Williamson County Engineering Department
Stormwater Management Program
Stormwater Management Plan

National Pollution Discharge Elimination System Permit Number TNS075795 authorizes Williamson County to discharge stormwater runoff into Waters of the State of Tennessee in accordance with certain water quality management programs and provisions established within the permit. Williamson County is required to develop a compilation of the elements of the Stormwater Management Program consisting of separate components which are outlined within the Stormwater Management Plan.

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Williamson County Engineering Department
Stormwater Management Program
Best Management Practices Programs and Processes

National Pollution Discharge Elimination System Permit Number TNS075795 authorizes Williamson County to discharge stormwater runoff into Waters of the State of Tennessee in accordance with certain water quality management programs and provisions established within the permit. Williamson County is required to develop specific goals and public information events/activities that will occur over the permit cycle, which are outlined within the Best Management Practices (BMP) Programs and Processes.

The Best Management Practices include the following:

1. Public Education and Public Participation
2. Illicit Discharge Detection and Elimination
3. Construction Site Runoff Program
4. Permanent (Post-Construction) Stormwater Management Program
5. Municipal Pollution Prevention and Good Housekeeping

All BMPs will be implemented by the Williamson County Engineering Department and/or other Departments as needed and will be coordinated by the Williamson County Storm Water Quality Coordinator. For a summary of the best management practices measurable goals and milestones, see Table 1.

Public Information and Education Plan (PIE)

The PIE has been completed and is being implemented.

Public Education and Outreach Activities

Education and outreach campaign may include meeting with the targeted audience and sponsoring, promoting or hosting educational activities like: "Lunch & Learn", "Meet & Eat", "Ribs & Runoff", "BMPs & BBQ", etc.; development of stormwater videos and jingles; targeted mail outs such as the "Williamson County Guide to Waterway Natural Areas", "Tennessee Farmers Guide to Cleaner Water" etc.; supporting other local educational campaigns like TNSA, Keep Williamson Beautiful, etc.; updating website with material; allowing students to shadow; providing educational material to students; regular meetings with the public, engineering and development community, County employees, etc. including training video, stormwater update meetings, etc.; partnering with Church groups, social clubs, homeschoolers, senior citizens, various groups, etc., for events that promote stormwater education; distribution of "Rain Check" training video to relevant parties; and utilization of social media.

Public Involvement and Participation

Public involvement and participation campaign may include educational outreach days with students; field trips with students; creation of stormwater mascot; performing stream clean up events; partnering with other organizations such as TNSA, Keep Williamson Beautiful, etc., Church groups, social clubs, homeschoolers, senior citizens, various groups, etc., for events that promote stormwater education; stormwater models, demonstrations, etc; meeting with the targeted audience and sponsoring, promoting or hosting educational activities like: "Lunch & Learn", "Meet & Eat", "Ribs & Runoff", "BMPs & BBQ", etc.;, where stormwater topics are discussed, demonstrated, etc.; development of stormwater videos and jingles; ; regular meetings with the public, commercial & development community, etc. including training video, stormwater update meetings, etc.

Web Site

The web site is updated with information on the storm water program, regulations, and educational material.

Public Service Announcements

Williamson County supports the TNSA educational outreach program for PSAs (public Service Announcements). TNSA provides educational information and social media outreach related to stormwater. TNSA educational outreach can be seen at https://www.tnstormwater.org/stormwater. Williamson County has developed brochures entitled "Williamson County Guide to Waterway Natural Areas." Residents, businesses and other organizations within Hot Spot Areas, impaired stream, and villages are targeted.

Storm Sewer Systems Map

The storm sewer map is currently being updated and the most current storm sewer map is available.

Hot Spots

Each Village in Williamson County is also designated a Hot Spot Area, where zoning regulations are tailored and education is targeted because of more intense uses and increased potential for stormwater contamination.

Stream Monitoring

The stream sampling plan for this current permit cycle has been developed. Previous sampling reporting for the Harpeth River, Little Harpeth River, Owl Creek and Rutherford Creek is available online at *williamsoncounty-tn.gov/stormwater*. Visual Stream Assessments (VSAs) and stream sampling practices are included in the Storm Water Management Plan.

Dry Weather Screening

MS4 outfalls are reviewed based on observations made within the Engineering Department, other departments, and citizen complaints. Non-stormwater concerns include, but are not limited to:

- Pet Waste, Motor Oils, Antifreeze, Paints, Cleaning Products, Fertilizers, Hazardous Waste, Trash, Chlorinated Pool Water, Sediment, Soaps/Detergents, Sanitary Sewer

The inspector reviews all outfalls within the County jurisdiction, noting the presence of the following indicators:

- Foam: indicator of upstream vehicle washing activities, or an illicit discharge;
- Oil sheen: result of a leak or spill;
- Cloudiness: indicator of suspended solids such as dust, ash, powdered chemicals and ground up materials;
- Color or odor: Indicator of raw materials, chemicals, or sewage;
- Excessive sediment: indicator of disturbed earth of other unpaved areas lacking adequate erosion control measures;
- Sanitary waste and optical enhancers (fluorescent dyes added to laundry detergent): indicators of illicit discharge;
- Orange staining: indicator of high mineral concentrations.

Inspections are dated and observations and documented. Based on the presence of indicators, additional investigations may be needed to find the origin. Depending on the origin, enforcement actions or reporting to the appropriate department may be necessary.

Regulations / Manual

The Storm Water Regulations are updated and consistent with State requirements regarding stream buffers, storm water system long-term operation and maintenance, etc. The Storm Water Management Regulations were revised and approved on September 11, 2023. The Storm Water Regulations and Storm Water Management Manual are available online.

Enforcement Response Plan (ERP)

The ERP has been completed and is being implemented.

Inventory

Active construction sites requiring a Land Disturbance Permit are being tracked electronically with GIS coordinates.

Inspections and Enforcement

Priority sites and a minimum of 10% of non-priority sites with active Land Disturbance Permits are inspected monthly and enforcement is performed in accordance with the Storm Water Regulations and Enforcement Response Plan (ERP).

Priority Construction Activity – Those construction activities discharging directly into, or immediately upstream of, waters the State recognizes as having unavailable parameters (for siltation and habitat alteration) or Exceptional Tennessee Waters (ETW). Sites which meet the criteria for priority construction activity are required to have:

- Pre-construction meetings with construction site operators;
- Inspections performed by Williamson County at least once per month;
- Documentation of procedures, inspections, and related meetings.

To identify which streams are considered immediately upstream of a water with unavailable parameters or ETW, the listed stream, as depicted on the State's inventory, must be located on the development site. For example, if an outfall discharges into a tributary stream that is not considered as having unavailable parameters or ETW, but that stream flows into a receiving stream which is considered as having unavailable parameters or ETW, and the receiving stream is on the overall development site, then the tributary stream would be required to meet unavailable parameters / ETW regulatory standards. However, if the receiving stream is not on the development site, then the tributary would not have to meet unavailable parameters / ETW regulatory standards.

Ordinance / Manual

The Storm Water Regulations have been updated to be consistent with State requirements with regards to Runoff Reduction (green infrastructure). The Storm Water Management Regulations were revised and approved on September 11, 2023. The Storm Water Regulations and Storm Water Management Manual are available online.

80% TSS

The requirements for implementation of 80% TSS standards are in effect as of September 11, 2023.

Maintenance Agreements

Maintenance Agreements are submitted to Williamson County where permanent storm water runoff control facilities are involved and the procedures for the establishment of maintenance agreements and required inspections will be reviewed as needed.

Inventory / Tracking

SCMs/BMPs deployed at new development and redevelopment projects are being tracked electronically with GIS coordinates.

