

Jefferson County, Alabama
Environmental Services Department

I/I Improvements Program

Quarterly Report
to EPA
October - December 2021

Quarterly Report No. 100



JEFFERSON COUNTY COMMISSION



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LETTER OF CERTIFICATION

SUBJECT: Quarterly Report No. 100: October – December, 2021

DATE: January 12, 2022

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.

Environmental Services Department

Director, Environmental Services
Title

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Background

This *Quarterly Report* is submitted to EPA in accordance with paragraph Q. *Reporting Requirements* of Section VII *Remedial Actions* of the Consent Decree. *Quarterly Reports* are to be submitted to EPA within thirty (30) days of the end of each proceeding calendar quarter. This report covers progress of the County's I/I Improvements Program prior to and during the Fourth Quarter, 2021.

This Report contains the descriptive summary of Remedial Actions required in the Consent Decree.

Remedial Actions: Current Status

Phase 1

Submittal of the monthly *Summary of Unpermitted Discharges* is the only ongoing activity under Phase 1. *Summary* reports are submitted to EPA and the citizen plaintiffs and placed in the Public Document Repositories each month. Concurrent with the *Summary* reports, documentation in support of the subject month's wet-weather related discharges is submitted under the requirements of Section XI.

Phase 2

All deliverables due to date under Phase 2 have been submitted to EPA on schedule. There were no Phase 2 documents submitted to EPA during the Fourth Quarter, 2021.

Summary of Status of Phase 1 and Phase 2 Deliverables

The current status of all Phase 1 and Phase 2 deliverables is shown in the following Table I.

Other Activities

Status update meetings were held on October 5, 21 and November 18, 2021. A follow up meeting has been scheduled for January 10, 2022.

Jefferson County, AL
Environmental Services Department
I/I Improvements Program

Table I: Status of Phase 1 and Phase 2 Deliverables
Status as of: January 04, 2022

Deliverable Item	Draft Due to EPA	Submitted to EPA		Approved by EPA	Notes
		Draft	Revised		
Phase 1					
PSSA	8-15-95	8-15-95	10-30-95	12-21-95	
I/I Plan	9-14-95	9-14-95	11-20-95	12-19-95	
SSES Plan	10-16-95	10-16-95	1-2-96	2-4-96	
CPE Plan	10-16-95	10-16-95	12-5-95	1-25-96	
Initial WTSCIP	10-30-95	10-30-95	1-19-96	2-20-96	
Unpermitted Discharge Program	10-30-95	10-30-95	N/A	N/A	
CA Plan	11-13-95	11-13-95	N/A	1-24-96	
Water Quality Monitoring Plan	11-28-95	11-27-95	2-26-96	9-5-96	
Phase 2					
I/I Reports					
Cahaba River	2-1-96	2-1-96	N/A	3-19-96	
Leeds	4-1-96	4-1-96	6-5-96	7-11-96	
Trussville	4-1-96	4-1-96	6-5-95	7-11-96	
Village Creek	2-1-96	2-1-96	N/A	4-19-96	
Valley Creek	5-1-96	5-1-96	N/A	6-17-96	
Five Mile Creek	9-13-96	9-13-96	N/A	12-2-96	
Turkey Creek	5-1-96	5-1-96	N/A	6-17-96	
Prudes Creek	5-1-96	5-1-96	N/A	6-17-96	
Warrior	5-1-96	5-1-96	N/A	6-17-96	
SSES Reports					
Cahaba River	2-1-96	2-1-96	4-24-96	6-3-96	
Leeds	6-1-96	6-3-96	N/A	7-11-96	
Trussville	6-1-96	6-3-96	N/A	7-11-96	
Village Creek Ph. 1	1-13-97	1-13-97	4-2-97	5-16-97	
Village Creek Ph. 2	1-2-98	1-13-97	4-2-97	5-16-97	
Valley Creek	3-2-98	3-2-98	N/A	4-29-98	
Shades Creek	7-3-00	7-3-00	9-25-00	12-19-00	
Five Mile Creek Ph. 1	3-2-98	3-2-98	N/A	4-29-98	
Five Mile Creek Ph. 2	7-3-00	7-3-00	9-25-00	12-19-00	
Turkey Creek	7-3-00	9-28-99	N/A	11-23-99	
Prudes Creek	7-3-00	7-3-00	9-25-00	12-19-00	
Warrior	7-3-00	7-3-00	9-25-00	12-19-00	
Capacity Analysis Reports					
Cahaba River	5-1-96	5-1-96	N/A	N/A	No EPA response required.
Leeds	9-3-96	9-3-96	N/A	N/A	No EPA response required.
Trussville	9-3-96	9-3-96	N/A	N/A	No EPA response required.
Village Creek Ph. 1	5-15-97	5-15-97	N/A	N/A	No EPA response required.
Village Creek Ph. 2	5-15-97	5-15-97	N/A	N/A	No EPA response required.

