definitions

Acute to Chronic Ratio	ACR	Total Effluent Flow	Q <sub>T</sub>
Aquatic Life Acute Criteria	C <sub>A</sub>	Receiving Water 7Q10	Q <sub>RW7Q10</sub>
Aquatic Life Chronic Criteria	C <sub>C</sub>	Receiving Water Harmonic Mean	Q <sub>RWHM</sub>
Human Health Criteria - Fish Only	C <sub>HHFO</sub>	Intake Water 7Q10	Q <sub>IW7Q10</sub>
Human Health Criteria - Fish & Water	C <sub>HHFW</sub>	Intake Water Harmonic Mean	Q <sub>IWHM</sub>
End of Pipe Effluent Limit	C <sub>T</sub>	Zone of Initial Dilution	ZID
Instream Background Concentration	C <sub>U</sub>	Mixing Zone	MZ
Toxicity Units - Acute	TU <sub>a</sub>	Toxicity Units - Chronic	TU <sub>c</sub>
Effluent Hardness	H <sub>T</sub>	Receiving Water Hardness	H <sub>RW</sub>

STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL - INPUTS

Aquatic Life - Chemical Specific

Acute

NO ZID given  $C_T = C_A$   
 ZID given  $C_T = (C_A - C_U) \times (ZID)$

Chronic Mixing Zone / Complete Mix

$$C_T = \{C_C[Q_T + (MZ)(Q_{RW7Q10})] - [C_U(MZ)(Q_{RW7Q10})]\} / Q_T$$

Human Health - Chemical Specific

Fish Only: Mixing Zone / Complete Mix

Carcinogen / Non-Carcinogen  $C_T = \{C_{HHFO}[Q_T + (MZ)(Q_{RWHM})] - C_U(MZ)(Q_{RWHM})\} / Q_T$

Fish & Water Only: Mixing Zone / Applicable at point of withdrawal

Carcinogen  $C_T = \{C_{HHFW}[Q_T + (Q_{IWHM})] - C_U(Q_{IWHM})\} / Q_T$   
 Non-Carcinogen  $C_T = \{C_{HHFW}[Q_T + (Q_{IW7Q10})] - C_U(Q_{IW7Q10})\} / Q_T$

Aquatic Life - Whole Effluent Toxicity

Acute (Units TU<sub>a</sub>)

NO ZID given  $CT = CA$   
 ZID given  $C_T = (C_A - C_U) \times (ZID)$

Chronic Mixing Zone / Complete Mix (Units TU<sub>c</sub>)

$$C_T = \{C_C[Q_T + (MZ)(Q_{RW7Q10})] - [C_U(MZ)(Q_{RW7Q10})]\} / Q_T$$

Conversion of TU<sub>c</sub> to TU<sub>a</sub>:  $TU_c \times ACR = TU_a$

Metal Aquatic Criteria

Pollutant	Acute Criteria	Chronic Criteria
Total Recoverable Cadmium	$e^{(1.0166 (\ln \text{Hardness}) - 3.924)}$	$e^{(0.7409 (\ln \text{Hardness}) - 4.719)}$
Chromium III	$e^{(0.8190 (\ln \text{Hardness}) + 3.7256)}$	$e^{(0.8190 (\ln \text{Hardness}) + 0.6848)}$
Total Recoverable Copper	$e^{(0.9422 (\ln \text{Hardness}) - 1.700)}$	$e^{(0.8545 (\ln \text{Hardness}) - 1.702)}$
Total Recoverable Lead	$e^{(1.273 (\ln \text{Hardness}) - 1.460)}$	$e^{(1.273 (\ln \text{Hardness}) - 4.705)}$
Total Recoverable Nickel	$e^{(0.8460 (\ln \text{Hardness}) + 2.255)}$	$e^{(0.8460 (\ln \text{Hardness}) + 0.0584)}$
Total Recoverable Silver	$e^{(1.72 (\ln \text{Hardness}) - 6.59)}$	
Total Recoverable Zinc	$e^{(0.8473 (\ln \text{Hardness}) + 0.884)}$	$e^{(0.8473 (\ln \text{Hardness}) + 0.884)}$

Hardness (as mg/l CaCO<sub>3</sub>)

Zone Initial Dilution (ZID)  $H_{RW} + [H_T + H_{RW}] / ZID$   
 Mixing Zone  $[(Q_{RW7Q10})(MZ)(H_{RW}) + (Q_T)(H_T)] / [(Q_{RW7Q10})(MZ) + (Q_T)]$

Total Ammonia Criteria

Chronic - applies state wide - unionized criteria of 0.05 mg/l

$$[0.05 * (1 + 10^{(pKa - pH)})] / 1.2 \quad pKa = (0.0902 + (2730 / (273.1 + T))) \quad T = \text{Temperature } ^\circ\text{C}$$

Acute - applies to the Ohio River (ORSANCO Criteria)

$$[0.411 / (1 + 10^{(7.204 - pH)})] + [58.4 / (1 + 10^{(pH - 7.204)})]$$

## STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL - INPUTS

### Bioaccumulative or Persistent

For new facilities after September 8, 2004 mixing zones shall not be granted for bioaccumulative or persistent pollutants of concern.

Mixing zones for bioaccumulative or persistent pollutants of concerned assigned prior to September 8, 2004 shall expire no later than September 8, 2014, unless the permittee agrees to expiration of the mixing zone prior to that date.

Therefore, the application of the more stringent criteria of Human Health Fish & Water Consumption, Human Health Fish Only Consumption, and Aquatic Life Chronic shall apply as end-of-pipe effluent limitations.

### Antidegradation

If a new facility or an existing facility that will have a pollutant load increase, the effluent limits are halved unless the receiving stream is impaired or the permittee has demonstrated a negative socioeconomic or cost benefit analysis.

### Reasonable Potential Analysis

In establishing water quality based effluent conditions the Division of Water must determine if the pollutant concentrations in the discharge will cause, have the reasonable potential to cause, or contribute to an excursion of any water standard. The process by which the Division of Water makes this determination is known as a Reasonable Potential Analysis.

A Reasonable Potential Analysis is performed by first calculating the expected effluent limitations for those pollutants with water quality criteria. The calculated limits are then compared to the concentrations reported on the KPDES permit application and/or a summarization of the values reported on the Discharge Monitoring Report (DMRs) submitted during the term of the permit. This comparison is made by dividing the reported value by the calculated effluent limitation and converting to a percentage. The following criteria are used in determining how the pollutant will be addressed in the permit.

### New Permits or New Pollutants on Permit Renewals

If the reported concentration is less than 70% of the calculated effluent limit then no monitoring or limitations will be required.

If the reported concentration is equal to or greater than 70% but less than 90% of the calculated effluent limit then monitoring will be required.

If the reported concentration is equal to or greater than 90% and the number of analysis reported on the KPDES permit application is less than 12 then monitoring will be required.

If the reported concentration is equal to or greater than 90% and the number of analysis reported on the KPDES permit application is equal or greater than 12 then an effluent limitation will be required.

### Permit Renewals - Existing Pollutants

If the reported concentration is less than 70% of the calculated effluent limit then and the source of the reported concentration was the DMRs for that facility and there were more than 12 DMRs utilized to determine the reported concentrations then the pollutant will be removed from the permit.

If the reported concentration is equal to or greater than 70% but less than 90% of the calculated effluent limit then monitoring will be required.

If the reported concentration is equal to or greater than 90% then an effluent limitation will be required.

In all cases, the Division of Water still may exercise its Best Professional Judgment in the implementation of the results.



STEADY STATE TOXICS WASTELOAD ALLOCATION MODEL – REASONAL POTENTIAL

Reasonable Potential

<u>Parameter</u>	<u>CAS Number</u>	<u>Carcinogen</u>	<u>Bioaccumulative or Persistent</u>	<u>Average Percentage</u>	<u>Maximum Percentage</u>	<u>Data Source</u>	<u>Average</u>	<u>Maximum</u>
Chloride	16887006	No	No	3.85%	18.08%	DMR	Monitoring Required	Monitoring Required
Total Recoverable Iron	7439896	No	No	6.02%	12.70%	DMR	Monitoring Required	Monitoring Required
Total Recoverable Arsenic	7440382	Yes	No	0.17%	0.59%	DMR	Monitoring Required	Monitoring Required
Total Recoverable Cadmium	7440439	No	No	11.55%	10.76%	DMR	Remove	Remove
Total Recoverable Chromium	7440439	No	No	0.00%	0.00%	DMR	Monitoring Required	Monitoring Required
Total Recoverable Copper	7440508	No	No	21.46%	69.46%	DMR	Remove	Remove
Total Recoverable Lead	7439921	No	No	6.26%	4.62%	DMR	Remove	Remove
Total Recoverable Mercury	7439976	No	Yes	3.15%	5.88%	DMR	Monitoring Required	Monitoring Required
Total Recoverable Nickel	7440020	No	No	3.11%	3.57%	DMR	Monitoring Required	Monitoring Required
Total Recoverable Selenium	7782492	No	No	5.83%	15.00%	DMR	Monitoring Required	Monitoring Required
Total Recoverable Silver	7440224	No	No	0.00%	28.33%	DMR	Monitoring Required	Monitoring Required
Total Recoverable Zinc	7440666	No	No	8.76%	40.14%	DMR	Remove	Remove
Free Cyanide	57125	No	No	32.03%	56.82%	DMR	Monitoring Required	Monitoring Required
Chromium (VI)	18540299	Yes	No	17.04%	62.50%	DMR	Monitoring Required	Monitoring Required

