

JEFFERSON COUNTY COMMISSION

MUNICIPAL SEPARATE STORM SEWER SYSTEM

PERMIT NUMBER: ALS000001

ANNUAL REPORT FOR REPORTING PERIOD OCTOBER 1, 2024, TO SEPTEMBER 30, 2025

Jefferson County Commission

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Cal Markert, P.E., County Manager

Chris Nicholson, P.E., County Engineer

Department of Roads and Transportation





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 ensure 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 collecting the information, the information 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 a fine and imprisonment for known violations (NPDES PERMIT ALS000001, PART V (K) dated December 18, 2024).

A handwritten signature in black ink, appearing to read "Chris Nicholson", is written over a horizontal line.

Chris Nicholson, P.E., County Engineer

1/27/26

Date

**ANNUAL REPORT - Year One of Five
October 1, 2024, to September 30, 2025**

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I. General Information

A. CONTACTS

The Stormwater Program staff of the Jefferson County Commission, under the supervision of Cal Markert, County Manager, responsible for all County Department functions, and Chris Nicholson, County Engineer, collected and coordinated information from various Jefferson County Departments for inclusion in preparation of this 2025 Annual Report.

Any questions about this report should be directed at the people listed below:

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II. Program Evaluation

A. PROGRAM OBJECTIVES

The requirements of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit ALS000001 (Permit), issued by the Alabama Department of Environmental Management (ADEM), list specific responsibilities for the Permittee/Co-Permittees. The Stormwater Management Program (SWMP) implements the Stormwater Management Program Plan (SWMPP) within unincorporated Jefferson County, Alabama. The SWMP stipulates the obligations that must be met for the Permittee to comply with the requirements of the Permit. Please refer to **Appendix A** for the latest version of the SWMPP.

B. MAJOR FINDINGS

During the Permit Year October 1, 2024, through September 30, 2025, the following information was collected and evaluated as major findings that have impacted water quality:

- According to the final 2024 water quality 303(d) list prepared by the Alabama Department of Environmental Management (ADEM) and the Environmental Protection Agency (EPA), 12 stream segments located within or flowing through Jefferson County are classified as impaired, meaning they do not fully meet their designated usage standards. The classification is part of a federally mandated biennial evaluation of water bodies in the state conducted by ADEM. The assessment is based on the best available data and evaluates each waterway's capacity to support its intended uses. Jefferson County's Municipal Separate Storm Sewer System (MS4) area overlaps with multiple municipalities that could significantly contribute to stream impairment.

Within the Black Warrior River basin, ten segments listed on the 303(d) list are primarily designated as impaired due to chemical issues, including pesticides (such as Dieldrin), nutrients, metals, and pathogens (specifically *E. coli*). The pollution sources include urban runoff, agricultural practices, municipal system failures, and pasture grazing.

In the Cahaba River basin, the two segments identified on the 303(d) list are classified as impaired due to total dissolved solids and metals, including Mercury. These pollutants are primarily sourced from industrial activities and atmospheric deposition.

A stream segment on the 303(d) list can only be removed when it meets one of two criteria: either it has an approved Total Maximum Daily Load (TMDL) by the EPA that assigns pollutant reduction responsibilities to the appropriate parties, or it has shown improved water quality based on subsequent data. The original impaired stream segments have been reassessed, and the EPA has approved TMDLs within the MS4 area, as listed on the ADEM website. The finalized, EPA-approved TMDLs are listed below.

- Cahaba River for nutrients and siltation (habitat alteration),
- Mill Creek for pathogens,
- Mud Creek for pathogens,
- Cooley Creek for pathogens,
- Shades Creek for pathogens, siltation, turbidity, and other habitat alteration
- Black Creek for pH,
- Village Creek for metals, pH, pathogens, and siltation,
- Village Creek (Bayview Lake) for siltation,
- Camp Branch for pH, siltation, and habitat alteration,
- Locust Fork for nutrients,
- Patton Creek for organic enrichments and dissolved oxygen problems.

The current 303(d) List, with the 12 Jefferson County waters highlighted, and the 303(d) Factsheet are included in **Appendix M**.

- Many segments have more than one TMDL due to the complexity of the documented impairments in the stream. There is currently no implementation legislation for the designated reductions that are allocated to the MS4 in a TMDL. However, the EPA intends to have the MS4 jurisdiction over the impaired waterbody assume responsibility for the nonpoint source allocations of the TMDLs in the re-issued Phase I NPDES Permits to be completed by ADEM. EPA has not yet finalized that intent through ADEM.

Upon investigation of the 12 Jefferson County 303(d) listed waters, Jefferson County adjusted sampling parameters for Village Creek. Additionally, Jefferson County will analyze water quality parameters for Mud Creek, Locust Fork and Little Cahaba River, the recently listed 303(d) waters.

- Jefferson County continued its three-year in-stream litter removal devices in unincorporated areas. These devices are cleaned regularly and are strategically placed downstream from large impervious surfaces that could be potential sources of litter. See **Appendix C**.
- Jefferson County continued its contract to remove litter monthly from over 300 miles of roadways. The most littered roadways were chosen for monthly litter pickup. See **Appendix C**.
- Jefferson County has expanded its contract with an agency to develop 16-page student activity books tailored for pre-kindergarten, third, and fourth grades (initially, the agency was hired to develop activity books for kindergarten, first and second grade students). The materials will adhere to science and social studies standards outlined for each grade level in the Alabama State Department of Education's Course of Study. Additionally, the books will frequently incorporate Dolch sight words to improve student reading proficiency. The emphasis will be on fostering personal responsibility and the impacts of litter and sanitary sewer overflows on the stormwater drainage system. The books will address specific requirements outlined in Jefferson County's Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) Permit.

To enhance effectiveness, Jefferson County has collaborated with the Jefferson County School Board of Education to review the content, provide expert insight, and facilitate the annual distribution of these books to every pre-kindergarten through fourth-grade student in the school district. Each grade's activity book will be integrated into the weekly pacing guide, ensuring alignment with current teaching materials.

The activity books will include mechanisms for student feedback on exercises, which will be collected by teachers and subsequently submitted to the Board of Education. This feedback loop will enable the Stormwater Division to assess and refine the book activities to enhance student engagement and educational impact. See **Appendices C and M**.

- Jefferson County entered into a five-year contract with Pileum Corporation to install surveillance cameras with AI (artificial intelligence) and LPR (license plate reader) capability in areas where illegal dumping has occurred in unincorporated areas of Jefferson County. The purpose of the project is to detect unlawful dumping activity, assist with the enforcement of Jefferson County's weed and litter ordinances by integrating the system alerts with the Jefferson County Sheriff's Office via its Metro Area Crime Center (MACC), and ultimately deter/ reduce the incidence of illegal dumping. Please see **Appendices D and M**.

C. MAJOR ACCOMPLISHMENTS

The following list outlines major accomplishments during the Permit Year October 1, 2024, through September 30, 2025, following the 11 requirements outlined in the Jefferson County MS4 NPDES Permit:

1. Structural Controls

Jefferson County's Roads and Transportation Department (RTD) maintains and inspects existing and newly constructed structural controls. During this Permit Year, Routine maintenance activities were captured in Jefferson County's work order management software program, CityWorks.

- a. Camp Bessemer has two settling ponds, four check dams, and a retention pond. The settling ponds and check dams were each inspected at least 104 times. The retention pond was inspected once during the Permit Year. Sediment was removed from the settling ponds during routine maintenance. There have been no changes or revisions to these structural controls. The Best Management Practices Plan was updated during FY23, submitted in prior reports, and is on file. Please see **Appendix B**.
- b. Camp Ketona has one retention pond, six check dams, and one detention pond. The detention pond and check dams were each inspected at least 104 times, and the retention pond was inspected once during the Permit Year. Sediment was removed quarterly from the detention pond during the reporting period. There have been no changes or revisions to these structural controls. The Best Management Practices Plan was updated during FY23, submitted in prior reports, and is on file. Please see **Appendix B**.
- c. A roundabout was completed by RT&D at the intersection of Grants Mill Rd at Highway 119. This project required the installation of three retention ponds. The landscaping has been maintained, and initial visual inspections have been made. Please see **Appendix B**.

2. Public Education and Public Involvement

The Stormwater Program continues the Clean Water Awareness Campaign, which aims to educate the public and encourage behavioral changes to reduce polluted stormwater runoff resulting from the improper disposal of trash, pet waste, household hazardous materials, yard chemicals, and vehicle fluids. The campaign strives to enhance the general understanding of the stormwater drainage system, provide guidance on how to recognize and report suspected water pollution, and introduce low-impact development techniques that can be implemented on properties to reduce rainwater runoff. This initiative is specifically designed to address the diverse population and geographical challenges of Jefferson County.

To enhance message delivery, the Stormwater Program formed a collaborative network with various agencies focused on stormwater pollution prevention. This partnership has broadened the campaign's reach, reduced message fragmentation, and increased credibility. Community contacts have proven vital in targeting programs and boosting participation.

The campaign features several key components aimed at enhancing educational engagement. These include a collection of posters and brochures that provide valuable information, along with seminars and workshops designed to educate and involve participants. Additionally, a 12-month printed calendar was made available to the public,

offering guidance and important dates throughout the year. To support young learners, week-long pacing guides tailored for students in prekindergarten through fourth grade are being created.

a. Boards, Committees, Stakeholder Groups, Partners

Stormwater Program staff participate in or serve on 16 various boards, committees, and stakeholder groups to evaluate needs, identify potential resources, and coordinate efforts to address concerns through projects, events, campaigns, and educational materials. The Stormwater Program staff worked with the following entities during Permit Year 2024-2025: Alabama Partners for Clean Air, Alabama People Against A Littered State, Alabama Stormwater Association, Drip Irrigation Workshop Committee, Household Hazardous Waste Day Committee, Jefferson County Master Gardener's Association, Jefferson County Water Festival Committee, Martin Luther King Service Day Project Committee, Mulga Loop Road Cleanup Committee, Litter Gitters Committee, Litter Quitters Anti-Litter Video Competition Committee, Rain Barrel Workshop Committee, Southeast Stormwater Association, Valley Creek Cleanup Committee, Village Creek Human and Environmental Justice Society, and the Shades Creek Watershed Planning Committee. The committees and stakeholder groups listed meet informally in person or on various digital platforms.

b. Formalized Agreements

Stormwater Program staff intentionally partner with neighboring stormwater programs in and around Jefferson County to enhance outreach and reduce material duplication and expenses. Partnerships include watershed committees, events, and communication materials. Local stormwater agencies include the City of Bessemer, the City of Birmingham, the City of Leeds, the City of Hoover, and the Jefferson County Department of Health Watershed Protection Program.

