

Texas Pollutant Discharge Elimination System (TPDES)

MS4 Permit System Wide Annual Report

Reporting Period: September 1, 2022 - August 31, 2023

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Texas Commission on Environmental Quality Wastewater Permitting Section, MC-148 Storm Water & Pretreatment Team P.O. Box 13087 Austin, TX 78711-3087

Re: MS4 System Wide Annual Report
The University of Texas at Austin
TPDES Permit No. WQ0004704000, EPA ID TXS000403

Dear Sir or Madam,

The University of Texas at Austin certifies the enclosed TPDES Annual Report for the reporting period of September 1, 2022 through August 31, 2023. As required by this permit, the President of the University of Texas at Austin, being the delegated representative of the Board of Regents, has been apprised of the contents of the attached Annual Report.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for allowing violations.

If you have any questions regarding the University's compliance reporting or the information contained within this report please contact Ms. Irezama Anderson, Associate Director for Environmental Programs at (512) 471-3511.

Sincerely,

John Salsman Director, Environmental, Health and Safety

# The University of Texas at Austin TPDES MS4 Permit System Wide Annual Report

Reporting Period - September 1, 2022 through August 31, 2023

# **Executive Summary**

Since 1999 the University of Texas at Austin has been a regulated Phase 1 Municipal Separate Storm Sewer System (MS4) under the National Pollutant Discharge Elimination System (NPDES) permit issued by the Environmental Protection Agency (EPA). Initially the University was a co-permittee with the City of Austin due to its location and prominence within the City's MS4 boundaries. In 2005, when the permit was renewed under the EPA delegated authority to the state's environmental agency, the Texas Commission on Environmental Quality (TCEQ) and the Texas Pollutant Discharge Elimination System (TPDES) permit, the University became a sole permittee for the storm sewer systems located at the University of Texas at Austin Main Campus, the JJ Pickle Research Campus (PRC), the Brackenridge Tract, and the Gateway Apartments.

Under the TPDES permit, the MS4 operator is required to develop a Storm Water Management Program (SWMP) in which 9 elements are developed and implemented to address and minimize potential pollutants from being transported in storm water runoff leaving the Campus' through the storm sewer systems and negatively impacting surface waters of the state. Receiving watersheds include Waller Creek, Shoal Creek and ultimately the Colorado River in stream segment 1429. This annual report summarizes the measurable goals of the UT Austin SWMP and the accomplishments of the involved departments within the University to minimize the impacts of University operations on storm water runoff.

#### A. MS4 Maintenance Activities

#### 1. Structural controls

# Inspections:

Open Channels (including Waller Creek), grass lined swales, and other open conveyances located on Main Campus, PRC, Whitaker Fields, and two University apartment properties are inspected annually to assess proper flow and discharge of storm water. Issues relating to maintenance and debris removal are identified during inspection. Open Channel Restrictions, which may include culverts, bridges, exposed utility conveyances, exposed roots, boulders, or fallen trees that obstruct the water flow and increase erosion potential are inspected quarterly to ascertain the condition of each restriction in regards to debris collection. Following inspection, sediment, debris, or other obstructions identified are removed in order to maintain adequate flow rate to maintain water quality.

Inspection program elements include:

- Environmental Health & Safety (EHS) inspects open channels (annually) and open channel restrictions (quarterly)
- EHS submits work requests noting undesirable conditions to the appropriate department, e.g. Facilities Services (FS), Pickle Research Campus (FS-PRC), or University Housing and Dining (UHD) for corrective actions.
- Responding departments complete corrective action for each undesirable condition at a restriction or in an open channel (i.e. remove sediment, debris, or vegetation).

#### Maintenance:

The Utilities & Energy Management (UEM) and FS departments are responsible for the maintenance activities of the MS4. Annually, these departments remove debris collected in curb and gutter drains on Main Campus and as needed in area drains on the PRC campus. The UEM Department has equipment and crews that respond to clogged storm and sanitary lines and perform both preventative and emergency maintenance or replacement of

conveyances as needed. Preventative measures include regular camera inspection of lines, scheduled hydro jetting of lines that are known to clog, and removal of debris accumulated in the system. Maintenance program elements include:

- Regular cleaning of area drains and curb inlets: Approximately 2.7 cubic yards, and greater than 9,000 pounds of debris were removed from curb and gutter inlet boxes by the Facilities - Landscape Services (FS-LS) department and UEM respectively. UEM workers unstop storm sewers and clean out inlets at Main Campus annually to ensure pollutants captured in the MS4 system are not discharged to Waller Creek.
- Maintenance of storm drain lines whenever damage is suspected: storm sewer mains are repaired and replaced as necessary. UEM spent approximately 779 hours maintaining, repairing, and replacing storm sewer piping at the Main Campus.
- Maintenance of oil water separators and grit traps: the department operating the
  device monitors and notifies EHS if devices require more frequent maintenance to
  ensure they are clean and oil-free. If needed, EHS conducts sampling and
  profiling for disposal. Activities this reporting year included scheduled cleanouts
  of accumulated sediments in oil water separators, mud traps and grit traps on
  campus. The total amount of material disposed was 340 gallons.
- Regular collection and disposal of contents in outside trash cans. FS-LS disposed of 300 cubic yards of litter and trash.
- Utilization of erosion controls: UEM spent 29.5 hours on erosion control inspection, installation, and repair.

The University of Texas at Austin's Pickle Research Campus (PRC) and the University apartment complexes are primarily served by open channel conveyance systems. Elements of the maintenance program at PRC and University apartments:

- Regular cleaning of area drains, culverts, outfalls and curb inlets are performed by the FS Dept. Due to the open channel conveyance design of the storm sewer system, the hours spent unstopping storm sewers and cleaning out inlets at PRC and the apartments to ensure the free flow of storm water and reduce pollutants discharged to Shoal Creek, Little Walnut Creek watersheds, and Lady Bird Lake was minimal during this reporting period.
- Regular maintenance included raking leaves and the collection of grass clippings to reduce the possibility of clogging storm drains.
- As needed street sweeping to remove trash and organic materials

#### 2. Flood Control Projects

UT Austin operates and maintains seven flood control structures. Four detention basins are located on Main Campus at Disch Faulk Field (DFF), the Engineering Education and Research Center (EER), Robert Rowling Hall (RRH), and the Gary L. Thomas Energy Engineering Building (GLT). Three detention basins are located at PRC.

Our updated standards encourage the use of Low Impact Design (LID) and innovative engineered water quality systems due to the nature of our urban watershed. On main campus, there are over 25 LID projects established or underway, including bioswales, pervious pavers, and rain gardens. Although predominantly water quality devices, LID devices do provide temporary retention areas to encourage infiltration and pollutant removal; they can also help control the release of storm water into adjacent waterways.

#### 3. Floatables Monitoring

Two floatable monitoring stations were installed prior to November 1, 2001 and upgraded in the fall of 2016. One monitoring station is located northeast of campus off of San Jacinto Dr., north of Chilling Station No. 5 (CS5). The other station is north of the junction of 21st St. and

San Jacinto, across from L. Theo Belmont Hall (BEL). During the reporting period, FS-LS removed 4 cubic yards of debris and sediment. Results are calculated by estimating gallons (dry) via trash bag then converting to cubic yards.

#### 4. Roadways

Street/Impervious Cover Sweeping

The University maintains a program for managing sediment, trash, and organic debris on street and parking areas. The University operates several motorized street sweepers for Main Campus.

The program on Main Campus includes:

- Manually sweeping the gutters and areas where the sweeper cannot reach, as needed
- Ground level parking lots are cleaned as needed (mainly along curbs);
- Raking and clean up during periods of heavy leaf drop, as needed;
- Storm drains are cleaned annually or whenever clogged;
- Malls and sidewalks are maintained frequently;
- Debris is bagged, and leaves and other organic material are then composted;
- If sand is applied for deicing, it is picked up manually;
- Sweeping units are used on campus on a regular basis to remove loose debris and leaves from sidewalks and plazas;
- A riding scrubber is also used to scrub plazas and mall surfaces, as needed.
- 501 cubic yards of debris was collected during the 480 hours of street sweeping completed by FS-LS.
- 280 pounds of debris was collected by UHD.

Motorized dry sweepers are used to maintain parking areas and sidewalks on Main Campus. The elements of this program include:

- Motorized sweepers with brooms are used to sweep the twelve parking garages on a regular basis including ramps, some outside areas, and sidewalks. Garages are typically swept weekly.
- Larger trash is picked up by hand and discarded in dumpsters;
- A process previously implemented has all garages scrubbed twice annually to remove pollutants left by parked vehicles. During washing, drains are covered, the wastewater collected, and disposed of according to regulatory requirements.
- Sweep grounds inside stadium before and after events and at least once a month, and under Belmont Hall every other day;
- Sweep outdoor track at soccer stadium 2-3 per year (relative to events):
- Sweep AstroTurf at Disch-Falk baseball field daily during the season and as needed in the off season:
- Sweep Belmont Hall service drive (located in the stadium complex) and front sidewalks prior to event days.

Pickle Research Campus has mostly crowned roads with few curbed streets. Some parking areas are curbed. The elements of the street/impervious cover sweeping program include:

- Occasional use of tractor mounted broom sweeper;
- Staff are utilized for grounds maintenance to pick up trash and collect litter;
- Parking areas are swept before striping operations;
- Riding mowers are equipped with leaf catchers;
- Parking lots and streets are swept by an outside contractor, as needed.

UHD maintains the streets and parking areas at University apartments. The elements of this program include:

- Contract with a local company to sweep streets at the apartment complexes on an as needed basis during heavy leaf fall. 11,500 cubic yards of debris were collected.
- Use of maintenance staff to drive through complexes daily and pick up litter and debris as needed:
- 5,900 pounds of litter and trash was removed from outside trashcans;
- Residents are educated on the importance of keeping dumpsters closed through signage, and efforts are ongoing to maintain dumpsters in good condition;
- Apartment management works with a dumpster contractor to ensure all dumpsters are maintained and appear clean at all times;
- Broken dumpster lids and leaks are reported upon discovery and repaired as soon as possible. The contract requires that dumpster bottoms are kept as clean and sanitary as possible to prevent pollutants from running off with storm water during rain events.

