Information concerning DART’s MS4 status and actions are submitted to the Texas Commission on Environmental Quality (TCEQ) on form #20561, before March 31 each year. Future submissions will be via the State of Texas Environmental Electronic Reporting System (STEERS). The following is a concise summary of DART’s MS4 2019 annual report.

**Compliance with the MS4 General Permit:**

DART submitted an updated Stormwater Management Program (SWMP) and Notice of Intent (NOI) to the TCEQ in July 2019 to comply with the recently updated general permit TXR040000. This MS4 permit applies to DART-owned rail corridors; the permit does not apply to corridors where DART transit trains operate on land owned by a city or other MS4 entity. DART has complied with the Texas MS4 permit requirements since its 2008 inception, to protect water quality in the region. As of March 2020, TCEQ had not completed its technical review of the updated SWMP; after the review is received, DART will fulfill the public notice portion of the updated permit and post the SWMP onto DART’s website.

In 2013 DART participated with other MS4s to develop a regional Implementation Plan (I-plan) to address impaired water bodies subject to a Total Maximum Daily Load (TMDL), at or near the DART MS4 in the North Texas region. DART is active with the North Central Texas Council of Governments (NCTCOG) regional stormwater management coordinating council and a TMDL Implementation Plan (I-Plan) subcommittee. Another TMDL was recently adopted by TCEQ on January 16, 2019 for the north Texas watershed of Sycamore Creek (0806E); however, DART’s MS4 is not within this watershed.

**A summary of DART’s SWMP compliance activity for 2019 are as follows:**

1. The first section of the SWMP involves public education, outreach and public involvement.

1.1 Public Education via a Regionally Developed Initiative (RDI): A message intended to promote sustainable practices, reduce pollution sources and improve water quality for the North Texas region was developed by the NCTCOG. DART places this message as a Public Service Announcement (PSA) on transit vehicles to reach a broad audience. DART’s goal is to run a PSA for one month each year. A PSA promoting Texas SmartScape© was broadcast from March through December 2019 on over 500 DART buses.

1.2 Environmental Compliance Manager (ECM) at Construction Sites: DART’s goal is to require an ECM on DART’s transit construction projects required to be permitted under TXR150000, the Texas Construction General Permit (CGP). In performing his/her duties, the ECM maintains compliance with the CGP and promotes environmental awareness to construction personnel to reduce pollution from construction activities. An ECM was assigned to a construction project permitted under the CGP for DART’s Silver Line transit project from Plano to DFW Airport. DART exceeded the goal by also requiring ECMS from contractors on small, less-than-one-acre disturbance projects along the existing transit corridors that did not require permits under the CGP. Additionally, DART provided introductory stormwater training for 608 construction workers on DART’s transit construction projects.

1.3 Education of School Children: Education of the next generation on pollution prevention helps reduce future pollution sources. DART’s goal is to provide 100 presentations to children. In 2019, DART’s Community Affairs/Education Outreach group exceeded the goal by providing 202 presentations to school children.
1.4 Public Meetings: Meetings provide the public with the opportunity to provide their comments, opinions and suggestions about the environmental aspects of the transit corridor system. DART’s goal is to have at least two meetings each year. In 2019, DART held twenty-one transit board meetings, and thirty-three public meetings specifically concerning future transit corridor plans. Denton County Transit Authority (DCTA) and Trinity Metro operate on some DART MS4 corridors; these agencies also held twelve and ten public meetings, respectively. In 2019, a total of seventy-six public meetings were held.

1.5 Public Involvement/Communication Alternatives: DART’s goal is to investigate all notices from the public that may relate to water quality. Receiving communication from cities or citizens concerning environmental situations helps DART to respond to potential pollutants. In 2019, twenty-seven notices of potential water quality events were received and addressed.

2. The second section of the SWMP involves Illicit Discharge Detection and Elimination (IDDE).

2.1 Right-of-Way (ROW) Map: DART updates its Graphical Information System (GIS) storm sewer map after new transit corridor construction is completed. There were no map updates done in 2019. Trinity Metro completed their TEXRail transit construction on DART’s MS4 corridor in October 2019; DART’s SWMP scheduled the map update to be conducted by October 2021.

2.2 Illicit Discharge Detection Elimination (IDDE): Discovering a condition or incident with potential to pollute the ROW allows DART to respond, manage or remove a pollutant source. DART’s goal is to inspect transit ROW at least monthly. Approximately 180 miles of transit ROW was inspected on an approximate weekly basis under a track inspection program. Homeless camps and trash dumping on the rail ROW are common water quality problems found during these inspections. In 2019, seventy-four sites were discovered and removed from DART’s light rail and commuter rail corridors.