The Jefferson County Commission formalized partnerships with local and state programs by establishing Memoranda of Understanding (MOUs). The benefits of entering MOUs include reducing expenses by sharing knowledge and resources, minimizing duplication of effort, enhancing the efficiency of stormwater pollution prevention outreach and involvement efforts, and expanding the reach of both agencies to improve stormwater quality. Below are the current organizations with which Jefferson County has formalized agreements. Copies of the older MOUs have been submitted in previous reports and are on file, and any new ones have been included in **Appendix C**.

- i. The Alabama Cooperative Extension System (ACES) promotes environmental stewardship by training for lawn care certification and educating the public on water resources, conservation, and water quality. The organization collaborates on student projects (such as Alabama 4-H), conducts public workshops on water quality and yard care practices (including rain barrel and drip irrigation), and offers seminars on Best Management Practices for the lawn care industry and homebuilders. They also provide educational materials, such as brochures and stormwater calendars, and support the proper disposal of household hazardous waste and electronic items.

- ii. The Jefferson County Soil and Water Conservation District (JCSWCD) promotes environmental stewardship through water resource management and quality. It encourages proper disposal of used oil, hazardous waste, electronics, and batteries to protect local waterways.

JCSWCD organizes educational events for students, such as water festivals for fourth graders and Urban Forestry Fairs for fifth graders. It holds public seminars on water quality, low-impact landscaping, and provides workshops for industries like lawn care and agriculture.

The district produces informational materials and hosts collection events for hazardous waste and electronics. It also leads the Litter Quitters High School Anti-Litter Video Competition and co-hosts Rain Barrel and Drip Irrigation Workshops to engage the community in environmental education.

- iii. During fiscal year 2023, Jefferson County entered an MOU with Jones Valley Teaching Farm (JVTF). The JVCF promotes environmental stewardship, focusing on prudent yard care practices, water resources and conservation, and low-impact development techniques and strategies. The JVTF collaborates with the Jefferson County Commission, JCSWCD, and ACES on a committee to host the annual Rain Barrel Workshop.

c. Communication Mechanisms/Advertisements

Stormwater Program staff created and distributed various items to inform the public about targeted pollutants, their negative impacts on local water quality, how to report stormwater pollution, and techniques they can use to reduce their stormwater runoff. These items were distributed on social media, displayed at the front counter of the RTD, given out at events, workshops, presentations, and other community meetings, and are located on Jefferson County’s website for viewing:

(<http://www.jccal.org/Default.asp?ID=2022&pg=Community+Outreach>). During this reporting period, staff participated in 71 outreach programs, reaching 8,440 people. The staff made 33 presentations, set up booths at 18 events, and made 15 media presentations. Additionally, 1,603 educational items were downloaded from Jefferson County’s Community Outreach and *Keep It Clean* web pages.

i. Activity Books for Students

The Stormwater Program has initiated a contract to create six activity books tailored for students in pre-Kindergarten, Kindergarten, and grades one through four. Each book aims to reinforce positive behaviors, such as disposing of trash properly in designated trash cans or recycling bins, ensuring used wipes are discarded in the trash rather than being flushed, and picking up pet waste, bagging it, and placing it in the trash. The content of these books aligns with state-required learning standards and incorporates Dolch sight words, serving as week-long pacing guides. Additionally, five characters have been designed specifically for this initiative, with all characters featured throughout the books. Each grade level will have one main character that embodies the key learning concepts relevant to that grade.

ii. Brochures and Flyers

The Stormwater Program created 11 brochures and three flyers to educate the public about stormwater runoff and share tips for improving water quality. The brochures

feature a website address for education, a hotline number for reporting, and a list of actions residents can take. These brochures and flyers were displayed at Jefferson County’s Roads and Transportation Department, and they are also available on the Stormwater webpage. A list of downloadable brochures and flyers is in **Appendix C**.

- **Electronic Waste (E-Waste):** Discusses proper disposal of e-waste.
- **Good Housekeeping:** Informs businesses about how to prevent pollutants from entering storm drains. Available during business license applications and renewals at courthouses.
- **Helpful Information:** Updated this year, it gives residents contact info for trash disposal, illegal dumping, water pollution reports, and sewer emergencies. About 5,000 copies were distributed.
- **Identifying and Reporting Water Pollution:** Explains how to recognize illicit discharges and provides a hotline to report water pollution.
- **Illegal Dumping:** Describes the impacts of illegal dumping and provides information on reporting it and proper waste disposal options.
- **Lawn, Garden Products, and Yard Waste:** Encourages proper use of fertilizers and discusses the negative effects on water quality of misuse and illegal dumping.
- **Preventing Stormwater Polluted Runoff:** Highlights how daily activities contribute to pollution, offering guidance on proper disposal.
- **Stormwater Pond Maintenance:** Informs pond owners about their maintenance responsibilities and includes a checklist.
- **Stormwater 101:** Provides an overview of stormwater pollutants and is available in English and Spanish.
- **Vehicle Equipment Care and Maintenance:** Discusses proper disposal of vehicle fluids and offers tips for minimizing spills.
- **Volunteer Litter Cleanup Program:** Encourages residents to organize roadside cleanups and includes information on reporting litter and illegal dumping.
- **Flyers:** The three flyers—Actions Matter, It’s Your “Doody,” and Cooking Oil and Grease Recycling—were distributed at events and workshops

iii. **Calendar**

A 12-month printed 2025 Stormwater Calendar was developed with the City of Birmingham to educate Jefferson County residents about stormwater management. It covers non-point source pollution, proper disposal of household hazardous waste (HHW), illicit discharges, and Low Impact Development (LID) practices that reduce runoff during rain events. Each month features a specific practice, highlighting proper disposal, water conservation, and methods to collect and filter rainwater. The calendar includes information on reporting sanitary sewer overflows, water pollution, illegal dumping, and the reporting contact numbers. The centerfold displays an infographic on stormwater runoff and includes photos of the sewer system,

illustrating how rainwater from Jefferson County flows to Mobile Bay and the Gulf of Mexico. The calendar educates residents about their impact on local waterways and provides simple solutions to help protect creeks and streams from pollution. A total of 8,000 calendars was printed, with 2,500 distributed by the Jefferson County Stormwater Program staff. The ACES, the Jefferson County Department of Health, the JCSWCD, and the cities of Birmingham, Bessemer, and Leeds distributed the remaining calendars.

iv. **Media**

Various strategies have been implemented to utilize both traditional and new media.

- a) Jefferson County has a Public Information Officer (PIO) responsible for handling press releases, media alerts for stormwater events, workshop promotions, and community activities that encourage public participation. In 2022, the PIO staff created and distributed a biweekly electronic newsletter to inform the public about road closures, program opportunities, and upcoming events. This information was shared with local media, posted on Jefferson County's social media platforms such as Nextdoor, Facebook, Twitter, and Instagram, and published on Jefferson County's website.

The PIO also contracted with various local media agencies to run advertisements related to the Stormwater Permit and to promote the "Keep it Clean JeffCo" campaign. Printed ads appeared in publications like Bham Now, Birmingham Market, Birmingham Times, Gardendale Magazine, and Trussville Tribune. Radio ads were played on Summit Media stations, including WZZK, WPYA, WBHK, WBPT, and WPYA. Additionally, events were promoted through various television stations, including Talk of Alabama on ABC, Fox 6, and CBS WIAT.

- b) Stormwater Program Staff participated in 25 media opportunities during this Permit Year. A complete listing is included in **Appendix C**.
 - i. Staff engaged in multiple press conferences organized by Jefferson County's PIO to raise awareness about the Household Oil and Grease Recycling Program. The initiatives also focused on the proper disposal methods for general waste, unwanted household hazardous materials, and electronic waste.
 - ii. Additionally, staff members took part in several segments on ABC's "Talk of Alabama" and "Fox 6 Business Breaks," promoting Household Waste Diversion Drop-Off Events. Staff also appeared on "Good Day Alabama" to advocate for volunteer-led litter cleanups.
 - iii. Furthermore, staff contributed to various Jefferson County podcasts and participated in morning radio shows to highlight volunteer litter cleanups and waste diversion initiatives. One specific interview was dedicated to discussing the volunteer roadside litter cleanups program.
- c) Jefferson County funded five advertisements on the rear of ClasTran buses that travel throughout the county. The campaign, featuring the message "Don't make me pull this bus over," aimed to deter littering by discouraging people from throwing trash out of their vehicle windows. Reports indicate that the five buses

operated for a total of 815 service days, covering 116,828 miles and reaching approximately 29.7 million people.

v. **Newsletters**

In FY 2022, the Jefferson County PIO began publishing a biweekly newsletter. To streamline data sharing and reduce duplication of efforts, stormwater-related information previously included in the JeffCo H2O News is now incorporated into the PIO newsletter. The newsletter is distributed through Jefferson County's messaging platform, GovDelivery, and is posted on its website and Facebook and Twitter pages. Please refer to **Appendix C** for more details.

vi. **Posters**

A series of posters was created to serve as the flagship component of the Clean Water Awareness Campaign. The posters deliver stormwater pollution prevention information visually to attract attention and utilize catchy headlines and taglines to engage the public. Each poster lists the Stormwater Hotline phone number and Jefferson County's website. Currently, **28 posters** are being utilized. Images of the posters have been submitted in previous reports and are currently on file.