# APPENDIX B

## RECENT DISCHARGE MONITORING REPORT for the E.C. McMANNIS WWTP MAY 2013

# FILE COPY

FORM APPROVED  
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS: (Include Facility Name/Location if different)

NAME: **FRANKFORT MUNICIPAL STP**  
ADDRESS: **1200 KENTUCKY AVE.**  
**FRANKFORT KY. 40601**

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

**KY0022861**  
PERMIT NUMBER

**001 2**  
DISCHARGE NUMBER

MAJOR  
(SUBR FR )  
F - FINAL

MUNICIPAL DISCHARGE

FRANK

FACILITY: **FRANKFORT MUNICIPAL STP**

LOCATION: **FRANKFORT KY. 40601**

ATT: **WILLIAM R SCALF JR. DIRECTOR**

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
13	05	01		13	05	31

\*\*\* NO DISCHARGE I \*\*\*

NOTE: Read instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING		UNITS	QUANTITY OR CONCENTRATION			UNITS	NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM		MINIMUM	AVERAGE	MAXIMUM				
STREAM FLOW INSTANTAEOUS 00061 T 0 0 <b>SEE COMMENTS BELOW</b>	SAMPLE MEASUREMENT	11,717	40,700	{08}	*****	*****	*****	*****	0	31 31	INSTAN
	PERMIT REQUIREMENT	REPORT DAILY AVG	REPORT DAILY MAX	CFS	*****	*****	*****	*****		DAILY	INSTAN
PRECIPITATION TOTAL DEFINED PERIOD \ IN 00193 V 0 0 <b>SEE COMMENTS BELOW</b>	SAMPLE MEASUREMENT	*****	4.31	{61}	*****	*****	*****	*****	0	17 31	MEASRD
	PERMIT REQUIREMENT	*****	REPORT MO. TOTAL	INCHES	*****	*****	*****	*****		ALL EVENTS	MEASRD
OXYGEN , DISSOLVED (DO) 00300 1 0 0	SAMPLE MEASUREMENT	*****	*****	****	9.1	*****	*****	{19}	0	21 31	GRAB
	PERMIT REQUIREMENT	*****	*****	****	5 INST MIN	*****	*****	MGL		THREE / WEEK	GRAB
EFFLUENT GROSS VALVE P. H. 00400 1 0 0	SAMPLE MEASUREMENT	*****	*****	****	7.47	*****	7.85	{12}	0	17 31	GRAB
	PERMIT REQUIREMENT	*****	*****	****	6 MINIMUM	*****	9 MAXIMUM	SU		THREE / WEEK	GRAB
EFFLUENT GROSS VALVE SOLIDS, TOTAL SUSPENDED 00530 1 0 0	SAMPLE MEASUREMENT	960	2,110	{26}	*****	13.1	18.0	{19}	0	21 31	COMPOS
	PERMIT REQUIREMENT	2478 MO AV	3718 MX WK AV	LBS/DAY	*****	30 MO AV	45 MX WK AV	MGL		THREE / WEEK	COMPOS
EFFLUENT GROSS VALVE SOLIDS, TOTAL SUSPENDED 00530 G 0 0	SAMPLE MEASUREMENT	13,227	14,860	{26}	*****	250	300	{19}	0	21 31	COMPOS
	PERMIT REQUIREMENT	REPORT MO AV	REPORT MX WK AV	LBS/DAY	*****	REPORT MO AV	REPORT MX WK AV	MGL		THREE / WEEK	COMPOS
RAW SEW / INFLUENT NITROGEN, AMMONIA TOTAL (AS N) 00610 1 1 0	SAMPLE MEASUREMENT	62.65	210.41	****	*****	0.560	1.469	{19}	0	21 31	COMPOS
	PERMIT REQUIREMENT	826 MO AV	1239 MX WK AV	****	*****	10 MO AV	15 MX WK AV	MGL		THREE / WEEK	COMPOS
EFFLUENT GROSS VALVE NAME / TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 16 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 6 years.)								TELEPHONE	DATE	
<b>WILLIAM R. SCALF JR.</b> DIRECTOR	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT								502   875-2448	13   06   26	
TYPED OR PRINTED									area code NUMBER	YEAR   MO   DAY	

COMMENT AND EXPLANATION OF ANY VIOLATIONS ( Reference all attachments here )

00665R---FOR STREAM FLOW GREATER THAN 800 CFS. OTHERWISE INDICATE NA  
00665Q--- FOR STREAM FLOW GREATER THAN 470 CFS. BUT LESS THAN OR EQUAL TO 800CFS. OTHERWISE INDICATE NA  
00665S--- FOR STREAM FLOW LESS THAN OR EQUAL TO 470 CFS. OTHERWISE INDICATE NA

COMMENT T: STREAM FLOW SHOULD BE DETERMINED BY USGS GAUGE  
COMMENT U: Report monthly max bypass event of wastewater flow around secondary treatment Units Mark 0 (zero) for no bypass for monthly period.  
COMMENT V: Permittee should record rainfall totals from wwtp or local rain gauges

PERMITTEE NAME/ADDRESS: (Include Facility Name/Location if different)

NAME: **FRANKFORT MUNICIPAL STP**  
 ADDRESS: **1200 KENTUCKY AVE.**  
**FRANKFORT KY. 40601**

FACILITY: **FRANKFORT MUNICIPAL STP**

LOCATION: **FRANKFORT KY. 40601**

ATT: **WILLIAM R SCALF JR. DIRECTOR**

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

**KY0022861**  
 PERMIT NUMBER

**001 2**  
 DISCHARGE NUMBER

MAJOR

(SUBR FR)  
**F - FINAL**

MUNICIPAL DISCHARGE

FORM APPROVED  
 OMB No.2040-0004

FRANK

MONITORING PERIOD

FROM **13 | 05 | 01** TO **13 | 05 | 31**

\*\*\* NO DISCHARGE [ ] \*\*\*

NOTE: Read instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUANTITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
NITROGEN, AMMONIA TOTAL (AS N) 00610 G 0 0 RAW / SEW INFLUENT	SAMPLE MEASUREMENT	554	605	{ 26 }	*****	11.1	15.6	{ 19 }	0	21/31	COMPOS
	PERMIT REQUIREMENT	REPORT MO AV	REPORT MX WK AV	LBS/DAY	*****	REPORT MO AV	REPORT MX WK AV	MG/L		THREE / WEEK	COMPOS
NITROGEN, KJELDAHL TOTAL (AS N) 00625 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****	*****	*****	0.20	0.20	{ 19 }	0	1/31	COMPOS
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT MO AV	REPORT MX WK AV	MG/L		ONCE / MONTH	COMPOS
PHOSPHORUS, TOTAL (AS P) 00665 G 0 0 RAW SEW / INFLUENT	SAMPLE MEASUREMENT	*****	*****	*****	*****	4.48	5.84	{ 19 }	0	16/31	COMPOS
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT MO AV	REPORT MX WK AV	MG/L		THREE / WEEK	COMPOS
PHOSPHORUS, TOTAL (AS P) 00665 Q 1 0 SEE COMENTS BLEOW	SAMPLE MEASUREMENT	*****	*****	*****	*****	N/A	N/A	{ 19 }	0	N/A	COMPOS
	PERMIT REQUIREMENT	*****	*****	*****	*****	2.0 MO AVG	3.0 MX WK AV	MG/L		THREE / WEEK	COMPOS
PHOSPHORUS, TOTAL (AS P) 00665 R 1 0 SEE COMENTS BLEOW	SAMPLE MEASUREMENT	*****	*****	*****	*****	1.67	2.95	{ 19 }	0	16/31	COMPOS
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT MO AV	REPORT MX WK AV	MG/L		THREE / WEEK	COMPOS
PHOSPHORUS, TOTAL (AS P) 00665 S 1 0 SEE COMENTS BLEOW	SAMPLE MEASUREMENT	*****	*****	*****	*****	N/A	N/A	{ 19 }	0	N/A	COMPOS
	PERMIT REQUIREMENT	*****	*****	*****	*****	1.0 MO AVG	1.5 MX WK AV	MG/L		THREE / WEEK	COMPOS
FLOW, WASTEWATER BY-PASSING TRTMT PLANT 50049 U 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****	0.0729 *	{ 03 }	*****	*****	*****	*****	1	ESTMD	
	PERMIT REQUIREMENT	*****	REPORT MO MIN	MGD	*****	*****	*****	*****		REPORT	ESTIMA

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER

**WILLIAM R. SCALF JR.**

**DIRECTOR**

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of 5 years.)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE  
 502 | 875-2448  
 AREA CODE NUMBER

DATE  
**13 | 06 | 26**  
 YEAR | MO | DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