Deliverable Item	Draft Due to EPA	Submitted to EPA		Approved by EPA	Notes
		Draft	Revised		
Valley Creek	6-1-98	6-1-98	N/A	N/A	No EPA response required.
Shades Creek	10-2-00	10-2-00	N/A	N/A	No EPA response required.
Five Mile Creek Ph. 1	6-1-98	6-1-98	N/A	N/A	No EPA response required.
Five Mile Creek Ph. 2	10-2-00	10-2-00	N/A	N/A	No EPA response required.
Turkey Creek	12-28-99	12-23-99	N/A	N/A	No EPA response required.
Prudes Creek	10-2-00	10-2-00	N/A	N/A	No EPA response required.
Warrior	10-2-00	10-2-00	N/A	N/A	No EPA response required.
Capacity Improvement Schedules					
Cahaba River	10-28-96	10-28-96	N/A	11-20-98	
Leeds	3-3-97	3-3-97	N/A	4-24-97	No capacity projects indicated.
Trussville	3-3-97	3-3-97	N/A	4-24-97	No capacity projects indicated.
Village Creek Ph. 1	11-12-97	11-12-97			No capacity projects indicated.
Village Creek Ph. 2	11-12-97	11-12-97			No capacity projects indicated.
Valley Creek	11-27-98	11-25-98	N/A	1-22-99	No capacity projects indicated.
Shades Creek	4-2-01	4-2-01	N/A	5-29-01	No capacity projects indicated.
Five Mile Creek Ph. 1	11-27-98	11-25-98	N/A	1-22-99	No capacity projects indicated.
Five Mile Creek Ph. 2	4-2-01	4-2-01	N/A	5-29-01	No capacity projects indicated.
Turkey Creek	6-20-00	6-20-00	N/A	8-24-00	No capacity projects indicated.
Prudes Creek	4-2-01	4-2-01	N/A	5-29-01	No capacity projects indicated.
Warrior	N/A				Not required all lines less than 18" diameter
CPE Reports - all systems	11-4-96	11-4-96	3-21-97	3-28-97	
PIP's - all systems	5-5-97	5-5-97	7-25-97	11-10-97	
Short Term O&M Plan	8-4-98	8-4-98	N/A	2-19-99	Part of Informal Dispute Resolution settlement
Long Term O&M Plan	1-18-01	1-18-01	4-16-01	7-27-01	Provisionally approved by EPA on 4/16/01

WTSCIP Amendments (Number)					
SSES-related					
Cahaba River (#1)	1-3-97	1-3-97	N/A	2-24-97	
Leeds (#3)	9-2-97	9-2-97	12-19-97	1-14-98	
Leeds (#3A)	10-1-98	10-1-98	N/A	11-9-98	
Trussville (#2)	9-2-97	9-2-97	N/A	10-31-97	
Village Creek Ph. 1 (#8)	10-1-98	10-1-98	N/A	11-9-98	
Village Creek Ph. 2 (#8)	10-1-98	10-1-98	N/A	11-9-98	
Valley Creek (#10)	10-1-99	10-1-99	N/A	11-3-99	
Shades Creek (#16)	1-31-03	1-31-03			*Awaiting EPA approval
Five Mile Creek Ph. 1 (#11)	2-1-00	2-1-00	N/A	2-28-00	
Five Mile Creek Ph. 2 (#17)	1-31-03	1-31-03			*Awaiting EPA approval
Turkey Creek (#12)	2-1-01	2-1-01	N/A	3-14-01	
Prudes Creek (#14)	7-31-02	7-31-02			*Awaiting EPA approval
Warrior (#15)	7-31-02	7-31-02			*Awaiting EPA approval
CIS-related					
Cahaba River (#5)	1-30-98	1-30-98	N/A	11-20-98	
Leeds	N/A	N/A	N/A		No capacity problems identified in CAR

