



May 12, 2017

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

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

Ms. Denisse Diaz, Chief  
NPDES Permitting and Enforcement Branch  
U.S. Environmental Protection Agency, Region 4  
Atlanta Federal Center  
61 Forsyth Street, S.W.  
Atlanta, Georgia 30303

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

To Whom It May Concern:

Pursuant to the above-referenced Consent Decree, Sanitation District No. 1 (SD1) is required to submit an annual report on the implementation of the Pump Station Overflow Elimination Plan, which received regulatory approval on May 14, 2008.

**38. Pump Station Plan.** The District shall provide an annual report within twelve months of approval of the Pump Station Plan on implementation of these watershed projects. Thereafter and until such projects are complete, the District shall provide an annual report on its implementation progress within sixty days after each anniversary date of the initial report.

A certification as required by the Consent Decree is also enclosed (Consent Decree paragraph 38).

To the best of my knowledge and belief, the enclosed report is true, accurate, and complete, and further demonstrates SD1's commitment to the mission of protecting and enhancing the water resources and quality of life in Northern Kentucky.

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May 12, 2017

If you have any questions or concerns, do not hesitate to contact me at 859-578-7465 or by e-mail at [achaney@sd1.org](mailto:achaney@sd1.org).

Best regards,



Adam Chaney  
Executive Director

AC/wck  
Enclosures

Sanitation District No. 1  
May 12, 2017

# Pump Station Overflow Elimination Plan 2017 Annual Report



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**CERTIFICATION**

Pump Station Overflow Elimination Plan 2017 Annual Report  
Consent Decree Case No. 2:05-cv-00199-WOB

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

  
Adam Chaney  
Executive Director

5-11-17  
Date

COMMONWEALTH OF KENTUCKY

COUNTY OF Kenton

)ss.

The foregoing instrument was acknowledged before me this 11 day of May, 2017 by Adam Chaney, Executive Director of Sanitation District No. 1.

  
NOTARY PUBLIC

Kenton County, Kentucky

My commission expires: 9-1-20

Angela M. Cook  
Notary Public  
Kentucky, State at Large  
Comm. Exp. 09-01-2020  
Notary ID 562735

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# **PUMP STATION OVERFLOW ELIMINATION PLAN**

## ***2017 ANNUAL REPORT***

May 12, 2017



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

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

PSOEP	Pump Station Overflow Elimination Plan
SD1	Sanitation District No. 1
WRWRF	Western Regional Water Reclamation Facility

## **SECTION 1: PUMP STATION OVERFLOW ELIMINATION PLAN**

### **1.1 Introduction**

One of the requirements of Sanitation District No.1's (SD1) Consent Decree is to develop a Pump Station Overflow Elimination Plan (PSOEP) that identifies watershed projects to eliminate sanitary sewer overflows at specified pump stations, throughout the service area. The pump stations that were required to be included in this plan, and their respective deadlines for elimination, are provided in Exhibit E of the Consent Decree. The PSOEP was submitted in 2007 and received regulatory approval on May 14, 2008. Upon approval of the PSOEP, the Consent Decree requires SD1 to provide an annual report on its implementation of the watershed projects included in the original plan. This document serves as the ninth annual update on the implementation of the PSOEP.

### **1.2 Project Status Updates**

Each of the 14 pump stations identified in the PSOEP has a unique set of circumstances that requires a customized solution to remediate its wet-weather capacity issues. A detailed listing of the projects and activities conducted to comply with the requirements of the PSOEP, including schedules and project updates for the current reporting period, can be found in Appendix A. To date, 13 of the 14 pump station overflow elimination projects have been completed.

#### Confirmed Elimination of SSO at Crestview Park Pump Station

SD1 completed the construction of the new Crestview Park Pump Station and two equalization pipes that provide 120,000 gallons of wet-weather storage, in August of 2015.

In 2015 and 2016, SD1 performed post-construction monitoring and model calibration of the collection system impacted by the improvements to ensure that the SSO has been eliminated. Monitoring to date has indicated that no overflows have occurred at the new pump station or the former upstream Recurring SSOs 2150050 and 2150090, since the completion of the project. All three SSOs have been eliminated.

