

JEFFERSON COUNTY COMMISSION

***MUNICIPAL SEPARATE STORM SEWER SYSTEM
PERMIT NUMBER: ALS000001***

**ANNUAL REPORT FOR REPORTING PERIOD
OCTOBER 1, 2023 TO SEPTEMBER 30, 2024**

Jefferson County Commission

Commissioner Jimmie Stephens-President

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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 September 27, 2018).

1/3/25

Cal Markert, P.E., County Manager

Date

1/2/25

Chris Nicholson, P.E., County Engineer

Date

ANNUAL REPORT - Year Six of Five
October 1, 2023 to September 30, 2024

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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 2024 Annual Report.

Any questions about this report should be directed to 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 certain 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, 2023, through September 30, 2024, 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), 13 stream segments located within or flowing through Jefferson County are classified as impaired, meaning they do not fully meet their designated usage standards. This 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, eleven 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 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 and 303(d) Factsheet for waters in Jefferson County is 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 water body 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.

- Jefferson County entered a three-year contract to install and maintain 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. The collected plastic and metal will be recycled. See Appendices C, H, and M.
- Jefferson County entered a contract to remove litter from over 450 miles of roadways. The most littered roadways were chosen for monthly litter pickup. See Appendices C and M.
- Jefferson County entered a one-year contract to install anti-littering bus ads on the backs of five ClasTran (a project of the Birmingham Regional Paratransit Consortium) vehicles that will be driven throughout Jefferson County. Please see Appendix M.
- Jefferson County entered a contract with an agency to design, illustrate, and create three 16-page student activity books for kindergarten, first and second grades. These books will align with the Academic Standards for Science set for each grade level by the Alabama State Department of Education. They will emphasize personal responsibility and litter's impact on the stormwater drainage system while supporting certain requirements listed in Jefferson County's Municipal Separate Stormwater Sewer (MS4) National Pollutant Discharge Elimination System (NPDES) Permit. Jefferson County has teamed up with the Jefferson County School Board of Education to review, provide expertise, and distribute these books annually to every kindergarten, first- and second-grade student within the school system. The books will cover the following topics:
 - The life cycle of water
 - Alabama stream and river network / watersheds
 - The percentage of water in the human body
 - Water conservation (outdoor and indoor)
 - Stormwater, the stormwater drainage system, and its purpose
 - What litter is and how it impacts the stormwater drainage system, local waterways, and animals that rely on clean water
 - Drinking water, its source, and how litter affects it
 - Sanitary sewer system, where sewage goes, and the importance of only flushing the 3Ps (pee, poo, and paper)
 - Common causes of water pollution and how to prevent it - litter, dog waste, detergents from washing vehicles, misuse of yard chemicals, etc.

C. MAJOR ACCOMPLISHMENTS

The following list outlines major accomplishments during the Permit Year October 1, 2023, through September 30, 2024, following the 11 requirements outlined in the Jefferson County MS4 NPDES Permit:

1. Structural Controls

Jefferson County's Roads and Transportation Department (R&TD) 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. An estimated 4-5 cubic yards of sediment were removed from the settling ponds during the maintenance in January and June. 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**.

2. Public Education and Public Involvement

Public Education and Public Involvement are Permit requirements that are used to implement other Permit requirements. A summary table has been created to identify every Permit requirement that addresses the following education initiatives. The table is included at the end of Section III, Summary Table.

Stormwater Program staff created the Clean Water Awareness Campaign to inform, involve, and educate the public and, hopefully, affect behavioral change to reduce polluted stormwater runoff caused by the impacts of vehicle fluids, household hazardous waste, erosion and sedimentation, household cooking oil, prescription drug disposal, yard chemicals, pet waste, and litter. The campaign was designed to transcend Jefferson County's limited funds, non-contiguous geography, and diverse population.

Stormwater Program staff identified the need to create a system to improve its ability to deliver the Clean Water Awareness Campaign messages to the public. The staff developed a collaborative network of agencies and organizations whose missions intersect with stormwater pollution prevention. This collaborative network has resulted in a message delivery system that has expanded the reach of the Clean Water Awareness Campaign by opening access to new audiences, reducing message fragmentation, and enhancing credibility through message uniformity. These partnerships have assisted Jefferson County in identifying key community contacts to potentially serve Jefferson County as change agents regarding stormwater pollution prevention. Community contacts have assisted

Jefferson County in targeting programs, tailoring events, and encouraging community participation.

A series of posters was created to serve as the flagship component of the Clean Water Awareness Campaign. Additional communication mechanisms, such as an e-newsletter, brochures, monitor slides, seminars/workshops, and a 12-month printed calendar, were also created and launched to provide cost-effective ways to support the posters and related components of the Campaign.

Please see **Appendix C** for all new Public Education and Public Involvement documents unless otherwise noted.

a. Boards, Committees, Stakeholder Groups, Partners

Stormwater Program staff participate in and/or serve on 15 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 2023-2024: Alabama Partners for Clean Air, Alabama People Against A Littered State, Alabama Stormwater Association, 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, Urban Darter Recovery Committee, 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. Copies of the older MOUs have been submitted in previous reports and are currently on file, and any new ones have been included in **Appendix C**.

- i. Alabama Cooperative Extension System (ACES). ACES promotes environmental stewardship with a focus on providing training for lawn care industry certification and educating the public on water resources, conservation, and water quality. ACES works collaboratively on projects offered to students (Alabama 4-H, festivals, and fairs), water quality and prudent yard care practice seminars offered to the public

(rain barrel workshops and brown bag lunch and learns), water quality workshops showcasing proper Best Management Practices (BMPs) for land use offered to particular trades (lawn care industry and homebuilders), publications (posters, brochures, and stormwater calendars), and proper disposal of household items (household hazardous waste and electronic events).

- ii. Jefferson County Soil and Water Conservation District (JCSWCD). The Jefferson County Soil and Water Conservation District (JCSWCD) promotes environmental stewardship focused on water resources and quality. It supports proper disposal of used oil, household hazardous waste, electronics, and batteries to prevent pollution in local waterways.

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

The district produces various informational materials, including posters and brochures, and hosts collection events for hazardous waste and electronics. Notably, JCSWCD leads the Litter Quitters High School Anti-Litter Video Competition and co-hosts Rain Barrel Workshops to engage the community in environmental education.

- iii. Jones Valley Teaching Farm (JVTF). During fiscal year 2023, Jefferson County entered an MOU with 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.
- iv. Turkey Creek Nature Preserve (TCNP). TCNP assists Stormwater Program staff in achieving educational goals by including a stormwater education component in all student curriculums, community events, and cleanups. TCNP also provides various opportunities to promote the Clean Water Awareness Campaign messages on its blog site and in kiosks throughout the park. TCNP houses a recycling trailer for area residents to dispose of paper, aluminum, and plastic properly.

c. **Communication Mechanisms/Advertisements**

Stormwater Program staff created and distributed various items to inform the public about the various 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, highlighted in the JeffCo H2O e-Newsletters, displayed at the front counter of the R&TD, 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>).

- i. **Brochures and Flyers.** The Stormwater Program created **12 brochures and three flyers to inform and educate the public about stormwater runoff** and provide helpful tips and resources to improve water quality. The brochures include the education website address, the hotline number for public reporting, and a “what you

can do” list of behaviors to reduce polluted runoff. During this reporting year, **nine brochures and three flyers** were displayed at Jefferson County’s Roads and Transportation Department’s (R&TD) front counter in brochure holders. Jefferson County’s Stormwater webpage also makes these brochures and flyers available. Reports show that there were **2,442** educational items distributed, and **2,488 educational items downloaded** from Jefferson County’s Community Outreach and *Keep It Clean* web pages. In addition, the flyers and brochures were made available to **5,341 people** during **43 outreach programs** during this reporting period. The brochures and flyers have been submitted in previous reports and are on file. A listing of this year’s downloads has been included in **Appendix C**.

A **Jefferson County Environmental Community Resource Book**, located on Jefferson County's website, was updated during FY2021. The resource book contains information on the services that various local stormwater programs, environmental agencies, and other programs offer the public.

- a) **Electronic Waste (E-Waste).** This brochure discusses the importance of properly disposing of e-waste items.
- b) **Good Housekeeping.** This brochure informs businesses of their responsibility to implement good housekeeping practices to prevent pollutants from entering the storm drainage system. Stormwater Program Staff received permission from the former Revenue Department Deputy Director to distribute information to individuals applying for or renewing business licenses at the Main Courthouse and the Center Point, Gardendale, and Hoover satellite courthouses. A monthly supply of 175 Good Housekeeping brochures was provided to the Revenue Department from October 2022 through March 2023. Due to decreased business license applications and renewals, the current Revenue Department Deputy Director informed Stormwater Staff that they would request additional brochures to replenish the supply as needed. A total of 1,050 brochures were provided for distribution at Revenue’s four locations during the 2024 fiscal year.
- c) **Helpful Information.** This brochure was updated during this fiscal year. It provides references for residents of Jefferson County, including an environmental section that provides contact information for proper household trash disposal and recycling, reporting illegal dumping, reporting suspected water pollution, and reporting sanitary sewer emergencies. About 3,300 were distributed during this reporting period.
- d) **Homeowners Guide to Stormwater.** This brochure provides homeowners with information on developing and implementing a stormwater management plan on their property, outlining various green infrastructure and low-impact development techniques and practices.
- e) **Identifying and Reporting Water Pollution.** This brochure discusses identifying illicit connections, illicit discharges, and illegal dumping and the negative impacts these activities have on health, safety, and water quality. A hotline phone number is provided to report suspected water pollution.