00665R---FOR STREAM FLOW GREATER THAN 800 CFS. OTHERWISE INDICATE NA  
 00665Q--- FOR STREAM FLOW GREATER THAN 470 CFS. BUT LESS THAN OR EQUAL TO 800CFS. OTHERWISE INDICATE NA  
 00665S--- FOR STREAM FLOW LESS THAN OR EQUAL TO 470 CFS. OTHERWISE INDICATE NA

\* Bypass Report Submitted

COMMENT T: STREAM FLOW SHOULD BE DETERMINED BY USGS GAUGE  
 COMMENT U: Report monthly max bypass event of wastewater flow around secondary treatment Units Mark 0 (zero) for no bypass for monthly period.  
 COMMENT V: Permittee should record rainfall totals from wwtp or local rain gauges

PERMITTEE NAME/ADDRESS: (Include Facility Name/Location if different)

NAME: **FRANKFORT MUNICIPAL STP**  
 ADDRESS: **1200 KENTUCKY AVE.**  
**FRANKFORT KY. 40601**

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
 DISCHARGE MONITORING REPORT (DMR)

**KY0022861**  
 PERMIT NUMBER

**001 2**  
 DISCHARGE NUMBER

MAJOR (SUBR FR) F - FINAL  
 MUNICIPAL DISCHARGE

FORM APPROVED  
 OMB No.2040-0004

FRANK

FACILITY: **FRANKFORT MUNICIPAL STP**  
 LOCATION: **FRANKFORT KY. 40601**  
 ATT: **WILLIAM R SCALF JR. DIRECTOR**

MONITORING PERIOD  
 YEAR | MO | DAY TO YEAR | MO | DAY  
**13 | 05 | 01** TO **13 | 05 | 31**

\*\*\* NO DISCHARGE I | \*\*\*

NOTE: Read instructions before completing this form.

PARAMETER	QUANTITY OR LOADING	QUANTITY OR CONCENTRATION						NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS
FLOW IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALVE	SAMPLE MEASUREMENT	7.1	19.6	{ 03 }	*****	*****	*****	*****	0	CONTINUOUS	CONTIN
	PERMIT REQUIREMENT	REPORT DAILY AVG	REPORT INST MAX	MGD	*****	*****	*****	*****		CONTINUOUS	CONTIN
E. COLI 51040 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****	****	*****	114	167	{ 13 }	0	18/31	GRAB
	PERMIT REQUIREMENT	*****	*****	****	*****	130 30 DAY GEO	240 7 DAY GEO	# / 100 ML		THREE / WEEK	GRAB
BOD, CARBONACEOUS 05 DAY. 20C 80082 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	526	1,344	{ 26 }	*****	6.4	10.6	{ 19 }	0	21/31	COMPOS
	PERMIT REQUIREMENT	2065 MO AVG	3139 MX WK AV	LBS/DAY	*****	25 MO AV	38 MX WK AV	MG/L		THREE / WEEK	COMPOS
BOD, CARBONACEOUS 05 DAY. 20C 80082 G 0 0 RAW SEW / INFLUENT	SAMPLE MEASUREMENT	7,502	8,008	{ 26 }	*****	151	197	{ 19 }	0	21/31	COMPOS
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT MX WK AV	LBS/DAY	*****	REPORT MO AV	REPORT MX WK AV	MG/L		THREE / WEEK	COMPOS
BOD 5-DAY PERCENT CARB REMOVAL 80091 K 0 0 PERCENT REMOVAL	SAMPLE MEASUREMENT	*****	*****	****	96%	*****	*****	{ 23 }	0	1/31	CALTD
	PERMIT REQUIREMENT	*****	*****	****	85 MO MIN	*****	*****	PERCENT		ONCE / MONTH	CALTD
SOLIDS, SUSPENDED PERCENT REMOVAL 81011 K 0 0 PERCENT REMOVAL	SAMPLE MEASUREMENT	*****	*****	****	95%	*****	*****	{ 23 }	0	1/31	CALTD
	PERMIT REQUIREMENT	*****	*****	****	85 MO MIN	*****	*****	PERCENT		ONCE / MONTH	CALTD
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER  
**WILLIAM R. SCALF JR.**  
 DIRECTOR  
 TYPED OR PRINTED

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: 502 | 875-2448  
 DATE: 13 | 06 | 26

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
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 COMMENT V: Permittee should record rainfall totals from wwtp or local rain gauges

# APPENDIX C

## RECENT MONTHLY OPERATING REPORT

for the

E.C. McMANNIS WWTP

MAY 2013



# APPENDIX D

CONSENT JUDGEMENT between Commonwealth of KY  
Environmental and Public Protection Cabinet and  
Frankfort, KY

And

US EPA Administrative Order

TENDERED  
RECEIVED  
AUG 06 2007  
FRANKLIN CIRCUIT COURT  
SALLY JUMP, CLERK

COMMONWEALTH OF KENTUCKY  
FRANKLIN CIRCUIT COURT  
CIVIL ACTION NO. 07-CI- 1243  
DIVISION NO. II

ENTERED  
SEP 05 2007  
FRANKLIN CIRCUIT COURT  
SALLY JUMP, CLERK

COMMONWEALTH OF KENTUCKY  
ENVIRONMENTAL AND PUBLIC  
PROTECTION CABINET

PLAINTIFF

v.

CONSENT JUDGMENT

CITY OF FRANKFORT

DEFENDANT

\*\*\*\*\*

The parties to this Consent Judgment, the Commonwealth of Kentucky, by and through its Environmental and Public Protection Cabinet (hereinafter the "Cabinet"), and the City of Frankfort (hereinafter "Defendant" or "Frankfort") state as follows:

RECITALS

1. The Cabinet is charged with the statutory duty of enforcing Kentucky Revised Statutes ("KRS") Chapter 224, the Clean Water Act (CWA) and the regulations promulgated pursuant thereto.

2. The Defendant is a municipality that owns and operates a sewer utility that serves a population of approximately forty-nine thousand (49,000) people. Frankfort, since 1990, has owned and operated a sewage system with a treatment plant and permitted outfall in Franklin County, Kentucky (hereinafter "system" or "sewage system"). Frankfort is a KPDES permittee and has a KPDES discharge permit associated with its sewage system in Franklin County, Kentucky. The Defendant holds KPDES Permit No. KY0022861 issued by the Division of Water for discharges into the waters of the Commonwealth.

3. The Defendant owns and operates a wastewater collection system in Franklin County, Kentucky. The wastewater collection system consists of a separate sanitary sewer system (“SSS”) and a combined sewer system (“CSS”). The wastewater collection system transports wastewater to a treatment plant (WWTP) owned and operated by the Defendant.

4. This Consent Judgment between the Cabinet and the Defendant addresses sanitary sewer overflows (“SSOs”), any other unauthorized discharges, and discharges from the combined sewer overflow outfalls (“CSO Outfalls”) identified in the KPDES Permit and requires the Defendant to finalize, develop, submit and implement plans for the continued improvement of the Sewage System, including the WWTP.

5. Pursuant to KPDES Permit No. KY0022861 for the Frankfort WWTP, the Defendant is required to maintain an approved combined sewer operational plan (“CSOP”) implementing combined sewer overflow (“CSO”) controls for the CSS in accordance with EPA’s 1994 CSO Policy, 59 Fed. Reg. 18688 (“CSO Control Policy”) and the state CSO control strategy. The KPDES permit requires the Defendant to implement the nine minimum controls (“NMC”) delineated in EPA’s 1994 CSO Policy. EPA’s 1994 CSO policy also provides for the development and implementation of a Long Term Control Plan (“LTCP”).

6. The Cabinet contends the continued existence of SSOs in the SSS constitutes unauthorized discharges under the CWA, 33 U.S.C § 1251 *et seq.*, and KRS Chapter 224. The Cabinet further contends the SSOs and any unauthorized wet weather discharges into surface waters of the Commonwealth constitute a discharge of pollutants within the meaning of KRS 224.70-110 through “point sources,” as defined by 401 KAR 5:002 Section 1 (222) and Section 502(14) of the CWA, 33 U.S.C. § 1362 (14), and are indicative of improper operation and maintenance.

7. Section 402 (q)(1) of the CWA, 33 U.S.C. § 1342(q)(1) and the CSO Policy incorporated by reference into the CWA and 401 KAR 5:002 Section 3, require the Defendant to develop an LTCP and implement measures to abate the impact of CSOs on water quality in waters of the United States. The Defendant qualifies for “small system consideration” under the CSO Control Policy.

8. Authorized representatives of the Cabinet have identified the following alleged violations of KRS Chapter 224 in its complaint in this action which include the following:

- a. KRS 224.70-110 - Discharge of contaminants or pollutants into the surface waters of the Commonwealth resulting in degradation of water quality;
- b. 401 KAR 5:065 - Failure to properly operate and maintain the system at all times;
- c. 401 KAR 5:055 - Unpermitted discharge of pollutants from a point source to the surface waters of the Commonwealth; and
- d. 401 KAR 5:045 - Failure to apply secondary treatment to point source discharges to the surface waters of the Commonwealth.