These posters are displayed at various locations throughout Jefferson County, including poster holders in the Department of Development Services (DDS) office, and are distributed electronically in various newsletters, blogs, and articles. They are also distributed at various events throughout the year. The posters are as follows:

- a) ***1 Drop Matters!*** This oil and grease/vehicle fluid component contains **two posters** focusing on proper maintenance, cleanup, and disposal of fluids from all types of vehicles.
- b) ***Actions Matter!*** This **one 'call to action' poster** reminds the public that pollution from motor oil, yard products, eroded soil, pet waste, and litter harms Jefferson County's water quality.
- c) ***Bag It and Trash It!*** This pet waste/nutrient component contains **two posters** focusing on pet owners. These posters were created to inform pet owners of the importance of picking up and properly disposing of pet waste at home and in public areas.
- d) ***From Roof to Stream.*** This stormwater pollution prevention poster informs people how their everyday activities can negatively affect water quality and stresses that these effects can be prevented.
- e) ***Household Oil and Grease Recycling.*** These **eight posters** focus on the correlation between pouring Fats, Oils, and Grease (FOG) down drains, and the resulting clogs, sanitary sewer overflows, and stormwater pollution. These materials are a shared resource between the Environmental Services Department (ESD) and the Stormwater Program. Please refer to Major Accomplishments, Illicit Discharge Detection, and Elimination (II.C.3).
- f) ***It is 'Mulch' Better!*** This runoff reduction and erosion prevention component contains **eight posters** that address the benefits of mulching, such as moisture

retention, weed reduction, managing yard debris, reducing soil erosion, and nutrient delivery.

- g) **Reduce Runoff!** This component contains **two posters** that focus on stormwater pollution and runoff reduction. One poster reminds people to direct downspouts and sprinklers to vegetation, not impervious surfaces, and another promotes using rain barrels to help reduce runoff.
- h) **'Spread' the Word!** This pesticide, herbicide, and fertilizer component contains **six posters** that educate the public on the importance of applying the appropriate product in the correct amounts.
- i) **Storm Drain Systems.** This **poster** was created to illustrate the parts of the storm drain system and reinforce that the system was designed to transport rainwater to the nearest waterbody with no treatment or trash removal. It also states that placing anything in the storm drain system is illegal.
- j) **Trash Blows! Trash Floats! Trash Litters!** This floatable/litter abatement component contains **five posters** focusing on people transporting trash, debris, and other waste to landfills and intentionally discarding items from vehicle windows.
- k) **Where does your water shed?** This **one poster** highlights the major creeks and significant watersheds/drainage basins of Jefferson County. It was printed on a magnetic surface so that the public could place colored magnets on the map to indicate where they live and, therefore, locate in which watershed they reside.

i. **Website**

Information such as the Program Plan, Annual Reports, Community Outreach Programs, and the Clean Water Awareness Survey are under the Stormwater Management Program tab, within RTD's portion of Jefferson County's website. (www.jccal.org/Default.asp?ID=1804&pg=Stormwater+Management+Program).

New web pages were created during FY 2022 to provide helpful information to the public regarding the proper disposal of residential waste, prescription drugs, household cooking oil and grease, hazardous waste, and electronics. Information on the volunteer litter cleanup program is accessible on the website. These newer pages are under a Keep It Clean tab on the County's main webpage (<https://www.jccal.org/Default.asp?ID=2163&pg=Keep+It+Clean>).

d. **Litter, Floatables and Debris Removal**

Jefferson County has implemented a comprehensive program to effectively address litter removal from roadways and waterways. In addition, Jefferson County has developed an extensive educational initiative to inform the public about the stormwater drainage system and the harmful effects of improperly discarded trash on the environment. Stormwater Program staff encourage community involvement through the Alabama People Against a Littered State Program and support local cleanup efforts in neighborhoods and at schools. Furthermore, Jefferson County sponsors a high school anti-litter video competition and is developing educational activity books for the local school system. These resources aim to promote environmental stewardship by teaching residents to dispose of unwanted items safely and responsibly, including trash,

electronics, and hazardous waste. Please see **Appendices C and M** unless otherwise noted.

- i. All new concrete storm drain lids or those needing replacement are imprinted with the message “No Dumping, Drains to Waterways.” Jefferson County’s RTD installed 101 stamped inlet covers during this reporting period. The image of the inlet cover has been submitted in previous reports and is currently on file. Please see Appendix B.
- ii. Forty signs are displayed at 20 locations throughout Jefferson County to inform the public about what creek or watershed they are crossing. The signs, placed to be viewed from both directions, list the water pollution reporting hotline number. In FY 2022, signs were installed along Sardis Road crossing Turkey Creek, Dickey Springs Road crossing Shades Creek, Lock 17 Road crossing Valley Creek, Minor Parkway crossing Village Creek, and Republic Road crossing Five Mile Creek. During FY 2023, signs were installed along Sicard Hollow Road crossing Fleming Branch, Rock Creek Road crossing Rock Creek, Barber Boulevard crossing Crooked Creek, Bagley Road crossing Campbell Creek, and Mount Olive Road crossing Locust Fork. In FY 2024, signs were installed at the crossings of Glennwood Road over Turkey Creek, Shady Grove Road over Village Creek, Cardiff Street over Five Mile Creek, Bradford Road over Self Creek, and Woodward Road over Opossum Creek. In FY 2025, signs were installed along Falls Creek at Palos Road, Village Creek at Woodruff Mill Road, Valley Creek at Toadvine Road, Rock Creek at Taylors Ferry Road, Prescott Creek at Bluff Creek Road. Please see **Appendix C** for a map showing the locations of these signs installed by Jefferson County.
- iii. Litter Quitters is an anti-litter campaign with three main parts, aiming to engage high school students through financial incentives, a county-wide video competition, and mass media support. To keep the schools and students engaged and focused on their local watersheds, they were divided into three major watershed basins: North - Locust Fork, West - Valley Creek, and East - Cahaba River. Each school competed for cash prizes against the other schools in their watershed basin, fostering a sense of local community and connection. A mass media campaign was launched to increase exposure to the Litter Quitters campaign and its anti-littering message across various demographics. Public service announcements (PSAs) were aired on television and radio and displayed on the backs of public buses.

The Litter Quitters website, www.litterquitters.org, houses videos that were entered into the competition as well as a listing of local volunteer litter cleanups.

Litter Quitters is a project that JCSWCD spearheads in partnership with a working committee including people from the City of Birmingham, the City of Bessemer, the City of Leeds, Creative Directions, Inc., Freshwater Land Trust, the Jefferson County Commission, and the Jefferson County Department of Health.

The Litter Quitters program encourages high school students to act against littering and raise awareness of its harmful effects. By creating short videos, students can educate others about the impact of litter on the environment, and the public can vote for their favorite videos. Cash prizes are awarded for the winning videos, including

a special prize for the video with the best environmental message and production quality.

Each participating school submitted a 60-second video to the watershed competition. Once the videos were reviewed and approved by the Litter Quitters Committee, they were posted on the Litter Quitters website for public viewing and voting for 12 days. This voting process not only determines the winners but also makes the public an integral part of the campaign, giving them a sense of influence and involvement. Students were responsible for promoting their respective videos, and the videos with the most 'likes' in each significant watershed area received cash prizes. Additionally, an overall "Best Message" category awarded an extra cash prize to the video with the best environmental message and technical quality, as judged by an independent group separate from the Committee.

While 30 schools were invited to participate, seven schools submitted videos. Prior to developing videos, 459 students from seven schools viewed presentations about Jefferson County's local waterways and watersheds, litter and its negative environmental impacts, and competition details. Reports show 11,622 likes and 16,231 video views were recorded during the 12-day competition. Students from eight schools participated in the television PSA; one student participated in the radio PSA. A total of 3,184,980 media delivery impressions was recorded from the campaign. A detailed report is included in **Appendix C**.

- iv. Jefferson County staff has maintained a partnership with Alabama People Against a Littered State (AL PALS) and Alabama Power's Renew our River Program since 2012, promoting and coordinating various community-based roadside and waterway litter cleanups in Jefferson County, including the 2025 "Don't Drop it On Alabama" statewide Spring Cleanup. In March 2022, staff accepted an invitation to serve an extended three-year term on the AL PALS Board of Directors from 2022 to 2025.
 - a. In Jefferson County, 33 volunteer litter cleanups resulted in 709 volunteers picking up 27.95 tons of litter from 90.8 linear miles of roadways, out of ditches, and along creek banks. The amount of material collected is contained in Jefferson County's RTD yearly tonnage report under Material Debris Removed from Ditches." Please see **Appendices B and C**.
 - b. Jefferson County was recognized at the AL PALS Governor's Awards Program on November 12, 2024, for its outstanding commitment to local cleanup efforts, environmental education, and volunteerism. Clay Chalkville High School, Oak Grove High School, Minor High School, Jefferson County Sheriff's Office, Trudy Parsons, Lee Taylor, Rachel Davis, Martintown Raimund Community, Janish Barksdale, Tiffany Wolfe and Freshwater Land Trust received awards in their respective categories.
 - c. On March 20, 2025, the Jefferson County Commission presented the AL PALS Award winners with Resolutions for their achievements.
 - d. Jefferson County collaborates with various local stormwater programs and watershed groups to facilitate volunteer-led cleanups in municipalities throughout the county. This includes the annual MLK Day of Service Volunteer

Cleanup, the spring and fall Valley Creek Cleanups, the Mulga Loop Road spring cleanup, and the fall Shades Creek Cleanup.

e. Pesticide, Herbicide Fertilizer/Landscape (articles, publications, and workshops)

During this reporting period, several workshops were conducted, and various articles and newsletters were produced to provide information to residents, private landowners, and those who lease land from Jefferson County regarding the proper use and application of yard chemicals, landscaping care, pest management, and sustainable lawn and garden practices. These activities and publications were promoted through the Jefferson County Clean Water Awareness Campaign and various partnering organizations, including ACES and JVTF. The MOUs related to these partnerships have been submitted in previous reports and are on file.

The Stormwater Program promoted free webinars hosted by ACES. These webinars are part of the Horticulture and Home Grounds 2025 team's "Get Outside with Alabama Smart Yards!" initiative and the Urban Green Team's "Back to Basics Wednesdays Webinar Series." Past recordings of these webinars can be found at www.aces.edu/go/Back2Basics. The toll-free Master Gardener Helpline and the weekly Alabama Garden Chat webinars were publicized to various groups and communities that contacted the Stormwater Program with questions about yard and landscape issues. This information was also included in the 2025 Stormwater Calendar that was distributed to residents.