- f) **Illegal Dumping.** This brochure informs residents of the negative health, safety, and environmental impacts caused by illegal dumping. State and county code, ordinance, and enforcement references are cited. An illegal dumping reporting phone number and a suspected water pollution reporting hotline phone number are included. Information about hazardous waste events, along with contact information for landfills and transfer stations that accept household trash, yard debris, household items, construction waste, and other materials, is included.
 - g) **Lawn, Garden Products, and Yard Waste.** This brochure encourages the proper use of fertilizer, pesticides, and herbicides and explains their potential negative impacts on water quality if not correctly applied. The brochure also discusses the negative effects of illegal dumping and advocates proper disposal of unwanted materials.
 - h) **Preventing Stormwater Polluted Runoff.** This brochure provides an overview of the negative impacts of stormwater-polluted runoff and how everyday activities contribute to nonpoint source pollution. Specifically discussed are used oil, fertilizer, pesticide, herbicide, illegal dumping, and household hazardous waste. Proper disposal is encouraged, and the water pollution reporting hotline phone number is included.
 - i) **Rain Rain Come Our Way.** This brochure illustrates the benefits of harvesting rainwater and encourages the installation of rain barrels on residential properties. The roles impervious surfaces, rain gardens, groundwater, and surface water play in water quality are also discussed.
 - j) **Stormwater Pond Maintenance.** This brochure informs stormwater pond owners of their responsibility to inspect and maintain their stormwater pond(s). Included is a maintenance checklist.
 - k) **Vehicle Equipment Care and Maintenance.** This brochure discusses the potential negative impacts of improperly disposed or spilled motor oil and vehicle fluids on water quality. Good Housekeeping practices such as spill prevention, dry methods of spill cleanup, proper disposal or recycling, and preferred car washing procedures are provided. The water pollution reporting hotline phone number is included.
 - l) **Volunteer Litter Cleanup Program.** This brochure encourages residents not to litter while also encouraging them to organize and participate in roadside litter cleanups. An overview of the steps involved in organizing a cleanup is provided. The negative health, safety, and environmental impacts caused by litter are discussed, and an illegal dumping reporting phone number and water pollution reporting hotline phone number are included.
 - m) The three flyers, **Actions Matter** (pollution reporting), **It's Your "Doody"** (dog waste), and **Jefferson County Cooking Oil and Grease Recycling Locations**, were provided at each event, presentation and workshop.
- ii. **Calendar.** A 12-month printed 2024 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 of their impact on local waterways and provides simple solutions to help protect creeks and streams from pollution. A total of 8,000 calendars were printed, with 2,500 distributed by the Jefferson County Stormwater Program staff. The remaining calendars were distributed by the Alabama Cooperative Extension System, the Jefferson County Department of Health, the Jefferson County Soil and Water Conservation District, and the cities of Birmingham, Bessemer, and Leeds.

iii. **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 Public Information Office also contracted with various local media agencies to run advertisements related to the Stormwater Permit and to promote the newly launched "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, Fox 6, and WIAT.

- b) As part of the Litter Quitters Video Competition, staff conducted five live interviews, created and displayed a bus ad, published a print article, paid for a print advertisement, broadcast a radio message, and aired a television public service announcement.
- c) On November 21, 2023, a television press conference was held to promote Jefferson County's Household Oil and Grease Recycling Program. The event reminded those frying turkeys on Thanksgiving how to properly dispose of their used frying oil. Information from the news conference was broadcast on three local television stations during the Thanksgiving holiday, and parts of the story were shared on Jefferson County's Facebook, Twitter, and Instagram accounts.
- d) Three live television and one radio interview were conducted for the volunteer roadside litter cleanups. On February 27, 2024, the Valley Creek Cleanup was

promoted and discussed on the morning Gary Richardson show on WJLD radio. On February 29, 2024, the cleanup was featured in two segments of Good Day Alabama. On March 2, the morning of the event, staff promoted it during the morning show, with live interviews on FOX 6 with Russel Jones.

- e) Stormwater Program staff also collaborated with local organizations and agencies with whom they signed Memoranda of Understanding (MOUs), to utilize their social media capabilities to distribute information about the Clean Water Awareness Campaign and inform the public about upcoming workshops, activities, and events.

iv. Newsletters

In 2012, Jefferson County's Stormwater Program launched a quarterly e-newsletter called JeffCo H2O News, distributed electronically. In FY 2022, the Jefferson County Public Information Office (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.

v. 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 in a visual manner 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 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 component contains **one poster** that informs people how their everyday activities can negatively affect water quality but stresses that these effects can be prevented.

- e) ***Household Oil and Grease Recycling.*** This program contains **eight posters** focusing on the correlation between pouring Fats, Oils, and Grease (FOG) down drains, resulting in clogs, sanitary sewer overflows, and stormwater pollution. These materials are a shared resource between the Environmental Services Department 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.

vi. **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 R&TD’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**

- i. All new concrete storm drain lids or those needing replacement are imprinted with the message “No Dumping, Drains to Waterways.” Jefferson County’s R&TD

installed **73 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. **Thirty signs** are displayed at 15 locations throughout Jefferson County to inform the public about what creek or watershed they are crossing. The signs list the water pollution reporting hotline number. At each site, the signs were placed to be viewed from both directions. 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 along Glennwood Road crossing Turkey Creek, Shady Grove Road crossing Village Creek, Cardiff Street crossing Five Mile Creek, Bradford Road crossing Self Creek, and Woodward Road crossing Opossum Creek. Please see **Appendix C** for a map showing the locations of these signs installed by Jefferson County.
- iii. Stormwater Program 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 2022 “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, **49 volunteer litter cleanups** resulted in **1,405 volunteers** spending over **5,620 hours** picking up **40.58 tons** of litter from **132.47 linear miles** of roadways, out of ditches, and along creek banks. Of these, **39 cleanups** were held in unincorporated areas of Jefferson County or along roads that the Jefferson County R&TD maintains, resulting in **770 volunteers** spending **3,080 hours** picking up **35.29 tons** of litter from **116.97 linear miles** of roadways, out of ditches and from creekbanks. The amount of material collected is contained in Jefferson County’s R&TD 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 8, 2023, for its outstanding commitment to local cleanup efforts, environmental education, and volunteerism. Clay Chalkville High School, Oak Grove High School, Minor High School, Homewood High School, Jefferson County Sheriff’s Office, Marybeth Nicodemus, Kim Broughton, Max Langley, Yolanda Lawson, Darrell Lebeaux, Freddie Freeman Scott Man, and Office Depot received awards in their respective categories. These achievements were featured in the Alabama PALS Winter Quarter 2024 newsletter, *The PALS Prints Volume 47*.
 - c. On February 22, 2024, Jefferson County Commission presented the AL PALS Award winners Resolutions for their achievements.

- iv. 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) aired on television and radio stations and were displayed on the back 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 the Jefferson County Conservation District 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 spread awareness about 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.

To participate, each 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 at the end of the competition. 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** were recorded from the campaign. A detailed report is included in **Appendix C**.

- v. During this reporting period, Jefferson County secured funding to install **four in-stream litter collection devices** designed to capture litter and floatables from waterways that drain from pervious surfaces in the county's unincorporated areas.

Additionally, **two more site locations** were added at no extra charge due to the hydrology of the sites along Valley Creek and the Cahaba River.

In this reporting period, Jefferson County's funded devices collected a total of 0.71 tons of material, of which 0.10 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.

Overall, Jefferson County has 16 sites equipped with litter collection devices. Since the installation of these devices began in 2019, 13.68 tons of material have been collected, with 2.48 tons being recycled. A list of the sites and the amount removed is included in Appendix C. Please refer to Major Accomplishments, Pollution Prevention and Good Housekeeping (II.C.7) and see **Appendices C, H, and M.**

- vi. Jefferson County entered into a contract with Sweeping Corporation of America, LLC, who specialize in litter removal services. This contract covers the pickup of litter and other debris from designated roadways in unincorporated areas particularly prone to excessive litter. The collected material is placed in designated locations for Jefferson County's R&TD staff to dispose of properly. During this reporting period, **28.76 tons of material** were removed from **477.40 miles** of roadway. A list of the roadways cleaned and their cleaning dates is included in **Appendices C and M.**

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 the Alabama Cooperative Extension System (ACES), the Alabama Green Industry Training Center (AGITC), and the Green Industry Web (GIW) Portal. The Memoranda of Understandings (MOUs) related to these partnerships have been submitted in previous reports and are currently on file.

The Stormwater Program also promoted free webinars hosted by the Alabama Cooperative Extension System. These webinars are part of the Horticulture and Home Grounds 2024 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 <https://www.aces.edu/blog/category/lawn-garden/>, <http://www.aces.edu/go/B2B2020>, <http://www.aces.edu/go/B2B2021>, and <http://www.aces.edu/go/B2B2022>. 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.