Deliverable Item	Draft Due to EPA	Submitted to EPA		Approved by EPA	Notes
		Draft	Revised		
Trussville	N/A	N/A	N/A		No capacity problems identified in CAR
Village Creek Ph. 1	N/A	N/A	N/A		No capacity problems identified in CAR
Village Creek Ph. 2	N/A	N/A	N/A		No capacity problems identified in CAR
Valley Creek	N/A	N/A	N/A		No capacity problems identified in CAR
Shades Creek	N/A	N/A	N/A		No capacity problems identified in CAR
Five Mile Creek Ph. 1	N/A	N/A	N/A		No capacity problems identified in CAR
Five Mile Creek Ph. 2	N/A	N/A	N/A		No capacity problems identified in CAR
Turkey Creek	N/A	N/A	N/A		No capacity problems identified in CAR
Prudes Creek	N/A	N/A	N/A		No capacity problems identified in CAR
Warrior	N/A	N/A	N/A		No CIS since all lines are less than 18" diameter
PIP-related					
Five Mile Creek WWTP (#6)	4-1-98	4-1-98	N/A	11-20-98	
Valley Creek WWTP- Sludge (#4)	12-31-97	12-30-97	N/A	3-13-98	
Valley Ck. WWTP-PFWWTP(#13)	1-16-02	1-16-02			*Awaiting EPA approval
Village Creek WWTP -Sludge(#7)	7-1-98	7-1-98	N/A	12-4-98	
Village Creek - PFWWTP (#9)	5-3-99	5-3-99	N/A	6-4-99	
Turkey Creek WWTP	N/A	N/A	N/A		Recommendations completed

Note: Italicized Dates are Projected Only

"N/A" = Not Applicable to this deliverable

Phase 3

Automatic Diversion Structures

- Watkins Branch was eliminated on July 31, 1995
- Hurricane Branch was eliminated on February 10, 1997
- Horse Farm was eliminated on June 11, 1997
- Barton Branch was eliminated on September 1, 2000
- Tarrant Springs Branch was eliminated on October 27, 2000

Cahaba River Collection System

The Cahaba River Collection System Rehabilitation was completed on April 1, 1999.

The Cahaba River Collection System Capacity Improvement Projects were completed on February 20, 2001.

Five Mile Creek Collection System

The Five Mile Creek Phase 1 Collection System Rehabilitation Upstream of Barton Branch (Contracts 1-7) was completed on May 31, 2004.

The Five Mile Creek Phase 2 Collection System Rehabilitation Downstream of Barton Branch (Contracts 8-20) was completed on June 27, 2006.

The Five Mile Creek Capacity Improvement Projects were completed on August 8, 2001.

Leeds Collection System

The Leeds Collection System was completed on January 1, 2000. The provisions of the Consent Decree applicable to the Leeds Complete Waste Treatment System were terminated April 23, 2012.

Prudes Creek Collection System

The Prudes Creek Collection System was completed on March 31, 2004.

The provisions of the Consent Decree applicable to the Prudes Creek Complete Waste Treatment System were terminated April 29, 2009.

Shades Creek Collection System

The Shades Creek Collection System was completed on August 21, 2006.

Trussville Collection System

The Trussville Collection System was completed on May 1, 1999.

The provisions of the Consent Decree applicable to the Trussville Complete Waste Treatment System were terminated February 23, 2009.

Turkey Creek Collection System

The Turkey Creek Collection System was completed on April 30, 2003.

The provisions of the Consent Decree applicable to the Turkey Creek Complete Waste Treatment System were terminated December 8, 2008.

Valley Creek Collection System

The Valley Creek Collection System was completed on August 30, 2006.

Village Creek Collection System

The West-area projects were completed on August 9, 2001. The East-area projects were completed on March 17, 2004.

Warrior Collection System

The Warrior Collection System was completed on July 16, 2003.

The provisions of the Consent Decree applicable to the Warrior Complete Waste Treatment System were terminated April 16, 2008.

Five Mile Creek WWTP

The Five Mile Creek WWTP Flow Metering and Sampling was completed on February 21, 2000.

Valley Creek WWTP

The Valley Creek WWTP Sludge Digestion was completed on February 26, 2001. Peak Flow Facilities Phase 5 Influent Pump Station was made fully operational on December 18, 2007.

Village Creek WWTP

The Village Creek WWTP Digestion and Dewatering was completed on January 10, 2001.

The Village Creek WWTP Peak Flow Facilities were completed on June 19, 2003.

Remedial Actions: Projected for Upcoming Quarter

Although not undertaken directly as a Consent Decree deliverable, the County is currently updating and/or consolidating its standard construction specifications. Specifications were available for public review and comment during the First Quarter, 2016. Comments were reviewed during the Fourth Quarter, 2016. Final specification issuance is projected during the First Quarter, 2022. A revised CMOM was provided to EPA during the Fourth Quarter, 2016.

Phase 1

Submittal of the monthly *Summary of Unpermitted Discharges* to EPA and the citizen plaintiffs is the only activity under Phase 1 planned for the First Quarter, 2022. Concurrent with the *Summary* reports, documentation in support of the subject month's wet-weather related discharges will also be submitted under the requirements of Section XI.