Operation and Maintenance Program

An Operation and Maintenance Program has been developed and implemented with the goal of preventing or reducing pollutant runoff from municipal operations. Storm Water Management Plans (SWMPs) have been developed for applicable facilities located within the jurisdiction of unincorporated Williamson County.

Inspections

Inspections have been performed at all facilities/operations within the unincorporated County that are not individually covered by a NPDES permit.

Education

Employee education is performed in conjunction with the pollution prevention and good housekeeping inspections at unincorporated county facilities/operations and may include discussions with the director/operator, providing guidance material, and/or training videos.

Roadway and MS4 Development

Procedures for development of new roadways and MS4 are being evaluated and revised as needed. For example, the Williamson County Engineering Department currently assists the Highway Department as needed for identifying intermittent/perennial streams located within the County right-of way.

Table 1: Best Management Practices Measurable Goals and Milestones

BEST MANAGEMENT PRACTICES FOR PUBLIC EDUCATION AND PUBLIC PARTICIPATION	
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Public Information and Education Plan (PIE)
Milestone Year 1	Review effectiveness of PIE plan and continue to develop and implement specific goals and public information events/activities related to storm water.
Milestone Year 2	Evaluate and continue
Milestone Year 3	Evaluate and continue
Milestone Year 4	Evaluate and continue
Milestone Year 5	Evaluate and continue
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Education and Outreach Activities
Milestone Year 1	Review effectiveness of current educational materials and outreach activities and continue to develop new materials/activities including videos, books, or other media as well as field demonstrations or other projects such as stream clean-up event.
Milestone Year 2	Evaluate and continue
Milestone Year 3	Evaluate and continue
Milestone Year 4	Evaluate and continue
Milestone Year 5	Evaluate and continue
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Web-Site
Milestone Year 1	Provide information on the stormwater program, regulations, educational material, etc.
Milestone Year 2	Maintain
Milestone Year 3	Maintain
Milestone Year 4	Maintain
Milestone Year 5	Maintain
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Public Service Announcements (PSAs)
Milestone Year 1	Develop and review materials to be broadcast via TC, radio, or other media.
Milestone Year 2	Evaluate and continue
Milestone Year 3	Evaluate and continue
Milestone Year 4	Evaluate and continue
Milestone Year 5	Evaluate and continue

Table 1: Best Management Practices Measurable Goals and Milestones (continued)

BEST MANAGEMENT PRACTICES FOR ILLICIT DISCHARGE DETECTION AND ELIMINATION	
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Storm Sewer Map
Milestone Year 1	Continue to develop and maintain storm sewer outfall map.
Milestone Year 2	Update
Milestone Year 3	Update
Milestone Year 4	Update
Milestone Year 5	Update
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Hot-Spots
Milestone Year 1	Continue to develop and implement more specific practices to prohibit contamination from hot spots.
Milestone Year 2	Evaluate and continue
Milestone Year 3	Evaluate and continue
Milestone Year 4	Evaluate and continue
Milestone Year 5	Evaluate and continue
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Stream Monitoring
Milestone Year 1	Begin preparing stream monitoring plan.
Milestone Year 2	Update monitoring plan for analytical and non-analytical stream monitoring.
Milestone Year 3	Begin field collection
Milestone Year 4	Continue
Milestone Year 5	Continue
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Dry Weather screening
Milestone Year 1	Respond to complaints related to illicit discharges
Milestone Year 2	Continue
Milestone Year 3	Continue
Milestone Year 4	Continue
Milestone Year 5	Continue

Table 1: Best Management Practices Measurable Goals and Milestones (continued)

BEST MANAGEMENT PRACTICES FOR CONSTRUCTION SITE RUNOFF PROGRAM	
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Regulations / Manual
Milestone Year 1	Evaluate and update as needed
Milestone Year 2	Evaluate and update
Milestone Year 3	Evaluate and update
Milestone Year 4	Evaluate and update
Milestone Year 5	Evaluate and update
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Enforcement Response Plan (ERP)
Milestone Year 1	Evaluate and update the ERP as needed.
Milestone Year 2	Evaluate and update
Milestone Year 3	Evaluate and update
Milestone Year 4	Evaluate and update
Milestone Year 5	Evaluate and update
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Inventory
Milestone Year 1	Continue to develop and maintain inventory of active Land Disturbance Permits
Milestone Year 2	Update
Milestone Year 3	Update
Milestone Year 4	Update
Milestone Year 5	Update
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Inspections & Enforcement
Milestone Year 1	Conduct inspections on construction sites at specified intervals and perform enforcement actions per the regulations.
Milestone Year 2	Continue
Milestone Year 3	Continue
Milestone Year 4	Continue
Milestone Year 5	Continue

Table 1: Best Management Practices Measurable Goals and Milestones (continued)

BEST MANAGEMENT PRACTICES FOR PERMANENT (POST-CONSTRUCTION) STORMWATER MANAGEMENT PROGRAM	
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Ordinance / Manual
Milestone Year 1	Review and update if necessary
Milestone Year 2	Review and update if necessary
Milestone Year 3	Review and update if necessary
Milestone Year 4	Review and update if necessary
Milestone Year 5	Review and update if necessary
MEASURABLE GOALS AND MILESTONES	
Goal(s)	80% TSS
Milestone Year 1	Revise Regulations per State
Milestone Year 2	Review and update as needed
Milestone Year 3	Review and update as needed
Milestone Year 4	Review and update as needed
Milestone Year 5	Review and update as needed
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Maintenance Agreements
Milestone Year 1	Continue to improve the procedures for establishment of maintenance agreements and required inspections.
Milestone Year 2	Evaluate and continue
Milestone Year 3	Evaluate and continue
Milestone Year 4	Evaluate and continue
Milestone Year 5	Evaluate and continue
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Inventory / Tracking
Milestone Year 1	Continue to develop a system designed to track SCMs installed at new development and re-development projects.
Milestone Year 2	Continue
Milestone Year 3	Continue
Milestone Year 4	Continue
Milestone Year 5	Continue

Table 1: Best Management Practices Measurable Goals and Milestones (continued)

BEST MANAGEMENT PRACTICES FOR MUNICIPAL POLLUTION PREVENTION AND GOOD HOUSEKEEPING	
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Operation and Maintenance Program (O&M)
Milestone Year 1	Continue development and implementation of an operation and maintenance program that has the goal of preventing or reducing pollutant runoff form municipal operations.
Milestone Year 2	Evaluate and continue
Milestone Year 3	Evaluate and continue
Milestone Year 4	Evaluate and continue
Milestone Year 5	Evaluate and continue
MEASURABLE GOALS AND MILESTONES	
BMP Goal(s)	Inspections
Milestone Year 1	Perform inspections at facilities / operations within the unincorporated County that are not individually covered by a TN Multi-Sector Permit.
Milestone Year 2	Continue
Milestone Year 3	Continue
Milestone Year 4	Continue
Milestone Year 5	Continue
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Education
Milestone Year 1	Evaluate and perform employee education with the goal of minimizing storm water pollution potential from municipal facilities within the unincorporated County.
Milestone Year 2	Continue
Milestone Year 3	Continue
Milestone Year 4	Continue
Milestone Year 5	Continue
MEASURABLE GOALS AND MILESTONES	
Goal(s)	Roadway and MS4 Development
Milestone Year 1	Evaluate procedures for development of new roadways and MS4 to ensure that these activities are performed in accordance with appropriate regulatory permits.
Milestone Year 2	Evaluate and continue
Milestone Year 3	Evaluate and continue
Milestone Year 4	Evaluate and continue
Milestone Year 5	Evaluate and continue

Williamson County Engineering Department
Storm Water Management Program
Public Information and Education Plan

National Pollution Discharge Elimination System Permit Number TNS075795 authorizes Williamson County to discharge stormwater runoff into Waters of the State of Tennessee in accordance with certain water quality management programs and provisions established within the permit. Williamson County is required to develop specific goals and public information events/activities that will occur over the permit cycle, which are outlined within the Public Information and Education Plan (PIE).