Roadway Operations and Maintenance Program;

The Roadway Operations and Maintenance Program includes the following activities:

- Routine maintenance is performed on all roadways and parking lots to extend their life and to reduce their impact on storm water runoff;
- Sand is applied on selected roadways and sidewalks during icy condition in lieu
  of salt or other additives to avoid degradation of pavement surfaces and to reduce
  run-off contamination;
- Roadway maintenance workers are informed on measures to minimize the
  potential environmental impacts of roadway maintenance activities including
  proper procedures for installation of silt fences, absorption booms/socks, and
  other BMPs to control run-off from entering the storm water system, control of
  road maintenance materials, and the proper disposal of road maintenance wastes.
- Vehicle fuels are stored in registered underground storage tanks to minimize their exposure to storm water.
- Vehicle fueling areas are covered to reduce the potential exposure of fuels to storm water runoff. Hazardous materials used for resealing and street repair (road sealant and cold patch) are covered during storage to protect from rainfall and avoid runoff into storm drains. Spill cleanup materials are kept stocked and easily accessible in vehicle maintenance areas.
- The vehicles used for roadway maintenance are listed on the Preventative Maintenance System and receive regular maintenance at the automotive maintenance facility. Maintenance schedules are based on the vehicle's mileage. Vehicles and equipment used for roadway repair are washed in covered areas specifically designed to convey wash water to the sanitary sewer
- Planning, Design and Construction (formerly Project Management and Construction Services (PMCS)) maintains pothole patch sealant material. Sand is stored outside in bulk material bins located in the Facilities Services compound.

Table 1 - MCM 1 Activity Summary

ВМР	2022-2023 Progress
Open Channel Drainage Systems	EHS staff performed annual inspections of all open channels for debris on 6/26/2023.
Open Channel Restrictions	EHS staff inspected all open channel restrictions each quarter of the monitoring period.
Storm Sewer Mains	UEM spent 779 hours cleaning and repairing storm sewer mains. 9,000 pounds of debris were removed from storm drains and catch basins.
Flood Control Projects	Detention structures are inspected annually by UEM for required maintenance
Floatables Monitoring	FS-LS removed 4 cubic yards of debris and sediment from the floatables stations.
Street/Impervious Cover Sweeping	5,900 pounds of debris were collected from University owned off-site apartments. 280 pounds of debris were collected on University owned streets.

#### **B.** Post Construction Storm Water Control Measures

# 1. Areas of New Development and Significant Redevelopment:

# Stormwater Design Criteria

The University created Design and Construction Standard documents for all new development and significant redevelopment. Section 01 57 23: Temporary Storm Water Pollution Control is the segment of the standards that is utilized to reduce pollution and sediment loading from construction sites. This section includes BMP selection, maintenance, and inspection criteria and references the City of Austin's Drainage Criteria Manual, and Environmental Criteria Manual. These references provide information on permanent and temporary controls. The 01 57 23 Temporary Storm Water Pollution Control Standard, modified to be more comprehensive, was published in January of 2020.

During the 2019-2020 fiscal year (FY), stakeholders from three key UT Austin departments (EHS, FS-LS, and Sustainability) discussed the creation of a larger stormwater master plan. This is an ongoing effort, and input is also being solicited from stormwater experts outside the University.

EHS developed a comprehensive design and construction standard for storm water management which was published in August of 2022. The design standard requires all construction projects that include outdoor disturbance to manage a certain percentage of precipitation on site and reduce runoff velocity. This updated standard will further define design deliverables, design values, required calculations, and allowable BMPs in order to strengthen the existing standard.

For new development and significant redevelopment administered by Planning, Design and Construction, the University provides a document titled "Construction Site Procedures for Contractors" in the Additional General Conditions section of the contract. This document is distributed at pre-construction meetings, and is in the process of being incorporated into the Planning, Design and Construction contracts. In addition, the "Contractors Handbook", which also references several stormwater related requirements, is distributed to contractors working with the University for the first time. These documents outline procedures for preventing common problems related to storm water on construction sites in addition to the applicable requirements of the Storm Water Management Standard. Specific storm water issues related to the project are included in the Special Conditions section of the contract.

#### Stormwater Design Criteria Implementation

Appropriate water quality measures are evaluated on a project by project basis. During this reporting period, one applicable project, the Microelectronics Research Center Expansion was reviewed in multiple phases.

A previously reviewed and currently under construction project includes the Engineering Discovery Building (EDB), which plans to incorporate bioretention.

Projects with water quality devices that completed construction include a renovation of the Blanton Museum Plaza which installed a series of rain gardens and vegetated swales, and the Leona Child Development Center which included a rain garden and permeable pavers in its design. Additional previously completed projects include the Basketball Rowing and Practice facility (incorporated bioretention), the Moody Center Arena (incorporated 5 biofiltration planters, 2 bioswales, and a rain garden) and the realignment of Red River Street to facilitate the Arena's construction, (installed 6 bioretention basins and 5 bioswales).

#### Stormwater Maintenance

FS-LS performs maintenance activities along several sections of Waller Creek. At the Dell Medical School (DMS) campus, FS-LS staff spent 23 hours managing stormwater features, such as concrete and earthen bioswales. This involves soil management, vegetation maintenance, and removing excessive accumulation of sediment. They also implement several other general landscape management activities. These include the use of only organic material on site, and utilizing erosion and compaction measures to ensure soils can support plants. Susceptible areas are monitored, and slopes and banks are repaired when required. FS-LS staff also spent 6 hours dedicated to erosion control at DMS, and 68 hours collecting roughly 10 cubic yards of trash along Waller Creek. Across the Main Campus stretch of Waller Creek, FS-LS staff continued to address invasive species, revegetation, and restoration of heavily eroded bank areas.

# 2. Evaluation of the existing SWMP to ensure implementation and enforcement of a regulatory mechanism:

The SWMP is reviewed in depth by EHS on an annual basis. EHS then meets with a group of stakeholders to both review the program and solicit input from other departments on how to improve processes. To ensure stormwater controls are being implemented EHS performed monthly inspections of all 7 construction sites with outdoor disturbance greater than 1 acre that were active during the reporting period. EHS also performed spot inspections at numerous smaller sites that disturbed soil but did not meet SWPPP requirements.

# 3. Flood Control Projects

The program for water quality impacts of future flood control projects was implemented in November of 2001. Criteria was developed for architectural and engineering professionals while designing flood control projects on the University of Texas at Austin campuses. This criteria document was incorporated into UT's Design and Construction Standards and at its core requires the designs to reduce runoff volume while increasing the quality of storm water runoff.

Appropriate flood control measures are also evaluated on a project by project basis for compliance with the recently implemented stormwater management design standard. During this reporting period, 2 applicable projects incorporating flood control structures were reviewed or started construction. These include Graduate Student Housing, and the Engineering Discovery Building.

Five projects with flood control devices (low flow) that previously completed construction include a renovation of the Blanton Museum Plaza which installed a series of rain gardens

and vegetated swales, and the Leona Child Development Center which included a rain garden and permeable pavers in its design. Additional projects completed include the Basketball Rowing and Practice facility (incorporated bioretention), the Moody Center Arena (incorporated 5 biofiltration planters, 2 bioswales, and a rain garden) and the realignment of Red River Street to facilitate the Arena's construction, (installed 6 bioretention basins and 5 bioswales).

Rainwater is also harvested, contained in cisterns, and then reused for irrigation purposes at 4 locations, including the Dealey Center for New Media (DMC), the Student Activity Center (SAC), the Facilities Complex (FC8) and DMS. These four locations used over 2,000,000 gallons of rainwater and reclaimed water for irrigation.

Table 2 - MCM 2 Activity Summary

ВМР	2022-2023 Progress
New Development/Redevelopment	1 construction project reviewed during the monitoring period is incorporating permanent BMPs to minimize storm water pollution.
Comprehensive Master Plan	EHS implemented the design and construction standard for stormwater management.
Regulatory Mechanism	EHS performed monthly inspections at all 7 active construction sites with outdoor disturbance > 1 acre, and spot inspections at numerous sites with disturbance < 1 acre.
Flood Control Projects	2 applicable construction projects were in the process of incorporating flood control structures during the monitoring period (includes design, construction, and completion). They will be maintained by FS- LS and UEM.

#### C. Illicit Discharge Detection and Elimination

# 1. <u>Illicit and Allowable Discharges</u>

The University of Texas at Austin EHS monitors all storm water regulated activities, and with the exception of the following discharges, any activity necessitating a discharge to the MS4 is reviewed and approved by EHS. The University maintains an online Discharge Request system for all batch discharges of water to the sanitary and/or storm sewer systems on Main campus and Pickle Research Campuses. During the reporting period EHS reviewed 21 sanitary sewer discharge requests and 45 storm sewer discharge requests to ensure permit compliance.

# Allowable non-storm water discharges on the UT Austin Campus

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground water
- Uncontaminated ground water infiltration
- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensate
- Irrigation water
- Springs Water from crawl space pumps
- Lawn Footing drains
- watering
- Street wash water
- Individual residential vehicle washing

- Flows from riparian habitats and wetlands
- Dechlorinated swimming pool discharges
- Wash waters using only potable water, and which are similar in quality and character to street wash water or individual residential vehicle washing but without the use of detergents or surfactants
- Other allowable non-stormwater discharges listed in 40 CFR §122.26(d)(2)(iv)(B)(1)
- Other allowable non-stormwater discharges listed in the TPDES Construction General Permit No. TXR150000 and TPDES Multi-Sector General Permit No. TXR050000
- Other similar occasional incidental nonstormwater discharges

# 2. <u>Detection and Elimination of Illicit Discharges</u>

In addition to reported suspected illicit discharges, dry weather field screening is one of the primary tools used to identify illicit discharges to the MS4. Dry weather field screening of all outfalls is required once every 5 years under the TPDES permit. During the reporting period, EHS monitored all 18 major outfalls larger than 36 inches and sampled four of them to analyze for sanitary characteristics. An additional 25 percent of all outfalls draining university property were monitored, none required sampling to analyze for sanitary characteristics. See Part One (1) of Section H, Monitoring, Evaluation, and Reporting, for additional details.