3. The third section of the SWMP involves control of construction site stormwater runoff.

3.1 Environmental Compliance Manager (ECM) at Construction Sites: DART’s experience has shown that requiring a contractor to appoint a knowledgeable ECM improves compliance and implementation of sediment control practices at transit construction sites. DART’s goal is to have an ECM on DART construction projects exceeding one-acre of disturbance. In 2019, an ECM was assigned to a large transit construction project from Plano to DFW Airport (Silver-Line). DART exceeded the goal by requiring ECMS on eleven small construction projects that were less than one-acre.

3.2 Erosion and Sedimentation Control via the Construction General Permit (CGP) TXR150000: DART chose to utilize the established CGP to reduce discharges from DART’s construction projects rather than utilizing the option to control construction discharges via this MS4 permit. DART’s goal is to have construction projects of one or more acres adhere to the CGP and have a DART environmental representative attend coordination meeting or inspect the construction site every two months. In 2019, the Silver-Line transit project was permitted under the CGP. DART met and coordinated with the project’s ECM or inspected the project erosion controls more than once a month.

3.3 Miscellaneous Construction Access - (License agreements): DART utilizes a license agreement procedure to review requests for construction by others on DART property. This procedure allows DART to avoid or modify proposals that could introduce and/or increase pollution or erosion. DART issued 119 license agreements for construction activities on DART property in 2019.

4. The fourth SWMP section involves transit design affecting storm water quality, after construction:
4.1 Rail Transit Corridor Design Best Management Practices (BMPs): DART’s transit design guidelines were developed to promote environmentally friendly features during the planning stages of the transit system. The design guidelines are intended to reduce or avoid increases in potential pollutants from the ROW corridors after they have been developed for transit. The transit design BMPs were utilized during DART’s design for the development of the Silver-Line commuter rail project from Plano to DFW Airport, which began construction in 2019.

5. The fifth section of the SWMP involves pollution prevention and good housekeeping practices:

5.1 Potential Pollution Management: Responding to notices from cities, citizens, or potential pollutant sites found by transit workers on the ROW helps DART reduce pollution discharges from the DART MS4. In 2019, twenty-seven external notices from cities or citizens were received concerning debris, homeless camps and drainage obstructions. A total of 111 sites were cleaned on DART property which included seventy-four homeless and debris removals, eleven vehicle accidents, and twenty-six animal removals. Additionally, DART’s ROW maintenance recorded 326 routine trash clean ups.

5.2 Storm Sewer System Maintenance: ROW inspection & maintenance programs provide a means to locate and remove potential pollutants and identify needed drainage repairs within the transit ROW. In 2019, 180 miles of transit ROW was inspected approximately weekly. (inspection & maintenance are preformed along ROW operated by DART, Trinity Railway Express (TRE), DCTA and Trinity Metro.)

5.3 Employee Training: Education of employees increases awareness and the necessity of protecting water resources; knowledgeable workers can better implement work practices, resulting in reductions of potential pollutants to stormwater. In 2019, 286 transit operation employees received stormwater training; this number includes DART, as well as employees of contract operators for the TRE, Trinity Metro and DCTA rail system workers.

5.4 Spill Response Facilities and Operations: Responding and taking quick action at spill incidents can remove or reduce pollutant impacts to water. DART utilizes Texas regulatory definitions of “reportable spills” to measure spills. There were no reportable spills in 2019; however, small spills are routinely handled and in 2019 there were eleven vehicle accidents, which often have small spills associated with the incident.

5.5 Facilities and Operations: DART reduces the potential for pollutants to be released from maintenance operations by utilizing the pollution prevention measures, inspections, and training required by the Texas Multi-Sector General Permit (TXR0500000) at maintenance facilities. The following four maintenance facilities within DART’s MS4 are separately permitted and adhere to the pollution prevention requirements for these sites: Central Rail Operation Facility – Permit # TXR05L796; Northwest Bus Services Facility – Permit # TXR05O249; Northwest Rail Operation Facility – Permit # TXR05AD29; and the TRE Equipment Maintenance Facility - Permit # TXR05Q216.

Stormwater Data Summary:

DART is a small, non-traditional MS4 limited to linear transportation corridors; it does not monitor or manage any water bodies. Water conveyance structures within and along the corridors receive a significant amount of water discharged from outside the DART MS4, which precludes effective monitoring that could be used to evaluate DART’s efforts; therefore, analytical water monitoring is not performed. After a new transit corridor is developed, DART conducts drainage feature mapping of the rail ROWs during dry weather to detect and identify potential illicit flows onto the ROW. DART utilizes a routine track safety and maintenance inspection program to also look for illicit discharges along active transit corridors.
DART’s ongoing maintenance of the MS4 removes potential pollutant sources from the ROW. Homeless encampments and illicit dumping are the most numerous items encountered that potentially could affect water quality. DART removes debris and homeless encampments from the ROW to reduce pollutants in stormwater runoff; however, encampments and dumping often reoccur at the same locations after a site is cleaned up. In 2019, DART attempted to discourage homeless at a wooded site adjacent to a city storm drainage basin; extensive tree branch raising was performed to increase visibility for police to monitor the site. DART has also installed fencing at various locations to discourage reoccurring encampments and dumping.