Jefferson County's PIO highlighted how to properly dispose of unwanted or unused products by attending Jefferson County's biannual Hazardous Waste Collection events. Short videos were created featuring local ACES agents discussing the significance of reading and following product labels, calibrating spreaders, and storing these items correctly to prevent them from contributing to polluted runoff. Please refer to Major Accomplishments, Oils, Toxics, and Household Hazardous Waste Control (II.C.9), and see **Appendices C and J**.

f. Public Engagement and Public Involvement

The Stormwater Program staff proactively engaged the public through a variety of events, including discussions with community and civic groups and hosting seminars and workshops focused on stormwater throughout the year. During Permit Year 2025, staff participated in 70 outreach events, reaching 8,440 individuals. Below is a summary of these efforts, presented in alphabetical order. A comprehensive report detailing the outreach activities, including the topics covered and materials distributed, is included in **Appendix C**.

i. Complaint Reporting.

The Stormwater Program has a dedicated hotline phone number for the public to report suspected water pollution. This hotline number is displayed on all educational items, including the backpacks volunteers use in local cleanups, education brochures, and Clean Water Awareness posters, and it is featured in the top left corner of every month in the Stormwater Calendar. Please see **Appendix C** and refer to Major Accomplishments, Illicit Discharge Detection and Elimination (II.C.3).

ii. Events

Information about Jefferson County's Stormwater Program is typically displayed at a table or booth, allowing the public to acquire details about the program, upcoming events, and educational campaigns. These events often attract diverse groups of attendees. For the twelve events held, it is estimated that 7,417 people participated.

- a) **American Cast Iron Pipe Company.** On October 24, 2024, Jefferson County distributed materials at a booth during their fall fair to over 200 employees.
- b) **Do Dah Day.** On May 17, 2025, Jefferson County staff distributed flyers promoting the safe handling of pet waste. Attendees were invited to participate in the Almost World Famous Wholly Cr@p Poo Toss Game, an interactive activity where participants could decide where to place their bagged pet waste—whether in the stormwater sewer system, in a trash can for street pickup, or leaving it on the ground. Additionally, pet waste bags, stormwater calendars, used grease and oil recycling containers, and anti-litter backpacks were distributed.
- c) **Faith and Blue.** The Jefferson County Sheriff's Office organized two events: a fishing rodeo at Cosby Lake Park on October 12, 2024, and a drum line competition at Minor High School on October 13, 2024. During both events, Stormwater Program staff distributed informational materials at a booth.
- d) **Fiesta Festival.** On September 25, 2025, Stormwater calendars, backpacks, grease recycling containers, and flyers listing the 2025 Household Drop-Off event were distributed to attendees.
- e) **Fishing Rodeo.** On June 7, 2025, Jefferson County distributed Household Oil and Grease Recycling containers and informational materials at a booth during a public event. Current listings of local recycling centers were also provided, as were trash bags and details about upcoming volunteer litter cleanup events. Jefferson County and the City of Birmingham staff shared the booth, engaging with participants and distributing information.
- f) **Jefferson County Water Festival.** The 20th Annual Jefferson County Water Festival took place on March 12, 2025, at Samford University. This event aimed at educating fourth-grade students about sources of drinking water and the importance of protecting these resources. Participants engaged in three hands-on activities and enjoyed a magic show that aligned with Alabama's science standards.

Before the festival, students submitted artwork inspired by the theme “Where Water Flows, Everything Goes.” One drawing was selected as the festival logo and was featured on the t-shirts for students and volunteers. A total of 528 students, teachers, and parents from six schools participated in the event.

The Jefferson County Stormwater Program collaborated with other committee members to assist with classroom setup and cleanup, as well as coordinate in-kind donations for the volunteer breakfast.

- g) **Love Your Trees.** On November 2, 2024, Stormwater calendars, backpacks, grease recycling containers, and flyers listing the 2025 Household Drop-Off event were distributed to attendees.
- h) **National Neighborhood Night Out.** On October 1, 2024, the Jefferson County Sheriff's Office distributed educational materials related to the Stormwater Program during a National Neighborhood Night Out event at Sylvan Springs Park.
- i) **Salamander Festival.** On January 25, 2025, Stormwater calendars, backpacks, and flyers listing the 2025 electronic drop-off and household hazardous waste day event schedule were distributed to attendees.
- j) **Seed Swaps and Seedling Give-A-Ways.** Stormwater educational materials, stormwater calendars, and flyers promoting the Household Drop-Off Events were distributed to attendees on March 8, 2025, and March 22, 2025.
- k) **University of Alabama, Birmingham Career Day.** On February 25, 2025, Stormwater calendars, backpacks, and educational materials were distributed to attendees.
- l) Jefferson County is prone to severe weather, including tornadoes, hurricanes, droughts, and heavy rainfall. To reduce pollutant discharge in affected areas, the Stormwater Program staff has coordinated efforts and implemented projects to help communities replant trees and vegetation. This greenery helps reduce stormwater runoff, capture pollutants, enhance infiltration, and minimize soil erosion. The program continues to support areas impacted by severe weather.

iii. **Presentations**

Presentations on Jefferson County's Stormwater Program, water quality, and the Alabama MS4 NPDES requirements were delivered in various formats. These presentations took place at neighborhood meetings, schools, and community forums. Each presentation was tailored to the specific audience but consistently included an overview of the Stormwater Program, details on various pollutants and their environmental impacts, and instructions on reporting stormwater pollution. Below is a list of the presentations given in alphabetical order. Reports indicate that 1,262 people attended the 33 presentations by the Stormwater Program staff.

- a) **Birmingham Water Works Young Ambassadors Program.** On June 10, 2025, the Stormwater Program staff delivered two presentations to 57 students and 5 counselors participating in the Birmingham Water Works Board's Summer Ambassador Program. These presentations focused on water quality laws, stormwater issues, the negative impacts of polluted runoff, and actions to protect water resources.

As part of the program, the ambassadors could tour local water reclamation facilities, engage in an interactive game of Water Jeopardy, and watch the Weather Channel's video "After the Storm," which discusses watersheds, how they vary based on land use, and the importance of protecting local waterways.

- b) **Camp Fletcher.** The Stormwater Program staff partnered with Friends of Shades Creek to offer a seven-week environmental education program for day

campers in grades first through fifth. The programs were held weekly and covered a variety of topics. The Stormwater Program staff focused on pollution issues related to vehicle fluids, oils, and grease and pet waste left on the ground. On July 11, 2025, the staff educated a total of 66 campers.

- c) **Drip Irrigation Workshop.** The Stormwater Program staff provided an overview of the stormwater drainage system and introduced nonpoint source pollution and the challenges posed by polluted runoff. Participants were informed about water quality and quantity, and how low-impact development and green infrastructure can help reduce polluted runoff.
- d) **Litter Quitters High School Video Competition.** Presentations on watersheds, litter, and competition rules were provided to students participating in the anti-litter video competition. These presentations are also available for download or viewing on the Litter Quitters website under the Classroom Resources section ([Classroom Resources | Litter Quitters](#)). During this fiscal year, 459 students from nine schools viewed the presentations.

Jefferson County Stormwater presented to 77 high school students on March 19, 2025, at Clay Chalkville and on March 31, 2025, at Oak Grove. The presentations covered topics such as watersheds, litter, and competition rules.

- e) **Presentations.** The Stormwater Program staff gave 14 presentations to 485 people in a variety of audiences. Each presentation was tailored to address specific group interests while covering Jefferson County's Stormwater Permit, program requirements, pollutants, and effective techniques such as green infrastructure and low-impact development that homeowners can implement to reduce stormwater runoff. Some presentations aimed to encourage community participation in roadside litter cleanup events, while others focused on educating attendees about how to report suspected water pollution. All presentations highlighted the negative impacts of various pollutants on Jefferson County's waterways and discussed prevention strategies. Key topics included pet waste, lawn and garden chemicals, bare soil, vehicle fluids, the disposal of used cooking oil and grease, trash, electronics, and household hazardous waste. Printed materials such as stormwater calendars and flyers for Jefferson County's annual household drop-off events, along with brochures and swag relating to presentation topics, were provided to attendees. The dates and locations of the presentations were as follows:

- October 8, 2024, Cosmos, 25 people
- October 17, 2024, Rock Mountain Lakes Homeowners Association, 50 people
- October 24, 2024, N. Jefferson County Chamber of Commerce, 33 people
- January 8, 2025, N. Jefferson County Rotary Club, 20 people
- February 5, 2025, Bessemer/West Jefferson County Chapter of AARP, Inc., 30 members
- February 8, 2025, Temple Beth-El, 78 members

- February 18, 2025, Minor Heights Neighborhood Association, 9 members
- March 13, 2025, Jefferson County Master Gardeners, 30 people
- June 25, 2025, Can Creek Community Garden, 37 people
- July 15, 2025, Valmont Industries, 55 staff
- July 22, 2025, Valmont Industries, 22 staff
- July 22, 2025, Valmont Industries, 60 staff
- August 6, 2025, Club Gentleman, 27 people
- August 8, 2025, University of Alabama Sterne Library Lunch and Learn, 28 people
- August 20, 2025, Jacksonville Garden Club, 9

- f) **Rain Barrel Workshop.** On Saturday, May 17, 2025, Stormwater Program staff kicked off the Rain Barrel Workshop with an overview of stormwater and how the stormwater drainage system functions, along with a brief introduction to non-point source (NPS) and polluted runoff. The presentation also covered water quality and quantity and how low-impact development and green infrastructure can aid in reducing polluted runoff. Sign-in sheets reveal that 50 people attended.
- g) **Water Festival.** On March 12, 2025, 50 volunteers assisted with various aspects of the 2023 Jefferson County Water Festival. Reports indicate that 615 fourth-grade students attended three hands-on activities presented by multiple partners. Jefferson County provided five staff members who gave 15 presentations to 281 students.

iv. **Workshops and Seminars**

A total of 8 workshops and seminars related to the Stormwater Program NPDES requirements was conducted for 164 participants in various settings. People attended these sessions to gain in-depth information on specific topics, although general information about the stormwater program was also covered. Surveys and evaluations are typically distributed to attendees after the events and are used to update and improve content. The list of presentations is provided below.