On an annual basis, Williamson County will perform public education and outreach activities including the following:

Public Education and Outreach Activities

Education and outreach campaign may include meeting with the targeted audience and sponsoring, promoting or hosting educational activities like: "Lunch & Learn", "Meet & Eat", "Ribs & Runoff", "BMPs & BBQ", etc.; development of stormwater videos and jingles; targeted mail outs such as the "Williamson County Guide to Waterway Natural Areas", "Tennessee Farmers Guide to Cleaner Water" etc.; supporting other local educational campaigns like TNSA, Keep Williamson Beautiful, etc.; updating website with material; allowing students to shadow; providing educational material to students; regular meetings with the public, engineering and development community, County employees, etc. including training video, stormwater update meetings, etc.; partnering with Church groups, social clubs, homeschoolers, senior citizens, various groups, etc., for events that promote stormwater education; distribution of “Rain Check” training video to relevant parties; and utilization of social media.

Public Involvement and Participation Activities

Public involvement and participation campaign may include educational outreach days with students; field trips with students; creation of stormwater mascot; performing stream clean up events; partnering with other organizations such as TNSA, Keep Williamson Beautiful, etc., Church groups, social clubs, homeschoolers, senior citizens, various groups, etc., for events that promote stormwater education; stormwater models, demonstrations, etc; meeting with the targeted audience and sponsoring, promoting or hosting educational activities like: "Lunch & Learn", "Meet & Eat", "Ribs & Runoff", "BMPs & BBQ", etc.;, where stormwater topics are discussed, demonstrated, etc.; development of stormwater videos and jingles; ; regular meetings with the public, commercial & development community, etc. including training video, stormwater update meetings, etc.

Williamson County has developed a "Guide to Waterway Natural Areas" brochure which is distributed to residents whose property is adjacent to stream segment that may be impaired due to MS4 discharges or whose property is located within Hot Spot Areas (Figure 1). Additionally, Williamson County has partnered with the Tennessee Stormwater Association to provide educational outreach to residents of Tennessee related to Stormwater Issues. For more information on targeted educational campaigns, goals and results/effectiveness, see Table 2.

Table 2: Educational campaigns, goals, results/effectiveness

Storm Water Management Program Public Information and Education Plan (PIE)		
Targeted Educational Campaign	**Goals**	**Results / Effectiveness**
a. General public awareness on the impacts on water quality from general housekeeping maintenance/activities.	Provide awareness via the County website, broadcasting public service announcements, and/or targeted mailings to hot spots, areas that discharge stormwater into impaired streams or other areas of concern.	County website is kept up to date with stormwater information, PSAs are broadcast on WC-TV Channel 3 or other media, and brochures are sent to targeted areas such as hot spots or areas that discharge stormwater into impaired streams.
b. Home owner associations and other operators of permanent BMPs awareness of the importance of maintenance activities.	Develop more informative operation and maintenance agreement standards for homeowner's associations.	Continue to monitor operation and maintenance agreements and make modifications as needed.
c. Local engineering and development community awareness of the stormwater ordinances, regulations, and guidance materials related to long-term water quality impacts.	Conduct meetings with developers/engineers discussing water quality issues prior to issuance of land disturbance permits on large construction projects.	Meetings are held with developers/engineers prior to issuance of the land disturbance permits on developments/non-residential projects.
d. General public and professional chemical applicators awareness on the proper storage, use, and disposal of pesticides, herbicides, and fertilizers use.	Provide awareness via the County website, broadcasting public service announcements, and/or targeted mailings to hot spots, areas that discharge stormwater into impaired streams or other areas of concern.	County website is kept up to date with stormwater information, PSAs are broadcast on WC-TV Channel 3 or other media, and brochures are sent to targeted areas such as hot spots or areas that discharge stormwater into impaired streams.
e. General public and professional chemical applicators awareness on the proper storage, use, and disposal of oil and other automotive-related fluids.	Provide awareness via the County website, broadcasting public service announcements, and/or targeted mailings to hot spots, areas that discharge stormwater into impaired streams or other areas of concern.	County website is kept up to date with stormwater information, PSAs are broadcast on WC-TV Channel 3 or other media, and brochures are sent to targeted areas such as hot spots or areas that discharge stormwater into impaired streams.
f. General public and municipal employees on the awareness of identifying and reporting procedures for illicit connections/discharges, sanitary sewer seepage, spills, etc.	Provide awareness via the County website, broadcasting public service announcements, and/or targeted mailings to hot spots, areas that discharge stormwater into impaired streams or other areas of concern.	County website is kept up to date with stormwater information, PSAs are broadcast on WC-TV Channel 3 or other media, and brochures are sent to targeted areas such as hot spots or areas that discharge stormwater into impaired streams.
g. Local engineering, development, and construction community awareness of stormwater ordinances, regulations and guidance materials related to construction phase water quality impacts.	Provide access to the County Storm Water Management Regulations and the Storm Water Management Manual via the County website.	County website has the current Storm Water Regulations and the Storm Water Management Manual available to the public.
h. Municipal employee/contractor awareness of water quality impacts from daily operations.	Perform inspections at County facilities / operations that are not individually covered by a NPDES permit.	Inspections are performed at County facilities / operations on an annual basis.

Figure 1: “Guide to Waterway Natural Areas”

What Can You Do?

1) Maintain a vegetated buffer along streams and rivers to filter sediment, nutrients and pesticides.
2) Reduce fertilizer waste and potential transport to waterways by testing the soil, calibrating application equipment and applying only what is needed.
3) For agricultural operations, consider measures to improve water quality such as: implementing no-till or conservation tillage, utilizing rotational grazing when possible, providing an alternate source of water for livestock to keep them away from the stream, and planting cover crops.
4) Never dump wastes into the stream buffer or into a storm drain or roadside ditch, which may lead to a stream.
5) When performing grading activities on a site:
   - Do not encroach into a Waterway Natural Area
   - Provide erosion / sediment controls on site
   - Acquire necessary permits and abide by all State and Local regulations

Additional Resources:

- For more information regarding the Williamson County Storm Water Regulations, you can visit http://www.williamsoncounty-tn.gov/stormwater. For specific information about Waterway Natural Areas or assistance in determining the required width, please contact the Williamson County Engineering Department at (615) 790-5809.
- Additionally, the State of Tennessee also has specific guidelines and restrictions for activities within the stream channel, which can be found by visiting https://www.tn.gov/environment and following the links to the Aquatic Resource Alteration Permitting (ARAP). Also, you can contact the TDEC Division of Water Resources at (615) 687-7000.
- If you would like technical assistance regarding establishment or maintenance of a riparian buffer located within property utilized for agriculture, contact the local USDA Natural Resources Conservation Service at (615) 794-8488.

Williamson County TN

Engineering Department
1320 West Main Street, Suite 400
Franklin, TN 37064
Phone: 615-790-5809
www.williamsoncounty-tn.gov/stormwater

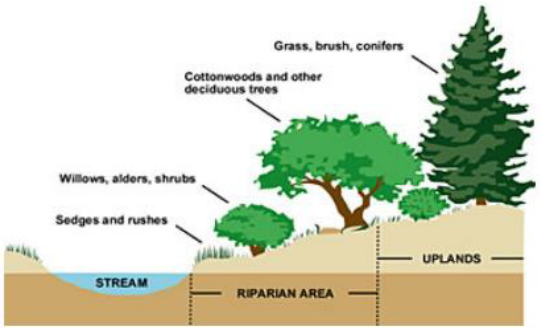
Williamson County Guide to Waterway Natural Areas

Figure 1: “Guide to Waterway Natural Areas”

What is a Waterway Natural Area?