Phase 2

There are no Consent Decree Deliverables projected to be submitted to the EPA during the First Quarter, 2022.

Phase 3

Cahaba River Collection System

Per the approved WTSCIP amendments No.1 and No. 5, evaluation of the rehabilitation results and performance of the Cahaba River Collection System continues.

A preliminary draft of the Cahaba River Complete Waste Treatment System Consent Decree Termination Plan was submitted on April 6, 2009 with comments due on or about May 20, 2009. The EPA responded with comments in a letter dated April 30, 2009. The Jefferson County Environmental Services Department responded to those comments in a letter dated May 29, 2009. The comments were discussed in a meeting between EPA and JCESD on October 19, 2009 in the EPA's Atlanta office. Dynamic hydraulic model calibration is complete; capacity analysis is complete. Basin optimization is completed. Remedial measures are being updated to include optimization results. Flow data model validation is in progress for the 5-year model update.

Five Mile Creek Collection System

Per the approved WTSCIP amendments No. 11 & 17, evaluation of the rehabilitation results and performance of the Five Mile Creek Collection System continues. Dynamic hydraulic model calibration is complete; capacity analysis is complete. Basin optimization is completed. Remedial measures recommendations are being evaluated.

Leeds Collection System

The provisions of the Consent Decree applicable to the Leeds Complete Waste Treatment System were terminated April 23, 2012. The existing dynamic hydraulic model of the System has been updated. Dynamic hydraulic model calibration is complete; capacity analysis is complete. Remedial measures are being evaluated and implemented.

Prudes Creek Collection System

The provisions of the Consent Decree applicable to the Prudes Creek Complete Waste Treatment System were terminated April 29, 2009. Dynamic hydraulic model calibration is complete; capacity analysis is complete. Remedial measures are being evaluated and implemented.

Shades Creek Collection System

Per the approved WTSCIP amendment No. 16, evaluation of the rehabilitation results and performance of the Shades Creek Collection System continues. Dynamic hydraulic model calibration is complete; capacity analysis is complete. Basin optimization is completed. Remedial measures are being updated to include optimization results. 5-year model update is underway.

Trussville Collection System

The provisions of the Consent Decree applicable to the Trussville Complete Waste Treatment System were terminated February 23, 2009. Dynamic hydraulic model calibration is complete; capacity analysis is complete. Remedial measures are being evaluated and implemented.

Turkey Creek Collection System

The provisions of the Consent Decree applicable to the Turkey Creek Complete Waste Treatment System were terminated December 8, 2008. Dynamic hydraulic model calibration is complete; capacity analysis is complete. No remedial measures are required.

Valley Creek Collection System

Per the approved WTSCIP amendment No. 10, evaluation of the rehabilitation results and performance of the Valley Creek Collection System continues. Dynamic hydraulic model calibration is complete; capacity analysis is complete. Basin optimization is completed. 5-year model update is complete. Remedial measures are being updated to include optimization results and model update.

Village Creek Collection System

Per the approved WTSCIP amendment No. 8, evaluation of the rehabilitation results and performance of the Village Creek Collection System continues. Dynamic hydraulic model calibration is complete; capacity analysis is complete. Basin optimization is completed. Remedial measures have been updated to include optimization results.

Warrior Collection System

The provisions of the Consent Decree applicable to the Warrior Complete Waste Treatment System were terminated April 16, 2008. Dynamic hydraulic model calibration is complete; capacity analysis is complete. Remedial measures are being evaluated and implemented.

Sewer Connection Permits

See Sewer Impacts Report for the Fourth Quarter, 2021 on the following Table II.

**Table II: Sewer Impacts Report
Fourth Quarter, 2021**

Collection System	Permits Issued this Quarter	Fixtures Permitted this Quarter
Cahaba River	51	616.25
Five Mile Creek	18	192.25
Leeds	9	131.15
Prudes Creek	1	20.50
Trussville	23	272.25
Turkey Creek	16	264.00
Valley Creek	200	3,337.58
Village Creek	30	165.50
Warrior	4	64.00
Total	352	5,063.48

Compliance and Non-Compliance with the Consent Decree

To date, the County has complied with the requirements of the Consent Decree with respect to deliverables and construction.

Unpermitted Discharges

Under the *Unpermitted Sewer Discharge Tracking and Reporting Program*, the County reports all known unpermitted discharges from the County-owned and operated sewers and treatment plants. Tracking, reporting and documentation for discharges occurring in the municipal systems are being reported separately from the County's systems. Summary reports are submitted to EPA and the citizen plaintiffs, and placed in the Public Document Repositories, monthly. Additional documentation for the discharge events is also submitted to EPA monthly.