SD1 recorded two back-to-back severe storms with its Silver Grove Rain Gauge, less than three miles from the Crestview Park Pump Station, on July 26 and July 28, 2016. The first storm produced 2.38 inches of rain and exceeded a 10-year, 1-hour event. The following storm produced 3.39 inches of rain and was approximately a 25-year, 6-hour event. Neither of these events produced an overflow at the new Crestview Park Pump Station or the two eliminated SSOs upstream of the station. The old Crestview Pump Station routinely spilled in storm events with a return interval of less than one year, and did so five times in 2014 and early 2015. The intense summer storms of 2016 have demonstrated that SD1's new Crestview Park Pump Station has an approximate 25-year level of service, with low antecedent moisture conditions.

#### Allen Fork Pump Station

During 2016 and early 2017, SD1 recorded approximately four SSOs due to operational failures at the Allen Fork Pump Station. These failures included a pump fault due to an area-wide power outage, a forcemain failure at the Burlington Pump Station, and equipment malfunctions with telemetry systems. The observed SSOs were documented in SD1's Consent Decree Quarterly Reports as operational failures. None of the SSOs have been determined to be explicitly due to a lack of capacity during wet weather. SD1 continues to implement improvements that will benefit Allen Fork Pump Station's wet-weather capacity, beyond the required Phase I remedial measures provided in the PSOEP and the Western Regional Collection System and WRWRF improvements provided in SD1's Watershed Plans for Northern Kentucky. Additionally, SD1 continues to inspect and closely monitor wet-weather flows with a redundant level sensor at the eliminated Recurring Wet Weather SSO 2390002, to confirm the causes of overflows.

### **1.3 Project Extension**

#### Lakeview Pump Station Overflow Elimination Extension

The original deadline for construction of the remedial measures at Lakeview Pump Station in Exhibit E of the Consent Decree was December 31, 2013. SD1 provided a revised schedule for final improvements at Lakeview Pump Station with the March 31, 2013 resubmission of the Watershed Plans for Northern Kentucky, which extends the deadline to December 31, 2023. Formal approval of the deadline extension was given by the Kentucky Department for Environmental Protection and the United States Environmental Protection Agency in a letter dated May 13, 2013, which can be found in Appendix B.

SD1 submitted a final version of the Watershed Plans for Northern Kentucky on March 14, 2014.

**APPENDIX A:**

***Pump Station Overflow Elimination Plan  
Project Status Updates***

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Pump Station Overflow Elimination Plan: Project Status Updates