- A Waterway Natural Area is a vegetated area, or riparian buffer, along a waterway. Generally, the riparian buffer is forested, which assists in providing shade and protection to a stream from the impact of adjacent land uses. The width of a Waterway Natural Area depends on the tributary area, or how many acres drain to a point on the stream, and widths can range from 50’ from the top of the bank to 100’.
- Waterway Natural Areas play a key role in improving water quality, and the primary function is to physically protect and separate a stream, river, or lake from future disturbance or encroachment. A riparian buffer can assist with storm water management and can help in sustaining the integrity of stream ecosystems and habitats.
- In 2005, new regulations became effective in Williamson County establishing the widths as well as the permitted uses within Waterway Natural Areas. Activities such as clearing, grading, construction or disturbance of vegetation within Waterway Natural Areas are regulated.

Typical Riparian Buffer



Source: NEMO (Nonpoint Education for Municipal Officials)

A stream bank that is highly eroded

How do Waterway Natural Areas help?

Waterway Natural Areas provide:

1. An ecosystem / habitat for aquatic life
2. Bank stability
3. A canopy over the stream, which keeps the water cool
4. A natural buffer to assist in filtering pollutants
5. Sustaining floodplain storage
6. Allowing for natural stream meandering
7. And much more!

A stream bank that has been restored

Agricultural / Silviculture Land Management Activities

Waterway Natural Area buffers are enforced as pertaining to new construction and/or development activities. However, agricultural land management and silviculture activities are exempt from the Storm Water Regulations. Agricultural / silviculture practices are still encouraged to apply riparian buffer protection where possible, with the goal of not only improving water quality, but by also providing bank stabilization which will help to prevent valuable land from continued soil erosion.

Additional Information:

1. Williamson County is located within three Watersheds: The Cheatham Reservoir Watershed in the northeast, The Duck River Watershed in the south, and The Harpeth River Watershed.
2. The Harpeth River in Williamson County is listed as impaired by the State 303d list for causes such as: low dissolved oxygen, phosphorus, siltation, and E-coli.
3. Alterations to the riparian buffer, siltation from construction or agricultural practices, and excess nutrient loads from fertilizer application or livestock are notable sources of water quality impairment.

Williamson County
TN

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Williamson County Engineering Department
Stormwater Management Program
Stream Monitoring

National Pollution Discharge Elimination System Permit Number TNS075795 authorizes Williamson County to discharge stormwater runoff into Waters of the State of Tennessee in accordance with certain water quality management programs and provisions established within the permit. Williamson County is required to implement a stream monitoring plan for impaired streams that may be associated with discharges from the MS4.

Stream Monitoring Overview

Williamson County will prepare a stream monitoring plan designed to meet the requirements established within the MS4 permit. Our intention is to perform analytical monitoring as described in Option 2 of section 5.1 of the MS4 Permit as well as non-analytical monitoring. A jurisdiction-specific analytical monitoring plan will be developed, which will allow us to focus our resources on the streams segments that have the most potential to be impacted by MS4 discharges. Per the Stream Monitoring Plan requirement, three types of monitoring will be performed:

1. Non-analytical Visual Stream Surveys and Impairment Inventories,
2. Analytical Biological Stream Sampling, and
3. Analytical Chemical Sampling.

Option 2 Sampling Plan

Option 2, as described in the MS4 permit, is a jurisdictional-specific monitoring plan. An evaluation of the areas of land development and agricultural uses within unincorporated Williamson County will be compiled and analyzed to determine which stream segments would be the most advantageous for sampling. Williamson County will develop the methodology used to determine the stream segments that will be monitored and propose a plan to addresses those needs.

There were eight (8) stream segments within unincorporated Williamson County that were proposed for sampling during the previous permit cycle (Figure 2). The streams segments were:

- Trace Creek
- Harpeth River, 3 segments

- Lynwood Creek
- Fivemile Creek
- Donelson Creek
- Little Harpeth River

Visual Stream Assessments (VSAs)

Williamson County has completed the Visual Stream Assessments (VSAs) for previous permit cycle (Figure 3). The VSAs include a stream survey for each MS4 outfall location, which includes field parameters, physical characteristics & light penetration, channel characteristics, stream characteristics, dominant substrates, surrounding uses, human disturbance and any other relevant information or stressors. Additionally, habitat assessments are performed at each MS4 outfall, which includes information relating to epifaunal substrate / available cover, embeddedness of riffles, velocity / depth regime, sediment deposition, channel flow status, channel alteration, frequency of re-oxygenation zones, bank stability, vegetative protection and riparian vegetative zone widths.