9. The Defendant is hereby placed under a Consent Judgment to resolve these alleged violations and establish an enforceable mechanism and schedule for completing efforts to:

- a. Ensure its CSOs are in compliance with the CWA, KRS Chapter 224 and 401 KAR Chapter 5, and its KPDES permit for its sewage system; and

- b. Eliminate any unauthorized wet weather discharges, including SSOs, from the SSS and CSS as required by the CWA, KRS Chapter 224 and 401 KAR Chapter 5.

10a. The Cabinet and the Defendant agree and recognize that the process to comply with the KPDES permit and upgrade the Defendant's SSS, CSS and WWTP to eliminate any unauthorized discharges and remediate discharges from the CSO locations identified in Defendant's KPDES permit and CSOP is an ongoing and evolving effort from the assessment process to the design and construction of necessary infrastructure to meet permit conditions. This process requires efforts that include, but are not limited to, characterizations, modeling, assessments, engineering design studies, implementation of compliance measures, and construction projects that will adequately ensure compliance with permit conditions under applicable law. The Cabinet and the Defendant recognize that it will take many years to implement these efforts and that this Consent Judgment is the appropriate mechanism for controlling these efforts.

- b. The Defendant contends it has implemented and maintained programs to comply with the NMC delineated in the CSO control policy and the KPDES permit. The Defendant provides the Cabinet with an annual update of its CSOP and SSOP that consider CSO and SSO programs. The Defendant has not yet developed an LTCP as required by the CWA, but contends it has prepared a CSOP as required by the KPDES permit and initiated preparation of an LTCP.

11. The Defendant neither admits nor denies the violations described above but agrees to the entry of this Consent Judgment to resolve these alleged violations.

12. **NOW, THEREFORE**, in the interest of settling and resolving all civil claims and controversies involving the alleged violations described above and in the Cabinet's Complaint

filed in Franklin Circuit Court, before taking any testimony and without adjudication of any fact or law, the Parties hereby consent to the entry of this Consent Judgment. **ACCORDINGLY, IT IS HEREBY ORDERED AND ADJUDGED** as follows:

**REMEDIAL MEASURES**

13. By December 1, 2007, Frankfort shall submit a map of its entire sewage system, including any satellite systems which discharge wastewater to the Frankfort system. The map shall delineate the combined and separate sanitary portions of the system and shall indicate all known CSO outfalls, recurring known SSOs and any known other recurring points of unauthorized discharges from the Frankfort system. The map shall clearly display all sewer collection lines, with the exception of service laterals, with directional flows and sizes of those lines being clearly shown. Additionally, the map shall indicate sewer system sub-basins, manholes and pump stations.

14a. Within thirty (30) days of the entry of this Consent Judgment, Frankfort shall submit to the Division of Enforcement (DENF) a copy of the current version of Frankfort and Franklin County's Sewer Use Ordinances (SUOs), indicating the portions of those ordinances which pertain to and prohibit illicit discharges to the Frankfort sewage system, including discharges from roof drains, downspouts, sump pumps, yard drains, patio drains, leaks in private laterals, and other illicit connections of stormwater to the sanitary sewer system.

b. If the SUOs are deemed by the Cabinet to be inadequate in addressing illicit connections to Frankfort's sewage system, Frankfort shall, within one hundred twenty (120) days of receipt of notification from the Cabinet that the SUOs are inadequate, revise its SUO and request Franklin County to revise its SUO to adequately address such illicit connections and submit the revised SUOs within thirty (30) days of the SUOs' revision to DENF for Cabinet

review and approval. Whether or not the Cabinet deems inadequate any provision in the City's SUOs allowing discharges to its sewage system, the City shall nevertheless expend reasonable efforts to eliminate such illicit connections which predate the entry of this Consent Judgment in a systematic fashion.

c. Frankfort shall, upon receiving notification from the Cabinet that the SUOs adequately address illicit connections to its sanitary sewers, notify its customers within forty-five (45) days of the existence of the SUOs. Within ninety (90) days of receipt of such notification from the Cabinet, Frankfort shall commence enforcement activities of these SUOs with respect to illicit connections to the sanitary sewers. This does not extend to any requirement to SUOs that arise under other regulatory authority.

d. The Defendant shall implement utility rates and/or undertake other financing necessary to comply with the requirements of this Consent Judgment.

15. Frankfort shall, in its documentation and reporting of overflows to the Division of Water, provide estimated volumes of all reported overflows, bypasses and other releases. While the volumes to be reported are estimates, the method of estimation shall be scientifically justifiable, and the same method shall be utilized for all reportable events in the absence of different circumstances.

16. **Early Action Plan** – The Defendant shall prepare and submit an Early Action Plan for Cabinet review and approval according to the timeframes set forth herein. The Early Action Plan shall include the following components:

a. **Nine Minimum Controls (NMC) Compliance.** No later than twelve (12) months after the entry of this Consent Judgment, the Defendant shall submit documentation demonstrating the status of Defendant's compliance with the

NMC requirements within the CSS as set forth in the CSO Control Policy. If the Defendant cannot document in the Early Action Plan that all NMC requirements are being implemented in accordance with the NMC guidance, the Early Action Plan shall specify the activities to be performed, including schedules, so that compliance with the NMC requirements is achieved by no later than twenty-four (24) months after the entry of this Consent Judgment. If the Cabinet does not approve or disapprove Frankfort's NMC demonstration in 60 days, Frankfort's compliance date shall be extended by the amount of additional time over 60 days it takes for the Cabinet to approve or disapprove the documentation. The documentation of the compliance status and the proposed activities shall be consistent with the "Guidance for Nine Minimum Controls," EPA 832-B-95-003, May 1995. The documentation submitted shall demonstrate compliance with the following controls:

1. Proper operation and regular maintenance programs for the CSS and the CSOs;
2. Maximum use of the collection system for storage;
3. Review and modification of pretreatment requirements to assure CSO impacts are minimized;
4. Maximization of flow to the WWTP for treatment;
5. Prohibition of CSOs during dry weather, including provision for backup power where appropriate;
6. Control of solid and floatable materials, including installation of devices where appropriate;

7. Pollution prevention;
8. Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts, including, if appropriate, improving the current signage at each CSO location to an easily readable type size and style; and
9. Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

Upon review of the NMC Compliance portion of the Early Action Plan, the Cabinet may (1) approve, in whole or in part, or (2) provide comments to the Defendant identifying the deficiencies. Upon receipt of Cabinet comments, the Defendant shall have sixty (60) days to revise and resubmit the NMC Compliance portion of the Early Action Plan for review and approval, subject only to Defendant's rights under the dispute resolution provisions of this Consent Judgment. Upon resubmittal, the Cabinet may, in whole or in part, (1) approve or (2) disapprove and provide comments to the Defendant identifying the deficiencies. Upon such resubmittal, if any part of the NMC Compliance portion of the Early Action Plan is disapproved, the Cabinet may deem the Defendant to be out of compliance with this Consent Judgment for failure to timely submit such portion and may assess stipulated penalties pursuant to this Consent Judgment from the date the City receives notice that the resubmittal was disapproved, subject only to Defendant's rights under the dispute resolution provisions

of this Consent Judgment. Upon Cabinet approval of all or any part of the NMC Compliance portion of the Early Action Plan, the NMC Compliance portion, or any approved part thereof (provided that the approved part is not dependent upon implementation of any part not yet approved), shall be deemed incorporated into this Consent Judgment as an enforceable requirement of this Consent Judgment. This does not require an amendment request pursuant to paragraph 43 of this Consent Judgment.

- b. **Capital Improvement Project List.** The Early Action Plan shall include lists that identify (1) projects that have been completed by September 30, 2006 and (2) projects that will be initiated by the Defendant prior to the implementation of the SSOP and final LTCP. The Capital Improvement Project List shall include, at a minimum, the projects listed in Exhibit A, which the Defendant represents either are completed or shall be completed before the dates listed in Exhibit A. Estimated project costs are also based on Defendant's estimates. Those projects completed are included to demonstrate the efforts the Defendant maintains it has been making to date to address compliance. The Defendant shall certify to the Cabinet the completion of any project in the annual report following the project's completion. The list of capital improvement projects which Frankfort has completed or has planned for completion before the implementation of the SSOP and final LTCP is incorporated into this Consent Judgment as Exhibit A.
- c. **CMOM (Capacity, Management, Operation and Maintenance) Programs Self-Assessment.** Not later than nine (9) months after the entry of this Consent Judgment, the Defendant shall submit a CMOM Programs Self-Assessment of the

Defendant's combined and separate sewer collection systems, in accordance with US EPA Region IV methodology, to ensure that the Defendant has CMOM Programs in place that are effective in preventing SSOs, including any unauthorized discharges, within the combined and separate sewer collection systems. This Self-Assessment shall include an evaluation of, and recommendation of improvements to, each CMOM Program to ensure that such Programs contain the following key CMOM elements: defined purpose(s) and written defined goal(s) that are documented in writing with specific details; implemented by well trained personnel; established performance measures; and written procedures for periodic review. Recommended improvements shall include schedules for implementation. The Cabinet shall have forty-five (45) days to review the CMOM Programs Self-Assessment and recommended improvements and schedules. If the Cabinet does not accept the CMOM Programs Self Assessment or recommended improvements and schedules, modifications to the CMOM Programs Self-Assessment shall be made in accordance with the Cabinet's comments and resubmitted by the Defendant within sixty (60) days of receipt of the aforementioned comments, subject only to the Defendant's rights under the dispute resolution provisions of this Consent Judgment. Upon resubmittal, the Cabinet may, in whole or in part, (1) approve or (2) disapprove and provide comments to the Defendant identifying the deficiencies. Upon such resubmittal, if any part of the CMOM Programs Self-Assessment portion of the Early Action Plan is disapproved the Cabinet may deem the Defendant to be out of compliance with this Consent Judgment for

failure to timely submit such portion and may assess stipulated penalties pursuant to this Consent Judgment from the date the City receives notice that the resubmittal was disapproved, subject only to the Defendant's rights under the dispute resolution provisions of this Consent Judgment. Upon Cabinet approval of all or any part of the CMOM Program's Self-Assessment, the CMOM Programs and recommended improvements and schedules, or any approved part thereof (provided that the approved part is not dependent upon implementation of any part not yet approved), these shall be deemed incorporated into this Consent Judgment as an enforceable requirement of this Consent Judgment. This does not require an amendment request pursuant to paragraph 43 of this Consent Judgment.