As of May 2017

Pump Station	Required Overflow Elimination Date	Actual Completion Date	Solution Summary	Current Status
Alex-Licking	December 31, 2010	2008	Overflow elimination through replacement of the station with a new pump station sized to convey peak wet weather flows.	<b>Complete</b>
Allen Fork	December 31, 2015	2014	Construction of the Burlington PS then reroute the Allen Fork force main to the new Burlington PS. Identify and remove I/I sources upstream of Allen Fork PS. Construction of the Western Regional Conveyance System and the Western Regional WRF and redirection of the Burlington pump station to the Western system.	<b>Complete:</b> In addition to actions discussed in Section 7.6.1 of the Watershed Plan, the Western Regional Water Reclamation Facility (WRWRF) and the associated conveyance system were completed in 2013. Installation of 6,665 feet of 24-inch force main (replacement of existing 24-inch force main and upsizing of 12-inch force main) was completed in 2013. Burlington PS pump modification occurred to restore original pumping capacity.  Growth is occurring much slower than originally forecasted. Additional improvements, if needed, include replacement of the pump impellers at the Allen Fork Pump Station with larger impellers to increase pump station capacity, replacement of the pump impellers and volutes at the Burlington Pump Station to increase the pump station capacity, and upsizing the discharge piping at the Burlington Pump Station to prevent high velocities in the existing piping.  In 2017, SD1 plans to reroute approximately 100 linear feet of gravity sewer that serves approximately 70 homes from the Allen Fork PS to the Burlington PS, which will further improve wet-weather capacity at the Allen Fork PS and improve pumping operations. This project is listed as the Burlington Sewer Reroute in Appendix B of the Quarterly Reports.
Ash Street	December 31, 2018*		Construct a new pump station on Ash St in Silver Grove that will divert flow from the Ohio River Interceptor and the combined system to the Eastern Regional Water Reclamation Facility. Requires the construction of approximately 5.25 miles of 20" force main.  *Anticipated completion date has been provided. The approved deadline for construction of the pump station and forcemain is two years after obtaining a cleared site certificate.	The designs of the pump station and force main are complete. SD1 has successfully acquired most of the easements needed for construction of the force main; however, some property owners have challenged SD1's right to acquire some of the remaining easements. The project is on hold pending the outcome of ongoing litigation.
Crestview	December 31, 2015	2015	A final solution will be selected according to the following schedule: 1) Calibrate hydraulic model and develop future condition models by June 12, 2008; 2) Select alternative solution for design by March 1, 2013; 3) Prepare final design for alternative solution selected by June 1, 2014; 4) Begin construction on selected alternative solution by January 1, 2015; 5) Selected alternative: construction of a new pump station and storage of 120,000 gallons (complete August 2015)	<b>Complete</b> Post-construction monitoring and model calibration are ongoing.
Harrison Harbor	December 31, 2010	See PS Overflow Elimination Annual Report May 11, 2009	Remove this station from the Exhibit E list, as monitoring and documentation show no overflow activity.	<b>Complete</b>
Highland Acres	December 31, 2010	2010	Overflow elimination through Kentucky Aire Pump Station removal. Peak wet weather flows are now being conveyed to the new WRWRF, through gravity sewer. The new gravity sewer is sized to convey peak wet weather flows under ultimate build-out conditions.	<b>Complete</b>
Kentucky Aire	December 31, 2015	2014	Overflow elimination through pump station removal. Flows are now being conveyed to the new WRWRF by a new gravity sewer sized to convey peak wet weather flows under ultimate build-out conditions.	<b>Complete</b>
Lakeview	December 31, 2023		The proposed solution includes: 1) Increase in the pump station capacity and reliability to 22.5 MGD through the planned pumps replacement project; 2) Redirect a portion of the Lakeview tributary area to the new Western Regional System; 3) Conduct SSES investigations and targeted, cost-effective, I/I removal in the area remaining tributary to Lakeview to reduce extraneous wet weather flows; 4) Gray infrastructure improvements: local storage and upsized conveyance.	The status of each component is as follows: 1) <b>Complete 2013</b> 2) The Western Regional improvements and Narrows Rd Diversion PS ( <b>Complete 2012</b> ). The Kentucky Aire PS elimination provided additional capacity to Lakeview by rerouting flows to Western Regional Water Reclamation Facility (WRWRF) ( <b>Complete 2014</b> ). Redirection of the Richwood PS flows from Lakeview PS to WRWRF is currently under construction; 3) The priority I/I source identification & removal program is ongoing. Model calibrations for Southern Kenton Interceptor and Horsebranch subcatchment are complete. Additional flow monitoring projects and model calibrations of the major interceptors serving Covington and Wilder are partially complete; 4) Gray infrastructure planning to begin, per revised schedule provided in Watershed Plan and approved in May 13, 2013 letter from USEPA and Cabinet.
Riley Road No.1	December 31, 2010	2009	Overflow elimination through pump station removal. The new Riley Road Pump Station eliminates both the existing Riley Road No. 1 and Riley Road No. 2 stations.	<b>Complete</b>
Ripple Creek	December 31, 2010	2010	Overflow elimination through pump station removal. A new gravity sewer is conveying peak dry and wet weather flows to the existing Wolpert Pump Station. Storage has been constructed at the Wolpert Pump Station to store excess wet weather flow to ensure capacity is not exceeded during wet weather. Additionally, targeted I/I removal and rehabilitation of the existing sewers upstream of the Ripple Creek Pump Station were conducted.	<b>Complete</b>
South Hampton	March 31, 2015	2012	Overflow elimination through pump station removal. Flows are conveyed to the new WRWRF by the new Frogtown gravity sewer sized to convey peak wet weather flows under ultimate build-out conditions.	<b>Complete</b>
South Park	December 31, 2010	2010	SSES and flow monitoring work concluded that there are no dry or wet weather capacity-related issues at this station. To date, only two overflows have occurred at the South Park Pump Station and both were due to power outages. To eliminate any potential future overflows due to power outages, a backup power solution was installed at this pump station.	<b>Complete</b>
Sunset	December 31, 2010	2010	To meet the 2010 Consent Decree deadline with a temporary solution, a new force main was built to increase the pump station's capacity to eliminate the overflow in a typical year. A new diesel driven pump was also installed for backup during power outages. In July of 2014, the Sunset Pump Station was eliminated as the permanent solution. Flows are now conveyed by gravity to the new Arcadia Pump Station.	<b>Complete</b>
Taylorport	December 31, 2010	2004	Overflow elimination through pump station upgrades to convey wet weather flows.	<b>Complete</b>
Union	March 31, 2015	2012	Overflow elimination through pump station removal. Flows are conveyed to the new WRWRF by the new Union gravity sewer sized to convey peak wet weather flows under ultimate build-out conditions.	<b>Complete</b>