#### 3. Evaluate and Update the List of Priority Areas

UT Austin maintains a list of priority areas that could potentially be a source of illicit discharges. EHS works closely with the operators of those areas and inspects them to ensure that the materials are stored correctly. Modifications are made as needed to prevent illicit discharges from these areas. The list of these areas may be found in Section D.6 of this report.

#### 4. Overflows and Infiltration:

UT Austin continues to minimize or prevent overflows and infiltrations from the sanitary sewer into the MS4 through regular maintenance of sanitary sewer lines. UEM reports on repairs, maintenance, and inspections annually, as described below. In their effort to fully inspect and maintain the sewer system every permit term, UEM hired a third party who completed an inspection of the entire sanitary sewer system in March 2021. In addition, a water quality incident response Standard Operating Procedure (SOP) between UEM and EHS was finalized in May of 2021. This SOP outlines departmental responsibilities for responses to water and wastewater emergencies such as spills and leaks.

- Sanitary sewer piping; approximately 1,020 hours were expended for installation, repair, and maintenance.
- Dedicated equipment and materials are used to help respond quickly and effectively to sanitary sewer overflows. These materials include pneumatic test plugs and absorbent rolls and pads.
- In this reporting period, 23,000 linear feet of sanitary and storm sewer laterals were cleaned and/or repaired by UEM staff.
- Inspection and cleaning of grease traps by licensed contractors is performed on a

regular basis. In addition, a preventative maintenance inspection schedule is used for grease traps in accordance with local permit requirements. During this reporting period, the state approved contractor used by UT pumped approximately 475,262 gallons of waste grease and water from grease traps.

#### 5. Household Hazardous Waste and Used Motor Vehicle Fluids

UT Austin prohibits the discharge or disposal of used motor vehicle fluids and household hazardous wastes into the MS4. Not being a municipality, the University cannot sponsor a Household Hazardous Waste collection and disposal program. However, campus residents can utilize the City of Austin's Household Hazardous Waste program since the campus is wholly within the City's boundaries. UT Austin has had programs in place to properly generate, store, and utilize third party recycling and disposal contractors for all of the hazardous wastes that are generated from University Operations since the original SWMP was developed. The University generated spent cleaning chemicals, surface coating products and other wastes that might often be considered household hazardous waste but are disposed of with other chemical wastes generated on campus. See Part Three (3) of the following section, Pollution Prevention/Good Housekeeping for University Operations, for details on the volumes of disposed hazardous waste.

# 6. MS4 Screening and Illicit Discharge Inspections

See Part Two (2) of this section for details on the Illicit Discharge Screening and Inspection.

#### 7. NPDES and TPDES Permittee List

During the reporting period, EHS reviewed notices to proceed (NTP) for 162 projects to monitor for potential sources of illicit discharges. UT Austin had 7 active construction projects on campus during the reporting period: the Basketball Rowing Practice Facility, the Red River Realignment, Blanton Museum ground improvements, Facilities Complex, Graduate Student Housing, the Leona Child Development Center, and the Brackenridge Apartments. Of those, two projects, Red River Realignment (TXR1540BV) and Graduate Student Housing (TXR1517IS), were five acres or greater in size.

#### 8. <u>MS4 Map</u>

The University of Texas at Austin EHS works closely with UEM to maintain the MS4 map in accordance with TPDES requirements. The base map utilized is the existing storm water utility map which shows receiving waters and MS4 outfalls. The source information used to originally develop the map(s) included utility composites and area drainage maps, as well as field reconnaissance to verify outfalls. The MS4 map is updated as needed to capture changes within the MS4 based on demolition or new construction within the MS4 boundaries. The most recent map revision was in fall of 2023, with the application for an MS4 permit renewal.

#### 9. Spill Prevention and Response

The University has a spill prevention and response program coordinated through EHS. The University has staff that respond to both hazardous materials spills, and spills that threaten the storm sewer system or Waller Creek. University policy prohibits any discharge to surface water of any substance that could or does cause pollution to surface waters. The University has the means to respond 24 hours a day, 7 days a week to spills on its properties that threaten or impact surface water quality.

Staff members coordinate response and clean-up activities with appropriate state and local governmental offices and ensure that any necessary corrective action is taken. The University maintains a well-stocked equipment and materials cache for mitigating and abating spills that threaten or have impacted surface waters. During the 2022-2023

reporting year, EHS responded to nine spills, one sanitary sewer overflow, and three water line breaks which were all resolved (13 total responses). In addition, EHS investigated two reports of water quality issues on Waller Creek. Three Illicit discharges to storm drains were investigated.

EHS uses an internal reporting system that documents the specific activities of the storm water program. This internal reporting system allows storm water related incident responses to be tracked more efficiently and allows management to identify where storm water needs exist. The reporting system also provides a history of activities devoted to managing storm water activities. The activities are divided into categories called incidents, investigations, routine inspections, and consultations.

Descriptions of the activities are as follows:

- Incidents are situations that involve a spill or discharge that either has an impact
  on storm water quality or threatens storm water quality. These situations require
  an immediate response and resolution, though the resolution may or may not
  require a spill cleanup. Incident responses also include the response to situations
  that have no storm water impact, such as green dye in the creek, but which would
  require an immediate response if the incident involved a pollutant.
- Investigations are of situations that are suspected to have an impact on storm
  water quality, but an investigation must be started to assess the situation. These
  situations require an immediate response but the resolution may require further
  action or research, including coordination with other campus departments for
  resolution.
- Inspections are routine assessments required by the SWMP such as unannounced reviews of construction phase controls.
- Consultations are situations where EHS is requested to review the selection, design, implementation, and/or maintenance of BMPs used on construction projects or during campus activities that may have an impact to storm water quality. This is to ensure that the projects will include BMPs for sediment control around construction, proper waste disposal for chemicals and to communicate environmental requirements to contractors planning to work on campus.

UHD uses spill prevention in the form of absorbents and the use of vacuum booms. UHD workers, especially ones that work around loading docks, are trained on storm water issues and procedures. In addition, the UHD workers have been trained to monitor grease trap conditions. UHD and FS staff have been trained to report any illegal or inappropriate spills that enter the storm drains to their supervisors and then to EHS. The University also manages and annually updates a Spill Prevention Control and Countermeasure (SPCC) program to minimize pollutants from UST/AST facilities and areas with bulk oil storage. The plans were updated in November 2022.

Table 3 – MCM 3 Activity Summary

ВМР	2022-2023 Progress
Monitor permitted discharges	EHS staff reviewed NTPs for 162 projects and monitored 7 sites with SWPPPs
Monitor non-storm water discharges	EHS responded to 3 potential illicit discharges, which was a potential concern reported by the campus community
Maintain online discharge request system	EHS reviewed 21 sanitary sewer discharge requests and 45 storm sewer discharge requests
Maintain sanitary sewer system	UEM hired a third party who completed a complete inspection of the sanitary sewer system in March 2021.
Grease trap service/maintenance	University owned grease traps were serviced 224 times and a total of 475,262 gallons of waste grease and water was removed from those traps
Spill response program	EHS responded to 9 spills, 1 SSOs, and 3 waterline breaks
Collect and properly dispose of wastes	EHS disposed of 221,888 pounds of hazardous waste and 14,995 pounds of biological waste. EHS recycled 0 gallons of used oil and 32,395 pounds of lead acid batteries.
Dry weather screening	EHS sampled 4 outfalls to analyze for sanitary characteristics
Maintain and update MS4 map	The most recent map revision was in fall 2023
Maintain SPCC plans for USTs and ASTs	The Main Campus and PRC SPCC plans were updated in November 2022.

#### D. Pollution Prevention / Good Housekeeping Measures

#### 1. Pollution Prevention / Good Housekeeping program

As part of the process of updating the UT Austin SWMP in 2011 this MCM was developed and implemented. EHS investigated university operation storage yards on Main and PRC campuses to identify those with a potential to contribute pollutants to storm water runoff. EHS works with the responsible departments to develop best management practices to minimize storm water impacts. There are ten exterior material storage areas involved with University Operations. Those departments responsible for the areas are encouraged to implement the following best management practices in an attempt to comply with this permit condition:

- Storing only essential items necessary for the work that is performed by the department to reduce the volume of exposed materials.
- Storing materials away from storm drains as much as possible, and protecting receiving storm drain(s) with diversion structures or other BMPs to minimize pollutant transport.
- Whenever possible, covering materials or equipment either with permanent structures or temporary tarps.
- Storing materials off the ground on racks, pallets, or other means to minimize contact with storm water runoff.
- Regular sweeping of impervious cover in areas where aggregate or other materials easily transported to storm drains by storm water runoff sheet flow.
- Proper maintenance of oil containing vehicles and equipment to protect impervious cover from leaks of oil and fuel. Equipment and vehicles with known leaks are repaired as quickly as possible and shall utilize drip pans or oil absorbent pads under the equipment when parked to capture leaks prior to staining the ground.