- d. **Sewer Overflow Response Protocol ("SORP").** No later than nine (9) months after the entry of the Consent Judgment, the Defendant shall submit a SORP in compliance with 401 KAR 5:015 for review and approval by the Cabinet, to establish the timely and effective methods and means of: (1) responding to, cleaning up, and/or minimizing the impact of all overflows, including any unauthorized discharges; (2) reporting the location, volume, cause and impact of any overflows, including SSOs and unauthorized discharges, to the Cabinet; and (3) notifying the potentially impacted public. The Cabinet shall have thirty (30) days to review the SORP. If the Cabinet does not accept the SORP, modifications in the SORP shall be made by the Defendant in accordance with the Cabinet's comments and resubmitted within sixty (60) days of receipt of the aforementioned comments, subject only to the Defendant's rights under the dispute resolution provisions of this Consent Judgment. Upon resubmittal, the Cabinet may, in

whole or in part, (1) approve or (2) disapprove and provide comments to the Defendant identifying the deficiencies. Upon such resubmittal, if any part of the SORP is disapproved, the Cabinet may deem the Defendant to be out of compliance with this Consent Judgment for failure to timely submit the SORP portion of the Early Action Plan and may assess stipulated penalties pursuant to this Consent Judgment from the date the City receives notice that the resubmittal was disapproved, subject only to the Defendant's rights under the dispute resolution provisions of this Consent Judgment. If approved, the Defendant shall implement the SORP within thirty (30) days of receiving the Cabinet's approval. By the anniversary date of the approval of the SORP, the Defendant shall annually review the SORP and propose changes as appropriate subject to Cabinet review and approval. A copy of any future updates to the SORP shall also be provided to the Frankfort Regional Office of the Division of Water within thirty (30) days of incorporation of the update. Upon Cabinet approval of all or any part of the SORP, the SORP, or any approved part thereof (provided that the approved part is not dependent upon implementation of any part not yet approved), and any subsequently approved changes, shall be deemed incorporated into this Consent Judgment as an enforceable requirement of this Consent Judgment. This does not require an amendment request pursuant to paragraph 43 of this Consent Judgment.

17. **Sanitary Sewer Overflow Plan** – The Defendant shall, by December 31, 2007, prepare and submit, for Cabinet review and approval, an updated Sanitary Sewer Overflow Plan ("SSOP") designed to eliminate SSOs and any unauthorized discharges in the SSS and CSS. The SSOP shall contain the long-term SSOP projects designed to minimize the frequency, volume

and water quality impacts of SSOs, including schedules, milestones, and deadlines related to those long-term projects. The SSOP shall include, at a minimum, the following elements:

- a. A map that shows the location of any known recurring SSOs and any known recurring unauthorized discharges. An SSO or unauthorized discharge is considered recurring if it discharges into surface waters of the Commonwealth at a frequency rate of at least two discharges per consecutive twelve month period. The map shall include the areas and sewer lines that serve as a tributary to each known recurring SSO or any known recurring unauthorized discharge. Smaller maps of individual tributary areas also may be included to show the lines involved in more detail.
- b. A description of each known recurring SSO and known recurring unauthorized discharge location that includes:
  - (i) The frequency of the overflow or discharge;
  - (ii) The estimated volume of the overflow or discharge, both annually and by overflow event;
  - (iii) A description of the type of overflow, i.e. manhole, pump station, constructed discharge pipe, etc.;
  - (iv) The cause of overflows at that location;
  - (v) The receiving stream;
  - (vi) The immediate area and downstream general land use, including the potential for public health concerns;
  - (vii) A description of any previous (within the last 5 years), current, or proposed studies to investigate the overflow; and

(viii) A description of any previous (within the last 5 years), current, or proposed rehabilitation or construction work to remediate or eliminate the overflow.

c. A prioritization of known recurring SSOs and any known recurring unauthorized discharge locations set forth on the SSO map described in Paragraph 17a. herein, based upon the frequency, volume and impact on the receiving stream and upon public health, and in coordination with the CMOM programs. Based upon this prioritization, the Defendant shall develop remedial measures and expeditious schedules for design, initiation of construction and completion of construction. Such schedules shall be phased based on sound engineering judgment and in no case shall extend beyond eight (8) years after the entry of this Consent Judgment.

18. The Defendant may consider conventional and innovative or alternative designs as part of its SSOP, which may include: sewer rehabilitation, sewer replacement, sewer separation, relief sewers, above ground or below ground storage, high rate secondary treatment, illicit connection removal, remote wet weather secondary treatment facilities, pollution prevention, and other appropriate alternatives. Designs shall be based on sound engineering judgment and shall be in accordance with generally accepted engineering design criteria and may include interim remedial measures to reduce pollutant loading and improve water quality in the short term while alternatives for final remedial measures are being developed, evaluated and implemented.

19. Upon review of the SSOP, the Cabinet may (1) approve, in whole or in part, or (2) provide comments to the Defendant identifying the deficiencies. Upon receipt of Cabinet comments, the Defendant shall have sixty (60) days to revise and resubmit the SSOP for review and approval, subject only to the Defendant's rights under the dispute resolution provisions of

this Consent Judgment. Upon resubmittal, the Cabinet may, in whole or in part, (1) approve or (2) disapprove and provide comments to the Defendant identifying the deficiencies. Upon such resubmittal, if any part of the SSOP is disapproved, the Cabinet may deem the Defendant to be out of compliance with this Consent Judgment for failure to timely submit such portion and may assess stipulated penalties pursuant to this Consent Judgment from the date the City receives notice that the resubmittal was disapproved, subject only to the Defendant's rights under the dispute resolution provisions of this Consent Judgment. Upon Cabinet approval of all or any part of the SSOP, the SSOP, or any approved part thereof (provided that the approved part is not dependent upon implementation of any part not yet approved), shall be incorporated into this Consent Judgment by proposed material amendment under paragraph 43 of this Consent Judgment and, upon entry by the Court, become an enforceable requirement of this Consent Judgment.

20. **Long Term Control Plan**

a. By no later than twelve (12) months after the entry of this Consent Judgment, the Defendant shall submit to the Cabinet for review and approval an interim LTCP.

1. The interim LTCP shall specify the activities which demonstrate the Defendant's efforts to date to achieve compliance with the following goals:

(i) Bring all wet weather CSO discharge points into compliance with the Clean Water Act, KRS Chapter 224, 401 KAR 5:060 Section 5, and the Combined Sewer Overflow Control Policy 59 Fed. Reg. 18688 April 19, 1994 as incorporated by reference in 401 KAR 5:002 Section 3;

- (ii) Minimize the impacts of CSOs on water quality, aquatic biota, and human health; and
  - (iii) Bring stakeholders into the planning, prioritization and selection of projects process.
2. The interim LTCP shall provide a detailed description of the manner in which the Defendant plans to undertake the development of the final LTCP, including, at a minimum, consideration of the following elements:
- (i) Characterization, monitoring, modeling activities, and design parameters as the basis for selection and design of effective CSO controls;
  - (ii) A public participation process that actively involves the affected public in the decision-making to select long-term CSO controls;
  - (iii) Consideration of sensitive areas as the highest priority for reducing or eliminating overflows;
  - (iv) Evaluation of alternatives that will enable the Defendant, in consultation with the Cabinet, water quality standards authority, and the public, to select CSO controls that will meet the requirements of the Act;
  - (v) Cost/performance considerations to demonstrate the relationships among a comprehensive set of reasonable control alternatives;
  - (vi) Operational plan revisions to include agreed-upon long-term CSO controls;

- (vii) Maximization of treatment at the Defendant's existing wastewater treatment plant for wet weather flows;
  - (viii) Frankfort's CSO LTCP shall provide a general description of the land use in the immediate area of the overflow, as well as downstream, as part of the characterization of the CSOs; and
  - (ix) If Frankfort requests any consideration based on the small systems consideration of the policy, a demonstration as to why such consideration is appropriate.
3. Upon review of the interim LTCP, the Cabinet may (1) approve, in whole or in part, or (2) provide comments to the Defendant identifying the deficiencies. Upon receipt of Cabinet comments, the Defendant shall have sixty (60) days to revise and resubmit the interim LTCP for review and approval, subject only to the Defendant's rights under the dispute resolution provisions of this Consent Judgment. Upon resubmittal, the Cabinet may (1) approve or (2) disapprove and provide comments to the Defendant identifying the deficiencies. Upon such resubmittal, if the interim LTCP is disapproved, the Cabinet may deem the Defendant to be out of compliance with this Consent Judgment for failure to timely submit the interim LTCP and may assess stipulated penalties pursuant to this Consent Judgment from the date the City receives notice that the resubmittal was disapproved, subject only to the Defendant's rights under the dispute resolution provisions of this Consent Judgment. Upon Cabinet approval of all or any part of the interim LTCP, the interim LTCP, or any

approved part thereof (provided that the approved part is not dependent upon implementation of any part not yet approved), shall be deemed incorporated into this Consent Judgment as an enforceable requirement of this Consent Judgment. This does not require an amendment request pursuant to Paragraph 43 of this Consent Judgment.