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**APPENDIX B:**

***May 13, 2013 Letter Regarding SD1 Watershed Plans***

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STEVEN L. BESHEAR  
GOVERNOR

ENERGY AND ENVIRONMENT CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF ENFORCEMENT  
300 FAIR OAKS LANE  
FRANKFORT, KENTUCKY 40601  
www.kentucky.gov

LEONARD K. PETERS  
SECRETARY

May 13, 2013

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED



Mark W. Wurschmidt, P.E., BCEE  
Deputy Executive Director of Engineering  
Sanitation District #1 of Northern Kentucky  
1045 Eaton Drive  
Ft. Wright, Kentucky 41017

Re: Sanitation District No. 1 Watershed Plans  
Civil Action No. 2:05-CV-199-WOB

Dear Mr. Wurschmidt:

The Kentucky Department for Environmental Protection (KDEP) and the United States Environmental Protection Agency (EPA) have reviewed your emailed submittal of October 26, 2012, which addressed the Action Items for SD1 identified at our meeting at SD1's offices on July 27, 2012, and in follow-up emails and phone calls. KDEP and EPA have the following comments on your responses to the Action Items.

In addition, EPA and KDEP have provided responses below to the Action Items identified at the July 27, 2012, meeting for EPA and KDEP to address.

**Action Items for SD1:**

**Action Item No. 1: Prepare minutes of meeting and list of action items.**

Minutes of the meeting were reviewed by EPA and KDEP with comments provided August 31, 2012. No further comment.

**Action Item No. 2: Draft a new Exhibit E to reflect schedule.**

The revised Exhibit E in Attachment 1 which includes the Ash Street pump station project with a deadline, as requested by EPA and KDEP at the July meeting, is acceptable.

For the revised Exhibit D in Attachment 1, removing project C-039-00 [Western Regional – Richwood Sewer and Force Main] is acceptable. However, there are some discrepancies between the “Summary of Initial Watershed Projects” table provided in the Annual Reports and Exhibit E. Please explain the discrepancies below before we determine whether the revised Exhibit D is acceptable.

1. C-006-00 [Eastern Regional – Design and Construction of Eastern Regional Outfall Sewer]. This project does not appear on the summary table in the Annual Report.
2. C-077-00 [Eastern Regional – Contract 5—Sunset Force Main and Gravity Sewer, Alex Licking Force Main]. This project does not appear on the summary table in the Annual Report.
3. C-080-00 [Eastern Regional – Contract 8—Alex Licking and Sunset Pump Stations]. This project has a different CIP Title in the summary table in the Annual Report.
4. C-414-93 [Sunset Pump Station and Forcemain Improvements]. This project is in the summary table in the Annual Report but is not in Exhibit E

**Action Item No. 3: For the Combined Sewer System, provide information concerning total annual system volume, the portion of this volume that is storm water, the volume passing through secondary treatment, the volume passing through the High Rate Treatment Facilities and the remaining annual overflow volume at the end of the Consent Decree period. Also, clarify the source of this information (i.e. Modeled and/or flow monitored).**

SD1's response is acceptable. Similar tables showing the model predicted volumes for the Typical Year and at the end of the 5-Year Improvement Program should also be included in the Watershed Plan.