- a. **Alabama Water Watch Chemical Workshops.** Stormwater program staff conducted two training sessions on July 9, 2025, and assisted an Alabama Water Watch certified trainer on the third training held on June 11, 2025. These training sessions aimed to certify volunteer citizen monitors in Basic Water Chemistry, Bacteriological Monitoring, and Bioassessment Monitoring.
- b. **Construction Training Programs.** The Stormwater program staff is actively involved in a local Erosion and Sediment Control (ESC) Workshop Training Committee, collaborating with the Birmingham Homebuilders, the Department of Health, and the cities of Bessemer and Birmingham. The ESC Workshops are conducted biennially, with the next session scheduled during fiscal year 2026.

Additionally, other construction training programs, such as the Qualified Credentialed Inspectors initiative and the Clear Water Alabama Seminar and Field Days, are promoted on the Jefferson County website, <https://www.jccal.org/Default.asp?ID=1804&pg=Stormwater+Management+Program>.

- c. **Drip Irrigation Workshop for Homeowners.** The Stormwater Program staff, in collaboration with ACES and JCSWCD, organized a two-day Drip Irrigation Workshop to teach residents how to capture and reuse rainwater for irrigation. The workshop began with a presentation about how the stormwater drainage system works, the issues caused by polluted runoff, and how low-impact development and green infrastructure, such as rain barrels and drip irrigation, can help reduce runoff.

During the workshop, attendees explored various applications of drip irrigation in landscaping and learned how to connect it to either a municipal water system or a rain collection system. They also gained hands-on experience by installing drip irrigation in a community garden using different approaches. Each participant received materials to set up a drip irrigation system at their own home. The event was made possible through funding from a Cawaco RC&D grant. The sign-in sheets indicate that 38 individuals attended.

- d. **Lunch and Learns.** The Stormwater Program staff organizes seminars featuring speakers who address responsible yard care, low-impact development, proper disposal practices, and strategies to reduce nonpoint source pollutants originating from properties.

One series of programs is sponsored by the City of Bessemer's Stormwater Program. This year's three workshops covered topics such as poisonous and medicinal plants along with their folklore, integrated pest management, native plants, and the impacts of urban stream syndrome on wildlife and ecosystems. Reports indicate that approximately 76 individuals attended these three seminars.

Another series is sponsored by the Osher Lifelong Learning Institute in Birmingham. The Stormwater staff identified and coordinated five speakers for the Spring 2025 program titled "Gardening Naturally."

- e. **Rain Barrel Workshop.** A total of 65 barrels was sold to 43 attendees of the 2025 Rain Barrel Workshop, which took place on May 17, 2025, at JVTF. An additional four barrels were donated and two were given away as door prizes. A grant from Cawaco RC&D significantly reduced participants' barrel costs.

The event was hosted by ACES, the Cities of Birmingham, Bessemer, and Leeds, the Jefferson County Department of Health, JCSWCD, Jefferson County RTD, Keep Birmingham Beautiful, and the Storm Water Management Authority. These organizations provided participants with instruction, materials, and assistance with rain barrel assembly.

At the workshop, attendees learned about low-impact development and green infrastructure practices, NPS pollution, drip irrigation, runoff calculations, and basic installation techniques for rain collection systems, including cisterns. The

participants learned about the benefits of capturing and storing rainwater from their roofs and how to use it effectively in their yards. All workshop attendees received backpacks featuring the Litter Quitters logo and website. These backpacks contained information on watersheds and runoff, instructions on reporting stormwater pollution, 2025 Stormwater Calendars, details about Jefferson County’s Household Oil and Grease Recycling Program, and information from JCSWCD.

g. Public Input and Evaluation

Public input was continuously sought through post-event surveys, discussions during community-based meetings, events, and presentations scheduled throughout this reporting period. The input gathered will be considered during the revision of the SWMPP.

- **Evaluations.** Feedback from participants in workshops and seminars is viewed, and all evaluation information received is considered when creating, updating, and/or modifying various education materials and programs.
- **SWMPP.** The SWMPP was available for public comment on Jefferson County’s website (<https://www.jccal.org/Default.asp?ID=1948&pg=Program+Plan>).

h. Surveys. Two attitudinal surveys closed on September 30, 2023. The information collected from the surveys was used to update outreach programs and materials. Surveys have been included in educational activity books to gauge the interest of the various activities.

i. Staff Development and Training

County staff can earn certifications, join professional associations, and attend conferences, classes, and webinars to gain knowledge, improve job skills, and fulfill permit requirements. Stormwater program staff participated in various training courses, professional development activities, and networking opportunities. These events are in addition to those mentioned in other sections. A list of these training courses is currently on file and listed in **Appendix C**.

3. Illicit Discharge Detection and Elimination (IDDE)

- a. Jefferson County had 31 outfalls in FY2024. Of these, 17 outfalls were identified as being in unincorporated Jefferson County, while 8 outfalls were not within unincorporated Jefferson County’s MS4. Six outfalls were removed from the map due to annexations. During FY2025, Jefferson County screened one outfall, and no priority areas requiring additional monitoring were identified. Please refer to **Appendix D** for a map and a complete list of outfall locations and descriptions. Priority outfalls, identified as those in the urbanized area of unincorporated Jefferson County, will be screened first. Outfalls 1-4 and 17-19 have been identified to be screened in the upcoming year.
- b. Changes were made in FY 2025 to the outfall map in **Appendix D** due to the above reasons.
- c. Article 13 of Jefferson County’s Subdivision and Construction Regulations prohibits non-stormwater discharges to the MS4 and includes escalating enforcement procedures. This document is located on Jefferson County’s RTD website,

https://www.jccal.org/Sites/Jefferson_County/Documents/Storm%20Water/Article%2013%20SubdivisionRegs.pdf. No updates or revisions took place to these Regulations during this reporting period.

d. Training Programs

The Stormwater Program purchased Municipal Pollution Prevention training materials, which were utilized to create Stormwater Pollution Prevention Training Modules for Jefferson County staff in conjunction with the Jefferson County Human Resources Department (HRD) via that department's 360 Articulate training tool, DevelopU. During FY 2022, the basic Stormwater Overview training module was required for all new hires and current staff. Effective January 20, 2023, a decision was made by Jefferson County leadership not to include the basic Stormwater Overview module in Jefferson County's learning plan for new hires. This module will be available to all employees to take at any time at the DevelopU learning site but will not be assigned to all County employees as a requirement. During the current reporting period, one Jefferson County staff member completed the Stormwater Pollution Prevention-What We Can Do training module. Please refer to Major Accomplishments, Pollution Prevention /Good Housekeeping for Municipal Operations (II.C.7), and see **Appendix H**.

- Staff in various departments are required to attend annual workshops to maintain certifications. These workshops cover key topics, including how to detect and report illicit discharges. This requirement applies to staff members who hold positions such as Applicator License holders, Qualified Credentialed Inspectors, and Certified Stormwater Inspectors, among others. Please refer to Major Accomplishments, Public Education and Public Involvement, Construction Site Storm Water Runoff control, Spill Prevention and Response, and Pollution Prevention/ Good Housekeeping for Municipal Operations, Application of Pesticides, Herbicides, and Fertilizers (II.C.3, II.C.4, II.C.6, II.C.7 and II.C.8), and see **Appendices B, C, D, E, G, H, and I**.

e. A pollution reporting hotline was established so that citizens could report suspected water pollution. The hotline number, 205.325.5792, is published on all printed materials (Clean Water Awareness Campaign posters, calendars, backpacks, brochures, and flyers) and on the Stormwater Program website at Jefferson County's website, www.jccal.org/Default.asp?ID=1804&pg=Stormwater+Management+Program. The pollution reporting hotline includes a recorded message for residents calling after regular business hours. The message instructs the caller to provide sufficient detail so staff can investigate the complaint. Please see Appendix D for a complete list of calls, date call received, time frame of response, and actions taken. During this Reporting Period, no potential illicit discharges were investigated in unincorporated Jefferson County.

f. A total of eight Floodplain Permits was issued, with one violation identified, inspected, and resolved. Please see **Appendix D**.

g. Jefferson County's DDS is tasked with enforcing regulations concerning zoning, weeds, litter, and the issue of illegal dumping. During the Permit Year 2024-2025, the DDS issued 325 Weed and Litter Notices of Violations, investigated 76 zoning violations and 37 illegal dumping sites, and addressed 21 criminal litter complaints. Of

these complaints, three sites were found not to be in violation; two remain under investigation, and two have been successfully closed.

Following an investigation of an illegal dumping complaint, the DDS requests that RTD pick up and properly dispose of the waste. This data is included in the RTD annual collection totals. Rock Solid is the software that RTD uses to track information. During this Reporting Period, Rock Solid reports 158 illegal dumping complaints. Rock Solid does not indicate if these complaints were investigated, just that the material was removed. For additional information, please refer to **Appendix D**.

- h. Jefferson County launched a program aimed at detecting and preventing unlawful dumping of materials on properties owned or maintained by the County, utilizing surveillance cameras for this purpose. To facilitate this initiative, Jefferson County entered into a contract with Pileum Corporation to install and monitor cameras equipped with artificial intelligence software. These cameras will help capture illegal dumping activities at fifteen designated locations within unincorporated Jefferson County. Please refer to Major Accomplishments, Pollution Prevention and Good Housekeeping for County Operations (II.C.7) and see **Appendices D and M**.
- i. Jefferson County's ESD operates a program to reduce sanitary sewer overflows (SSOs) through regular pipe cleaning and prompt investigations of reported overflows, following the July 2012 Standards Operating Procedure.

ESD manages a countywide recycling program for household fats, cooking oil, and grease (FOG) to help prevent sewer overflows. Collection bins include oil-absorbing materials. A total of 3,911 gallons of FOG was collected at one of the 20 drop-off points located around Jefferson County.