Figure 2: Impaired Streams for Sampling

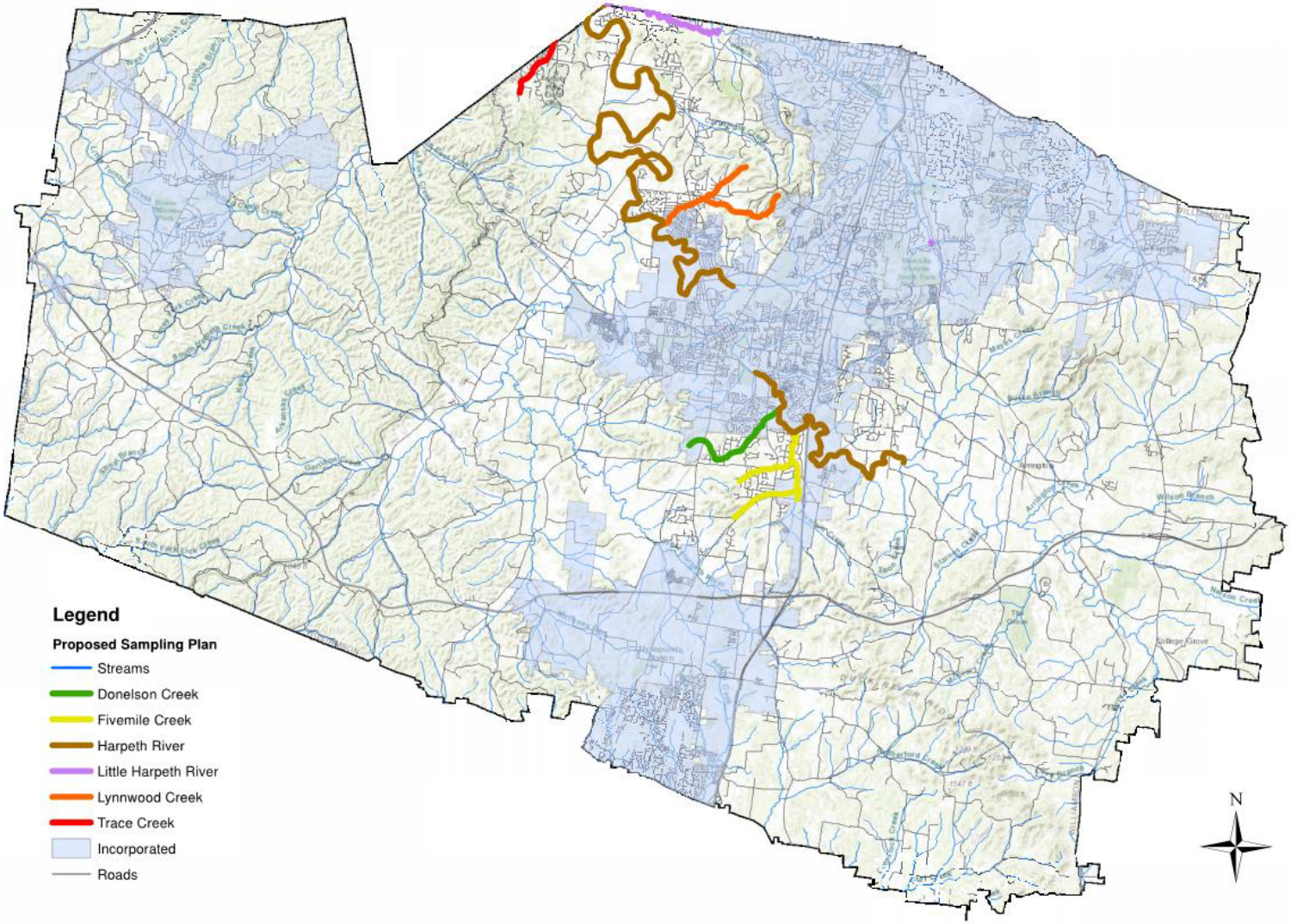
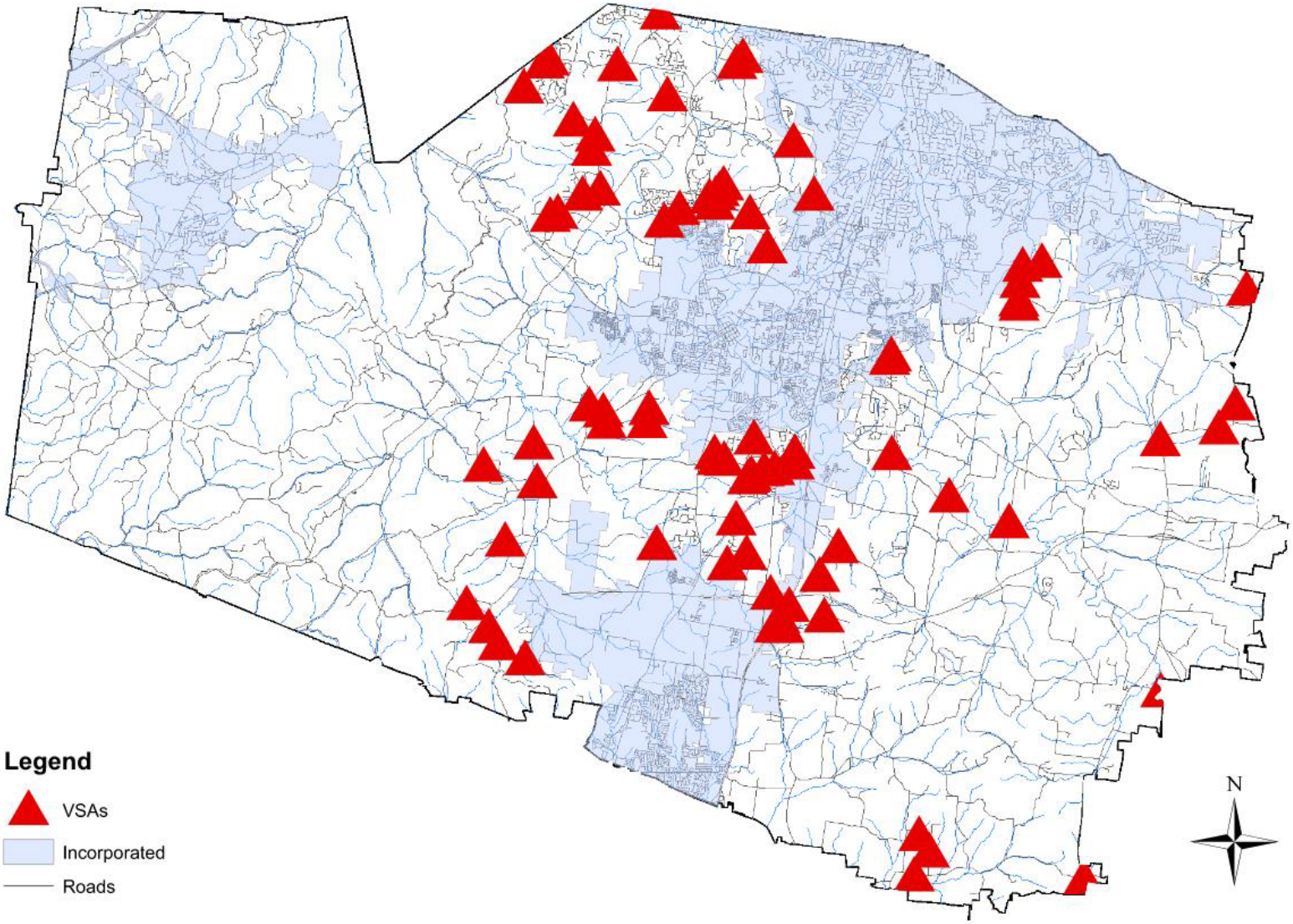


Figure 3: Visual Site Assessments (VSAs)



Williamson County Engineering Department
Stormwater Management Program
Enforcement Response Plan

National Pollution Discharge Elimination System Permit Number TNS075795 authorizes Williamson County to discharge stormwater runoff into Waters of the State of Tennessee in accordance with certain water quality management programs and provisions established within the permit. Williamson County is required to develop project review, approval and enforcement procedures, which are outlined within the Enforcement Response Plan (ERP).

A. Site Plan Review and Approval

1. Development and Non-residential
    a. Applicant will be required to apply for Land Disturbance Permit as outlined in Sec. 6 of the Storm Water Regulations.
    b. Prior to issuance of Land Disturbance Permit, a pre-construction meeting will be held by staff with the owner/operator.
    c. The construction plans will be reviewed for adequate pre, during and post control SCMs/BMPs.

2. Residential Lots
    a. Applicants will be required to apply for Land Disturbance Permit as outlined in Sec. 6 of the Storm Water Regulations.
    b. A site specific erosion control plan will be reviewed for adequate construction site BMPs.

3. Any changes to the plans will require re-submittal to the Engineering Department for review. Upon expiration of the Land Disturbance Permit, the owner/operator must submit plans for a new permit. If the plans have been amended, then a Land Disturbance Permit application fee will be required.

B. Performance Standards and BMP Maintenance

1. 80% Total Suspended Solids (TSS)
    a. Implemented September 11, 2023.
    b. Proposed SCMs/BMPs will be reviewed by staff prior to issuance of Land Disturbance Permit.

2. Pollutant Removal
    a. Applicants subject to standards specified within Sec. 2 of the Storm Water Regulations.
    b. Proposed SCMs/BMPs will be reviewed by staff prior to issuance of Land Disturbance Permit.
    c. Reference material is provided to assist the SCM/BMP designer to meet the required standards.

3. SCM/BMP maintenance

    Storm Water Long-Term Operation and Maintenance requirements will be implemented as described in Section 5 of the Storm Water Regulations.

C. Permanent Stormwater SCM/BMP installation

1. Final storm water management SCMs/BMPs must be inspected and certified that the SCMs/BMPs are in accordance with the approved plans.

2. SCM/BMP inspections as described in Sec. 5 of the Storm Water Regulations are required to be submitted to Williamson County.

A violation of the Storm Water Regulations shall result from:

A. Illicit discharge into any watercourse under County jurisdiction;

B. Illicit discharge from any site required to have a Land Disturbance Permit;

C. Failure to obtain a Land Disturbance Permit;

D. Failure to install or maintain erosion prevention and sediment controls;

E. Development inconsistent with permit; OR

F. Unapproved or unpermitted encroachment into the Waterway Natural Area (WNA).

Williamson County shall have the authority to issue Notices of Violation and citations, to impose the civil penalties, and to institute appropriate actions or proceedings at law or equity for the enforcement of the Storm Water Regulations.

Complaints related to Illicit Discharge, Detection and Elimination (IDDE) will be reviewed within 7 days of receiving the complaint.

For potential enforcement actions and descriptions, see Table 3.