**Action Item No. 4: Provide more specific information concerning the revised deadline date for elimination of the remaining 1 million gallons of annual overflow from the Lakeview Pump Station. Include the start and end dates for the gray project that will eliminate this overflow. For the Lakeview Pump Station, in addition to the specific information concerning the revised deadline date for elimination of the remaining 1 million gallons of annual overflow from the Lakeview Pump Station, include information about the rationale for the timing of project inception and duration of the project that will eliminate this overflow.**

SD1's Action Item 4 response describes the ultimate elimination of SSOs at the Lakeview PS and includes the table on page 3 of SD1's responses (below) that indicates that final project completion for elimination of the Lakeview PS constructed overflow outfall is requested to be December 31, 2025, which coincides with the final compliance date of the Consent Decree to eliminate non-Exhibit E SSOs. However, the March 31, 2011 Watershed Plans indicate on Figure 8-2, page 8-7 that the Richwood PS and WS6 PS and associated projects are "facility planning"<sup>1</sup> projects not associated with the SSOs currently plaguing the system and therefore will not be considered as necessary projects needed to meet any regulatory deadlines to eliminate the SSO at the Lakeview PS. EPA and KDEP agree that a deadline of December 31, 2023 is reasonable for final elimination of the SSO located at the Lakeview PS.

Each Watershed Plan Update should re-evaluate whether the ultimate elimination of the SSO at the Lakeview PS can be eliminated sooner than December 31, 2023.

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<sup>1</sup> *Watershed Plan (3/31/2011)*, page 8-3 "**Facility Planning Projects**: Project and costs associated with the 2030 planning horizon that are not associated with current SSOs. These projects provide the trunk sewers and pump stations necessary to meet the demand of service area growth and not create new SSOs."

### Lakeview System Improvements Schedule

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
	B	E	R	E	R	E	B	E	R	E	B	E	B	E
<b>Task 6 Lakeview Improvements</b>														
6.1 Lakeview Post Wet Flow Monitoring														
6.2 Lakeview System Model Recalibration														
6.3 Lakeview Rehabilitation - I/I Removal														
6.4 Lakeview SSES Area Stormwater BMPs where cost-effective														
6.5 Lakeview Post Rehabilitation Flow Monitoring														
6.6 Lakeview System Model Recalibration														
6.7 Lakeview System Gray Improvements Plan Development														
6.8 Lakeview Southern Kenton Interceptor Sewer Improvements														
6.9 Lakeview EQ Phase 2 Storage tank														
6.10 Other Lakeview Conveyance Improvements														
6.11 Richwood PS and EQ														
6.12 WS PS and piping														

- Preliminary and final design  
 - Construction

**Action Item No. 5: Provide more detailed descriptions and the projected schedule for the list of GI projects. Clarify that GI is proposed for SSO areas as a way to reduce volume of SSO and provide additional water quality benefit.**

SD1's response is acceptable.

**Action Item No. 6: Provide components of the formula and calculations regarding the 85% removal.**

SD1's response states that the sanitary component of wet weather flow was calculated by taking the average dry weather flow and dividing by 3 because modeling showed that wet weather conditions occurred 1/3 of the typical year. Please justify why this method was used instead of having the model determine the amount of sanitary flow that occurred during wet weather conditions.

It is understood that the assumed antecedent moisture condition is "saturated," (AMC III) however more details regarding the criteria distinguishing a "wet weather event" are requested. Please define what SD1 is using as a "wet weather condition" including details relating rainfall and runoff, the duration of periods with no measurable precipitation prior to the "wet weather condition" and/or pump station flow levels that may dictate the onset of a "wet weather event".