Jefferson County's PIO promoted the proper use of household fertilizers by emphasizing the importance of soil testing before applying fertilizer or lime. The PIO

also 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, PHF (II.C.8), and see **Appendices C, I, and J**.

f. Public Engagement and Public Involvement

The Stormwater Program staff actively engaged the public by encouraging them to report suspected pollution. Staff provided informational materials at various public events, spoke to community and civic groups, and hosted seminars and workshops related to stormwater throughout the year. Below is an alphabetical listing of these efforts.

i. Complaint Reporting.

The Stormwater Program has a dedicated hotline 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 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 **eight events held**, it is estimated that **4,986 people participated**.

a) **Birmingham Zoo Annual Teacher Night Out.** On October 3, 2023, the Alabama Cooperative Extension System and the Jefferson County Soil and Water Conservation District set up a booth at an event for local teachers, where they displayed and distributed educational materials. They promoted several programs, including Alabama Water Watch's 4-H monitoring program, the Litter Quitters High School Anti-Litter Video Competition, the Urban Forestry Festival, and the Water Festival, to encourage greater participation. Litter Quitters decals and backpacks were also handed out. A total of **69 teachers** from local schools attended the event.

b) **Cahaba River Fry Down.** On October 1, 2023, and September 29, 2024, Jefferson County distributed Grease Recycling containers and other printed materials related to the Household Oil and Grease Recycling Program at a public booth during an event. Current listings of local Recycling Centers were also provided. Flyers were handed out promoting the upcoming HHW event and the 2025 HHW and Electronic Waste Diversion Drop-Off Event schedule. Various Clean Water Awareness Posters were displayed, covering topics such as how to report stormwater pollution and the impact of everyday actions—like picking up dog waste, properly disposing of yard chemicals, and littering—on water quality. Staff members from Jefferson County, the City of Birmingham, and the Jefferson County Department of Health's Watershed Awareness

Division collaborated to engage with participants and distribute information at this booth. It was reported that over 800 people attended on October 1, 2023, and 1,000 attended on September 29, 2024, resulting in a combined total of **1,800 people** being educated at this annual event held at the Cahaba Brewing Company.

- c) **Fishing Rodeo.** On June 8, 2024, 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 City of Birmingham staff shared the booth, engaging with participants and distributing information. Approximately **2,000 people** attended this annual event, which took place at East Lake Park.
- d) **Jefferson County Water Festival.** Stormwater Program staff participated in the 18th Annual Jefferson County Water Festival, which took place on March 8, 2024, at Samford University. The Water Festival aimed to educate fourth-grade students, teachers, and parents from various schools across Jefferson County about the sources of drinking water and how to protect it for themselves and future generations.

Students engaged in three hands-on activities and experiments directly related to the Alabama Course of Science Study and the Scholastic Objectives for fourth grade. Before the festival, students from participating schools submitted artwork reflecting the theme of the Water Festival. This year's theme was "One Water." The festival committee, led by the Jefferson County Soil and Water Conservation District (JCSWCD), selected one drawing to use as the Water Festival logo on free t-shirts distributed to students, teachers, and volunteers.

A total of 367 fourth-grade students, teachers, and parents from five local schools attended the event. The Jefferson County Stormwater Program donated materials that were given to each teacher and provided presenters for various activities.

- e) **National Neighborhood Night Out.** On October 3, 2023, the Jefferson County Sheriff's Office distributed various educational materials related to the Stormwater Program during a National Neighborhood Night Out event at Sylvan Springs Park. They handed out **50 Stormwater** Hotline backpacks, including information about Jefferson County's Household Oil and Grease Program, guidelines on reporting suspected water pollution and illegal dumping, and details about upcoming Household Hazardous Waste and Electronic Drop-Off events.
- f) **Salamander Festival.** On January 27, 2024, Stormwater calendars, backpacks, and flyers listing the 2024 electronic drop-off and household hazardous waste day event schedule were distributed to attendees. It was reported that **700 people** attended the event.
- g) Jefferson County is in a region that faces severe weather conditions, including tornadoes, hurricanes, droughts, and heavy rainfall. To reduce the discharge of pollutants from areas affected by these factors, the Stormwater Program staff

has identified resources, coordinated efforts, and implemented projects to help communities replant trees and other vegetation. This vegetation provides important benefits, such as reducing stormwater runoff, capturing and filtering pollutants, increasing stormwater infiltration, and minimizing soil erosion. Jefferson County has continued to utilize its program in areas impacted by severe weather.

On February 27, 2024, the Jefferson County Soil and Water Conservation District, in partnership with the Alabama Forestry Commission and the City of Leeds, held a tree seedling giveaway. Reports indicate that **975 tree seedlings** were distributed to the public during this event.

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 a total of **775 people** attended the **31 presentations** given by the Stormwater Program staff.

- a) **Birmingham Water Works Young Ambassadors Program.** On June 11, 2024, the Stormwater Program staff delivered two presentations to **70 students and 7 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) **Garden Clubs and Civic Organizations.** Stormwater Program Staff gave **three presentations**, which included information about Jefferson County's stormwater permit, program requirements, and pollutants, along with techniques and practices that homeowners can take to reduce stormwater runoff. The presentations were given to **67 people** on the dates and at locations shown below.

- February 28, Sherwood Garden Club, 35 people
- March 20, 2024, Jemison Garden Club, 20 people
- April 4, Jefferson County Master Gardeners, 12 people

- c) **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 staff delivered **twelve presentations to 277 students** in two classes at McAdory on January 29, 2024, to five classes at Clay Chalkville on January 23, 2024, and to five classes at Oak Grove on March 1, 2024. The presentations were about watersheds, litter, and competition rules.

- d) Stormwater program staff conducted **six presentations** for approximately **128 people** to local organizations, schools, and neighborhood associations. These presentations aimed to encourage community participation in roadside litter cleanup events and to educate attendees on how to report suspected water pollution. The presentations covered the negative effects of various pollutants on Jefferson County's local waterways and discussed prevention strategies. Key topics included pet waste, lawn and garden chemicals, bare soil, vehicle fluids, and household cooking oil and grease. In addition to the presentations, educational materials were distributed, including the pollution reporting number and the sanitary sewer overflow hotline. These materials also featured the latest Stormwater Calendar. The dates and locations of the presentations were as follows:
- February 13, Minor Heights Neighborhood Association, 25 members
 - March 3, Next Step Storm, 25 home school students in grades 3-8
 - April 25, Encore Club, 22 members
 - April 30, Bessemer City Middle School, 18 students in 3rd grade, 3 teachers
 - September 10, Minor Heights Neighborhood Watch Community, 10 people
 - September 11, Cosmos Club, 25 members
- e) **Rain Barrel Workshop.** On Saturday, April 20, 2024, 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 **47 people** attended.
- f) **Soil Erosion and Sedimentation Control Workshop for Homebuilders.** Stormwater program staff and municipal partners gave presentations on their respective programs to **35 attendees** of the Erosion and Sedimentation Control Workshop on June 18, 2024. Please refer to Major Accomplishments, Construction Site Storm Water Runoff Control (II.C.4), and see **Appendices C and E.**
- g) **Water Festival.** On March 8, 2024, 50 volunteers assisted with various aspects of the 2023 Jefferson County Water Festival. Reports indicate that **367 fourth-grade students** attended three hands-on activities presented by various partners. The Stormwater Program provided two volunteers who gave **6 presentations to 144 students.**

iv. **Workshops and Seminars**

A total of **20 workshops and seminars** related to the Stormwater Program NPDES requirements were conducted for **801 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 future content. The list of presentations is provided below.

- a. **Alabama Water Watch Chemical Workshops.** Stormwater program staff assisted Alabama Water Watch in conducting three training sessions on March 15 and 16, 2024. These sessions aimed to certify volunteer citizen monitors in Basic Water Chemistry, Bacteriological Monitoring, and Bioassessment Monitoring.

During lunch on March 15 and a mid-morning break on March 16, staff delivered an **informal presentation** about Jefferson County's MS4 Permit and program. In total, **67 certificates** were awarded.

These certified community volunteers will become stewards of the watershed, acting as liaisons to educate their friends, neighbors, and community leaders on the importance of reducing stormwater pollution.

- b. **Lunch and Learns.** The Stormwater Program staff organizes quarterly seminars featuring speakers who discuss responsible yard care, low-impact development, proper disposal of items, and ways to reduce nonpoint source pollutants from properties. Lunch is free for participants, sponsored by the City of Bessemer's Stormwater Program. This year's **four workshops** included identifying illicit discharges and how to report them, invasive plants and controlling them, Alabama's bird diversity, and identifying pests in the home garden and what to do about them. Reports indicate that an estimated **87 people** attended these four seminars

- c. **Osher Lifelong Learning Institute (OLLI).** Stormwater Program staff coordinated three gardening programs that resulted in 12 seminars for local OLLI members. The seminars were taught by professionals in related fields, local master gardeners, and Extension agents and featured stormwater-friendly landscaping while emphasizing prudent yard care practices. Please see Appendix C for a complete listing of classes, including the title, the instructor's names, and the date the classes were held. Reports indicate that an estimated 50 people attended each course.