3,500 flyers were distributed at apartment complexes, and a letter about the recycling program was sent to apartment managers in areas prone to SSOs. Meetings were held with property management to discuss solutions. For further details, see **Appendix D**.

4. **Construction Site Storm Water Runoff Control**

- a. Jefferson County's Subdivision and Construction Regulations, Article 13, Erosion and Sedimentation Ordinance ([Microsoft Word - Subdivision&Construction_Regs_10-01-2011.doc](#)) requires all land disturbing activities to be permitted or have an exclusion as part of the zoning process. Article 13 explicitly requires effective practices from the most recent *Alabama Handbook for Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas* published by the Alabama Soil and Water Conservation Committee, referred to as the Alabama Handbook.
- b. Jefferson County utilizes the Accela software program to track ESC inspections, enforcement, violations, and complaints associated with qualified and unqualified sites. Please see **Appendix E** unless otherwise noted.
 - Jefferson County staff completed 2,608 construction site inspections of which 71 failed due to sites not complying with Article 13 of the Jefferson County Subdivision and Construction Regulations.

- Jefferson County issued two Stop Work Orders, one of which was for an unpermitted site. Jefferson County issued 15 Stormwater-related Notices of Violation. Descriptions are in **Appendix E**.
- c. Jefferson County provides multiple avenues for the public to report complaints regarding construction site runoff. These include the Stormwater Pollution Reporting Hotline, the My JeffCo App, site inspections, as well as phone calls and emails for both permitted and unpermitted sites. A process is being developed to track all construction site-related complaints for inclusion in future Annual Reports. Please refer to Major Accomplishments, Illicit Discharge Detection and Elimination (II.C.3.) and see **Appendices D and E**.
- d. **Training programs**
- Jefferson County has 37 staff who hold active Qualified Credential Inspector Certifications.
 - An information sheet is available on Jefferson County’s website (https://www.jccal.org/Sites/Jefferson_County/Documents/Permits/ePermits/ESC-MinimumRequirements-SF.pdf).
 - Soil Erosion and Sedimentation Control Workshops for Homebuilders
 - a. Construction training course information is available on Jefferson County’s website, Jefferson County – Stormwater Management Program.
 - b. Stormwater program staff and municipal partners co-host biennial Erosion and Sedimentation Control (ESC) Workshops with the Alabama Homebuilders Association. The last scheduled ESC workshop took place in June 2024, and the next scheduled workshop will take place in 2026.

5. **Post Construction Stormwater Management; New and Redevelopment**

- a. Post Construction is regulated under Article 14 of Jefferson County’s Subdivision & Construction Regulations, a copy of which is located on Jefferson County’s website: POST CONSTRUCTION STORMWATER MANAGEMENT ORDINANCE No O 592 17.pdf.
- b. Prior to this FY, Jefferson County had 40 qualifying sites. Jefferson County approved six new qualifying construction sites during this permit year.
- c. During this reporting period, structural controls were installed on qualifying sites. Of these controls, four are LID/GI.
- d. An inventory of all post-construction structural controls is currently being developed. Past site plans will be reviewed to include the previous structural controls in the dataset. Please refer to **Appendix F** for the current fiscal year’s inventory of qualifying sites.
- e. Despite sending multiple reminder emails beginning in July 2025, only six annual inspection reports were submitted, and only one certified “As-built” form was submitted for its permanent stormwater control structures. Please see **Appendix F**.
- f. No enforcement actions related to post-construction issues were taken during this reporting period.

6. Spill Prevention and Response

- a. There are six Hazmat Units in Jefferson County within various fire departments. These units, along with EMA, respond to hazardous material incidents in all jurisdictions within Jefferson County.

During the Permit Year 2024-2025, the Jefferson County Emergency Management Agency (EMA) handled spill prevention and response, addressing 34 incidents involving chemical spills or leaks. Incidences are listed in **Appendix G**.

- b. The Fire Departments within Jefferson County are notified when an industrial site receives hazardous material shipments. The Departments inspect these sites to familiarize themselves with the material storage locations in the event of a spill or fire. The Departments instruct the host facility if material is not stored correctly and continue with periodic site visits. Training in hazardous materials is required for fire department staff members. For example, Hazardous Materials Awareness and Operations classes instruct first responders on the basics of hazardous materials, including recognition, protection, safety, and who to contact regarding the presence of hazardous materials. Hazardous Materials Technician classes provide further training, including managing and preventing hazardous materials incidents. Hazardous Materials Incident Commander classes provide training for those overseeing hazardous materials incidents. Please see **Appendix G**.
- c. A total of 45 employees from various departments in Jefferson County participated in the Chemical Spill Response Training for Hazardous Materials Operations Level II. Three attended on February 11, 2025, and 42 attended on February 12, 2025. Those in attendance include 12 from ESD, three from the General Services Department (GSD), and 33 from RTD. The 8-hour course, conducted by Sigma Consulting and Training, Inc., meets the Occupational Safety and Health Administration (OSHA), EPA, and Department of Transportation (DOT) training standards. The class is used for continuing education by ADEM for water and wastewater operators and has been approved by the Department of Agriculture and Industries for pesticide applicators. It also satisfies the annual refresher requirement for other Hazmat Training. Please see **Appendix G**.

7. Pollution Prevention and Good Housekeeping for County Operations

- a. Facilities owned by Jefferson County that could potentially impact the county's MS4 are listed in the current Stormwater Management Program Plan (SWMPP), along with Standard Operating Procedures (SOPs) and inspection checklists. During this reporting period, construction was completed on the Coroner's Office and Animal Shelter, both of which are located on Leaf Lake Blvd. The SOPs require that these facilities are inspected monthly; an example of an inspection form is included. Please refer to Major Accomplishments, Industrial Storm Water Runoff (II.C.10), and see **Appendices B, H, I, and K**.
- b. Jefferson County RTD has an established strategy and program for preventing and removing trash from the MS4-permitted area. The trash and debris collected are included in its annual tonnage report. Please refer to Major Findings (II.B), Major Accomplishments, Illicit Discharge Detection and Elimination (II.C.3), and see **Appendices B, C, D, H, and M**.

- Camp Ketona reported 6,211.46 tons and Camp Bessemer reported 2,190 tons of material had been removed from the storm sewer system.
 - During this reporting period, Jefferson County funded instream litter collection devices, which captured a total of 2.52 tons of material, of which 0.82 tons were recycled. Several local municipalities also continued to fund litter collection devices within their jurisdictions, and three businesses maintained their sponsorship for specific devices. These Litter Gitter devices will help reduce litter in various creeks, four of which flow through unincorporated areas of Jefferson County. A list of the sites and the amount removed is included in **Appendices C and H**.
 - Jefferson County continued to fund litter and debris removal from designated roadways in unincorporated areas that are particularly prone to excessive littering. During this reporting period, the contractor removed 128.88 tons of material from about 3,820 miles of roadway. The amount of material collected is recorded in Jefferson County's RTD yearly tonnage report under Material Debris Removed from Ditches. Please refer to **Appendices B, C, and H**.
 - Jefferson County entered a five-year contract with Pileum Corporation to install surveillance cameras with AI (artificial intelligence) and LPR (license plate reader) capability in areas where illegal dumping has occurred in unincorporated areas of Jefferson County. The purpose of the project is to detect unlawful dumping activity, assist with the enforcement of Jefferson County's weed and litter ordinances by integrating the system alerts with the Jefferson County Sheriff's Office via its Metro Area Crime Center (MACC), and ultimately deter/ reduce the incidence of illegal dumping. Currently, 15 sites are being monitored. Please see **Appendices C, D, and M**.
 - GSD has one staff member designated per Jefferson County-maintained complex to pick up trash and litter daily.
- c. Camp Bessemer and Camp Ketona implement Jefferson County's RTD roadway de-icing program. The county's GSD applies sand to ramps at County facilities on an as-needed basis; however, any sand used is promptly swept up the following day as part of GSD's regular maintenance activities. During this reporting period, Camp Ketona reported applying 2.4 tons of sand for ice control on Jefferson County roadways and at County facilities. Camp Bessemer also reported applying sand, though no specific volume was provided. Please see **Appendices B and I**.
- d. The Spill Prevention, Control, and Countermeasure Plan (SPCC) for the aboveground storage tank at RTD's Camp Ketona was updated during FY 2023. A copy of the revised plan was previously provided and is on file. No updates occurred during this Reporting Period.
- e. Jefferson County Departments followed the SOPs set by the various departments. These SOPs and their reports are maintained at the respective departments. No updates were reported during this Reporting Period. Please see **Appendices B, H, and I**.
- f. Jefferson County's Human Resources Department (HRD) uses DevelopU, a 360 Articulate tool, to provide training programs to Jefferson County staff. The Stormwater Program acquired Municipal Pollution Prevention training materials to develop

Stormwater Pollution Prevention Training Modules for Jefferson County staff, collaborating with the HRD. In FY 2022, the basic Stormwater Overview module was mandatory for all staff. However, starting January 20, 2023, it is no longer part of the mandatory learning plan. It does remain available on the DevelopU site for all employees and was highlighted as the course of the week in October 2024. One employee completed the course during this reporting period by watching the video. Please see **Appendix H**.

Additional pollution-prevention training courses are available on DevelopU, but tracking staff attendance across channels is not easily accessible.

- g. During FY2025, two Stormwater Program staff completed the *Certified Stormwater Inspectors* (CSI) training course recertifications. Two Stormwater Program staff members completed the *Certified Stormwater Inspectors* (CSI) training course for the first time. This certification is good for five years. The CSI certifications are on file.

8. Application of Pesticide, Herbicide and Fertilizers

- a. The Jefferson County Personnel Board (JCPB) certifies lists of prospective employees for Jefferson County. The JCPB requires employees in positions that handle pesticides, herbicides, and fertilizers to obtain and maintain the appropriate certifications as a condition of employment. Jefferson County has 18 staff members who are certified PHF Applicators and hold Certified Pesticide Licenses - seven at Camp Ketona, nine at Camp Bessemer, one in GSD and one in ESD. Please see **Appendices B, D, and I**.
- b. Camp Ketona, located in unincorporated Jefferson County, adheres to SOPs for using PHFs. These procedures cover proper disposal, hygiene practices, recognizing and managing poisoning symptoms, and safe mixing and loading techniques.