**Impaired Waterbodies:**

1. **Identify whether an impaired water within the permitted area was added to the latest EPA-approved 303(d) list or the Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d).** List any newly identified impaired waters below by including the name of the water body and the cause of impairment.

   DART’s SWMP lists waters potentially affected by DART MS4 ROW and those waters listed as impaired. Periodically and prior to preparation of the annual MS4 report, DART reviews TCEQ’s water quality impairment reports. TCEQ released the EPA approved 2016 list of impaired waters in August 2019. The following water bodies within DART’s MS4 were added to the impairment list as category “5c” sites, which are defined as “Additional information will be collected before a management strategy is selected”:

   - Muddy Creek (0820C) for copper in the water (crosses DART ROW in Wylie, TX.);
   - Elm Fork Trinity River Below Lewisville Lake (0822) for sulfate (crosses rail ROW operated by DCTA, DART and the Trinity Railway Expressway.);
   - White Rock Creek Above White Rock Lake (0827A) for bacteria (crosses ROW of DART’s existing Red-Orange Line and the future Silver-Line ROW project.).

   DART will review subsequent impairment reports for Muddy Creek (0820C) and the Elm Fork Trinity River below Lewisville Lake (0822) to determine if action is needed at the ROW near 0820C and 0822. Preliminary 2019 reports from TCEQ indicate that these impairments may have subsided and may not require management.

   Regarding bacteria impairment at White Rock Creek Above White Rock Lake (0827A), DART has existing BMPs implemented to address bacteria at the DART ROW as discussed in sections 2 through 7, below.

2. **If applicable, explain below any activities taken to address the discharge to impaired waterbodies, including any sampling results and a summary of the small MS4’s BMPs used to address the pollutant of concern.**

   A Total Maximum Daily Load (TMDL) for bacteria is in effect for the following North Texas water bodies: Upper Trinity River (0805), Cottonwood Branch & Grapevine Creek (0822A, 0822B) and the Lower West Fork Trinity River (0841, 0841B, 0841C, 0841E, 0841G, 0841H, 0841J 0841L 0841M, 0841R, 0841T and 0841U). DART’s MS4 ROW intersects the following water bodies with a TMDL for bacteria:
• Lower West Fork Trinity River (ROW crosses tributary segments 0841H, 0841B and 0841U)
• Upper Trinity River – 0805 (ROW crossing at segment 0805_04)
• Grapevine Creek (ROW crossing at 0822B)

DART, as a permitted stormwater discharger, participated with other MS4s and the NCTCOG to establish a regional I-Plan to address potential bacterial sources. The regional I-Plan was approved by TCEQ in December 2013. DART’s potential for bacteria discharge was considered insignificant due to the lack of significant bacteria sources on the ROW and the relatively small drainage area from DART ROW. DART’s SWMP includes some actions that address bacteria sources; however, the I-Plan did not recommend any BMPs for DART’s transit system. Specifically, DART’s ROW inspection program has identified potential bacteria discharges from properties adjacent to the DART ROW, and animal sources at the ROW.

In January 2019, TCEQ adopted a TMDL for bacteria at Sycamore Creek (0806E), which may affect the regional I-Plan. Sycamore Creek is not within DART’s MS4 area.

The Upper Trinity River (0805) and the West Fork Trinity River (0806) are listed as impaired with dioxin and polychlorinated biphenyl's (PCBs) because these chemicals were found in fish tissue at these rivers. Some bridges on DART MS4 ROW directly cross these impaired waters. This impairment is caused by legacy pollutants from sources dating back decades and outside DART’s ROW. DART took early actions during the development of the transit system (prior to the MS4 permit) to implement procedures to properly handle and dispose of dioxin and PCB materials to avoid releasing these pollutants into the environment. These precautionary actions remove potential sources from properties and structures being renovated or demolished, thereby preventing DART from contributing to the existing pollution. In 2018, DART disposed of potential PCB-containing florescent lamp ballasts from the demolition or renovation of old buildings. No legacy pollutant materials were encountered in 2019.