Table 3: Enforcement Response Plan

Williamson County Engineering Department
Storm Water Management Program
Enforcement Response Plan (ERP)

Enforcement	Description
Verbal Warnings	Verbal Warnings may be used in combination with other enforcement actions or as an initial notice to the owner/operator, depending on the severity of the violation(s) or other relevant factors.
Notification of Violations	Notice of Violation (NOV) Consent Orders Cease and Desist Orders
Civil Penalties	1) Residential A. Failure to install or maintain erosion controls - $250.00 per occurrence B. Illicit Discharge - $500.00 per occurrence C. Failure to Obtain a Land Disturbance Permit - $1,000.00 per occurrence 2) Development and Non-residential A. Failure to install or maintain erosion controls - $500.00 per occurrence B. Illicit Discharge - $1,000.00 per occurrence C. Failure to Obtain a Land Disturbance Permit - $5,000.00 per occurrence D. Development inconsistent with permit - $5,000.00 per occurrence Unapproved or unpermitted encroachment into the Waterway Natural Area (WNA) -$2,000.00 The penalty may be increased by twenty-five percent (25%) of the previous penalty amount for every subsequent but separate offense made by the same person, company or facility. The penalty shall be additional to other enforcement actions of this section.
	Additionally, the following may be considered when assessing Civil Penalties: A. The degree and extent of harm to the natural resources, to the public health or to the public or private property resulting from the violation; B. The duration and gravity of the violation; C. The effect on ground or surface water quality; D. The cost of rectifying the damage; E. Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity; F. The economic benefit gained by the violator as a result of noncompliance; G. Whether the violation was committee willfully or intentionally; H. The amount of effort put forth by the violator to remedy this violation; I. Any unusual or extraordinary enforcement costs incurred by the County; J. The cumulative effect of other enforcement actions applied for the same offense; K. The prior record of the violator in complying or failing to comply with these Regulations; L. The amount of penalty established by ordinance or resolution for specific violations; and M. Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.

Table 3: Enforcement Response Plan

Cease and Desist Order	Residential - Halt all grading and land disturbance activities on the lot until remedial or preventive action is taken. Development and non-residential - Halt all construction operations on development infrastructure within that Section of the development, except where necessary to take remedial or preventive action.
Withholding of Plan Approvals or Other Authorizations	Residential - Advise the Building Codes Director to not conduct any future inspections and withhold issuance of any Certificates of Occupancy until remedial action has been completed. Development and non-residential A. Advise the Building Codes Director to withhold issuance of any new building permits within that section of the development until remedial or preventive action has been completed. B. Advise the Planning Director to withhold placing future submittals within the same development on the agenda of the Planning Commission until remedial or preventive action has been completed. C. Withhold issuance of any future land disturbance permits within the same development until a revised SWPPP has been submitted to the County Engineer.
Additional Measures	Williamson County may recover all damages proximately caused by the violator to Williamson County, which may include any reasonable expenses incurred in investigating violations of, and enforcing compliance with the Storm Water Regulations, or any other actual damages caused by the violation. Williamson County may recover costs for maintenance of storm water facilities when the user of such facilities fails to maintain them as required.

Williamson County Engineering Department
Stormwater Management Program
Operation and Maintenance Program

National Pollution Discharge Elimination System Permit Number TNS075795 authorizes Williamson County to discharge stormwater runoff into Waters of the State of Tennessee in accordance with certain water quality management programs and provisions established within the permit. Williamson County is required to develop and implement an operation and maintenance program that has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

Williamson County facility operators or their designee performed pollution prevention and good housekeeping inspections at the following County operated facilities:

- Highway Department: Streets, Roads, Highways
- Solid Waste: Convenience Centers (transfer stations)
- Property Management: Parking Lots

Inspections are documented and include the following concerns: (See Figure 4)

- Minimize / Prevent Exposure of Materials to Precipitation
- Good Housekeeping
- Preventative Maintenance
- Spill Prevention and Response
- Erosion Prevention and Sediment Control Site Conditions
- Management of Runoff
- Control Measure Maintenance

As stated on the Williamson County MS4 Notice of Coverage under the NPDES TNS075795, the stormwater runoff discharge coverage is only authorized from the Williamson County separate storm sewer system located in Williamson County. There are several facilities that have previously been reviewed under this program that are located outside the jurisdictional boundaries of Williamson County, but within the MS4 of our government counterparts. We understand that facility operators must still meet all water quality requirements associated with the municipality that they are located in, however, the aforementioned permit only gives our program authority within the unincorporated areas of Williamson County.

While recognizing those jurisdictional boundaries and respecting the procedures of neighboring municipalities, Williamson County encourages each County facility operator to be able to ensure that their facilities are compliant with applicable requirements in their respective MS4. In order to reinforce the importance of their compliance, the Engineering Department offers stormwater guidance in a supportive role to facilities located outside of unincorporated Williamson County.

For facilities located within unincorporated Williamson County, the facility operator has developed a specific Storm Water Management Plan (SWMP).

See Figure 5 for the Highway Department SWMP.
See Figure 6 for the Property Management SWMP.
See Figure 7 for the Solid Waste SWMP.

Figure 4: Stormwater Pollution Prevention Inspection Report

Rogers C. Anderson
Williamson County Mayor

Engineering
Floyd Heflin
Director

Stormwater Pollution Prevention and Good Housekeeping Inspection Report

Facility Information

Facility: _____

Inspection Date(s): _____

Minimize / Prevent Exposure of Materials to Precipitation:
Has exposure of materials to precipitation been minimized/prevented? ☐Yes ☐No ☐N/A

Good Housekeeping:
Are good stormwater housekeeping practices being utilized on site? ☐Yes ☐No ☐N/A

Preventative Maintenance:
Are stormwater pollution preventative maintenance practices being utilized on site? ☐Yes ☐No ☐N/A

Spill Prevention and Response:
Are there adequate measures in place for spill prevention and control of chemicals and hazardous substances such as pesticides, herbicides, fertilizers, fuels, lubricants, and other petroleum distillates? ☐Yes ☐No ☐N/A

Erosion Prevention and Sediment Control Site Conditions:
Is the site stabilized, structures functional, and no evidence of pollutants leaving site? ☐Yes ☐No ☐N/A

Management of Runoff:
Does management of stormwater runoff appear to be appropriate? ☐Yes ☐No ☐N/A

Control Measure Maintenance:
Do stormwater controls measures appear to be adequately maintained? ☐Yes ☐No ☐N/A

Comments: _____

Inspector: _____

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Figure 5: Highway Department Stormwater Management Plan

Stormwater Pollution Prevention Plan

Facility Name: Williamson County Hwy Dept
Address: 302 Beasley Dr
Franklin TN 37064
(615) 790-5596

Pollution Prevention Team (Element #1)

Leader: Greg Boll, Cost Acct, 591-8501
Member: Ray Johnson, Maint Chief, 533-5509
Member: Randy Hickman, Foreman, 394-5495
Member: Brandon Wright, Foreman, 302-0689

Description of Potential Pollutant Sources (Element #2)

1) Gasoline/ Diesel Pumps
2) Gasoline & Siesel Storage Tanks (Above Ground)
3) Vehicle Wash Area
4) Motor Oil Tank (Garage Area)
5) Highway Salt Bin
6) Limestone rock Piles

Inventory of Exposed Materials (Element #3)

Materials	Method of Storage	BMP to min contact w/stormwater
Limestone Rock	Stored in pile in quarry	Water samples taken monthly
Gasoline/Diesel	Above ground tanks	Surrounded by containment.
Rock Salt	Stored in pile	Bin is covered.