- b. By June 30, 2009, the Defendant shall submit a final LTCP to the Cabinet for review and approval that complies with the CSO Control Policy and is consistent with EPA's "Guidance for Long-Term Control Plan," EPA 832-B-95-002, September 1995. The final LTCP shall include schedules, deadlines and timetables for remedial measures that achieve full compliance with the criteria listed for the demonstrative approach or the presumptive approach at the earliest practicable compliance date based on sound engineering judgment considering physical and financial feasibility but in no event later than December 31, 2023. The Defendant may consider conventional and innovative or alternative designs as part of each plan, including but not limited to: Sewer rehabilitation, sewer replacement, sewer separation, relief sewers, above ground or below ground storage, high rate secondary treatment, illicit connection removal, remote wet weather secondary treatment facilities, pollution prevention, and other appropriate alternatives. Designs shall be based on sound engineering judgment and shall be in accordance with generally accepted engineering design criteria and may include interim remedial measures to reduce pollutant loading and improve water quality in the short term while alternatives for final remedial measures are being developed, evaluated and implemented.

1. The final LTCP shall meet the following goals:
  - (i) Ensure that if CSOs occur, they are only as a result of wet weather;
  - (ii) Bring all wet weather CSO discharge points into compliance with the CWA and KRS Chapter 224; and
  - (iii) Minimize the impacts of CSOs on water quality, aquatic biota, and human health.
  
2. The final LTCP shall include, at a minimum, consideration of the following elements:
  - (i) The results of characterization, monitoring, modeling activities, and design parameters as the basis for selection and design of effective CSO controls;
  - (ii) The results of an evaluation of WWTP peak flow treatment capacity;
  - (iii) A report on the public participation process;
  - (iv) Identification of how the final LTCP addresses sensitive areas as the highest priority for controlling overflows;
  - (v) A report on the cost analyses of the alternatives considered;
  - (vi) Operational plan revisions to include agreed-upon long-term CSO controls;
  - (vii) Maximization of treatment at the Defendant's existing wastewater treatment plants for wet weather flows;
  - (viii) Identification of, and an implementation schedule for, the selected CSO controls;

- (ix) A post-construction compliance monitoring program adequate to verify compliance with water quality-based CWA requirements and ascertain the effectiveness of CSO controls; and
  - (x) If Frankfort requests any consideration based on the small systems consideration of the policy, a demonstration as to why such consideration is appropriate.
3. Upon review of the final LTCP, the Cabinet may (1) approve, in whole or in part, or (2) provide comments to the Defendant identifying any deficiencies. Upon receipt of Cabinet comments, the Defendant shall have sixty (60) days to revise and resubmit the final LTCP for review approval, subject only to the Defendant's rights under the dispute resolution provisions of this Consent Judgment. Upon resubmittal, the Cabinet may (1) approve or (2) disapprove and provide comments to the Defendant identifying the deficiencies. Upon such resubmittal, if any part of the final LTCP is disapproved, the Cabinet may deem the Defendant to be out of compliance with this Consent Judgment for failure to timely submit the final LTCP and may assess stipulated penalties pursuant to this Consent Judgment from the date the City receives notice that the resubmittal was disapproved, subject only to the Defendant's rights under the dispute resolution provisions of this Consent Judgment. Upon Cabinet approval of all or any part of the final LTCP, the final LTCP, or any approved part thereof (provided that the approved part is not dependent upon implementation of any part not yet approved), shall be incorporated into

this Consent Judgment by proposed material amendment under paragraph 43 of this Consent Judgment and, upon entry by the Court, become an enforceable requirement of this Consent Judgment.

#### REPORTING REQUIREMENTS

21. Annual Reports – The Defendant shall submit an annual report for its previous fiscal year, with the reports due August 31<sup>st</sup> of each year with a summary of the CMOM Programs implementation pursuant to this Consent Judgment, including a comparison of actual performance with any performance measures that have been established. The annual report shall also identify projects completed during the reporting period and shall include, at a minimum:

- a. A detailed description of projects and activities conducted and completed during the past reporting period to comply with the requirements of this Consent Judgment, in Gantt chart or similar format;
- b. An accounting of the current twelve month period and the cumulative reductions in volume and in number of occurrences of any unauthorized discharges from the SSS, CSS and WWTP and discharges from the Defendant's CSO locations identified in its KPDES permit;
- c. The anticipated projects and activities that will be performed in the upcoming twelve month period to comply with the requirements of this Consent Judgment, in Gantt chart or similar format;
- d. Any additional information necessary to demonstrate that the Defendant is adequately implementing its Early Action Plan, SSOP and LTCP;

- e. A summary of the CMOM Programs implementation pursuant to this Consent Judgment, including a comparison of actual performance with any performance measures that have been established; and
- f. The projects completed during the reporting period.

PENALTIES AND SUPPLEMENTAL ENVIRONMENTAL PROJECTS

22. The Defendant shall pay the Cabinet a civil penalty in the amount of fifty thousand dollars (\$50,000), for violations described above. The amount of the civil penalty shall be tendered by Defendant to the Cabinet within 15 days after the Consent Judgment is entered by the Court.

23a. The Defendant shall install sewers in an unsewered area located in the Hiawatha Trail area of the Indian Hills Subdivision. The unsewered area consists of approximately ten (10) homes currently served by septic systems, many of which are failing. The Supplemental Environmental Project (SEP) will be completed at an estimated cost to the Defendant of eighty-five thousand dollars (\$85,000).

b. The Defendant shall install sewers in an unsewered section of Westover Drive. The unsewered area consists of nineteen (19) homes which are currently served by septic systems, many of which are failing. The SEP will be completed at an estimated cost of one hundred seventy five thousand dollars (\$175,000).

c. The SEPs shall be completed no later than December 30, 2009. Any requests for extensions of time for completion of the SEPs shall be submitted to the Director, Division of Enforcement. Any extensions of time greater than thirty (30) days shall be incorporated into this Consent Judgment by proposed material amendment under paragraph 43 of this Consent

Judgment and, upon entry by the Court, become an enforceable requirement of this Consent Judgment.

d. Upon completion of the SEPs the Defendant shall submit a final report and all invoices and documentation of project costs to: Director, Division of Enforcement, Department for Environmental Protection, 300 Fair Oaks Lane, Frankfort, Kentucky 40601.

#### STIPULATED PENALTIES

24. These provisions concerning stipulated penalties shall take effect upon entry of this Consent Judgment by the Court. Defendant shall pay the Cabinet a stipulated penalty within fifteen (15) days of receipt of written notice from the Cabinet for failure to comply with any requirement of this Consent Judgment. The stipulated penalties shall be assessed as follows:

a. Stipulated penalties:

(i) For failure to timely submit the Early Action Plan, or any specified portion thereof, the Cabinet may assess against the Defendant a stipulated penalty of two thousand dollars (\$2,000). For each additional day that the Defendant remains out of compliance for failure to timely submit the Early Action Plan, or any specified portion thereof, the Cabinet may assess against the Defendant a stipulated penalty of one hundred dollars (\$100) per day. This penalty is in addition to, and not in lieu of, any other penalty that could be assessed.

(ii) For failure to timely submit the Sanitary Sewer Overflow Plan, the Cabinet may assess against the Defendant a stipulated penalty of two thousand dollars (\$2,000). For each additional day that the Defendant remains out of compliance for failure to timely submit the SSOP, the

Cabinet may assess against the Defendant a stipulated penalty of one hundred dollars (\$100) per day. This penalty is in addition to, and not in lieu of, any other penalty that could be assessed.