#### 2. Structural Control Maintenance

Elements of the structural control maintenance program were discussed in Section I of this report under the MS4 Maintenance Activities. Elements of the inspection and maintenance programs for the reporting year include:

- Open channels During the reporting period, open channels on Main Campus, PRC, Whitaker Fields, and two University apartment properties were inspected as part of the Open Channel Inspection Program. Unacceptable conditions were reported as needed to the appropriate department for corrective action.
- Open channel restrictions during the reporting period, open channel restrictions were inspected on a quarterly basis.
- Storm water mains Visually surveyed during routine maintenance.
- Storm water inlets Visually surveyed during inlet clean outs.
- Storm water outfalls Dry weather flows from identified major outfalls and the final 25% of all outfalls draining university property were sampled as required in July of 2023.
- Suspect segments of mains UEM owns a sewer rig to videotape suspected segments of sanitary sewer lines that may contribute to ground water infiltration. UEM, as part of their Preventative Maintenance Initiative, camera inspected approximately 15 linear feet of sanitary and storm sewer laterals and mains, and an additional 3,360 LF of sanitary, and 2,000 LF of storm were camera inspected by a third party. During this reporting year 23,000 feet of sanitary and storm sewer laterals and mains were cleaned and/or maintained reducing the likelihood of backups or overflows. In addition, 15 sanitary manholes were rehabilitated with 521 SF of cementitious lining, and 1,457 SF of epoxy liners installed.

#### Waste Handling

#### Hazardous Waste Materials

UT Austin is a generator of hazardous wastes and maintains multiple EPA ID numbers. UT Austin maintains a hazardous waste accumulation facility at Main Campus and at PRC. The hazardous waste accumulation facilities are secured, limited access buildings. These facilities are operated as 90-day accumulation facilities consistent with UT Austin's status as a large quantity generator. The hazardous waste management program is publicized to University departments through training workshops. In addition, Hazardous Material Specialists attend both semi-annual and as-needed individual meetings with lab and building managers to discuss safe practices and receive feedback on how to improve the process. Hazardous wastes are picked up from the point of generation and transported to the accumulation facilities by the EHS Hazardous Waste Team. The materials are accumulated at these facilities for a period of no more than 90 days, then removed and disposed of by a contracted hazardous waste disposal company. UT Austin employs full-time Hazardous Materials Specialists in the task of hazardous waste pickup and transport. They are trained and experienced in the proper handling of hazardous wastes and hazardous waste containers and have attended at least 24 hours of Hazardous Materials Emergency Response training. To protect themselves and the environment from chemical exposure, they inspect each container at the point of generation to ensure that its integrity is not compromised. If there is a release of hazardous materials during transport, the Hazardous Materials Specialists have access to spill response supplies (e.g. hydrophilic and hydrophobic absorbents, boom and dike materials, and bioremediation supplies), which reduce the risk of introducing hazardous materials to the storm water system. UT Austin employees transport these wastes only within the UT Austin property where the waste was generated. The accumulation facilities are inspected on a weekly basis by a Hazardous Materials Specialist. All hazardous waste containers are inspected to ensure that proper labeling requirements are met, that containers are tightly sealed, and that no containers are leaking. Over the course of the 2022-2023 reporting year, 221,888 pounds of hazardous waste and an additional 14,995 pounds of biological waste were collected and properly disposed of. The hazardous waste department also facilitated the recycling of 32.395 pounds of lead acid batteries and zero gallons of used oil (waste oil was collected but not disposed of during this reporting period).

# Recycling Programs

Recycling and composting are a significant part of the anti-litter effort at UT Austin. There are several recycling programs across campus. Texas Disposal Systems is the waste, recycling, and composting management partner for Texas Athletics. During this reporting period approximately 210 tons of recycling and approximately 96 tons of compostable materials were collected on game days.

The UT Office of Sustainability continues to manage the Green Offices program. The Green Offices program promotes waste reduction and recycling to UT faculty and staff through consultations and points-based certifications. UT EHS directs the Green Labs program, which helps researchers to recycle and reuse their materials. The Green Labs program provides expanded polystyrene (Styrofoam), plastic wrap, cold pack, and nitrile glove recycling for campus laboratories. In 2022-2023, Green Labs program recycled approximately 1,247 pounds of expanded polystyrene/polyethylene, 458 pounds of film plastic, 6,178 pounds of cold packs, 100 pounds of single-use batteries, and 532 pounds of nitrile gloves from labs across campus. Green Labs also holds Lab Supply Swaps in which researchers can donate lab consumables they no longer need. Items are then rehomed to researchers on campus. In 2022-2023 over 940 pounds of lab consumables were rehomed through Green Labs. Lastly, Green Labs has a Surplus Chemical Redistribution program. Labs can donate chemicals they no longer need to Green Labs to be rehomed to other researchers instead of disposing of the chemicals as hazardous waste. Currently, Green Labs has over 200 chemicals in their surplus inventory.

The UT Campus Environmental Center, a student organization sponsored by the Office of Sustainability, manages multiple waste-related programs. The Trash to Treasure program collects donated clothing, household goods, food, and other items from the UT residence halls at the end of each academic year. Nearly all items are diverted from landfill through resale, donation, or recycling. Thousands of pounds of materials are diverted each year through the Trash to Treasure program.

The Trash to Treasure program collected 3,379 pounds of clothing, home goods, and bedding from several on-campus residence halls. This includes food which was donated to the UT Outpost. The Green Events program aids other student organizations in hosting zero waste events through proper recycling and composting. The Green Greeks program promotes proper recycling and composting in the Greek-life community. The Campus Environmental Center also hosts a range of educational events for students including workshops on zero waste living.

The University also has a landscape recycling program run by its FS-LS, through which approximately 150 cubic yards of brush andtree limbs\ on the Main and PRC campuses were recycled (composted or reused as mulch). This material is converted into mulch and used on campus shrub beds and other landscaped areas in order to reduce water use and weed growth. An estimated 80 cubic yards of leaves were added to campus managed compost piles. Tree trimming and dangerous tree removal from Waller Creek also continued during this reporting period and any removed trees were shredded for mulch use. Campus food service compost operations have scaled back in recent years due to various factors but are in the process of re-establishing. FS maintains approximately 226 96-and 64-gallon compost totes for collection and has composted approximately 80 tons which includes materials such as animal bedding, paper towels, breakroom food scraps and University Unions and UHD food prep waste. FS-LS diverted approximately 6 tons of coffee grounds from coffee shops throughout campus. The AT&T Conference Center operates compost collection from their lodging and event space. In FY 2022-2023 approximately 98 tons were collected for composting.

The University continues to operate a single stream recycling program. Containers are located both inside and outside campus buildings. Approximately 417 dumpsters and 96-gallon recycling containers are maintained by the Solid Waste and Recycling department to collect recyclables from buildings. Outdoor bins have gone through an extensive update and every outdoor landfill bin is now co-located with a single stream recycling bin. Inside campus buildings, all offices have a personal recycling bin and larger recycling bins are available in common areas and hallways. The University recycling programs have proven to be very successful, recycling approximately 276 tons of single stream recycling (plastics, paper, cardboard, glass and aluminum) in FY 2022-2023. The University continually strives to reduce paper consumption, including by moving many paper-based processes to electronic systems such as digital timesheets and document signing.

FS - Resource Recovery also restarted campus-wide single-use alkaline battery recycling, partnering with three campus buildings to serve as drop-off locations one day each term. Approximately 1,175 pounds of batteries were collected, 1,608 pounds were recycled as single-use alkaline and the remaining were properly passed to Environmental Health and Safety for proper disposal.

The University has an active material reuse program operated by the Surplus Property section. Furniture, computers, electronic equipment, and all other property assets are sent to a surplus property warehouse where those materials can be reused by other university departments on a first-come, first-served basis. Materials that do not find an alternative use on campus or at a Texas school district are auctioned. Items that do not sell in an auction are donated. In FY 2022– 2023, approximately 39 tons of materials were donated to assistance organizations and Texas school districts. Additionally, the General Services Division's Automotive Shop recycles cleaning solvents, used engine oil, freon, batteries, car parts, tires, and windshield glass.

Table 4 – Indirect Measures as Indicators of Expected Pollutant Reductions

Program Measure	Pollutant Reduction
Hazardous Waste Disposed	221,888 pounds
Biological Waste Disposed	14, 995 pounds
Material collected from storm curb inlets	9,000 pounds (UEM), 2.7 cubic yards (FS-LS)
Litter and trash from outside trash	390 cubic yards (FS-LS) and
cans	5,900 pounds (UHD)
Landscape waste composted or	150 cubic yards (FS-LS)
reused as mulch	
Single stream recycling	276 tons
Floatable monitoring Stations	4 cubic yards debris removed
collections	•
Waller Creek Clean-up (trash	926 pounds trash/bulky items and
removed from creek)	recyclables

# 4. Pesticide, Herbicide, and Fertilizer Application

The Pesticide and Fertilizer Management Program was implemented during the original SWMP development in November of 2000 and includes:

- All University departments or offices with employees that apply pesticides and fertilizers on UT properties were identified in the program development. Three departments use pesticides and fertilizers outside and one department uses pesticides indoors. Combined these three departments applied approximately 211 pounds (includes 11 pounds of granular fire ant bait and fungicide) and 229 gallons (organics and synthetic products with EPA labels) of pesticides and herbicides. The primary applicator of fertilizer for UT Austin is FS-LS, followed by the Athletics department. FS-LS has moved to a more organic alternative to conventional fertilizer, using humate soil amendments. During the reporting year 4,850 pounds of the soil amendment was incorporated into the soil by FS-LS. Athletics used approximately 130 gallons and 12,000 pounds of fertilizer, 4,000 pounds of which were also the organic soil amendment. In addition, 2,000 gallons of compost tea was produced and applied by the landscaping team at the Dell Medical School campus.
- Only individuals trained according to the Texas Department of Agriculture criteria apply
  pesticides. Employees who apply pesticides are supervised by an individual licensed by the
  Texas Department of Agriculture (TDA). In addition, the licensed employees are required to
  maintain training meeting TDA's criteria. Over the reporting year employees in the
  Landscaping, Housing and Dining, and Athletics departments received a combined 84 hours
  of training as required by TDA.
- Sod usage is specified rather than seed for disturbed areas associated with construction sites, to the maximum extent practicable. In addition, specifications requiring sod rather than seed are incorporated in the University's Design and Construction Standards. These standards are utilized for planning and design of new buildings and significant renovation projects.
- Lady Bird Lake (LBL) was 303(d) listed for excessive algal growth and does not have an approved TMDL. The Brackenridge Tract (which includes the Brackenridge Field Lab, and the Brackenridge and Colorado Apartments) discharges directly to LBL. No pollutants of concern such as fertilizers, pesticides or herbicides are used or generated on the Brackenridge tract. All grass trimmings and leaves are mulched when mowed.