Does the modeling show that there are any times where there is flow that bypasses secondary treatment at Dry Creek WWTP when it is not a wet weather condition?

Similar tables showing the model predicted volumes for the Typical Year and at the end of the 5-Year Improvement Program should also be included in the Watershed Plan.

**Action Item No. 7: For the Dry Creek Treatment Plant, provide information concerning the current and future blending operations after all upgrades have been completed. Address off-site feasible alternatives to blending, including storage and controlled pumping rate to obtain 100% secondary treatment.**

There is confusion about what Table 3 on page 7 in SD1's responses to the Action Items is representing. Are the 100, 130, and 160 MGD secondary treatment scenarios in Table 3 the same as the ones in Appendix 7-A of the Watershed Plans in the No Feasible Alternatives analysis (which do not include combined flow proposed to be treated at HRTs)? Does Table 3 include separate sanitary flow? Or are these capacities just for combined flow from Bromley pump

station? Is \$344 million for total CSO facility costs in Table 3.33 of the Watershed Plans included in each scenario in Table 3? If so, why are HRTs being included in the costs when Table 3 is comparing the costs of HRT vs. storage in a deep tunnel? Please break apart the "Total Gray CSO Facility Cost" into costs for HRTs, storage, and WWTP.

**Action Item No. 8: Clarify what projects are going to be included in the next 5 year plan (to the best extent possible at this time).**

SD1's response is acceptable.

**Action Item No. 9: Reference in Section 8 of the Plan the project detail shown in Section 3 to remove doubt that the projects planned for completion through the entire plan are those described in Section 3.**

SD1's response is acceptable.

**Action Item No. 10: Provide more detail in the Gantt charts (Figure 8.2) to show the various phases of the projects. If possible, show the decision point in the timeline when SD1 will need to move forward with gray infrastructure projects to meet the Consent Decree deadline dates.**

SD1's response is acceptable.

**Action Item No. 11: Prepare a discussion of Kentucky HB 26 and other state laws that impact rate-setting.**

SD1's response is acceptable.

**Action Item No. 12: Provide red-lined revisions to the Plan and, upon agreement, incorporate into a clean revised Plan.**

A red-line or marked-up revised Watershed Plan has not been provided for review.

**Action Item No. 13: For the Lakeview Pump Station, in addition to the specific information concerning the revised deadline date for elimination of the remaining 1 million gallons of annual overflow from the Lakeview Pump Station, include information about the rationale for the timing of project inception and duration of the project that will eliminate this overflow.**

See EPA/KDEP comments under Action Items Nos. 2 and 4 above.

**Action Item No. 14: For the Green Infrastructure projects, in addition to providing more detailed descriptions and the projected schedule for the list of projects, EPA requests additional information on the process and timing that to be utilized of when these projects will be further evaluated for inclusion into the plan, i.e. evaluated and included or evaluated and excluded.**

SD1's response is acceptable.

**Action Item No. 15: For the entirety of the submittal, edit the documents to remove the concept of "conceptual". The documents submitted should be the plans and activities SD1 proposes that will meet the specifics of the consent decree, their NPDES permit requirements and the Clean Water Act.**

See EPA/KDEP comment under Action Item No. 12 above. Replacing the word "conceptual" with "preliminary" does not necessarily remove the concept of "conceptual". Please review the

language in section 8.8 on pages 8-40 to 8-41 of the Watershed Plans. EPA and KDEP cannot approve Watershed Plans with a statement such as on the bottom of page 8-40 that says that "SD1 cannot commit to full implementation of this Integrated Plan by 2025..." Also please review the bolded paragraph on page 4-16 of the Watershed Plans. EPA and KDEP cannot approve Watershed Plans with statements such as "If this occurs, SD1 will have no choice but to modify the [Five Year Improvement] program to reflect changed regional priorities and the ratepayers' ability to pay," which suggests that SD1 may make unilateral decisions to not complete the approved projects within the schedule approved in the Watershed Plans. The Five Year Improvement Program is not conceptual or preliminary. It is a final plan and if the parties agree to modify it, those modifications must be made in accordance with the Consent Decree.