Sampling Data

Figure 6: Property Management Stormwater Management Plan

Memorandum for Record November 28, 2022

Reference Storm Water Pollution Prevention Plan, Williamson County, TN, Property Management

Facility Name: Parks and Rec Parking Lots

Addresses: 5810 Bending Chestnut Rd Franklin, TN 37064

5964 Greenbrier Rd Franklin, TN 37064

5664 Wilkins Branch Rd Franklin, TN 37064

5325 Old Hwy 96 Franklin, TN 37064

5001 Natchez Trace Pkwy Franklin, TN 37064

6795 Manley Ln Franklin, TN 37069

3680 N Chapel Rd Franklin, TN 37067

4907 Bethesda Rd Thompson Station, TN 37179

6665 Arno College Grove Rd College Grove, TN 37046

6600 Depot St College Grove, TN 37046

6990 Giles Hill Rd College Grove, TN 37046

2904 Old Horton Hwy Nolensville, TN 37135

2124 New Castle Rd Arrington, TN 37014

4662 Bethesda Rd Thompson Station, TN 37179

Williamson Fire-Rescue

Station 15; 6997 Giles Hill Rd College Grove, TN 37046

Figure 6: Property Management Stormwater Management Plan

Station 17; 4911 Bethesda Rd Thompson Station, TN 37179

Station 18; 660 Depot St College Grove, TN 37046

Station 28; 4950 Harpeth Peytonsville Rd Thompson's Station, TN 37179

Triune EMS; 8210 Malachi Ln Arrington, TN 37014

Williamson County Rescue Squad

Station 21; 5404 Pinewood Rd Franklin, TN 37064

Station 22; 1493 Sneed Rd Franklin, TN 37069

Station 24; 2646 Goose Creek Bypass Franklin, TN 37064

Station 30; 7510 Pinewood Rd Primm Springs, TN 38476

Arrington Volunteer Fire

Station 19; 4792 Murfreesboro Rd Arrington, TN 37014

Pollution Prevention Team (Element 1)

Leader: Kevin R. Benson, Director

Member: David Gurley, Maintenance Supervisor

Member: Vince Gibson, Construction Supervisor

Member; Cordnie Fisher, Grounds Maintenance Tech & Retention Pond Inspector

Description of Potential Pollutant Sources (Element 2)

1) Petroleum dripage/spills from parked Vehicles
2) Garbage and waste discarded from the inside of Vehicles
3) Motor Vehicle traffic

Inventory of Exposed Materials (Element 3)

Materials	Method of Storage	BMP to Min contact w/stormwater
Snow/Ice Melt	Inside purchased containers	Minimal melt material used at facility entryways only

Figure 6: Property Management Stormwater Management Plan

- All Williamson County rural parking lots are on a 10-15 year re-surfacing plan that includes stripping.
- Every 3-5 years all Williamson county parking lots are sealed and re-stripped.
- Parking lots are policed daily of all trash.
- Abandoned vehicles are tagged and towed as required.
- Any petroleum spills are mitigated immediately.
- Parking lots are swept mechanically as required.
- A state trained and licensed stormwater retention pond inspector is maintained on our Staff.

POC for the County Property Management Stormwater Pollution Prevention Plan is below.

Kevin R. Benson
Property Management Director
Williamson County, TN

Figure 7: Solid Waste (Convenience Centers) Stormwater Management Plan

Stormwater Pollution Prevention Plan

Facility Name: **Williamson County Solid Waste**
Addresses: 4905 Bethesda Road
Thompson Station TN 37179

6520 Arno College Grove Road
College Grove TN 37046

2714 Fairview Blvd.
Fairview TN 37062

1495 Sneed Road West
Franklin TN 37069

5406 Pinewood Road
Franklin TN 37064

1525 Owen Road
Brentwood TN 37027

1140 Mile End Road
Franklin TN 37179

1515-B Thompson Station Road
Thompson Station TN 37067

3008 Wilson Pike
Franklin TN 37064

1301 Wilson Pike
Brentwood TN 37027

1

Figure 7: Solid Waste (Convenience Centers) Stormwater Management Plan

Stormwater Pollution Prevention Plan

Pollution Prevention Team (Element #1)

Mac Nolen	Director	615 587-7897
Tommy King	Operations Manager	615 948-4805
Wayne England	Mechanic	615 390-9086
Ricky Ryan	Center Supervisor	615 948-0435
Bucky Crafton	Heavy Equipment Operator	615 218-8842

Description of Potential Pollutant Sources (Element #2)

1) Used motor oil collection tank
2) Used cooking oil collection tank
3) Hydraulic oil powered machines
4) Leachate from collection wet trash
5) Motor vehicle traffic

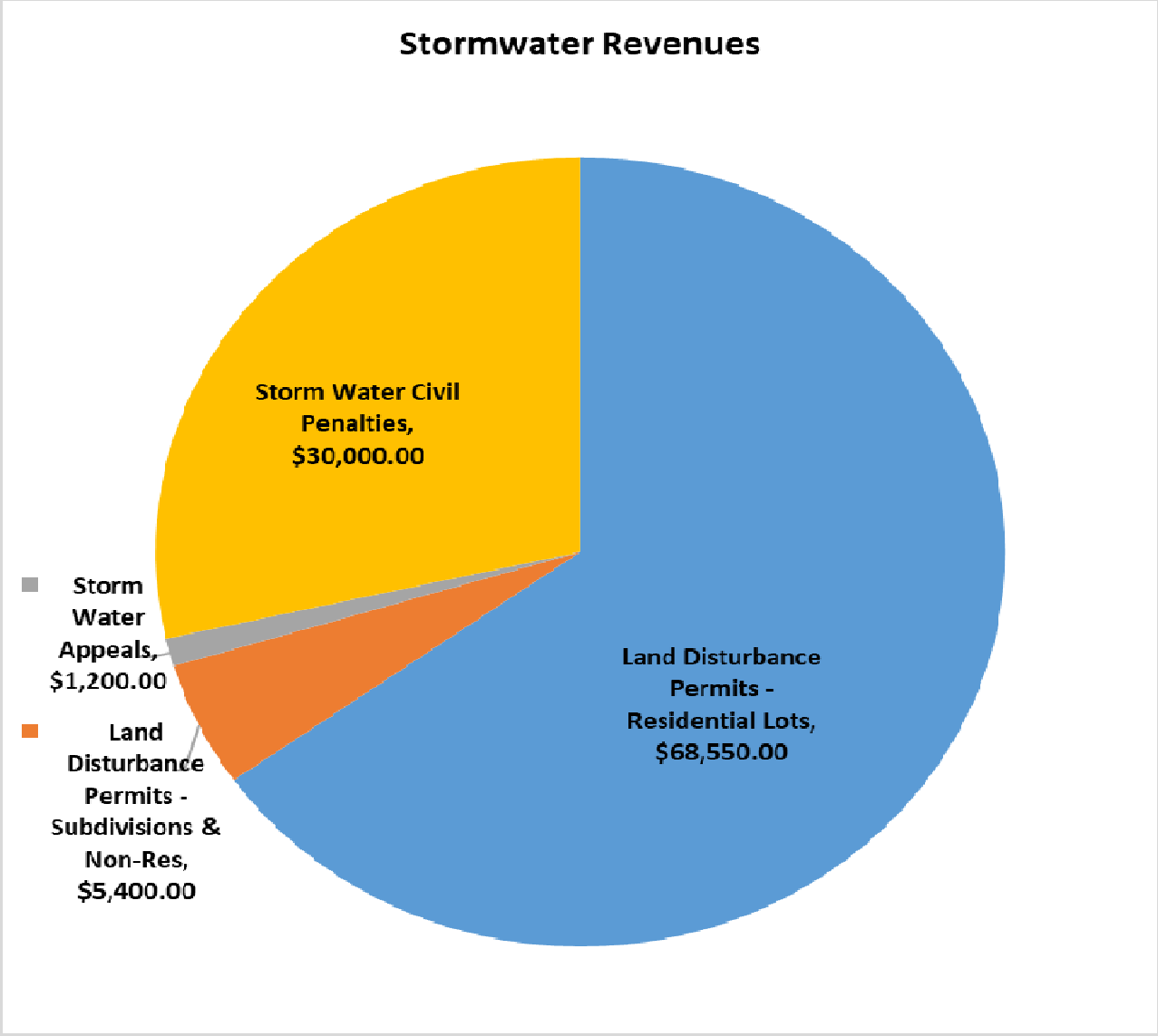
Inventory of Exposed Materials (Element #3)