# 5. Training

The University provides training to ensure that UT staff are aware of the potential pollutants and good housekeeping practices necessary to minimize the impact of their activities on stormwater runoff. EHS staff delivered multiple training sessions during the reporting period, including the

topics of stormwater pollution prevention on construction sites and oil spill prevention. As a supplement to the training, EHS staff also distributes a quick reference guide to construction teams to aid in compliance. Our website was revamped to ensure all relevant information related to stormwater was easily accessible. For more on education and training for construction site operators see Part 3 of Section F. Additional training and educational opportunities are also discussed in Part 1 of Section G.

#### 6. <u>List of University Facilities</u>

The following list of areas in Table 5 were identified during the implementation of this MCM. The departments responsible for the areas were made aware of the good housekeeping requirements, and recommendations were made as identified in the SWMP. EHS personnel monitor locations informally and contact department management if items are identified as a storm water concern. This list is dynamic and will change as the campuses evolve with future redevelopment projects and departmental changes. The University also reaches out to relevant departments annually to ensure the list is accurate.

Table 5 – Areas included in University Operations Good Housekeeping Program

<u>Main Campus:</u>				
Building	<u>Location</u>	Inventory (exposed)	Level of concern 0-4	Responsible Department
		Scrap metal dumpster	2	PDC
	West side of	Wet saw area	2	PDC
FC1	West side of Facilities Complex	Sand/concrete waste area	3	PDC
	T dominos Compiox	Stone/aggregate storage area	1	PDC
		Concrete blocks/bricks on pallets	0	PDC
	0 ( )   11   11   1	Carts	0	PDC
FC4	Central building in Facilities Complex	Hydraulic equipment	1	PDC
	T domined Complex	Scrap metal	3	PDC
		Mulch piles	1	FS-LS
	Northwest corner	Topsoil storage	1	FS-LS
FC8	of Facilities	Sand storage	1	FS-LS
	Complex	Brush piles	0	FS-LS
		Fertilizer application tanks	3	FS-LS
	20 <sup>th</sup> Street between Comal St. and Leona St.	Leaf Piles	0	FS-LS
East Campus		Staged soil, gravel, and sand piles	1	UEM
DMS	Southwest corner of Trinity Garage	Compost Piles	2	FS-LS
PRC:				
Construction Bullpen	Southwest corner of campus	Outside storage yard with revolving miscellaneous items	1	FS-LS
PRC Campus	Northwest corner of campus	Staged soil and mulch piles	1	FS-LS
		Storage yard for Electrical Dist.	1	UEM
ETS 188	Adjacent to	Cable rolls for Electrical Dist.	0	UEM
E13 100	Surplus	Piping for Mechanical Dist.	1	UEM
		Transformers for Electrical Dist.	2	UEM
135/136	Fleet Maintenance/ SE Corner	vehicles/equipment	2	FS-FOM, FS- LS, PTS
P45	Surplus Property, Northwest of campus	Outside storage yard with surplus materials	1	FS-RR

\*Level of concern: 0= None, 1= Slight, 2= Moderate, 3= Significant, 4= Severe

Table 6 - MCM 4 Activity Summary

ВМР	2022-2023 Progress
Inventory	PRC locations were inspected on January 3, 2023 and Main Campus locations were inspected on December 7, 2022.
Training	EHS staff delivered training sessions on storm water pollution prevention on construction sites and oil spill prevention on campus.

# E. Industrial and High-Risk Runoff

UT Austin does not operate industrial & high-risk facilities as defined by 40 CFR 122.26(d) (2) (iv) (C). On the properties covered by this permit, UT Austin does not own or operate a municipal landfill, hazardous waste treatment, disposal and recovery facilities, or industrial facilities that are subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). Further, UT Austin has not identified any industrial facilities on its properties that contribute a substantial pollutant loading to the storm sewer system.

#### F. Construction Site Storm Water Runoff

UT Austin has maintained a construction storm water program since the SWMP was implemented during the first permitting period. The following control measures were implemented during that period and will continue to be mandatory for all construction activities occurring on the sites covered under the UT Austin MS4 permit.

#### 1. Requirements for Structural and Non-Structural Best Management Practices (BMPs)

UT Austin has created Design and Construction Standard documents for all new development and significant redevelopment that is administered by Campus Planning and Project Management.

Section 01 57 23: Temporary Storm Water Pollution Control is the segment of the standards that is utilized to reduce pollution and sediment loading from construction sites. This section includes BMP selection, maintenance, and inspection criteria and references the City of Austin's Drainage Criteria Manual, and Environmental Criteria Manual. These references provide information on permanent and temporary controls. It was combined with the similar standard (01 57 13) previously utilized by UT System's OFPC, which is now UT Austin's CPC. The 01 57 23 Temporary Storm Water Pollution Control Standard was modified to be more comprehensive during this reporting year as part of the ongoing standards review and update process. The updated version was published in January of 2020.

Similar to a recommendation by the Sustainable Sites Initiative to ensure soil vegetation and soil protection before and during construction, Tree Protection Zones (TPZ) were designated and communicated by FS-LS to the project team and contractors. Tree protection areas that preserved soils were implemented at six sites during the reporting period for a total of approximately 27,950 square feet.

- Gary L. Thomas Energy Engineering Building: 8 mature trees for a total of approximately 6,000 square feet
- Moody Arena: 3 trees preserved on site, and 6 trees transplanted for a total of approximately 8,100 square feet
- Graduate Student Housing: 1 mature tree for a total of approximately 850 square feet
- BTL/WMB: 2 mature trees for a total of approximately 2,000 square feet
- Leona Child Development Center: 3 mature trees for a total of approximately 3,000 square feet
- Red River Realignment: 10 to 12 medium trees for a total of approximately 8,000 square feet

#### 2. Inspection of Construction Sites and Enforcement Requirements

Site inspections are conducted regularly by Planning, Design and Construction and by EHS staff members to monitor construction sites for construction phase controls and housekeeping issues.

- Construction coordinators working for Planning, Design and Construction performed weekly site observations that incorporate storm water issues.
- CPC performed storm water inspections weekly with additional post 0.5" rain event inspections as needed.
- EHS conducted monthly storm water inspections of exterior construction projects across campus. During this reporting period, 86 inspections were conducted by EHS within the MS4 boundaries. Although not a part of UT's MS4 boundaries, an additional 24 inspections were conducted at the Marine Science Institute in Port Aransas, and 3 inspections were conducted to finish out construction on a new HEB at Exposition Blvd (as due diligence towards City of Austin's MS4.)
- A list of specific BMPs in use was maintained for the 7 active construction sites with outdoor disturbance > 1 acre based on EHS observations during site inspections. BMP types included: three variations of stabilized construction exit, perimeter controls such as silt fences, tri-dikes, and erosion eels, and three different dewatering methods.

A new best management practice included in the University's SWMP describes the implementation of a new "SWPPPerstar Award" program. Once per year, this program is to reward the most compliant construction site during the preceding 12-month period. Recipients are chosen based on criteria pertaining to erosion control and storm water pollution minimization goals. EHS presented the following awards in July 2023:

- Felix Galaviz, OCC for being supportive in the implementation of the UT Austin Stormwater Program at the Facilities Complex 4 Renovation
- Ross Seger, contractor for maintaining exemplary site Best Management Practices at the Graduate Student Housing project

Enforcement by construction coordinators for new development and redevelopment projects consist of re-inspections of noted problems and deficiencies, and notification up the contractor's chain of command and the project manager if problems are not quickly resolved. Procedures are established and modified as necessary to assure quick, effective response to storm water incidents that occurred. There were no "cease and desist" notifications. The emergency response on-call system continued to provide response for activities that could run the risk of entering the UT storm sewer system at major construction sites. The on-call system updated names of key inspectors of each site, their office, and cell phone number and as on-call for spill response emergencies. The system allows quicker response to halt the activity creating a possible environmental impact and initiate corrective action response.

During this reporting period, the program included:

- Inspection of construction sites by Planning, Design and Construction Administrators, UEM inspectors and EHS Inspectors;
- Use of Structural and Non-Structural BMPs on construction sites and for activities such as pressure washing and pavement washing to prevent pollutants from entering storm drains;
- Announced and unannounced spot inspections by EHS staff to monitor construction sites for construction phase controls and housekeeping issues;
- The Director of EHS, did not have to use the authority to issue a stop-work order for failure to implement or maintain BMPs on construction sites;
- Distribution of the document "Construction Site Procedures for Contractors" to

- construction site contractors and inspectors prior to construction activities that might threaten storm water.
- Construction design reviews at 55%, 75%, and 95% completion along with a series of plan review meetings with the CPC group, and contractor representatives attempt to ensure that the elements of the Design and Construction criteria are met.
- Notification to Construction Coordinators and contractors about storm water responsibilities during pre-bid and pre-construction meetings.
- Implementation of EHS programs and resources to support construction activities with consultations, inspections, investigations, and incident response.