The camp has a secure storage location for pesticides, which measures 18 feet by 27 feet and is connected to the warehouse. Daily visual inspections ensure stored materials are not leaking and that adequate spill-cleanup supplies are readily available. Comprehensive, documented inspections are conducted twice a week and maintained on-site.

Camp Ketona maintains detailed records of PHF applications, including the dates and volumes used. Inspections are performed monthly, and forms are retained on-site for three years. The herbicides stored on site, at the time of this report, include 482.5 gallons of Roundup, 260 gallons of Target, 630 gallons of Hardball, 70 gallons of Ground Zero, 55 gallons of Inlet, 77.5 gallons of Trycera, 60 gallons of Milestone, and 77.5 gallons of Rodeo. Please see **Appendices B and I**.

- c. Camp Bessemer, located in the City of Bessemer, follows SOPs for managing PHFs, emphasizing safe disposal, hygiene, and spill management. Herbicides are stored in a controlled environment within the Camp Bessemer Herbicide Warehouse, which measures 15 feet wide, 25 feet long, and 20 feet tall. This facility has an emergency spill kit, material safety data sheets (MSDS), an eyewash station, a handwashing station, and a self-contained drain. Additionally, spill-prevention materials are stored in two five-gallon containers. Inspections of cleanup equipment are conducted twice weekly.

Camp Bessemer tracks the application of PHFs, including the date and volume of each application. This information is recorded monthly and is retained on-site for three

years. The herbicides stored on site, at the time of this report, include 195 gallons of 2-4-D, 210 gallons of Hardball, 90 gallons of MSMA, 295 gallons of Round-Up, 120 gallons of Cornerstone, and 47 gallons of Milestone. Please see **Appendix B**.

- d. The Operations Center of Jefferson County’s GSD adheres strictly to SOPs for using PHFs. These include guidelines for disposal, hygiene practices, recognizing poisoning symptoms, and procedures for mixing and loading the substances.

Herbicides are securely stored in a designated warehouse at the Operations Center, which is maintained as a controlled environment. This facility has an emergency spill kit, material safety data sheets, an eyewash station, a handwashing station, and a self-contained drain for managing accidental spills. Visual inspections are conducted daily to ensure safety and compliance.

The GSD stored 180 gallons of each Roundup, Hardball, and 24 Damine herbicides on site at the Operations Center. Please see **Appendix I**.

9. Oils, Toxics, and Household Hazardous Waste Control

- a. Jefferson County organizes household drop-off events to allow residents to safely dispose of unwanted HHW and electronics. In fiscal year 2025, two HHW and three electronic drop-off events were conducted, during which a total of 197.91 tons of materials was collected from 3,531 households. For a complete list of the collected items along with a narrative of each event, please refer to **Appendix J**.

Staff involved in the Household Hazardous Waste events undergo on-site training led by a vendor-certified chemist before each event begins.

Educational brochures outlining the process for reporting illicit discharges in the unincorporated areas of Jefferson County, AL, were distributed in recyclable trash bags to all attendees at the October HHW event, the Bessemer site of the spring HHW, and all standalone electronic drop-off events. These giveaway bags also included valuable information on proper waste disposal, the impact of fats, oils, and grease on the sanitary sewer system, locations for recycling used cooking oil and grease, and the current stormwater calendar.

- b. The Drug Enforcement Administration hosts two Take Back Day events each year to collect unused pharmaceuticals. The Jefferson County Sheriff’s Office, in collaboration with several local police departments, offers drop-off locations throughout Jefferson County. Furthermore, the Jefferson County PIO and the Jefferson County Sheriff’s Office actively promote these events on their social media platforms. Residents can also access a DEA website that lists disposal locations by zip code, enabling safe year-round disposal of these materials. (<https://www.dea.gov/everyday-takeback-day>).
- c. The Jefferson County Fleet Management Department (FMD) implements a recycling program. For the 2024-2025 Permit Year, the FMD recycled 2,478 gallons of oil. Please see **Appendix J**.
- d. Jefferson County ESD implements a Grease Control Program to ensure food service facilities properly dispose of their used cooking oil. During this Reporting Period, 102 new facilities were permitted. ESD staff members held 1780 site inspections. A total of 64 facilities were found non-compliant due to the 25% rule, free oil, or missing tees. Please see **Appendix J**.

- e. Jefferson County ESD implements a Household Used Oil and Grease Collection Program to reduce sanitary sewer overflows caused by fats, oils, and grease from food service facilities. The program aims to decrease grease discharge into the sanitary sewer system. A total of 2,473 gallons was collected during this fiscal year. Please see **Appendix D**.
- f. Jefferson County's RTD maintains detailed inspection records for its maintenance equipment. Discussions are underway to streamline these processes to ensure this data is readily accessible for inclusion in future reports.

10. Industrial Storm Water Runoff

- a. Jefferson County owns two landfills that Republic Services, Inc. operates. During the 2012-2013 Permit Year, the Turkey Creek Landfill (NPDES Permit No. ALG160139) closed the active cell and began using the facility as a drop-off/transfer location. The ALG160139 Permit was terminated, and ADEM issued a new Permit, ALG160029. The active landfill within unincorporated Jefferson County is Landfill No. 1, an approximately 63-acre portion of the 2100⁺-acre Mount Olive Solid Waste Management Facility, at 101 Barber Boulevard, Gardendale, AL 35071 (Permit #37-43). Jefferson County owns John's Transfer Station at 5125 Bessemer Johns Road in Bessemer, Alabama, outside of Jefferson County's MS4 area. Stormwater Program staff conducted inspections of the three facilities to identify any pollutants migrating from these industrial and high-risk runoff sites. All sites were in compliance during the inspections; the completed inspection forms are included in **Appendix K**.
- b. Jefferson County's RTD implemented **two NPDES Industrial Permits** and one Underground Injection Control Permit issued by ADEM to Jefferson County. Please see **Appendix B**.
- c. Jefferson County-owned facilities that could adversely impact Jefferson County's MS4 area were inspected, and all SOPs were followed during this reporting period. These include two RTD Camps and seven fuel stations. Best Management Practice Plans for the two RTD Camps were updated in November 2022. ALG permits were renewed, and information was updated as needed. Please refer to Major Accomplishments, Pollution Prevention and Good Housekeeping (II.C.7), PHF (II.C.8), Oils, Toxics, and Household Hazardous Waste Control (II.C.9), and see **Appendices B, E, H, I, and K**.
- d. Please see **Appendix K** for an inventory of NPDES-permitted facilities and Tier II sites within Jefferson County.

D. OVERALL PROGRAM STRENGTHS AND WEAKNESSES

- One strength of Jefferson County's Stormwater Program is its public education initiative. While the program is primarily responsible for unincorporated areas of Jefferson County, its educational efforts often reach into incorporated areas, helping to inform residents in neighboring communities. The Clean Water Awareness Campaign launch and its poster series have created an effective way to share information with the public and has encouraged collaboration with other organizations.
- Jefferson County's Stormwater Program has a notable strength in its volunteer roadside litter cleanup initiative. In 2011, due to the loss of a significant funding source, the Jefferson County Commission implemented budget cuts that led to personnel reductions and Chapter 9 bankruptcy filing. One consequence of these cutbacks was the county's inability to remove litter and trash from roadways.

In 2012, Jefferson County's Stormwater Program staff identified this as an opportunity to engage residents in addressing littering by partnering with Alabama People Against a Littered State (ALPALS). This partnership laid the groundwork for the Jefferson County Volunteer Roadside Litter Cleanup Program, which offers year-round support and resources to participating communities.

The goals of the Jefferson County Volunteer Roadside Litter Cleanup Program are threefold:

1. To empower and equip residents to take ownership of their communities and effect change, reducing litter, and trash.
 2. To increase participation in the program while decreasing the amount of litter found on roadways, driven by greater resident awareness and behavioral change.
 3. To provide Stormwater Program staff with access to Jefferson County communities, allowing them to offer educational programs and resources aimed at reducing other types of nonpoint source pollution.
- Another strength of Jefferson County's Stormwater Program is its recent transition from DDS to RTD. By moving to RTD, Jefferson County's Stormwater Program can access more funding, resources, and staff to meet the MS4 NPDES Permit requirements. Furthermore, this transition enhances communication and collaboration across various divisions, including right-of-way, traffic, utility, drainage, pre-construction, and construction.

E. FUTURE DIRECTION

- Work began on the 2026 Stormwater Calendar, which is a collaborative effort involving ACES, the City of Birmingham, the City of Bessemer, the City of Leeds, the Jefferson County Commission, and JCSWCD. The calendar, scheduled for print and distribution during the 2025-2026 Permit Year, emphasizes the concept of personal responsibility and the direct correlation between individual choices and environmental outcomes, both positive and negative. By promoting personal responsibility, the calendar encourages proactive decision-making that should lead to improved environmental stewardship. The calendar serves as a practical resource, offering actionable guidance on the responsible disposal of sanitary wipes, HHW, appropriate chemical application in landscaping, and best practices to prevent Non-Point Source Pollution. Each month focuses on a specific water conservation practice and waste disposal method, providing clear channels for reporting sewer overflows and illegal dumping. The centerfold features an infographic that illustrates the journey of stormwater runoff, detailing its impact on local waterways and the flow dynamics from Jefferson County to Mobile Bay and to the Gulf of Mexico. The calendar's overarching objective is to raise awareness of the implications of individual actions on local aquatic ecosystems and to furnish straightforward solutions to safeguard the region's creeks and streams from pollution. Please see **Appendix M**.
- Work will continue to create, revise, and review the SOPs for all Stormwater Program functions and tasks, and assess areas for process improvement and streamlining.
- Planning is underway to identify funding sources to increase waste diversion collection opportunities for residents to properly dispose of their HHW, unwanted electronics, and other recyclable materials such as plastics, glass, and cardboard.
- Research is ongoing on methods to require and implement mandatory residential trash pick-up services in unincorporated Jefferson County.
- Updates to Jefferson County's Subdivision & Construction Regulations are in progress.
- Additional signage will be installed at creek crossings to remind the public not to engage in illegal dumping and littering.
- Annexations may alter Jefferson County's current MS4 area.
- Work will begin on the recently added 16-page student activity books for pre-kindergarten, third, and fourth grades, and the books for kindergarten, first, and second grades are scheduled to be finished.
- Staff will locate sampling locations for E. coli in Mill and Cooley Creeks as both have a TMDL for pathogens. Staff will locate a sampling location on Black Creek due to the TMDL for pH. Patton Creek has a TMDL for organic enrichment and dissolved oxygen problems. The portion of Patton Creek that flows through unincorporated Jefferson County is privately owned and not a part of the MS4 Jefferson County owns, operates, or maintains.