- d. **Rain Barrel Workshop.** A total of 70 barrels were sold to **47 attendees** of the 2024 Rain Barrel Workshop, which took place on April 21, 2024, at Jones Valley Teaching Farm. A grant from Cawaco RC&D reduced the participants' barrel costs significantly.

The event was hosted by the Alabama Cooperative Extension System, the Cities of Birmingham, Bessemer, and Leeds, the Jefferson County Department of Health, the Jefferson County Soil and Water Conservation District, Jefferson County R&TD, 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 of the benefits of capturing and storing rainwater from their roofs and how to use this water in their yards effectively. 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, 2024 Stormwater Calendars, details about Jefferson County's Household Oil and Grease Recycling Program, and information from the Jefferson County Soil and Water Conservation District.

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.

- i. **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.
- ii. **SWMPP.** The SWMPP was available for public comment on Jefferson County's website (<https://www.jccal.org/Default.asp?ID=1948&pg=Program+Plan>).
- iii. **Surveys.** Two attitudinal surveys closed on September 30, 2023. The General Behavioral Survey evaluated public knowledge and behaviors related to stormwater impacts, while the Littering Behavior Survey aimed to understand how littering affects stormwater quality. These surveys were promoted to residents of Jefferson County through various channels. The information collected from the surveys will be used to update outreach programs and materials.

h. 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.

3. Illicit Discharge Detection and Elimination (IDDE)

- a. In FY2022, Jefferson County determined eight of the previously identified 39 outfalls are no longer within Jefferson County's unincorporated area due to annexation, leaving **31 outfalls**. During FY2024, Jefferson County screened zero outfalls, 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. Jefferson County aims

to investigate outfalls in the Five Mile Creek watershed during the next fiscal year, as that area is more urbanized.

- b. 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 R&TD website, 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.
- c. A phone hotline was established so that citizens could report suspected water pollution. The hotline number (205.325.5792) is publicized on all printed materials (Clean Water Awareness Campaign posters, calendars, backpacks, brochures, and flyers) and at the Stormwater Program website, which is located 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 normal business hours. The message instructs the caller to leave enough detailed information so staff can investigate the complaint. The hotline received **40 calls** during this reporting period. A total of **9 potential illicit discharges** were investigated because of these calls, of which **2 led to corrective actions** being taken. The remaining **31 calls** were transferred to other appropriate agencies or departments. The public can use other mechanisms to report IDDE-related issues: the office phone, staff emails, and an online citizens’ reporting and service request tool powered by Rock Solid Onelink™. Please see **Appendix D** for a complete list of calls.
- d. The 24-hour hotline previously available for the public to report illegal dumping and trash issues was eliminated during this fiscal year due to staff changes. Instead, the public is directed to report illegal dumping through the MyJeffCo app or by contacting the Sheriff’s Office. All reports are investigated to identify the source of the dumping and to schedule the removal of the dumped materials. During this permit year, 61 criminal litter violations were recorded. In cases of criminal littering, a written notice of violation is sent to individuals identified during the investigation process. Please see **Appendix D**.

Jefferson County’s R&TD Department removed and properly disposed of the dumped material. Camp Bessemer reported removing **328.30 tons** of material, and Camp Ketona reported removing **247.30 tons**. Please see **Appendix B**.

- e. During FY2023, Jefferson County entered a 5-year contract with Pileum Corporation to install surveillance cameras equipped with artificial intelligence (AI) and license plate reader (LPR) technology in areas where illegal dumping has previously occurred. The project's objectives are to detect illegal dumping activities and ultimately deter and reduce the incidence of illegal dumping.

During this reporting period, cameras were installed at three sites. The surveillance system successfully identified two incidents of illegal dumping along 1104 Tuscaloosa Highway and issued one citation. Please refer to **Appendix D** for further details.

- f. Jefferson County's DDS staff enforced zoning regulations, while the R&TD staff implemented floodplain regulations. During this permit year, 118 zoning violations and one floodplain violation were investigated. Of the zoning violations, 40 were resolved,

and the cases were closed. Seven court dates were set, and nine warrants were issued. One case reached the expiration of its statute of limitations for prosecution. The violations primarily involve overgrown vegetation, unpermitted structures, and unauthorized activities. Please see **Appendix D**.

- g. Information is provided to individuals applying for or renewing business licenses in the Revenue Department (RD) at the main Jefferson County Courthouse and Center Point, Gardendale, and Hoover satellite locations. This information is presented as a brochure informing businesses of their responsibility to implement effective housekeeping practices to prevent pollutants from entering the storm drainage system. During this reporting period, a total of 1,050 brochures were supplied for distribution at the department's four locations. The brochure has been included in previous reports and is also on file. Please refer to Major Accomplishments, Public Education and Public Involvement (II.C.2) and see **Appendix C**.
- h. Jefferson County's Environmental Services Department (ESD) manages a program to reduce sanitary sewer overflows through regular pipe cleaning. When an overflow is reported, the staff promptly investigates and addresses the issue according to the July 2012 Standard Operating Procedure. Details of overflow locations and actions taken can be found in Appendix D.

The Environmental Services Department (ESD) runs a free county-wide recycling program for household cooking oil and grease in Jefferson County. This initiative aims to reduce the amount of oil entering the sanitary sewer system and reduce sewer overflows.

Collection bins are located at various sites throughout the county and include free plastic containers for residents. Once a container is full, it can be exchanged for a clean one at the bin. Inspectors collect these containers weekly and transfer them to the Shades Valley Wastewater Treatment plant where the oil is picked up by a local rendering company.

The program recently upgraded its bins from wood to expanded metal, featuring three fixed shelves with oil-absorbing sheets. Each bin measures 24 inches by 24 inches by 54 inches. New and improved signage provides information about the program. Ten upgraded stations are currently in use, and more are scheduled to be added.

Older bins are four feet wide, four feet tall, and two feet deep and are designed to sit six inches off the ground to contain leaks. There are now **21 drop-off points** available for recycling, and **3,246 gallons** were collected this year.

The ESD distributed over **5,000 flyers** in apartment complexes and conducted presentations on the issues of fats, oils, and grease (FOG) in the sewer system. A letter about the recycling program was provided to apartment managers, focusing on complexes near multiple sewer overflow issues. Meetings were held with property management to discuss solutions. For more 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, 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. The site plan review process includes verification that the most recent edition of the Alabama Handbook was used and includes consideration of water quality impacts. Jefferson County personnel review plans, issue Erosion and Sediment Control Land Disturbing Activity Permits (or exclusions), and inspect commercial, industrial, and residential sites for compliance. Once staff determines the site to be stable, as specified in the plans, a Certificate of Occupancy is issued, and the permit is closed. The public can report construction-related issues on the 24-hour stormwater hotline, the office phone, staff emails, and an online citizens' reporting and service request tool powered by Rock Solid Onelink™.

- b. Erosion and Sedimentation Control Workshops. In 2012, the Jefferson County Stormwater Program partnered with the Greater Birmingham Association of Home Builders and other local municipalities to host annual Erosion and Sedimentation Control Workshops in Jefferson County. These workshops aim to provide education and training for construction site operators and municipal staff as required by the MS4 permit (ALS000001) and to reduce the impact of erosion and sedimentation on waterways. In FY 2022, a decision was made by the partnering agencies to host these events every other year, not annually. On June 18, 2024, **35 people** attended the workshop.
- c. During the Permit Year 2023-2024, Jefferson County staff issued Erosion and Sedimentation Control (ESC) Permits for 322 residential single-family homes as part of the zoning approval process. Additionally, one exclusion for a single-family house project was issued, exempt from Land Disturbance Permit requirements.

Seventeen commercial Land Disturbance Activity Permits were also granted, with no commercial site exemptions from ESC permit requirements. Over the year, 1,926 construction site inspections were conducted on 563 sites.

The owners or developers of the sites that failed inspections received notices to correct the issues, after which the sites were re-inspected for compliance. The escalation procedures included verbal warnings, email notifications from the permitting software, Stop Work Orders, and Violation Notices. Please see **Appendix E**.

- d. **A total of 196 failed** erosion and sediment control inspections occurred on **76 construction sites** during the permit year due to sites not complying with Article 13 of the Jefferson County Subdivision and Construction Regulations.

Jefferson County issued **33 Stop Work Orders**, **26** of which were for unpermitted sites. All but five sites were brought into compliance. Descriptions are in **Appendix E**.

- e. Jefferson County has **34 staff** members trained as Qualified Credentialed Inspectors (QCI) in erosion and sedimentation control. This training is provided by the Home Builders Association of Alabama (HBAA) or Thompson Engineering. The QCI courses are approved by ADEM and are offered several times a year.

These staff members have completed training that equips them with the tools and strategies necessary to comply with the Stormwater Permit on all construction sites. Jefferson County's R&TD has 27 QCI-certified staff members in erosion control, linear

road improvements, roadway construction, and bridge replacements. The staff are in various areas: four at Camp Bessemer, seven at Camp Ketona, two in Stormwater management, and 14 in construction.