#### 3. Education and Training for Construction Site Operators

EHS provides briefs and training workshops as requested to UT Austin construction inspectors and coordinators to familiarize them with construction site pollution control BMPs and other SWMP requirements. The policy document *University Construction Site Procedures for Contractors* is distributed to construction site superintendents or project managers prior to initiation of the project. In August of 2023, the procedures were sent to all 15 businesses holding job order contracts for acknowledgement. For other businesses not on standing contracts, EHS confirmed that the document is sent out with every contract. Planning, Design and Construction issues new contractors a *Contractors Handbook* that includes several environmental topics with protection of storm water as a recurring topic. During the period of this annual report, EHS held a SWPPP training session attended by 47 representatives from OCC, UHD, and UEM covering construction storm water requirements and the UT Austin specific process.

# 4. Notification of Requirements to Construction Site Operators

In addition to references to this SWMP in the construction standards manual, UT Austin Design and Construction Standards, and *University Construction Site Procedures for Contractors*, pre-bid and pre-construction review meetings also provide an opportunity to notify construction site operators of their responsibilities to control construction phase storm water runoff. Comments regarding erosion control and other storm water compliance goals are also included during pre-planning meetings and detailed technical review of construction documents. During the monitoring period, comments on storm water management and temporary erosion and sediment control for construction were included during the review period for 118 projects.

#### 5. List of Construction Sites

Construction runoff control procedures were required on all construction projects during the reporting year. Several exterior projects were executed and required more extensive storm water controls. Table 7 indicates the list of Capital Improvement Projects undertaken by UT Austin Planning, Design and Construction during the reporting period. Exterior projects with a smaller scope are completed by Planning, Design and Construction/FS and are listed in Table 8.

Table 7 - Planning, Design and Construction Large Projects for 2022-2023

Building/Project Name	Scope	Timeframe	TPDES#
Sarah M. & Charles E. Seay Building			
Addition	New Building Addition	11/19/19-6/7/23	
Texas Athletics Basketball & Rowing			
Training Facility	New Construction	8/28/20-10/30/24	
Engineering Discovery Building (Service	Demoltion and New		
Building Demo)	Construction	10/9/23-6/13/26	TXR1543OH
Library Storage Facility Phase IV	New Construction	9/1/23-2/27/25	
Microelectronic and Engineering Research			
Center Cleanroom Expansion	New Building Addition	8/24/22-7/15/25	
Erwin Center Demolition	Demolition	10/2/23-10/15/24	
	Renovation / New		
NHB New MRI Unit	Construction	1/5/23-8/1/23	
Red River Realignment	New Construction	4/15/2020-1/25/23	TXR1540BV
Graduate Student Housing Private			
Partnership)	New Constuction	4/14/22-6/14/24	TXR1517IS

Table 8 - Planning, Design and Construction Small Projects and Facilities Services Projects for 2022-2023

Building/Project Name	Scope	Timeframe	TPDES#
Blanton Museum Ground Improvements	Renovation	8/11/21-5/3/23	
FC4	New Construction	9/9/22-5/10/23	
BRK Apartments Ph. 13	Renovation	2/10/23-6/6/23	
	Minimal Outdoor	04 Nov. 00	
ETC: ROOFING PROJECT	Disturbance	04-Nov-22	
MSH: BRK PHASE 13 HVAC AND	Minimal Outdoor	00 Nov 22	
BUILDING IMPROVEMENTS	Disturbance	09-Nov-22	
JWC: PERIMETER SECURITY FENCING	Disturbance	20-Dec-22	
	Minimal Outdoor	00 Dec 00	
BE2: ROOFING PROJECT	Disturbance	22-Dec-22	
STD: CHANGE STD FIELD LIGHTS TO	Minimal Outdoor	00 Mar 00	
LED	Disturbance	06-Mar-23	
BEL: Bellmont Infrastructure and Envelope	Minimal Outdoor	44 Apr 22	
Replacement	Disturbance	11-Apr-23	
	Minimal Outdoor	40 1.1 00	
MNC: L2 RENOVATION	Disturbance	10-Jul-23	

#### 6. Site Plan Review

Provisions that required construction site operators to implement erosion and sediment control BMPs to minimize pollutants from leaving construction sites and entering the UT Austin MS4 were implemented as an element of the original SWMP implementation in 2000.

UT Austin continues to require the installation of BMPs on all construction sites with soil disturbance. The UT Austin Design and Construction Standard 01 57 23 for Temporary Storm Water Pollution Control provides details of the requirements. Construction design reviews at 55%, 75%, and 95% completion along with a series of plan review meetings with the Planning, Design and Construction groups, and contractor representatives attempt to ensure that the elements of the Design and Construction criteria are met. Through construction plan review, site investigation, and responses to calls received, EHS representatives ensure that BMPs are installed and maintained according to TPDES, and UT

Austin Construction Standards.

Proposed projects are also required to take steps to improve water quality when feasible. During this reporting period, EHS worked with the design team of a new engineering building, the Engineering Discovery Building. Preliminary plans include innovative landscaping features that act as water quality devices, cisterns, and pervious paver systems.

Table 9 - MCM 6 Activity Summary

BMP	2022-2023 Progress
Implement an awards program for construction sites	EHS implemented the SWPPPerstar Award in November 2020 for contributing to the University's stormwater compliance goals.
Require installation of phase control BMPs for active construction sites	Erosion control and stormwater compliance goals were included in comments during the revision of 118 projects.
Require the designation of tree protection zones	TPZ were designated at six construction projects for a total of 27,950 square feet of preserved soils.
Inspection of construction sites for compliance with phase control installation and maintenance	EHS performed 86 monthly inspections of exterior projects within the MS4 boundaries.
Maintain and distribute developed guidance documents	The procedures are distributed to all contractors performing construction on UT Austin campuses.
Include water quality impacts of construction projects	During this reporting period, 2 applicable projects are incorporating water quality improvement infrastructure.
Maintain list of permitted construction sites	EHS maintained a list of all permitted construction sites, 7 sites were identified as requiring storm water controls.
Maintain list of BMPs installed at construction sites	A list of specific BMPs in use was maintained for the 7 active construction sites with outdoor disturbance > 1 acre.

#### G. Public Education and Outreach / Public Involvement and Participation

#### 1. Public Education

An environmental reporting line has been established at UT EHS. The phone number (512) 471-3511 is manned from 8 AM - 5 PM on weekdays. After hours, this number has a message that directs callers to the University Police Department (UTPD) 911 for pollution issues. UTPD has the EHS on-call phone number. On-call personnel are trained to respond to incidents and to bring in additional resource personnel when necessary. This phone number is advertised in university publications, such as the Daily Texan newspaper, and on the Environmental Health and Safety website: <a href="http://www.ehs.utexas.edu/">http://www.ehs.utexas.edu/</a>. EHS maintains a pollution hotline and responds to calls from the concerned public.

EHS published one quarter-page advertisement in the Daily Texan, (the University newspaper with a readership of 32,000 students, faculty, staff, and local residents) in the fall of 2022 and operated a booth during UT Marketplace to promote public awareness of storm water.

Additionally, EHS participated in several outreach events:

- EHS staff participated in tabling events including the Sustainability Fair (10/22) Earth Day (4/23), and UT Marketplace (9/22)
- Environmental Programs staff worked closely with the Environmental Communications class to improve awareness about pollution on campus; EHS

- funded T-Shirts and other merchandise to promote the class's "Longhorns Don't Litter" campaign. The class helped create and install custom storm drain labels, created a website, and tabled at a football game to encourage anti-littering behavior.
- ➤ The EHS' Lavatory Safety Bulletin (379 signs posted in restroom stalls throughout Main campus) included information related to trash impacts on Waller Creek, opportunities to clean-up Waller Creek and acknowledgement of the efforts of the Longhorns Don't Litter Campaign

In addition, EHS shares informative posts and educational articles, and promotes outreach events through the UT EHS social media accounts (Facebook and Twitter). Throughout the 2022-2023 reporting period, EHS published 26 Facebook and Twitter posts related to the elements of the stormwater management program. Combined these posts were viewed by 10,226 people and elicited over 250 reactions.

Table 10- Storm Water Outreach Articles Published for 2022-2023

Table 10 Otolin Water Odireach Articles I abilistica for 2022 2020		
Date of Advertisement:	Topics covered:	
September 21st, 2022	Daily Texan-UT Market	

The University also maintains a Pollution Prevention web page: <a href="http://ehs.utexas.edu/programs/watermanagement/pollution-prevention.php">http://ehs.utexas.edu/programs/watermanagement/pollution-prevention.php</a> that is located on the EHS website.

The University provides a number of training and educational opportunities to increase the awareness of environmental and storm water issues to the University community. Elements of the program for this reporting year included:

- Maintained recycling website on the University Facilities Services website at http://facilitiesservices.utexas.edu/divisions/support/recycling-waste.php
- Maintained an updated storm water web page on the University's Environmental Health & Safety department's web site at <a href="http://ehs.utexas.edu/">http://ehs.utexas.edu/</a>
- An electronic discharge request form is included on the website for intended discharges to storm and sanitary sewers.
- Provided on-line Chemical Waste Management training to 3,939 employees and Hazard Communication training to 3,132 employees in the University community. Both classes cover proper disposal of hazardous materials.
- Held a SWPPP training session attended by 47 representatives from OCC, UHD, and UEM on August 2<sup>rd</sup>, 2023.
- Consulted with construction coordinators on site-specific BMPs throughout the reporting period.
- Continued the ongoing program to mark storm drains to prevent unintentional dumping of unauthorized materials. Over the reporting year, more than 50 storm drain markers were installed on storm drains that were newly constructed as part of a project or to replace an existing broken marker. This was in conjunction with the Longhorns Don't Litter student organization.
- Maintained the online Waller Creek cleanup safety training which was launched in September 2020.

To maintain stakeholder involvement, EHS conducts an annual review of the SWMP for any necessary updates. In May 2023, EHS held a meeting to discuss proposed changes with a working group, comprised of representatives from every involved department.