F. EFFECTIVENESS OF SWMPP

- Structural Controls
 - The frequent site inspections allow staff to manage structures' maintenance proactively.
- Public Education and Public Involvement
 - The educational campaign has increased participation among residents in Jefferson County's volunteer litter cleanup program, resulting in a noticeable decrease in litter along various roadways.
 - Additionally, attendance at Jefferson County's HHW Day and Electronic Drop-Off Day events has risen.
 - The campaign has raised awareness and increased requests for stormwater resource materials, such as the annual stormwater calendar.
- Illicit Discharge Detection Elimination
 - New software applications that have been launched have aided the public in reporting various concerns.
 - Surveillance cameras have helped to deter illegal dumping.
 - Collecting materials from the most littered roadways and waterways has reduced the amount of debris washing downstream.
- Construction Site Runoff
 - Since the start of this program, the public has learned how to regularly report site conditions that do not comply with regulations, as evidenced by the hotline calls.
 - Except for two creeks monitored by Jefferson County, water quality screening has noticed a reduction in total suspended solids during wet weather.
- Post-Construction Stormwater Management; New and Redevelopment
 - Jefferson County requires operation and maintenance agreements between developers and Jefferson County to require inspections at least yearly.
 - This Program is too new to determine its effectiveness.
- Spill Prevention and Response
 - Jefferson County's Emergency Management Agency (EMA) coordinates the response, cleanup, and mitigation of hazardous spills within Jefferson County. Additionally, Sigma Consulting provides annual training on spill prevention and response methods to various County staff.
- Pollution Prevention and Good Housekeeping
 - Jefferson County employees who have completed the stormwater training report significantly increased knowledge of pollution prevention measures. The training has consistently received high ratings from participants.
 - Jefferson County's GSD continues implementing street sweeping and other strategies to reduce potential pollutant runoff. The FMD also conducts monthly inspections of Jefferson County's fuel facilities. Please see **Appendix H** for inspection reports. Both

- preventive measures contribute to reducing the amounts of pollutants entering stormwater runoff.
- Hiring vendors to remove litter and debris from waterways and roadways has cleaned Jefferson County’s stormwater drainage system, rivers and creeks. Debris removal helps reduce the risk of pollutants reaching downstream neighbors.
 - Oils, Toxics and HHW Control
 - RTD staff have observed a decline in electronic devices found along roadways since the free electronic collection events have been offered to participants.
 - Hosting more household hazardous waste drop-off events increases citizen participation in properly disposing of their items.
 - Monitoring
 - Jefferson County has compiled historical data on surface water quality through laboratory analyses at each site, enabling comparisons and determinations of improvement or degradation.

III. Monitoring Section

Monitoring and Reporting

Jefferson County began its Stormwater Program at the beginning of the Permit Year 2009-2010. Initially, staff reviewed the unincorporated area of Jefferson County to set up the monitoring plan. The staff established six instream monitoring locations to be sampled each season during wet and dry weather periods on the following waterbodies: Five Mile Creek, Shades Creek, Turkey Creek, Valley Creek, and Village Creek. Part III.A(2) of Permit ALS000001 requires additional sample locations be identified for waters on the final 303(d) list or that have an approved TMDL. Jefferson County identified three additional sampling locations for 303(d) listed waters in Mud Creek, Little Cahaba River, and Locust Fork River. It is the intent to collect samples quarterly in accordance with Permit ALS000001 requirements.

- The sampling location in Five Mile Creek is off Coalburg Rd (33.59806, -86.86801), and the land use is characterized by undeveloped and low-density residential. The sampling location is within the Hydrologic Unit Code (HUC) 12 Upper Five Mile Creek watershed basin, comprising 40,858 acres.
- The Shades Creek sampling site is off Dickey Springs Rd (33.32568, - 86.94914), with land use characterized predominantly as undeveloped and agricultural, with a few light industrial areas. The HUC12 watershed basin size is 44,458 acres.
- Two sites on Turkey Creek are monitored, and the combined watershed basins are 54,770 acres. One is within the Jefferson County Water Reclamation Facility property near Narrows Rd (33.70938, -86.69634), and the land use is largely characterized as undeveloped, agriculture, low-density residential, and recreation. The second site is located near Doss Hollow Rd (33.75665, -86.8254), with similar land use characteristics to the first.
- The sampling site on Valley Creek was relocated in February 2021 and is downstream of the tower at the Valley Creek Water Reclamation Facility (33.39214, -87.003058). The land use upstream of the site is characterized as undeveloped, low, and medium-density residential, commercial, and heavy industry. The HUC12 watershed basin for this site is 26,746 acres.
- The location of the Village Creek site is relocated upstream of Minor Pkwy, near Avenue E (33.524928, -86.891511). This location has the most diverse land use of all the sites. The basin consists of low-density residential, medium-density residential, high-density residential, light industrial, and heavy industrial, with fewer undeveloped areas. The site is within the HUC12 Upper Village Creek watershed basin, which is 44,319 acres in size. Zinc and pesticides, particularly Dieldrin, will be analyzed from Village Creek, in addition to the other pollution parameters.
- The sampling location at Mud Creek is located upstream of the Groundhog Rd bridge (33.40268, -87.15691). This new sampling site was established due to the recent inclusion on the final 2024 303(d) list for E. coli. Mining is the dominant land use in the watershed, coupled with undeveloped and industrial areas.
- The Locust Fork sampling location is upstream of the Warrior Kimberly Rd bridge (33.95527, -87.060277). The site was also included on the final 2024 303(d) list for E. coli. Vacant or undeveloped land is the predominant land use characterization in the watershed.

- The Little Cahaba River sampling location is upstream of the Bailey Rd bridge (33.75916, -86.61421). The Little Cahaba River was included on the final 2024 303(d) list for mercury and total dissolved solids (TDS). The source of mercury is due to atmospheric deposition; therefore, Jefferson County will not monitor for mercury. Jefferson County will monitor TDS levels instead. The watershed is made up of undeveloped, agricultural, and recreational land use.

Jefferson County continued to implement the monitoring program established in the SWMPP as weather permitted. During Permit Year 2024-2025, Stormwater Program staff collected instream samples for wet weather, dry weather, and investigation sampling. Narrative Field Data Sheets completed during sample collections are available upon request. The laboratory analyses for the parameters were performed in accordance with 40 CFR Part 136 as required by Permit ALS000001.

Establishing trends in stormwater pollutant concentrations depends on a vast amount of water quality data. There were many instances where a graph could not be created due to the concentration being below detection limits. The analytical results were graphed for each monitoring location, and a trendline was formulated to interpret the data. Graphs for the three new locations are not included as only one sample was collected after the sites were established. Except for Shades and Five Mile Creeks, total suspended solids decreased in the monitored creeks during wet weather, indicating water quality improvement over time. There were two instances in one creek where the pH exceeded water quality standards for the ADEM Limited Warmwater Fishery (LWF), Swimming (S), and Fish and Wildlife (F&W) use classifications in wet weather. Analysis of all raw data over the years indicated 21 instances where the pH slightly exceeded the water quality standards for the respective use classifications in dry weather. The exceedances were primarily during the spring when increased photosynthetic activity occurs in aquatic plants. Nutrients, such as nitrate and potassium, were slightly elevated in the wet weather samples for Shades Creek, indicative of agricultural operations, livestock, residential land use, and gardens.

Jefferson County has ten creeks with approved TMDLs. The Shades Creek TMDLs apply to pathogens, siltation, turbidity, and other habitat alteration, while the Village Creek TMDLs apply to metals, pH, pathogens, and siltation. Camp Branch has TMDLs for pH, siltation, and other habitat alterations. Cooley, Mill, and Mud Creeks all have a TMDL for pathogens. The Locust Fork has a TMDL for nutrients while Patton Creek's TMDL is for organic enrichment and dissolved oxygen problems. Measured by E.coli colonies, analysis of pathogens in Shades Creek indicated one instance of elevated colonies during wet weather sample collections. This is understandable as the sampling location is surrounded by agricultural land with ample livestock.

Siltation, measured in total suspended solids (TSS), primarily declined during dry weather sample collections over a six-year period and indicates water quality improvement. One instance in the wet weather data for Five Mile Creek had slightly elevated TSS levels. Except for barium and strontium, Village Creek sustained a decrease in concentrations of metals during dry weather. With slightly increased exceptions of barium, calcium, magnesium, and strontium in wet weather samples collected from Village Creek, other metals demonstrated water quality improvement. Levels of TSS in Village Creek during wet weather showed consistently decreasing concentrations over time, which indicates improvement. Pathogens in Village Creek slightly increased during dry weather over time. Only two E. coli samples were collected from Village Creek during wet weather. While the levels decreased, additional data is needed to determine water quality improvement or degradation at this time.

Data trend analyses for Mud Creek, Locust Fork, and the Little Cahaba River could not be completed as only one sample had been collected to date. The raw data analyses and graphical charts, including the current reporting period and the past five years, are included in **Appendix L**.

In addition to the instream samples collected in the waterbodies above, staff collected two investigation samples during this reporting period. Laboratory analyses determined no water quality violation in either sample. The results are included in **Appendix L**.

IV. Stormwater Management Plan/Program Modifications

Stormwater Management Program Plan Review

Jefferson County's SWMP Plan was reviewed and updated. Please see **Appendix A** for a current copy of the SWMPP.

V. Program Budgets

Budget information from the Jefferson County Departments with requirements pertaining to the MS4 NPDES Permit have been included. Please see **Appendix M**.