- (iii) For failure to timely submit the interim Long Term Control Plan or final Long Term Control Plan, the Cabinet may assess against the Defendant a stipulated penalty of two thousand dollars (\$2,000). For each additional day that the Defendant remains out of compliance for failure to timely submit the interim LTCP or final LTCP, the Cabinet may assess against the Defendant a stipulated penalty of one hundred dollars (\$100) per day. This penalty is in addition to, and not in lieu of, any other penalty that could be assessed.
- (iv) For each day that the Defendant fails to timely complete approved projects under the SSOP or final LTCP, or any approved amendments thereof, the Cabinet may assess against the Defendant stipulated penalties for each project of one thousand dollars (\$1,000) per day. This penalty is in addition to, and not in lieu of, any other penalty that could be assessed.
- (v) For failure to timely submit any report as required under this Consent Judgment, the Cabinet may assess against the Defendant a stipulated penalty of one thousand dollars (\$1,000). For each day that the Defendant remains out of compliance for failure to timely submit any report as required under this Consent Judgment, the Cabinet may assess against the Defendant a stipulated penalty of one hundred dollars (\$100) per day.

This penalty is in addition to, and not in lieu of, any other penalty that could be assessed.

- b. Provided, however, that the Cabinet shall not assess stipulated penalties for those discharges resulting from the Defendant's compliance with the requirements of the United States Army Corps of Engineers' Operation and Maintenance Manual Flood Protection Works, Frankfort, Kentucky dated 1997, which shall be addressed under the LTCP.

No stipulated penalty may be assessed after the termination of this Consent Judgment as set forth in Paragraphs 52 and 53 herein.

25. If the Defendant believes the request for payment of a stipulated penalty is erroneous or contrary to law, it may invoke the dispute resolution provisions of this Consent Judgment. Invoking the dispute resolution provisions does not automatically excuse timely payment of the penalty or the continuing accrual of stipulated penalties, unless agreed to by the Cabinet or stayed by the Court. If the Defendant invokes the dispute resolution provisions of this Consent Judgment under these circumstances, the Defendant shall deposit the amount of the stipulated penalty into an escrow account bearing interest on commercially reasonable terms, in a federally-chartered bank. The Defendant's deposit of the amount of the stipulated penalty into an interest bearing escrow account shall be deemed compliance with these requirements until final resolution of the dispute. Upon final resolution of the dispute, the Defendant shall, within five (5) days thereof, serve written instructions directing that the escrow agent, within fifteen (15) days thereof, shall cause the monies in the escrow account to be paid to the Cabinet in accordance with the procedures set forth in Paragraph 26 below, or returned to the Defendant, depending on the outcome of the dispute resolution process. The Defendant's failure to make

timely payment of stipulated penalties shall constitute an additional violation of this Consent Judgment.

**PAYMENT OF PENALTIES AND STIPULATED PENALTIES**

26. Payment of all sums due to the Cabinet shall be by cashier's check, certified check, or money order, made payable to "Kentucky State Treasurer," and sent to:

Kentucky Department for Environmental Protection  
Division of Enforcement  
300 Fair Oaks Lane  
Frankfort, KY 40601  
Attention: Director

**DISPUTE RESOLUTION**

27. Any dispute that arises under or with respect to this Consent Judgment shall in the first instance be the subject of informal negotiations between the Parties. The Defendant shall invoke the informal dispute resolution procedures by notifying the Cabinet in writing of the matter(s) in dispute and of the Defendant's intention to resolve the dispute under Paragraphs 27 and 28. The notice shall: (1) outline the nature and basis of the dispute; (2) include the Defendant's proposed resolution; (3) include all appropriate information or data relating to the dispute and the proposed resolution; and (4) request negotiations pursuant to this Paragraph to informally resolve the dispute. The Parties shall then attempt to resolve the dispute informally for a period of thirty days from the date of the notice with the goal of resolving the dispute in good faith, without further proceedings. The period for informal negotiations shall not exceed thirty days from the date of the original notice of this dispute, unless the Parties otherwise agree in writing to extend that period.

28. If informal negotiations are unsuccessful, the position of the Cabinet shall control unless, within thirty days after the conclusion of the informal negotiation period, the Defendant seeks judicial review of the dispute by filing with the Court and serving on the Cabinet a motion

requesting judicial resolution of the dispute. The motion shall contain a written statement of the Defendant's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of the Consent Judgment. The Cabinet shall respond to the Defendant's motion within thirty days. Either Party may request an evidentiary hearing for good cause. The burden of proof is on the Defendant to demonstrate that its position on the matter in dispute meets the objectives of the Consent Judgment, any amendment to this Consent Judgment, the CWA and KRS Chapter 224. If the dispute is not resolved within the schedule identified for orderly implementation of the Consent Judgment in the Defendant's motion, the Defendant may request additional time beyond compliance schedules or deadlines in this Consent Judgment that are dependent upon the duration and/or resolution of the dispute.

#### **FORCE MAJEURE**

29. Following the entry of the Consent Judgment by the Court, the Defendant shall perform the requirements of this Consent Judgment and complete all remedial measures within the time limits set forth in this Consent Judgment unless the performance is prevented or delayed solely by events which constitute a force majeure.

30. A force majeure event is defined as any event arising from causes not reasonably foreseeable and beyond the control of the Defendant or its consultants, engineers, or contractors, including intervention in this litigation by third parties, which could not be overcome by due diligence and which delays or prevents performance as required by this Consent Judgment.

31. Force majeure events do not include unanticipated or increased costs of performance, changed economic or financial conditions, or failure of a contractor to perform or failure of a supplier to deliver unless such failure is, itself, the result of force majeure.

32. The Defendant shall notify the Director of the Division of Enforcement by telephone within ten (10) business days and in writing within fifteen business days after it becomes aware of events which it knows or should reasonably know may constitute a force majeure. The Defendant's notice shall provide an estimate of the anticipated length of delay, including any necessary period of time for demobilization and remobilization of contractors or equipment and a description of the cause of delay; a description of measures taken or to be taken by the Defendant to minimize delay, including a timetable for implementing these measures.

33. Failure to comply with the notice provision shall be grounds for the Cabinet to deny granting an extension of time to the Defendant. If any event is anticipated to occur which may cause a delay in complying with the terms of this Consent Judgment, the Defendant shall promptly notify the Director of the Division of Enforcement in writing within ten (10) business days of learning of the possibility of a force majeure event, if the event has not already occurred. The Cabinet will respond in writing to any written notice received.

34. If the Defendant demonstrates to the Cabinet that the delay has been or will be caused by a force majeure event, the Cabinet will agree to enter into an Agreed Order to be submitted to the Court extending the time for performance for that element of the Consent Judgment for a period not to exceed the delay resulting from such circumstances.

35. If a dispute arises over the occurrence or impact of a force majeure event and cannot be resolved, the Cabinet reserves the right to seek enforcement of this Consent Judgment and the Defendant reserves the right to invoke the dispute resolution provisions of this Consent Judgment. In any such dispute, the Defendant shall have the burden of proof that a violation of this Consent Judgment was caused by a force majeure event. In the absence of force majeure conditions, upon agreement of the parties, extensions of no more than ninety (90) days of the

time requirements contained in this Consent Judgment may be agreed to by the parties without Court approval. If such extensions are agreed to, the parties shall advise the Court.

#### CERTIFICATION OF SUBMISSIONS

36. In all notices, documents or reports submitted pursuant to this Consent Judgment, the Defendant shall, by signature of the mayor or the mayor's designee, sign and certify each such notice, document and report as follows:

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.

#### RIGHT OF ENTRY

37. The Cabinet and its authorized representatives and contractors shall have authority at all times, upon the presentation of proper credentials, to enter the premises of the Defendant to:

- a. Monitor the work required by this Consent Judgment;
- b. Verify any data or information submitted to the Cabinet;
- c. Obtain samples from any portion of the SSS, CSS or WWTPs, with the Defendant to be provided with the opportunity to collect and analyze a split sample(s);
- d. Inspect and evaluate any portions of the SSS, CSS or WWTPs;
- e. Inspect and review any records required to be kept under the terms and conditions of this Consent Judgment or any KPDES permit, the CWA and KRS

Chapter 224; and

- f. Otherwise assess the Defendant's compliance with state and federal environmental laws and this Consent Judgment.

A Cabinet employee shall be present with the Cabinet's contractor any time the contractor inspects the sewage system. While inspecting pursuant to this Judgment, the Defendant or its designated representative shall have the right to accompany the Cabinet employee and the Cabinet's contractor, if any, while on the Defendant's property to document the conditions observed. The rights created by this Paragraph are in addition to, and in no way limit or otherwise affect, the authority of the Cabinet to conduct inspections, to require monitoring and to obtain information from the Defendant as authorized by law.

#### RECORD RETENTION

38. The Defendant shall retain, in electronic or hard copy format, all data, documents, plans, records and reports that relate to the Defendant's performance under this Consent Judgment which are in the possession, custody, or control of the Defendant or its consultants or contractors. The Defendant shall retain all such materials for five (5) years from the date of origination. Drafts of final documents, plans, records, or reports and e-mail communications do not need to be retained. This Paragraph does not limit or affect any duty or obligation of the Defendant to maintain records or information required by any KPDES permit. At the conclusion of this retention period, the Defendant shall notify the Cabinet at least one-hundred and twenty days prior to the destruction of any such materials, and upon request by the Cabinet, the Defendant shall deliver any such materials to the Cabinet.