**Action Item No. 16: For review of feasible alternatives, SD1 should provide their alternatives analysis for options within the sewer(s). As discussed, prior siting efforts for the Eastern & Western Regional systems should be included to demonstrate prior feasible alternatives chosen to illustrate the feasible options available to SD1.**  
SD1's response is acceptable.

**Action Items for EPA/KDEP:**

**Action Item No. 1: Confirm that SD1 has identified all of the action items that will address the agencies' concerns so that the technical Plan can be approved.**

EPA responded by email on August 31, 2012, with clarifying comments on the Action Items identified by SD1 in the minutes of the July 27, 2012, meeting.

**Action Item No. 2: Clarify position on Dry Creek treatment plant blending.**

EPA and KDEP have reviewed the No Feasible Alternatives analysis in Appendix 7-A of the Watershed Plans. Many of the criteria for approval of a CSO-related bypass have been addressed; however, EPA and KDEP have the following comments:

- The Watershed Plan includes consideration of most of the alternatives to a bypass suggested by the CSO Policy except for non-biological secondary treatment. Please include alternatives for High Rate Treatment units at Dry Creek WWTP in Appendix 7-A. In addition, since biological High Rate Treatment has become a feasible technology, it should also be included as a cost-effective secondary treatment alternative to a bypass.
- The Watershed Plan does not provide justification for the cut-off point at which the flow will be diverted from the secondary portion of the Dry Creek WWTP. It is reasonable to accept 160 MGD as the maximum capacity to consider for primary or secondary treatment, given the capacity limitations of getting wastewater to the WWTP and of the outfall pipe. However, the following information is missing:
  - On page 3 of the NFA in Appendix 7-A, a "previous collection system alternative evaluation showed that peak flows from the separate system at Dry Creek WWTP would reach a maximum of 100MGD under future build-out conditions and capacity increases in the collection system to alleviate current bottlenecks and wet weather overflows" is referenced but not included. Please provide this evaluation.
  - Please provide justification for choosing 130 MGD to evaluate for secondary treatment vs. a higher or lower peak flow rate.

- There is no supporting information for the flow volumes listed in Table 4-3 of Appendix 7-A, "Incremental Increase in Typical Year Secondary Treatment (MG per Year)". Please provide a graph and/or summary of flows showing how often flows are predicted to be higher than each flowrate evaluated, including the duration, total volume, and highest flowrate for each high flow event.
- The criteria in the bypass regulation at 40 CFR 122.41(m)(4)i(B) of scheduling maintenance during normal periods of equipment downtime as a feasible alternative to a bypass is not readily addressed in the Watershed Plan. Please address this criteria.

**Action Item No. 3: Complete review of Financial Capability Assessment.**

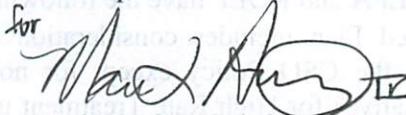
The Financial Capabilities Analysis (FCA) has been completed and, based on numbers provided by SD1, our FCA corroborated SD1's results for High Burden.

As agreed upon during the July 27, 2012 meeting and in subsequent discussions, SD1 will provide a red-line/marked-up revision of the Watershed Plans within 90 days of receipt of this letter. Also, please provide the additional information requested in EPA and KDEP's responses above within 60 days of receipt of this letter. If you have any questions, please contact Jill Bertelson at (502) 564-3410, extension 4912, or you may contact Dennis Sayre of EPA Region 4 at (404) 562-9756.

Sincerely,



Jeffrey Cummins, Director  
Division of Enforcement  
KY Department for Environmental Protection

for 

Denisse Diaz, Chief  
Clean Water Enforcement Branch  
Water Protection Division  
EPA, Region 4

JAC/jmb

cc: Denisse D. Diaz, Chief, CWEB, U.S. EPA Region 4