#### 2. Public Involvement and Participation

During the COVID-19 pandemic EHS transitioned away from leading trash removal events on Waller Creek, however student-led clean-up efforts, supported by EHS and FS-LS, were implemented and continue. During the reporting period there were six creek cleanups

organized and ran by students. In total, the student volunteers collected and removed approximately 926 pounds of trash and recyclables.

#### 3. Evaluation of the effectiveness of this MCM

In response to trainings EHS has provided, there is a growing interest from project managers and UT departments for EHS to conduct additional and more in-depth trainings on stormwater and other related compliance topics. Monthly social media posts on the UT Austin Office of Campus Safety accounts reached 1,285 people on Facebook and were viewed by 8,754 people on Twitter. Content includes language educating UT students, staff, and faculty on ways to protect the MS4, as well as educational articles and promotion of outreach events.

Table 11 - MCM 7 Activity Summary

ВМР	2022-2023 Progress
Maintain pollution "hotline" for the reporting of illicit discharges	EHS received and responded to five calls related to storm water issues from the concerned public.
Publish announcements in the Daily Texan newspaper and UT Austin Office of Campus Safety Social Media	One article was published in various campus newsletters and there were 26 MS4 related posts to social media.
Storm Drain Labeling Program	50+ storm drains were labeled.
Stakeholder Involvement	EHS held a meeting with the stakeholder working group in May 2023.

# H. Monitoring, Evaluation, and Reporting

#### 1. <u>Dry Weather Screening</u>

The University has a program for identifying sources of dry weather flows. Drainage maps have been compiled and indicate outfall points for each drainage line. Dry Weather screening of major outfalls is conducted annually and was completed primarily in July of 2023. 18 major outfalls were screened and of those, 4 were observed with dry weather flows. Field analysis of all of the discharges did not indicate sanitary or other characteristics of concern and it was determined that the discharges were most likely either result of allowable non-storm water discharges such as ground water sumps, irrigation run off, or air conditioning condensate. EHS continues to monitor these outfalls with continuous flow and all are part of an ongoing investigation between EHS, UEM, Athletics, FS-LS and City of Austin.

In addition to any reported suspected illicit discharges, dry weather field screening is one of the primary tools used to identify illicit discharges to the MS4. Dry weather field screening is required once every 5 years under the TPDES permit. This monitoring period, the final 25% of the system's outfalls less than 36 inches in diameter were screened. Of those 24 outfalls, 0 were observed with flow and no analyses were conducted for illicit connections.

### 2. Wet Weather Screening Program

The Wet Weather Screening Program is a visual assessment, which provides a post-storm event evaluation of the storm water runoff to campus area waterways. There are 14 sites included that provide assessments of storm water flow in the following watersheds: Waller Creek, Lady Bird Lake (formerly Town Lake), Johnson Creek, and Shoal Creek. For the purposes of this screening program, a storm event is defined as any event with greater than 0.10 inches of rain. Each site was visited within 24 hours of a storm event, which was recorded at inches of precipitation. EHS staff review each screening site assessment for indications of elevated pollutant levels. Observations are recorded for the various items and rated on a scale of 0-3 with 3 being a severe impact to water quality. All ratings for impact to

creeks were rated at a level of concern of "1" or below for this reporting period. According to the program response protocol, if any site receives two or more level "3" ratings, or if aquatic life appears to be affected, the University will act. Consequently, no actions were initiated. If during an assessment, site conditions indicate that an acute pollutant event may have occurred, EHS spill response personnel are to be notified immediately and an investigator will respond to initiate a detailed investigation of the situation. Data collected for the Wet Weather Screening conducted in September and November 2022 is summarized in Table 12 below.

Table 12 - Data collected during Wet Weather Screening\*:

Sito	Site   Material of Oily Discolored Turbid Trash or Odor Aquatic Life Other						Othor		
#	Location	Watershed	Sheen	Water	Water	Debris	Detected	Affected	Comments
1	N Whitaker Field	Waller Creek	0	1	2	2	N	N	N/A
2	S Whitaker Field	Waller Creek	0	1	2	2	N	N	Shopping cart in creek- LS notified
3	Speedway, (SE, Bridge on Hemphill Branch)	Waller Creek	0	0	1	0	Z	N	N/A
4	Dean Keaton (S, Bridge on East Fork)	Waller Creek	0	1	0	0	N	N	N/A
5	24 <sup>th</sup> St. (Bridge)	Waller Creek	0	1	0	1	N	N	N/A
6	21 <sup>st</sup> St. (Bridge)	Waller Creek	0	0	0	0	N	N	N/A
7	MLK Blvd.	Waller Creek	0	1	0	2	N	N	N/A
8	15 <sup>th</sup> St. (Bridge)	Waller Creek	0	1	1	0	N	N	N/A
9	SW corner – Colorado Apts.	Lady Bird Lake	0	0	0	0	N	N	N/A
10	N end of creek  – Gateway  Apts.	Johnson Creek	0	1	0	0	Ν	N	N/A
11	S end of creek  – Gateway  Aps.	Johnson Creek	0	1	0	1	Z	N	N/A
12	SE corner – PRC	Shoal Creek	0	0	0	0	N	N	N/A
13	SW Corner – PRC	Shoal Creek	0	0	0	0	N	N	N/A
14	NW corner - PRC	Shoal Creek	0	0	0	1	N	N	N/A

Level of Concern Legend: 0=No impact observed, 1=Minimal impact observed, 2=Moderate impact observed, 3=Severe impact observed.

EHS staff retain all wet weather screening field observation forms as required by the permit.

# Representative Storm Water Monitoring Program:

The storm water sampling point, as indicated in Table 13, is located on 24<sup>th</sup> street just west of Waller Creek. The system includes an ISCO 6712 portable sampler and an ISCO Signature flow meter. The sampling equipment is calibrated by an outside contractor on an annual basis.

Site Selection: The monitoring site was selected to obtain a discharge characterization of

runoff from The University of Texas at Austin's Main Campus. The watershed contains administrative, classroom, laboratory, and dormitory buildings as well as associated infrastructure.

The approximate land use percentages for The University are as follows:

Academic, administrative & support buildings
Student residential
Green space
20%

The selection criteria used for locating the specific monitoring site for the storm water monitoring has been based on the following:

- Representative land use type within the drainage area
- Stable hydraulic conditions
- Ability to access the site in a safe and secure manner

<u>Site location</u>: The storm water monitoring program consists of one monitoring site at an outfall located in Waller Creek:

**Table13 - Storm Water Monitoring Site Location:** 

Watershed	Monitoring site Location	Drainage Area (acres)	Land Use	Receiving Water Body (segment no.)
Waller Creek	San Jacinto @ 24 <sup>th</sup> St.	33.5	Mixed educational	1429

The selected monitoring location represents the following educational site land use categories:

•	Academic & administrative buildings	65%
•	Student residential	20%
•	Green space (no impervious cover)	15%

<u>Site description</u>: As noted in the site selection section, the location for the monitoring site has been identified as having features that are representative of the various land uses at the University. The following is a more detailed description of the stream, the characteristics of the associated drainage basins, and the site selection considerations.

Waller Creek is 6.8 miles in length and has a drainage area of 5.8 miles of highly urbanized development. The creek runs north-south approximately 1.1 miles through university property. The northern section is predominantly residential development, followed by the university campus, and downtown Austin commercial development. Waller Creek is the only creek running through university property and is a vital public resource that maintains base flow throughout most of Austin's dry summers, providing a scarce but crucial urban aquatic resource.

<u>Sample Periods and Frequency</u>: The storm water monitoring program occurred during permit years one through five and has been continued on a quarterly basis since initiation. One flow-weighted composite sample is collected from the outfall during a storm event occurring in the following periods: September – November, December – February, March – May, June – August. In the event that the University finds it necessary to propose alternate monitoring locations, all appropriate requests will be made to the TCEQ Executive Director as per Part IV.A.4 of the University's permit.

<u>Sample Collection</u>: Storm water monitoring currently consists of the collection of composite storm water samples using an automatic water quality sampler (ISCO 6712 Portable Sampler and an ISCO Signature Flow Meter), both installed in July 2014. The sample aliquots are collected for at least the first three hours of runoff once the qualifying rain event has been confirmed, or for the entire period of discharge if the duration is less than 3 hours.

Sample aliquots are collected based on equal volumes of runoff. In addition to the composite sample, grab samples are collected at the outfall during the first 2 hours of runoff of the same storm event. In the event of equipment failure, composite samples are collected during the first three hours of a qualifying storm event by collecting a minimum of 4 grab samples taken a minimum of 15 minutes apart.

<u>Sample Parameters</u>: The storm water monitoring composite and grab samples are tested for the parameters listed in Table 14 at a NELAC certified water quality laboratory. The following information was collected for each sampled storm in addition to the event mean concentration data collected from laboratory analyses:

- Rainfall start time
- Composite sampler initiation time
- Grab sample collection times
- Rainfall depth (in.)
- Duration of the intervening dry period (days)

Pollutant loading is computed for sampled events. For the purposes of this monitoring program, rainfall less than 0.10 inches will not be reported. Rainfall events (>0.10 in.) shall be separated by at least 72 hours for sampling purposes.