The DDS has seven QCI-certified staff members who work in erosion control and building infrastructure. **Please see Appendices B and E.**

- f. During this reporting period, three Jefferson County R&TD construction NPDES permits were completed and closed, and three were transferred to the contractor. As a result, Jefferson County R&TD currently has **seven active construction NPDES permits**. Please see **Appendices B and E**.

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: <https://www.jccal.org/Default.asp?ID=1804&pg=Stormwater+Management+Program>. During this reporting period, Jefferson County processed and approved **four qualifying** sites for BMPs. These sites and corresponding ADEM General NPDES Permit numbers are included in **Appendix F**. The sites are at various phases of construction. No revisions or updates were made to the Post-Construction Regulations during this reporting period. Examples of Post-Construction As-Built certifications and associated annual inspection forms are included in **Appendix F**.
- b. Jefferson County has **17 qualifying sites** expected to be regulated under Jefferson County's Post-Construction Article 14. Out of these, **eight sites** submitted their annual inspection information, and **one site** submitted its certified as-builts for its permanent stormwater control structures. Please see **Appendix F**.
- c. **No enforcement actions** related to post-construction issues were taken during this reporting period. The public can report any concerns using the 24-Hour Stormwater Hotline, the office phone, emails, and an online citizens' reporting and service request tool powered by Rock Solid Onelink™.

6. Spill Prevention and Response

- a. During the Permit Year 2023-2024, the Jefferson County Emergency Management Agency (EMA) handled spill prevention and response, addressing 37 incidents involving chemical spills or leaks. 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. Please see **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 Technicians 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. On February 7, 2024, **28 Jefferson County employees** from various departments attended the **Chemical Spill Response Training Hazardous Materials Operations Level II** classroom instruction. Those in attendance include seven from ESD and 21 from R&TD. The 8-hour course, conducted by Sigma Consulting and Training, Inc., meets OSHA, EPA, and DOT training standards. It 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, no new Jefferson County facilities were acquired. 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. The Spill Prevention, Control, and Countermeasure Plan (SPCC) for the aboveground storage tank at R&TD's Camp Ketona was updated during FY 2023. A copy of the updated plan was previously provided and is on file.
- c. Jefferson County Departments followed the SOPs set by the various departments. These SOPs and their reports are maintained at the respective departments. Please see **Appendices B, H, and I.**
- d. The Stormwater Program acquired Municipal Pollution Prevention training materials to develop Stormwater Pollution Prevention Training Modules for Jefferson County staff, collaborating with the Human Resources Department (HRD) using their 360 Articulate tool, DevelopU. In FY 2022, the basic Stormwater Overview module was mandatory for all new hires and current 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.

A new stormwater training course has been launched, aimed at personnel who have the potential to impact stormwater quality. This 45-minute elective course covers stormwater pollution, environmental effects, and prevention methods. The course objectives include identifying common stormwater pollutants and discussing techniques for their prevention. **Two employees** completed the course during this reporting period by watching the video. For more details, please refer to **Appendix H.**

- e. During FY2023, **two Stormwater Program staff** completed the *Certified Stormwater Inspectors* (CSI) training course recertifications. This certification is good for five years. The CSI certifications are on file.
- f. Camp Bessemer and Camp Ketona implemented Jefferson County's R&TD roadway de-icing program. Jefferson County's GSD applies sand as needed to ramps at County facilities. Any sand applied is swept up the following day during GSD's regular sweeping activities. **No sand** was applied during this reporting period for ice control

on Jefferson County roadways or at any Jefferson County facility. Please see **Appendix B**.

- g. Jefferson County R&TD 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 see **Appendix B**.
- Camp Bessemer reported **3,150.63 tons**, and Camp Ketona reported **5,235.13 tons** of material had been removed from the storm sewer system.
 - GSD has one staff member designated within the Jefferson County-maintained complex to pick up trash and litter daily. R&TD does not have designated staff to pick up litter; it is picked up by available staff that day.
- h. The Jefferson County Commission discontinued using a 24-hour hotline for the public to call and report illegal dumping and trash issues. Instead, the public is directed to report illegal dumping through the MyJeffCo app or by contacting the Sheriff's Office. All reports are investigated to identify the source of the dumping and to ensure the removal of the dumped materials. Please refer to Major Accomplishments, Illicit Discharge Detection and Elimination (II.C.3).
- i. During this reporting period, Jefferson County entered a contract to fund the installation of litter collection devices in streams. One of these devices was part of a previously started, one-year pilot project that concluded this fiscal year, while five others were installed downstream of impervious areas known to have high concentrations of litter.

Jefferson County's Public Information Officer (PIO) promoted the litter collection devices and invited media coverage of the installations. The promotion included a paid article that was published in Bham Now, which received 423 shares, and a paid advertisement that was featured on the morning television show Talk of Alabama. These advertisements highlighted the Stormwater Program and the Osprey Initiatives, the vendor of the litter collection devices. The advertisements showcased the vendor's staff and promoted the program and other anti-litter initiatives in Jefferson County.

The media covered the installation of three of the devices. On June 27, 2024, a litter collection device was installed on a tributary of the Cahaba River. WBRC's Fox 6 television interviewed staff members, and the footage that was captured was aired that weekend. Two devices were installed on July 26, 2024, during a live news conference where a County Commissioner highlighted the Jefferson County Commission's commitment to protecting waterways from litter. Local media attended the conference, and five media outlets published stories about the project and the installations.

Reports indicate that 0.61 tons of litter were removed from the waterways. A total of 0.1 tons of materials were recycled from the devices funded by Jefferson County. These Litter Gitter devices will help reduce litter in various creeks, four of which flow through unincorporated areas of Jefferson County.

In addition to the sites funded by Jefferson County, other municipalities and businesses continued to fund previously installed devices. The appendix provides a detailed breakdown of the items collected at each site. Please refer to Major Accomplishments, Public Education, and Public Involvement (II.C.2) and **Appendices C, H, and M** for further information.

8. Application of Pesticide, Herbicide and Fertilizers

- a. In the 2011-2012 permit year, the Jefferson County Commission established a Memorandum of Understanding with the **Alabama Green Industry Training Center** and the Alabama Cooperative Extension System. That year, the Training Center hosted at least **15 events** on proper pesticide, herbicide, fertilizer use and runoff reduction strategies. The Alabama Department of Agriculture and Industries and the Alabama Cooperative Extension System have recognized it for providing essential workshops and training for state certification and permits. Please see **Appendix I**.
- b. The **Green Industry Web (GIW)** Portal, hosted by Auburn University at Montgomery (<http://www.giwportal.org>), is a free online resource to enhance education and credentialing in the Green Industry. It offers archived videos, presentations, and hands-on training throughout the state. The GIW Portal has organized events on properly using pesticides, herbicides, fertilizers, and runoff reduction strategies this fiscal year. Funding comes from various organizations, including the Appalachian Regional Commission, the Alabama State Department of Education, and the Alabama Nursery and Landscape Association. Please see **Appendix I**.
- c. The Alabama Cooperative Extension System publishes the Alabama IPM Communicator, a statewide newsletter on pest management for farmers, foresters, retailers, gardeners, and homeowners. Featuring articles from research and Extension personnel at Alabama's educational institutions, it provides essential information on crop production and pest management. It promotes workshops and webinars on chemical alternatives, including beneficial insects. Past issues are available on the aces.edu website www.aces.edu/blog/topics/ipm-farming/alabama-ipm-communicator-newsletter/.

Stormwater Program staff promoted this free publication at events, community meetings, and Lunch and Learn seminars. During the 2011-2012 Permit Year, the Jefferson County Commission formalized an ongoing Memorandum of Understanding (MOU) with the Alabama Cooperative Extension System. Please refer to Major Accomplishments, Public Education and Public Involvement (II.C.2) and see **Appendix I**.

- d. 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 17 staff members** who are certified PHF Applicators and hold Certified Pesticide Licenses —seven at Camp Ketona, eight at Camp Bessemer, and two in the General Services Department (GSD). Please see **Appendix I**.
- e. 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. This area features a concrete floor and walls, heating and air conditioning, a ventilation fan, a walk-in area, and a bay door. Access points to this storage are always locked and monitored by a guard on duty 24 hours

daily. Daily visual inspections ensure that stored materials are not leaking, and adequate spill-cleanup supplies are readily available. Comprehensive documented inspections occur twice a week and are maintained on-site.

Camp Ketona keeps detailed records of applying PHFs, including the dates and volumes used. Inspections are performed monthly, and forms are retained on-site for three years. During this reporting year, Camp Ketona applied the following quantities of herbicides to 2,483 acres of land: 1,639.50 gallons of MSMA, 1,024.68 gallons of Hardball, 58.32 gallons of Ground Zero; 58.32 gallons of Inlet; 183.85 gallons of RoundUp PRO; 2.45 gallons of Trycera, 2.20 gallons of Rodeo, and 14.20 gallons of Milestone. An inventory listing of onsite PHFs is included in **Appendices B and I**.