3. **Describe the implementation of targeted controls if the small MS4 discharges to an impaired water body with an approved TMDL.**

DART’s MS4 ROW and operations are not considered a significant contributor of bacteria to the watersheds under the TCEQ-approved I-Plan; therefore, DART does not have a specific control for bacteria. DART’s SWMP IDDE program has identified potential bacteria sources such as grease-traps outside of DART’s MS4 and animal sources within the MS4. An IDDE is listed as an appropriate BMP for bacteria within Part II Section D.4(a)(5) of TXR040000. DART’s efforts to reduce bacteria discharges are described in sections 6 & 7 below.

4. **Report the benchmark identified by the MS4 and assessment activities:**

The bacteria benchmark number for *E. coli* bacteria in water for human contact (recreational use) is 126 (bacteria count) per 100ml of water. There were no sources or actions identified by the regional I-Plan that apply to the DART MS4.
5. Provide an analysis of how the selected BMPs will be effective in contributing to achieving the benchmark:

There were no BMPs identified by the regional I-Plan that apply to the DART MS4. While DART does not have a specific BMP to improve bacteria-impaired water, DART’s management practices are effective in preventing potential bacteria discharges as discussed within section 6, below.

6. If applicable, report on focused BMPs to address impairment for bacteria:

A focused BMP for bacteria is not applicable to the DART MS4 since the ROW is not a significant bacteria source. Notwithstanding, DART’s BMPs have been effective in identifying and addressing potential bacterial sources near the ROW as explained below:

Potential bacteria pollution sources are unusual within a rail ROW; however, DART’s IDDE program discovered discharges of grease trap material on property adjacent to DART ROW in 2010, 2011 and 2015. These discharges were reported to the adjacent MS4 with jurisdiction.

DART’s ROW management program includes the removal of trash and debris from the transit corridors. Potential bacteria sources removed include dead animals found on the ROW. In 2019 DART discovered and removed twenty-six dead animals from its ROW.

DART operates a small septic system on transit property within the watershed of Fivemile Creek (0805D), which is not an impaired water. DART monitors and maintains this septic system. During 2019, a minor repair to a discharge pipe was required to maintain the system; no improper discharges occurred from this septic system.

7. Assess the progress to determine BMP’s effectiveness in achieving the benchmark:

The ROW is not a significant bacteria source, so DART’s efforts are relatively minor in relation to the watershed bacteria impairment. The regional I-Plan did not identify any specific BMPs for bacteria applicable to the DART MS4; however, DART recently began to track dead animal removals from the ROW as a minor bacteria source. Additionally, DART’s IDDE detection of discharges with bacteria potential primarily occurred outside of the DART MS4 in 2010, 2011 & 2015 as noted above at section #6; this may indicate progress since the discharges have not re-occurred.

**Stormwater Activities, SWMP Modifications & Additional Information:**

- In April 2020, DART will post this report and a summary of the MS4 annual report on DART’s website.
- Upon receiving TCEQ’s technical review of DART’s 2019 SWMP (expected in 2020), DART will fulfill the public notification and review process as instructed by TCEQ.
- DART reviews the SWMP implementation procedures each year; no changes are being proposed to the SWMP for 2020.
- In 2019, there were no land acquisitions associated with the MS4 ROW; however, beginning in 2020, many small land parcels are expected to be acquired to facilitate construction of the future Silver-Line transit corridor.
Is the permittee relying on another entity to satisfy any permit obligations?

Yes. As a non-traditional MS4, DART’s IDDE program partially relies on cooperation from adjacent MS4s authorities to provide enforcement to eliminate illicit discharges. The physical nature of DART’s narrow transit ROW creates a situation where an illicit discharge onto DART property may occur from adjacent property under the jurisdiction of another MS4. If such a discharge is encountered by a non-traditional MS4, notification to another entity with jurisdiction is allowed under Part III, section B, (2)(a)(2) of general permit TXR040000. In previous years, DART’s IDDE program discovered discharges from outside the DART MS4. In 2019, DART did not encounter any illicit discharges onto the DART ROW from adjacent properties; however, DART communicated and cooperated with adjacent cities to address homeless encampments affecting both city and DART sites.

As a non-traditional MS4 without municipal ordinance authority, DART utilizes contracts and agreements to facilitate compliance with environmental protection programs. DCTA and Trinity Metro are transit agencies operating rail transit systems on DART MS4 ROW via transportation access agreements. These agreements include compliance provisions with environmental regulations.

**Construction Activities:**

DART does not utilize the option to conduct construction under the MS4 permit. DART requires large construction sites within the MS4 to obtain a Texas CGP to implement pollution prevention and erosion control during construction activities. In 2019, DART initiated construction of the Silver Line, a future commuter rail system from Plano, TX to DFW Airport. This project is permitted under the CGP TXR150000.