**Table 14 – Storm Water Sampling Parameters:** 

Parameter	Sample Type
Water Temperature	Grab
BOD, 5-day	Composite
COD	Composite
рН	Grab
Total Suspended Solids	Composite
Oil & Grease	Grab
Total Nitrogen (as N)	Composite
Total Kjeldahl Nitrogen (as N)	Composite
Nitrate plus Nitrite	Composite
Total Phosphorus (as P)	Composite
Dissolved Phosphorus	Composite
Total Hardness	Grab
Chlorides (as CI)	Composite
Total Sulfate (as SO4)	Composite
Total Cadmium (as Cd)	Composite
Total Copper (as Cu)	Composite
Total Lead (as Pb)	Composite
Total Silver (as Ag)	Composite
Total Zinc (as Zn)	Composite
Enterococci	Grab
DDT 4,4	Composite
DDD 4,4	Composite
DDE 4,4	Composite
Chlordane (Tech Mix)	Composite
Total PCBs	Composite
Atrazine	Composite
Total Dissolved Solids	Composite
E. Coli	Grab

EHS Staff collected water quality samples during two qualifying storm events. The dates and storm characteristics are detailed in Table 15. The storms monitored met the minimum requirement of > 0.10 inches (2.54 mm) of rain and the 72-hour antecedent dry period without measurable rainfall (> than 0.10 inches). Quarters 3 and 4 produced no qualifying rain events during working hours. Documentation of the rain events and attempts to obtain samples are available in Appendix C. The Lower Colorado River Authority Environmental

Laboratory performed analyses of the samples and the results are presented in the Discharge Monitoring Reports included in Appendix C.

Table 15 - Description of Monitored Storm Events

Quarter	Date	Rainfall (inches)	Antecedent Dry Period (days)
1	10-28-22	0.44	11
2	1-24-23	0.52	21
3			
4			

### 3. Industrial and High-Risk Runoff Monitoring Program

The University does not operate industrial & high-risk facilities as defined by 40 CFR 122.26(d)(2)(iv)(C). On the properties covered by this permit, The University does not own or operate a municipal landfill, hazardous waste treatment, disposal and recovery facilities, or industrial facilities that are subject to section 313 or Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). In accordance with Section V of the SWMP, the University has attempted to identify sources in anticipation of submitting an approvable industrial and high-risk monitoring program. The University does not have any industrial facilities on its property and to date has not identified any facilities that contribute a substantial pollutant loading to the storm sewer system. The University will continue to evaluate the need for an industrial and high-risk runoff inspection and monitoring program even though it currently does not operate these types of facilities.

Several UT Austin facilities in which activities or materials handled might be considered a risk to surface water have been designed or redesigned with architectural and structural control to prevent storm water contact with potential pollutants. Consequently, UT Austin requested a certification of "no exposure" from those structures. EHS conducts site inspections of these facilities during the permit term. In the 2022-2023 reporting period, EHS staff inspected the Power Plant Annex and identified containers stored outdoors that could pose a risk to storm water. The containers were subsequently disposed of through a vendor.

#### 4. Floatables Monitoring

The floatable monitoring stations were installed prior to November 1, 2001 and the program was implemented November 1, 2002 as required under Part IV.B of the TPDES permit. The monitoring stations are located northeast of campus off of San Jacinto Dr. north of CS5 and north of the junction of 21<sup>st</sup> St. and San Jacinto, across from BEL. During the reporting period, Landscape Services removed 7 cubic yards of leaves and sediment. Results are calculated by estimating gallons (dry) via trash bag then converting to cubic yards.

Table 16 – MCM 8 Activity Summary

Table to momentally cummary				
ВМР	2022-2023 Progress			
Dry weather screening	All major outfalls (> 36 inches in diameter) and 25% of other outfalls were screened during the reporting period.			
Wet weather screening	EHS staff visually assessed all locations in September and November of 2022.			
High risk runoff monitoring	The Material Transfer Center was inspected by EHS staff and no deficiencies were noted.			
Storm event discharge monitoring	A sample was collected from a qualifying rain event during 2 of 4 quarters during the 2022-2023 reporting period.			

#### I. Total Maximum Daily Load (TMDL) Compliance

As part of the process of updating the UT Austin SWMP in 2019 this new MCM was developed and implemented. The UT Austin MS4 discharges into the same impaired watershed as other MS4s. The current and proposed ways in which UT plans to address the bacterial loads in its MS4 are below.

On a quarterly basis, EHS monitors bacterial levels at 3 locations within Waller Creek. These locations were chosen to represent the water quality entering the campus MS4, in the center of campus, and exiting the campus. The results of these samples are below.

Table 17 - Bacterial Level Monitoring Results for 2022-2023

Location	Units	Q1 11/29/22	Q2 1/12/23	Q3 5/22/23	Q4 6/29/23
SER		1200	326	1410	548
21st Street	MPN/100ml	258	147	1050	1730
15 <sup>th</sup> Street		461	76.8	303	144

#### Runoff Loads:

Through collaboration of FS-LS, EHS, and Planning, Design and Construction, 9 pet waste collection stations were installed in April 2021. The stations were installed adjacent to trash cans at locations currently having problems with pet waste, near open lawn areas, and close to Waller Creek. FS-LS maintains the stations on a weekly basis with pet waste bags provided by EHS. In addition, EHS promotes public education about the responsibility of cleaning up after our pets using social media posts.

#### In-Line Loads

To reduce cross connections, EHS conducted 11 dye tests to sanitary infrastructure during new construction or renovation projects. Additionally, to reduce inputs from leaking sanitary infrastructure and sanitary sewer overflows that drain into the storm sewer network, the University performs regular maintenance on sanitary sewer lines. UEM reports on repairs, maintenance, and inspections annually. For more please see Part 4 of Section C. In their effort to fully inspect the sewer system every permit term, UEM hired a third party who completed an inspection of the entire sanitary sewer system in March 2021. EHS and UEM developed a SOP (finalized May 2021) outlining departmental responsibilities for responses to water and wastewater emergencies such as sanitary sewer overflows. This water quality SOP ensures the most efficient response is taken to minimize negative environmental impact.

Table 18 - TMDL Activity Summary

ВМР	2022-2023 Progress
Pet waste collection stations	9 stations were maintained.
Pet waste maintenance	Maintenance responsibilities continue on a weekly basis.
Pet waste public education campaign	Social media posts regarding pet waste were published via Facebook and Twitter in February 2023.
Maintain sanitary sewer system	UEM hired a third party who completed an inspection of the entire sanitary sewer system in March 2021.

# Appendix A Identification of Water Quality Improvements or Degradation

A summary of the accomplishments of the SWMP outlined in previous sections, the following are indirect measures that contribute to the improvements of water quality:

- Collected greater than 9,000 pounds (UEM) and 2.7 cubic yards (FS-LS) of debris and material from curb inlets
- Collected and reused or composted approximately 150 cubic yards of landscape waste
- Recycled approximately 276 tons of single stream recycling (plastics, paper, cardboard, glass, and aluminum)
- 210 tons of recycling and 96.05 tons of compostable materials were collected from Athletics operations
- Removed 4 cubic yards of floatable debris from floatable monitoring stations
- Main campus street sweeping activities removed approximately 501 cubic yards (FS-LS) and 11,500 pounds (UHD) of material from being washed into storm drains.
- Cleaning solvents, engine oil, batteries, glass, rubber, and various vehicle parts were recycled by the University's Automotive Shop.
- Six student ran trash removal events on Waller Creek occurred in the reporting period and were supported by EHS and FS-LS. Approximately 926 pounds of trash, bulky items, and recyclables were collected and removed from the creek.

# Appendix B Annual Expenditures and Projected Expenditures

The three departments primarily responsible for compliance with the TPDES permit are Environmental Health & Safety, Facilities Services, and Utilities & Energy Management. These three organizations have a combined annual operating budget of approximately \$110,000,000. The funding for these budgets is provided by state appropriations for the operation and maintenance of Education and General Facilities and can be used to supplement the annual allocation to the Storm Water Management Program as necessary. The annual budgets of these three areas directly supplement the Storm Water Management Program in the form of support from staff at various levels in all three organizations.

The University of Texas at Austin formally budgets funds to the Storm Water Management Program for activities, equipment, and other expenses directly related to this permit. State appropriated funds may not be used in support of auxiliary operations (e.g. UHD, Intercollegiate Athletics). The cost of additional storm water management programs and activities related to auxiliary operations are charged to the specific entity involved and funded from the user fees associated with the specific auxiliary.

The institution does not anticipate the implementation of large-scale storm water utility projects. Additions or upgrades to existing systems are funded as a part of operation budgets, or as a result of major building programs included in the total project cost of the new construction.

	Actual Expenditures	Projected Expenditures
	09/01/22 - 08/31/23	09/01/23 - 08/31/24
Areas of New Development & Redevelopment <sup>1</sup>	\$2,635,000.00	\$3,000,000.00
Illicit Discharges & Improper Disposal	\$100,000.00	\$100,000.00
Spill Prevention & Response	\$5,000.00	\$5,000.00
Construction Site Runoff <sup>2</sup>	\$486,343.00	\$500,000.00
Public Education	\$4,4970	\$5,000.00
Monitoring Programs <sup>3</sup>	\$82,000.00	\$85,000.00
Part V Representative Monitoring	\$6,800.00	\$7,000.00
Total	\$3,483,015.68	\$3,813,600.00

The above expenses describe activities that require specific storm water expenditures. They do not include salaries or normal maintenance activities which would occur regularly, such as construction site inspections and picking up litter by regular staff.

<sup>&</sup>lt;sup>1</sup>Areas of New Development & redevelopment SWMP Category is estimated from 0.5% of total construction costs for Capital Projects development.

<sup>&</sup>lt;sup>2</sup>Construction Site Runoff SWMP Category is estimated from 0.5% of total construction cost for exterior projects.

<sup>&</sup>lt;sup>3</sup>Based on the 60% of wages of EHS staff utilized to manage Monitoring programs.

# Appendix C Receipts of Discharge Monitoring Report (DMR) Submissions (Attached)

# 1st Quarter Monitoring Period: September - November

Sample collected October 28<sup>th</sup>, 2022. Results were submitted electronically through NetDMR (see attached).

# 2<sup>nd</sup> Quarter Monitoring Period: December - February

Sample collected January 24st, 2023. Results were submitted electronically through NetDMR (see attached).

# 3rd Quarter Monitoring Period: March – May

No Sample Collected. Results were submitted electronically through NetDMR (see attached).

# 4th Quarter Monitoring Period: June - August

No Sample Collected. Results were submitted electronically through NetDMR (see attached).