- f. 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 in width, 25 feet in length, and 20 feet in height. This facility has an emergency spill kit, material safety data sheets (MSDS), an eyewash station, a handwashing station, and a self-contained drain. Inspections of cleanup equipment are conducted twice weekly.

Camp Bessemer also tracks the application of PHFs, including the date and volume of each application. This information is reported monthly and is retained on-site for three years. During this reporting year, Camp Bessemer applied the following quantities of herbicides to 4,380.70 acres of land: 2.98 gallons of Milestone, 764.98 gallons of MSMA, 60.07 gallons of Roundup, 764.98 gallons of 2,4-D, 2.5 gallons of Inlet, and 13.09 gallons of Hardball. An inventory listing of on-site PHFs is included in the appendix. Please see **Appendices B and I**.

- g. Camp Ketona applied 1,295 pounds of hydroseed on Linndale Road during this fiscal year. In addition, contractors working on roadway projects in Jefferson County applied hydroseeding to two sites during this fiscal year. The first site, covering approximately 13 acres, was on the Bell Hill Road project. This application promoted bank stabilization on slopes and in new drainage areas. The second site, measuring 1.40 acres, was treated at North Chalkville Road. For more details, please refer to **Appendices B and I**.
- h. The Operations Center of Jefferson County's GSD adheres strictly to SOPs for using PHFs. This includes guidelines for disposal, hygiene practices, recognizing poisoning symptoms, and procedures for mixing and loading these 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 applied 10 gallons each of Roundup and Hardball herbicides during FY24. These materials are stored in 2.5-gallon containers. **Please see Appendix I.**

- i. Jefferson County's PIO sponsored an article in Bham Now and paid for a segment on ABC's 33/40 Talk of Alabama in May of this fiscal year to highlight the importance of applying fertilizer correctly and in proper amounts. On Talk of Alabama, the Deputy

Director of ESD explained that rain can wash nutrients from fertilizers into waterways, leading to eutrophication. This process causes algal blooms that can harm fish and other aquatic life. The Bham Now article emphasized the importance of conducting soil tests before applying lime or fertilizer and included information on how to send soil samples to Auburn University's Soil, Forage, and Water Testing Laboratory. Within a month, this article was shared over 355 times. Please refer to Major Accomplishments, Public Education and Public Involvement (II.C.2) and see **Appendix I**.

9. Oils, Toxics, and Household Hazardous Waste Control

- a. The Jefferson County Fleet Management Department (FMD) implements a recycling program. For the Permit Year 2023-2024, the FMD properly disposed of **784 batteries, 12.02 tons of scrap metal, 55.78 tons of tires,** and recycled **2,478 gallons of oil**. Please see **Appendix J**.
- b. Jefferson County ESD has implemented a Grease Control 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.

Under the Grease Control Ordinance adopted in 2006, all food service facilities must obtain a non-transferable Grease Control Program Permit assigned to the facility owner. These facilities are subject to inspections and must comply with annual renewals, maintenance, employee training, record retention, and proper disposal. Training DVDs and BMP posters are provided. Additionally, the Jefferson County Department of Health must license all grease haulers.

Non-compliance with the grease control ordinance can result in fines or loss of discharge rights. Jefferson County's website provides more information on the program and permit application requirements. Some materials are available in Spanish (www.jeffcoes.org/Default.asp?ID=26&pg=Customer+Care).

A total of 103 new food service facilities were processed during this reporting period, and 1,381 annual site inspections were conducted. Inspections included training employees on BMPs, providing a training DVD, and ensuring the display of the current BMPs poster. Replacement posters were available if needed. 84 facilities were found non-compliant, with violations including failing the 25%, missing fees, and fryer oil. Please refer to Major Accomplishments, Illicit Discharge Detection Elimination (II.C.3) and see **Appendix J**.

- c. Jefferson County residents had access to **five HHW collection events** for proper disposal of hazardous items at no charge. Two events were held simultaneously on October 21, 2023, while three concurrent events took place on April 13, 2024. A map in Appendix J shows how the event sites were strategically located throughout Jefferson County to ensure accessibility for all residents.

The Jefferson County Commission funded the October event, while the April events were supported by the Jefferson County Commission, the Jefferson County Department of Health, and the Stormwater Management Authority, Inc., in partnership with the cities of Bessemer, Gardendale, and Irondale. The partnering jurisdictions helped manage site logistics, coordinate vendors, and organize volunteers.

Educational brochures on illicit discharges, proper vehicle maintenance, stormwater information, and the 2024 stormwater calendar were distributed to all vehicles

participating in the October event and those attending the Bessemer location in April. Intake surveys were administered at each site, and the results will aid in resource allocation for next year and identify areas for additional promotional efforts to encourage higher participation in future events.

Reports indicate that **1,999 participants** brought in **158 tons** of hazardous materials, including paint and paint-related items, pesticides, mercury, and vehicle fluids to events during this reporting period. While all partnering agencies promoted these events, Jefferson County's PIO sent press releases to Jefferson County Commissioners and local news media. Paid advertisements were placed on Facebook, X (formerly Twitter), LinkedIn, Latino News, and the Birmingham television CBS affiliate, channel 42 to promote the event and raise awareness about the importance of proper disposal of household hazardous wastes. A complete listing of items collected and a summary table of the events of the past five years can be found in Appendix J. Please refer to Major Accomplishments, Public Education and Public Involvement (II.C.2) and see **Appendix J**.

- d. A total of **21.60 tons of electronic** waste were collected during **three Free Electronics Drop-off Day events** for Jefferson County residents, with participation from **944 households**. The Jefferson County Commission sponsored these events with various local organizations, including the Alabama Cooperative Extension System and several cities and agencies.

Participants completed intake surveys and received a reusable car trash bag or a "Litter Quitters" backpack containing educational materials. These materials included Stormwater Calendars, a flyer with bin locations of the Household Oil and Grease Recycling Program, promotional items, a "Fat-Free Sewers" brochure, information on mercury and its hazards in the home, guidance on identifying and reporting illicit discharges, proper disposal of pet waste, and details on upcoming events.

The events were strategically held in areas prone to illegal dumping to discourage improper electronic disposal. All partners actively promoted these initiatives. Below are the details of each event, and a summary of the activities of the last four years is provided in the appendix. Please see **Appendices C and J**.

- On January 27, 2024, an event was held at the Birmingham Zoo parking lot. Intake forms were collected from 592 households across 31 local jurisdictions. A total of 12.92 tons of electronics were collected. Members of Alpha Kappa Alpha Sorority, Inc. (AKA) and partner organizations helped with intake, unloading vehicles, managing traffic flow, and distributing materials. Nucor Steel Birmingham, Inc. and the City of Mountain Brook paid for this event.
- On May 11, 2024, an event occurred at the Jefferson County Center Point satellite courthouse parking lot. Information from 214 households across 25 jurisdictions was collected, and 4.25 tons of electronics were gathered. Again, members of AKA and partner organizations assisted with various tasks. The Jefferson County Commission paid for this event.
- On June 8, 2024, an event was conducted at the Jefferson County Valley Creek Water Reclamation Facility in Bessemer. Intake forms were gathered from 138

households across 22 jurisdictions, and 4.43 tons of electronic waste were accumulated. The Jefferson County Commission also funded this event.

- e. Jefferson County's PIO promoted **two National Prescription Drug Take-Back** Events in Jefferson County on October 28, 2023, and April 27, 2024. Hosted by the Jefferson County Sheriff's Office at two locations, these events allowed residents to safely dispose of unwanted or expired medications, preventing drugs from contaminating waterways. Please see **Appendix J**.
- f. Jefferson County staff attended an annual spill prevention and response training. Please refer to Major Accomplishments, Spill Prevention and Response (II.C.6).

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 one 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 complied during the inspection; the completed inspection forms are included in **Appendix K**.
- b. Jefferson County's R&TD implemented **two NPDES Industrial Permits** and one Underground Injection Control Permit issued by ADEM to Jefferson County. Please see **Appendix E**.
- 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 R&TD Camps and seven fueling stations. Best Management Practice Plans for the two R&TD Camps were updated in November 2022. AKG 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), and see **Appendices B, E, H, I, and K**.
- d. Please see **Appendix K** for an inventory of NPDES-permitted facilities and Toxic Release Inventory (TRI) sites within Jefferson County's MS4 area.

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 the Alabama Chapter of AL PALS. 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, trash, and floatables.
 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.
- One of the strengths of Jefferson County's Stormwater Program is its recent transition from DDS to R&TD. By moving to R&TD, 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.
 - The climate during the year was not conducive to collecting all planned samples, much like in years past. Jefferson County experienced severe weather, tornados, and flooding, all adverse events that created dangerous conditions for personnel. Jefferson County and most of Alabama experienced severe drought conditions for most of the Permit period. The Alabama Forestry Commission issued a Fire Alert for every county in the state. The U.S. Small Business Administration (SBA) made federal funds available for organizations with economic losses due to the drought. The declaration included Jefferson and 24 other counties in Alabama. Meteorologists, statistics, and national and local news reports documented weather extremes statewide. **Appendix L** includes supporting documentation of the adverse climatic conditions that prohibited the collection of all samples.

- A limitation of the Jefferson County Stormwater Program is that expenditures and resource allocation depend upon which department the program is housed, as well as the priorities and financial responsibilities of the host department.