### PUBLIC COMMENTS

39. The Parties acknowledge that although not required by Kentucky law, the Consent Judgment was made available for public review and comment on November 17, 2006. A public notice was issued on November 17, 2006 via the Division of Water's electronic public notice distribution list and the *Frankfort State Journal*. The Cabinet shall consider the comments received during the thirty-day comment period. A copy of all comments and the Cabinet's responses will be filed with the Court.

### MISCELLANEOUS PROVISIONS

40. This Consent Judgment addresses only those alleged violations specifically described in the complaint in this action. The Cabinet has relied upon the factual representations of the Defendant. Nothing contained herein shall be construed to waive or to limit any remedy or cause of action by the Cabinet based on statutes or regulations under its jurisdiction and the Defendant reserves its defenses thereto. The Cabinet expressly reserves its right at any time to issue administrative orders and to take any other action it deems necessary, including the right to order all necessary remedial measures, assess penalties for violations, or recover all response costs incurred, and the Defendant reserves its defenses thereto.

41. This Consent Judgment shall not prevent the Cabinet from issuing, reissuing, renewing, modifying, revoking, suspending, denying, terminating, or reopening any permit issued to the Defendant. The Defendant reserves its defenses thereto, except that the Defendant shall not use this Consent Judgment as a defense.

42. Defendant waives its right to any hearing on the matters specifically alleged above. However, failure by the Defendant to comply strictly with any or all of the terms of this Consent Judgment shall be grounds for the Cabinet to seek enforcement of this Consent

Judgment in this Court and to pursue any other appropriate administrative or judicial action under KRS Chapter 224, and the regulations promulgated pursuant thereto, and the Defendant does not waive its right to any hearings in such actions.

43. Except as set forth herein, this Consent Judgment may not be materially amended or modified except by Court order or written agreement of the Parties entered by the Court. Any material modification of this Consent Judgment shall be effective upon entry by the Court. Non-material modifications of the obligations of the Parties which do not significantly alter the terms of this Consent Judgment may be made in writing by the Parties. If the Defendant is involuntarily divested of its existing authority or ability to comply with this Consent Judgment due to a final court order or an act of the Kentucky General Assembly, the Defendant may seek to amend this Consent Judgment consistent with this Paragraph.

44. The Cabinet does not, by its consent to the entry of this Consent Judgment, warrant or aver in any manner that the Defendant's complete compliance with this Consent Judgment will result in compliance with the provisions of KRS Chapter 224 and the regulations promulgated pursuant thereto. Notwithstanding the Cabinet's review and approval of any plans formulated pursuant to this Consent Judgment, the Defendant shall remain solely responsible for compliance with the terms of KRS Chapter 224 and the regulations promulgated pursuant thereto, this Consent Judgment and any permit and compliance schedule requirements. However, the Defendant's compliance with this Consent Judgment shall be deemed compliance with those provisions in the KPDES permit governing the LTCP.

45. The provisions of this Consent Judgment shall apply to and be binding upon the Defendant. The acts or omissions of the Defendant's officers, directors, agents, and employees shall not excuse the Defendant's performance of any provisions of this Consent Judgment. The

Cabinet reserves the right to seek enforcement of this Consent Judgment against the successors and assigns of the Defendant, and the Defendant reserves its defenses thereto. The Defendant shall give notice of this Consent Judgment to any purchaser, lessee or successor in interest prior to the transfer of ownership and/or operation of any part of its now-existing facility occurring prior to termination of this Consent Judgment, shall notify the Cabinet that such notice has been given, and shall follow all statutory and regulatory requirements for a transfer. Whether or not a transfer takes place, Defendant shall remain fully responsible for payment of all civil penalties and response costs and for performance of all remedial measures required by this Consent Judgment.

46. The Cabinet agrees to allow the performance of the required remedial measures, payment of civil penalties, and performance of SEPs by the Defendant to satisfy the Defendant's obligations to the Cabinet generated by the alleged violations identified in the complaint.

47. The Cabinet and Defendant agree that the required remedial measures are facility-specific and designed to comply with the statutes and regulations cited herein. This Consent Judgment applies specifically and exclusively to the unique facility referenced herein and is inapplicable to any other site or facility.

48. Compliance with this Consent Judgment is not conditional on the receipt of any federal, state, or local funds.

49. When submitting documents to the Cabinet pursuant to the requirements of this Consent Judgment, the Defendant shall submit four (4) copies of said document.

50. Unless otherwise specified or as may be changed from time to time, all reports, notices, or any other written communications between the parties pursuant to this Consent Judgment, including those communications required to be submitted under this Consent

Judgment by the Defendant to the Cabinet, shall be sent to the following addresses:

As to the Cabinet -  
Director of Division of Enforcement  
Department for Environmental Protection  
300 Fair Oaks Lane  
Frankfort, Kentucky 40601

For verbal notifications - Susan Green, Division of Enforcement - (502) 564-2150.

As to the City -  
William Scalf  
Director, Frankfort Sewer Department  
City of Frankfort  
1200 Kentucky Avenue  
Frankfort, Kentucky 40601

For verbal notifications - William Scalf - (502) 875-2448.

#### REVIEW OF SUBMITTALS

51. The Cabinet agrees to use its best efforts to expeditiously review and comment on submittals that the Defendant is required to submit to the Cabinet pursuant to the terms and provisions of this Consent Judgment. If the Cabinet cannot complete the review of a submittal within ninety (90) days of receipt of the submittal, or within the time period otherwise provided in this Consent Judgment, the Cabinet shall so notify the Defendant before the expiration of the applicable review period. If the Cabinet fails to approve, provide comments or otherwise act on a submittal within ninety (90) days of receipt of the submittal, or within the time period otherwise provided in this Consent Judgment, any subsequent milestone date dependent upon such action by the Cabinet shall be extended by the number of days beyond the applicable review period that the Cabinet uses to act on that submittal.

#### TERMINATION

52. This Consent Judgment is subject to termination on the date that the Defendant certifies that it has met all requirements of this Consent Judgment, including, without limitation,

(a) completion of any SEPs, (b) payment of all penalties and stipulated penalties due, (c) submission and approval of the NMC Compliance Demonstration, CMOM Programs Self-Assessment, recommended CMOM improvements and schedules, Sewer Overflow Response Protocol (SORP), Sanitary Sewer Overflow Plan (SSOP), Interim Long Term Control Plan (LTCP), and final Long Term Control Plan (LTCP). This Consent Judgment shall terminate upon the completion of all of the requirements listed above.

53. The Defendant may request that the Cabinet make a determination that this Consent Judgment be terminated. Any such request shall be in writing and shall include a certification that the requirements of this Consent Judgment have been met. The Defendant shall serve a copy of any such request on the Cabinet through the office of its Division of Enforcement. If the Cabinet agrees that the Defendant has met all of the requirements listed above, the Cabinet and the Defendant shall file a joint motion with the Court seeking an order terminating the Consent Judgment. If the Cabinet determines not to seek termination of the Consent Judgment because it determines that all of the requirements listed above were not met, it shall so notify the Defendant in writing. The Cabinet's notice shall summarize the basis for its decision and describe the actions necessary to achieve final compliance. If the Defendant disagrees with any such determination by the Cabinet, it shall invoke the dispute resolution procedures of this Consent Judgment before filing any motion with the Court regarding the disagreement.

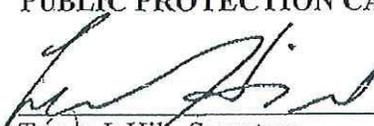
ORDER

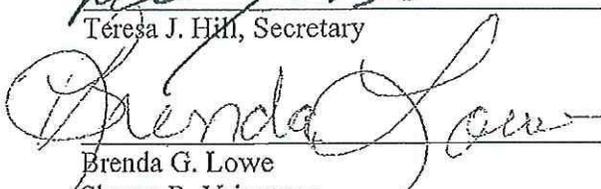
WHEREAS, the foregoing Consent Judgment is hereby entered as a Judgment of this Court this the 4<sup>th</sup> day of September, 2007.

  
\_\_\_\_\_  
JUDGE, FRANKLIN CIRCUIT COURT

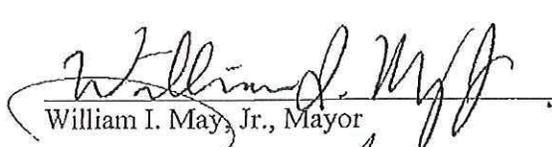
THE UNDERSIGNED Parties enter into this Consent Judgment and submit it to the Court for entry.

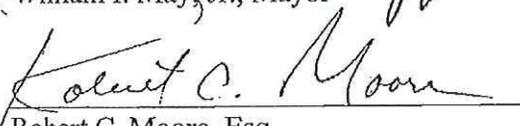
FOR THE COMMONWEALTH OF  
KENTUCKY, ENVIRONMENTAL &  
PUBLIC PROTECTION CABINET:

  
\_\_\_\_\_  
Teresa J. Hill, Secretary

  
\_\_\_\_\_  
Brenda G. Lowe  
Sharon R. Vriesenga  
Office of Legal Services  
Attorneys for Plaintiff

FOR CITY OF FRANKFORT:

  
\_\_\_\_\_  
William I. May, Jr., Mayor

  
\_\_\_\_\_  
Robert C. Moore, Esq.  
Attorney for Defendant