Materials	Method of Storage	BMP to min contact
Motor/cooking	Above ground tank	We pour into tank
Hydraulic	Tank & cylinders	Oil dry
Leachate	Drip pans	Oil dry
Vehicles	in case of leaks	Oil dry

2

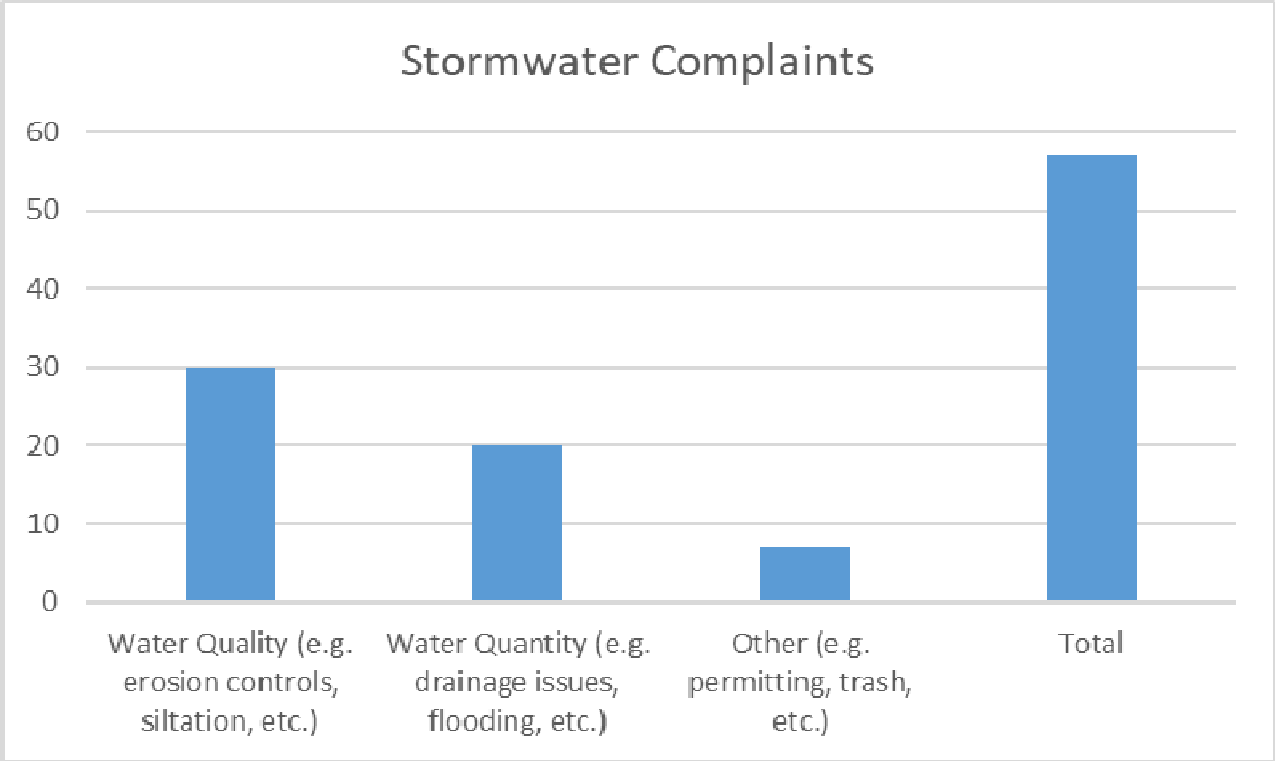
Williamson County had $105,150.00 in stormwater related revenue:

Description		Stormwater Revenues
Land Disturbance Permits - Residential Lots	$	68,550.00
Land Disturbance Permits - Subdivisions & Non-Res	$	5,400.00
Storm Water Appeals	$	1,200.00
Storm Water Civil Penalties	$	30,000.00
Total	$	105,150.00



Williamson County received 57 stormwater related complaints:

Type	Stormwater Complaints
Water Quality (e.g. erosion controls, siltation, etc.)	30
Water Quantity (e.g. drainage issues, flooding, etc.)	20
Other (e.g. permitting, trash, etc.)	7
Total	**57**



Rogers C. Anderson
Williamson County Mayor

Engineering
Floyd Heflin
Director

Stormwater Pollution Prevention and Good Housekeeping Inspection Report

Facility Information

Facility: All eleven (11) County Waste Disposal Centers (Convenience Centers)

Inspection Date(s): June 21st, 22nd, 26th, and 27th

Minimize / Prevent Exposure of Materials to Precipitation:
Has exposure of materials to precipitation been minimized/prevented? ☒Yes ☐No ☐N/A

Good Housekeeping:
Are good stormwater housekeeping practices being utilized on site? ☒Yes ☐No ☐N/A

Preventative Maintenance:
Are stormwater pollution preventative maintenance practices being utilized on site? ☒Yes ☐No ☐N/A

Spill Prevention and Response:
Are there adequate measures in place for spill prevention and control of chemicals and hazardous substances such as pesticides, herbicides, fertilizers, fuels, lubricants, and other petroleum distillates? ☒Yes ☐No ☐N/A

Erosion Prevention and Sediment Control Site Conditions:
Is the site stabilized, structures functional, and no evidence of pollutants leaving site? ☒Yes ☐No ☐N/A

Management of Runoff:
Does management of stormwater runoff appear to be appropriate? ☒Yes ☐No ☐N/A

Control Measure Maintenance:
Do stormwater controls measures appear to be adequately maintained? ☒Yes ☐No ☐N/A

Comments: College Grove Convenience Center has room for housekeeping improvements, but is still currently in compliance

Inspector: Nicholas Parks

Rogers C. Anderson
Williamson County Mayor

Engineering
Floyd Heflin
Director

Stormwater Pollution Prevention and Good Housekeeping Inspection Report

Facility Information

Facility: All Twenty-four (24) County Operated Facility Lots (Parks and Rec and Fire-Rescue Parking Lots)

Inspection Date(s): June 21st, 22nd, 26th, and 27th

Minimize / Prevent Exposure of Materials to Precipitation:
Has exposure of materials to precipitation been minimized/prevented? ☒Yes ☐No ☐N/A

Good Housekeeping:
Are good stormwater housekeeping practices being utilized on site? ☒Yes ☐No ☐N/A

Preventative Maintenance:
Are stormwater pollution preventative maintenance practices being utilized on site? ☒Yes ☐No ☐N/A

Spill Prevention and Response:
Are there adequate measures in place for spill prevention and control of chemicals and hazardous substances such as pesticides, herbicides, fertilizers, fuels, lubricants, and other petroleum distillates? ☒Yes ☐No ☐N/A

Erosion Prevention and Sediment Control Site Conditions:
Is the site stabilized, structures functional, and no evidence of pollutants leaving site? ☒Yes ☐No ☐N/A

Management of Runoff:
Does management of stormwater runoff appear to be appropriate? ☒Yes ☐No ☐N/A

Control Measure Maintenance:
Do stormwater controls measures appear to be adequately maintained? ☒Yes ☐No ☐N/A

Comments: All parking lots are well maintained and demonstrated good housekeeping. All hazardous materials and potential pollutants are properly stored and protected.

Inspector: Nicholas Parks

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Stormwater Management Program