E. FUTURE DIRECTION

- Work began on the 2025 Stormwater Calendar, which is a collaborative effort involving the Alabama Cooperative Extension System, the City of Birmingham, the City of Bessemer, the City of Leeds, the Jefferson County Commission, and the Jefferson County Soil and Water Conservation District. The calendar, scheduled for print and distribution during the 2024-2025 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 HHW, appropriate chemical application in landscaping, and best practices for vehicle maintenance. 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**.
- The pilot program with Jefferson County's DDS and a vendor will continue to secure visual documentation of illegal dumping within unincorporated Jefferson County. The hope is that the perpetrators will be located and cited to reduce illegal dumping.
- Work will continue to create, revise, and review the SOPs for all Stormwater Program Programmatic functions and tasks and assess areas for process improvement and streamlining.
- Planning is underway to add additional waste diversion collection opportunities for residents to dispose of their household hazardous waste and unwanted electronics properly.
- 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.
- On December 18, 2024, ADEM finalized the revised MS4 NPDES Phase I permit for Jefferson County.
- Additional signage will be installed at creek crossings to help prevent illegal dumping and littering.
- Annexations may alter Jefferson County's current MS4 area.

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, user-friendly software applications that have been launched have aided the public in reporting various concerns.
 - Surveillance cameras have helped to deter the wrongful disposal of items and have supported the prosecution of individuals.
- 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 ensure inspections are done 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 General Services Department (GSD) continues implementing street sweeping and other strategies to minimize potential pollutant runoff. The FMD also conducts monthly inspections of Jefferson County's fuel facilities. Both

- preventive measures contribute to reducing the risk 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
 - R&TD 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. Summary Table

<i>Element of Program</i>	<i>Requirement</i>	<i>Activities</i>	<i>Status</i>	<i>Status Results for FY 2024</i>	<i>Comments / Appendix</i>
Structural Controls	Operate the MS4 and structural controls to reduce pollutant discharge	Maintenance and inspection performed Camp Bessemer	Completed	104 inspections on two settling ponds and four check dams, one inspection of the retention pond, two maintenance activities removing 4-5 cubic yards of sediment.	Appendix B
	Operate the MS4 and structural controls to reduce pollutant discharge	Maintenance and inspection performed at Camp Ketona	Completed	104 inspections on one settling pond and six check dams, one inspection of the retention pond, four maintenance activities, removed sediment as needed.	Appendix B
Public Education / Public Involvement	Inform and involve groups with the Stormwater Program	Partners / formalized agreements	Completed	Involvement in 15 partnering organizations with four formalized Memorandum of Understanding Agreements	Appendix C
	Communication mechanisms and advertisements	Distribution of program materials and information	Completed	2,442 brochures/flyers distributed, 2,488 downloaded from website, made available to 5,341 people at 43 programs, 8,000 calendars and one stormwater newsletter distributed, 28 posters displayed	See Appendix C
	Communication mechanisms and advertisements	Media promotion and advertising share information and encourage participation	Completed	26 electronic newsletters, two press conferences, 15 live interviews, weekly social media posts, and radio, print, and television advertising.	See Appendix C

<i>Element of Program</i>	<i>Requirement</i>	<i>Activities</i>	<i>Status</i>	<i>Status Results for FY 2024</i>	<i>Comments / Appendix</i>
Public Education / Public Involvement Continued	Stormwater controls to reduce pollutant discharge	Stormwater inlet covers and road sign placements	Completed	73 stormwater inlet covers stamped; 30 road signs installed	See Appendices B and C
	Participation of volunteers in litter removal activities.	Litter, floatable and debris removal	Completed	39 volunteer litter cleanups, 770 volunteers collected 35.29 tons	See Appendix B and C
	Participation of vendors in litter removal activities.	Litter, floatable and debris removal	Completed	Six in-stream litter collection devices, 0.71 tons floatables removed, 0.1 tons recycled; 477.40 miles roadways cleaned, 28.76 tons litter removed	See Appendices C, H, and M
	Inform and involve the public in litter reduction and removal	<i>Litter Quitters:</i> public high school anti-litter video competition with television, bus, and radio ads	Completed	459 students, 16,231 video views, five bus ads, tv PSA; 3,184,980 media impressions.	See Appendices C and M.
	Inform and involve the public in stormwater pollution prevention	Compliant reporting, community events, presentations, workshops, and seminars	Completed	40 pollution reporting hotline calls; 59 programs held, 6,555 attendees	See Appendices C and D
	Inform and involve staff on stormwater topics	Public input, evaluations, surveys	Implemented	Evaluations received, SWMPP open for comment; program updates based on FY 2023 surveys	See Appendices C and M

<i>Element of Program</i>	<i>Requirement</i>	<i>Activities</i>	<i>Status</i>	<i>Status Results for FY 2024</i>	<i>Comments / Appendix</i>
Public Education / Public Involvement Continued	Inform and involve staff on stormwater topics	Staff development and training	Completed	Staff participated in various training opportunities to further knowledge	See Appendix C
Illicit Discharge Detection and Elimination	Detect and eliminate illicit discharges	Dry weather outfall monitoring	Implemented	Zero outfalls screened; no priority areas were identified for further screening	See Appendix D
	Detect and eliminate illicit discharges	Investigations and enforcement proceedings for IDDE	Completed	40 pollution hotline calls, nine illicit discharges investigated; two corrective actions taken, 31 calls transferred	See Appendix D
	Detect and eliminate illicit discharges	Investigations, enforcement, and violations for illegal dumping, weed, and litter violations with volume removed	Completed	61 criminal littering violations, 575.6 tons removed; 119 violations, 302 weed and litter complaints. 40 violations resolved, seven court dates, and nine warrants issued	See Appendices B and D
	Detect and eliminate illicit discharges	Illegal dumping surveillance system	Completed	Three sites, two incidents captured, one citation	See Appendices D and M
	Detect and eliminate illicit discharges	Good Housekeeping brochures distributed to businesses	Completed	1,050 brochures were supplied to 4 licensing locations	See Appendix C

<i>Element of Program</i>	<i>Requirement</i>	<i>Activities</i>	<i>Status</i>	<i>Status Results for FY 2024</i>	<i>Comments / Appendix</i>
Illicit Discharge Detection and Elimination Continued	Detect and eliminate illicit discharges	SSO reporting	Completed	SSO and actions taken by staff	See Appendix D
	Detect and eliminate illicit discharges	Fats, Oil and Grease (FOG) collection, Used oil and grease recycling	Completed	21 drop-off points, 3,246 gallons of FOG collected; 5,000 FOG flyers distributed, three presentations	See Appendix D
Construction Site Storm Water Runoff Control	Reduce pollutant discharge from construction sites	Staff training as Qualified Credentialed Inspector (QCI) and Homebuilders ESC Workshop	Completed	35 people ESC trained; 34 QCI staff	Appendices B and E
	Reduce pollutant discharge from construction sites	Permits/Inspections for land disturbing activities and BMPs	Completed	324 Land Disturbing Permits, one exclusion issued; 1,926 site inspections performed on 563 sites	See Appendix E
	Reduce pollutant discharge from construction sites	Inspection of land disturbing activities and BMPs	Completed	196 failed inspections and 33 formal enforcement actions (7 Stop Work permitted sites, 26 unpermitted sites)	See Appendix E
	Reduce pollutant discharge from construction sites	Inspection of Jefferson County NPDES construction sites	Completed	Seven active NPDES Permitted sites; three completed/closed; three transferred to contractor	Appendix E

<i>Element of Program</i>	<i>Requirement</i>	<i>Activities</i>	<i>Status</i>	<i>Status Results for FY 2024</i>	<i>Comments / Appendix</i>
Post Construction Stormwater Management; New and Redevelopment	Reduce pollutant discharge from developed sites	Minimize pollutants after construction is complete	Implemented	17 qualified sites permitted, eight annual inspections; one As-Built; zero actions taken; no updates to post-construction regulations	Appendix F
	Assess impacts on water quality	Land use plan	Completed	Zero public hearing/open house held	N/A
Spill Prevention and Response	Prevent, contain, and respond to spills	Conduct spill response	Completed	37 spills/leaks were investigated	Appendix G
	Spill and response training	Conduct spill response and containment training	Completed	28 staff trained	Appendix G
Pollution Prevention and Good Housekeeping	Prevent and reduce discharges from Country operations	Implement controls for trash and debris	Completed	Trash and debris were collected and discarded in receptacles that included trash from other operations, so no exact tonnage is available to report.	N/A
	Prevent and reduce discharges from Country operations	Implement inspections at fueling facilities	Completed	County facilities followed their SOPs with monthly inspections at seven tanks at six locations; no new facilities were reported	Appendices B, H, I and K

<i>Element of Program</i>	<i>Requirement</i>	<i>Activities</i>	<i>Status</i>	<i>Status Results for FY 2024</i>	<i>Comments / Appendix</i>
Pollution Prevention and Good Housekeeping Continued	Prevent and reduce discharges from Country operations	BMPs pollution prevention training	Completed	Two staff attended a Stormwater Pollution Prevention video, three FOG training sessions, and two staff Certified Stormwater Inspectors.	Appendices D and H
	Operate and maintain to minimize pollutants	De-icing activities	Completed	Zero tons of sand applied	Appendix H
	Operate the MS4 and structural controls to reduce pollutant discharge	Material removed from MS4 and roadways	Completed	8,385.76 tons removed	Appendix B
Pesticide, Herbicide, and Fertilizer	Reduce pollutant discharge related to storage and application	Training in safe use, storage, and disposal	Completed	15 events promoted by AGITC; 17 staff hold a Certified Pesticide License	Appendices B and I
	Reduce pollutant discharge related to storage and application	Implement controls for discharge and storage	Completed	Chemicals are stored in secure, climate-controlled warehouses. Daily visual inspections took place, monthly documented inspections took place	Appendices B and I
	Reduce pollutant discharge related to storage and application	Implement controls for discharge and storage	Completed	4,592.12 gallons of herbicides to 6,863.70 acres; GSD applied 20 gallons of herbicides at Jefferson County-maintained facilities	Appendices B and I

<i>Element of Program</i>	<i>Requirement</i>	<i>Activities</i>	<i>Status</i>	<i>Status Results for FY 2024</i>	<i>Comments / Appendix</i>
Pesticide, Herbicide, and Fertilizer Continued	Reduce pollutant discharge related to storage and application	Implement controls for discharge and storage	Completed	Zero fertilizer; 1,295 pounds and 13 acres hydroseed	Appendices B and I
Oils, Toxics, and Household Hazardous Waste Control	Identify and control pollutants in stormwater discharges	Jefferson County Fleet Management's in-house recycling program	Completed	784 batteries, 2,478 gallons of motor oil, and 12.02 tons of scrap metal were recycled; 55.78 tons of tires were disposed	Appendix J
	Identify and control pollutants in stormwater discharges	Jefferson County Grease Control Program for food service facilities	Completed	103 new food service facilities were permitted, two food service classes/three attendees; 1,381 annual site inspections; 84 sites were non-compliant: zero FOG training for staff	Appendix J
	Detect and eliminate discharges to the MS4	Household Hazardous Waste collection event for public	Completed	Five locations, 158 tons, 1,999 households	Appendices C and J
	Detect and eliminate discharges to the MS4	Electronic and reusable battery take-back collection event for public	Completed	Three locations, 21.60 tons, 944 households	Appendices C and J
	Detect and eliminate discharges to the MS4	National prescription drug take-back event	Completed	Two national events	Appendix J

<i>Element of Program</i>	<i>Requirement</i>	<i>Activities</i>	<i>Status</i>	<i>Status Results for FY 2024</i>	<i>Comments / Appendix</i>
Industrial Storm Water Runoff	Identify and control pollutants in stormwater discharges	Inspection of industrial and high-risk runoff sites	Completed	One landfill and two transfer station inspections were conducted; two NPDES Industrial Permitted sites; one underground injection Permitted site; 12 NPDES and TRI Inventory facilities	Appendix K
Monitoring Program	Detect illicit connections and improper discharges to the MS4	Dry weather screening	Completed	19 Instream samples collected	Appendix L
	Detect illicit connections and improper discharges to the MS4	Wet weather screening	Completed	Two Instream sites sampled	Appendix L
	Detect and eliminate discharges to the MS4	Wet weather investigative monitoring	Completed	Two Investigations sampled	Appendix L

Education Initiative	Type of Public Education Public Involvement	Frequency	Permit Requirements									
			Structural Controls	Illicit Discharge Detection Elimination	Construction Site Runoff	Post Construction New & Redevelopment	Spill Prevention & Response	Pollution Prevention Good Housekeeping	PHF Storage & Application	Oils, Toxics, & HHW	Industrial/High Risk Runoff	Monitoring Program
Boards, Committees, Stakeholder Groups	Partners	Ongoing	X	X	X	X	X	X	X	X	X	X
Formalized Agreements and Partners	Partners	Ongoing		X	X	X	X	X	X	X		X
Brochures / Flyers	Communication Mechanism / Advertisement	Ongoing	X	X	X	X	X	X	X	X	X	X
Stormwater Calendar	Communication Mechanism / Advertisement	Ongoing	X	X	X	X	X	X	X	X		X

Education Initiative	Type of Public Education Public Involvement	Frequency	Permit Requirements									
			Structural Controls	Illicit Discharge Detection Elimination	Construction Site Runoff	Post Construction New & Redevelopment	Spill Prevention & Response	Pollution Prevention Good Housekeeping	PHF Storage & Application	Oils, Toxics, & HHW	Industrial/High Risk Runoff	Monitoring Program
Media (press releases, interviews, podcasts, articles, advertisements)	Communication Mechanism / Advertisement	Ongoing	X	X	X	X	X	X	X	X	X	X
Newsletters	Communication Mechanism / Advertisement	26 times per year	X	X	X	X	X	X	X	X	X	X
Posters (NPS, BMPs, compliant reporting, stormwater drainage system, watershed awareness)	Communication Mechanism / Advertisement	Ongoing	X	X	X	X	X	X	X	X	X	X

Education Initiative	Type of Public Education Public Involvement	Frequency	Permit Requirements									
			Structural Controls	Illicit Discharge Detection Elimination	Construction Site Runoff	Post Construction New & Redevelopment	Spill Prevention & Response	Pollution Prevention Good Housekeeping	PHF Storage & Application	Oils, Toxics, & HHW	Industrial/High Risk Runoff	Monitoring Program
Website	Communication Mechanism / Advertisement	Ongoing	X	X	X	X	X	X	X	X	X	X
Litter, Floatables, (volunteer litter cleanups, storm drain lid marking, anti-litter campaigns, and video competition)	Litter Floatables, Debris Removal	Ongoing	X	X	X				X		X	
Litter Debris Removal (roadway and instream)	Litter Floatables, Debris Removal	Ongoing	X	X	X				X		X	

Education Initiative	Type of Public Education Public Involvement	Frequency	Permit Requirements									
			Structural Controls	Illicit Discharge Detection Elimination	Construction Site Runoff	Post Construction New & Redevelopment	Spill Prevention & Response	Pollution Prevention Good Housekeeping	PHF Storage & Application	Oils, Toxics, & HHW	Industrial/High Risk Runoff	Monitoring Program
Watershed Awareness Signs and Compliant Reporting (hotline, phone, emails)	Public Engagement / Public Involvement	Ongoing	X	X	X	X	X	X	X	X	X	X
PHF (articles, publications, workshops)	PHF / Landscape	Ongoing	X	X	X	X	X	X	X	X	X	X
Events / Festivals	Public Engagement / Public Involvement	Ongoing	X	X	X	X	X	X	X	X	X	X

Education Initiative	Type of Public Education Public Involvement	Frequency	Permit Requirements									
			Structural Controls	Illicit Discharge Detection Elimination	Construction Site Runoff	Post Construction New & Redevelopment	Spill Prevention & Response	Pollution Prevention Good Housekeeping	PHF Storage & Application	Oils, Toxics, & HHW	Industrial/High Risk Runoff	Monitoring Program
Presentations (Stormwater Program, BMP's, NPS, LID/GI, HHW, water quality)	Public Engagement / Public Involvement	Ongoing	X	X	X	X	X	X	X	X	X	X
Workshops / Seminars (PHF, ESC, LID/GI, Water Monitoring)	Public Engagement / Public Involvement	Ongoing	X	X	X	X	X	X	X	X	X	X
Public Input, Evaluations, Surveys	Public Input and Evaluation	Ongoing	X	X	X	X	X	X	X	X	X	X
Staff Development and Training	Staff Development and Training	Ongoing	X	X	X	X	X	X	X	X	X	X

IV. 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.

- 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 (33.392889, -87.003089). 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 Village Creek site is located near Minor Pkwy (33.5479, -86.92603), and it 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. A map of the sampling locations has been provided in previous Annual Reports and is on file.

Jefferson County continued to implement the monitoring program established in the SWMPP as weather permitted. During Permit Year 2023-2024, Stormwater Program staff collected instream samples for wet weather, dry weather, and investigation sampling. This information is summarized and quantified in the Summary Tables. Narrative Field Data Sheets completed during sample collection 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 fewer wet weather samples collected than dry weather samples due to drought, as mentioned in this report's Program Strength and Weaknesses section. Moreover, 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. Except for Shades and Five Mile Creeks, total suspended solids decreased in the other monitored creeks during wet weather, indicating water quality improvement over time. There

were three instances in two creeks 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 11 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 six 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, and siltation. Camp Branch has TMDLs for pH, siltation, and other habitat alterations. Cooley, Mill, and Mud Creeks all have a TMDL for pathogens. 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 use 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 Shades Creek had slightly elevated TSS levels. Except for barium, iron, 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. 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, and the results are included in **Appendix L**.

V. Stormwater Management Plan/Program Modifications

Stormwater Management Program Plan Review

Jefferson County's SWMP Plan was reviewed and updated. No revisions or updates were made for any of Jefferson County's BMPs during this reporting period. Please see **Appendix A** for a current copy of the SWMPP.

VI. Program Budgets

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