



STORM WATER QUALITY 2020 ANNUAL REPORT

STORM WATER QUALITY PROGRAM

includes: educational and regulatory initiatives to encourage environmentally sound development and redevelopment.

Purpose

The City of Oklahoma City, the Oklahoma Turnpike Authority and the Oklahoma Department of Transportation were granted authorization to discharge storm water in compliance with the Oklahoma Pollutant Discharge Elimination System Act and the rules of the Oklahoma Department of Environmental Quality.

The Storm Water Management Program was updated in 2018 and provides measures to meet the National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System storm water regulations.

The permit became effective on March 15, 2013, expired March 14, 2018 and has been continued administratively per OAC 252.606-1-3(b)(3)(F).

Mission

To provide inspections, enforcement, water quality assessments, public outreach and household hazardous waste services to residents, businesses and government agencies so they can comply with the Clean Water Act and enjoy a safe and clean environment.

Oklahoma City Permit Number OKS000101

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Appendices: Certification Statement, ODOT Annual Report, OTA Annual Report

2020 Accomplishments



Implemented Industrial Lunch-n-Learn and webinar series

Developed HHWCF promotional video



Retrofitted HHW facility to LED lighting



Transitioned to electronic plan review



Contract awarded for hydrodynamic separators at State Fairgrounds

Created remote based permitting system due to COVID-19 facility closures



Automated HHW SWAP liability waiver



Started construction on bank stabilization in Brock Creek watershed



Provided 777 boxes of free masks at Giveaway Event

Developed method to prioritize watersheds for floating debris controls



Developed elementary education virtual lessons and take-home experiments



Conducted SWQs first virtual workshop

2021 Goals

Develop virtual floatable debris education series



Develop HHW facility data management system



Update HHW facility awnings and paint vessel crusher



Update construction inspection reporting procedure

Complete streambank stabilization project at Brock Creek



Complete hydrodynamic separator project at State Fairgrounds



Replace two Oklahoma River debris barriers

Fill vacant Industrial Section Manager position



Audit Adopt-a-City Street Program for inactive organizations



Expand the Waterway Clean Sweep Program



Revise Industrial and Construction Standard Operating Procedures

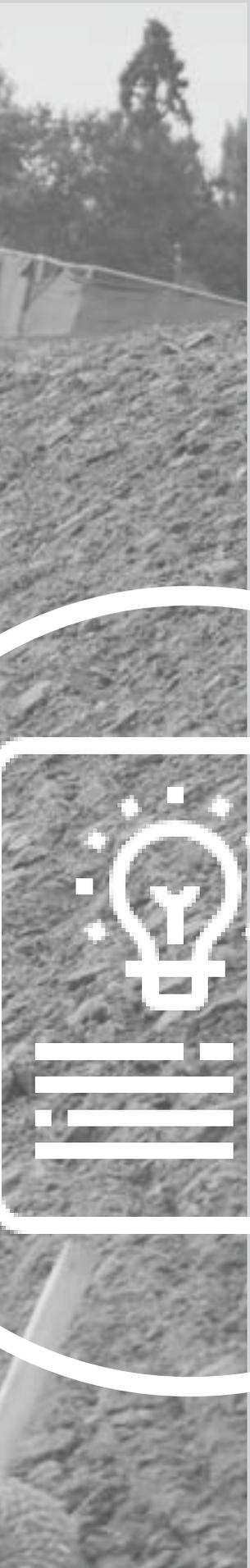
Integrate Industrial and Construction related online permitting



Use pilot studies to prioritize structural control placement







NEW AND RE-DEVELOPMENT PROJECTS



The Public Works Department's permitting program requires a plan review process on the City. During this process, Storm Water Quality reviews plans submitted to ensure it

- erosion control site plan and detail sheet
 - Best Management Practices (BMPs) used to control erosion and sediment runoff
- The engineer submits the final set of plans with all the required changes for review.



When the land disturbing activity is complete, the permittee will notify the manager by Notice of Termination (NOT) for the project. A storm water construction technician will inspect to ensure the following requirements have been met:

- uniform, perennial vegetation has been established to a density of 70% of pre-construction
- storm water discharges from construction activity have been eliminated, or
- the owner/operator has changed to a new owner/operator. A Transfer of Property form must be submitted to the director with the Notice of Termination.

If the NOT is approved, a final inspection is authorized and a Certificate of Occupancy is issued. The permit is approved in 2020.



A re-inspection fee of \$35.00 is assessed for each additional inspection of construction activity for non-compliance. In 2020, a total of 162 re-inspection fees were assessed.

Each application for a storm water quality construction land disturbing permit, or an extension, is accompanied by a fee of \$55.00. Permits expire one year from the date of issuance. Once issued, there is a fee of \$15.00 per month and a re-issuance fee of \$55.00.

If the work described in the permit has not begun within six months after issuance, the permittee must re-submit all required forms and pay the reissuance fee in order to

all plans submitted to
inclusion of:

submitting a Notice of
the site to ensure one of

construction conditions, or

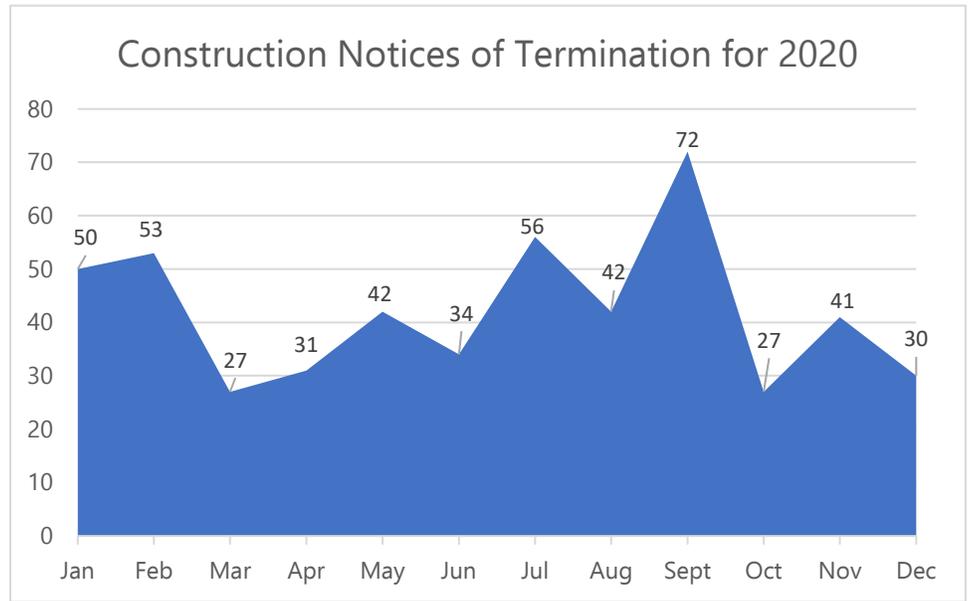
Ownership must be

is issued. 505 NOTs were

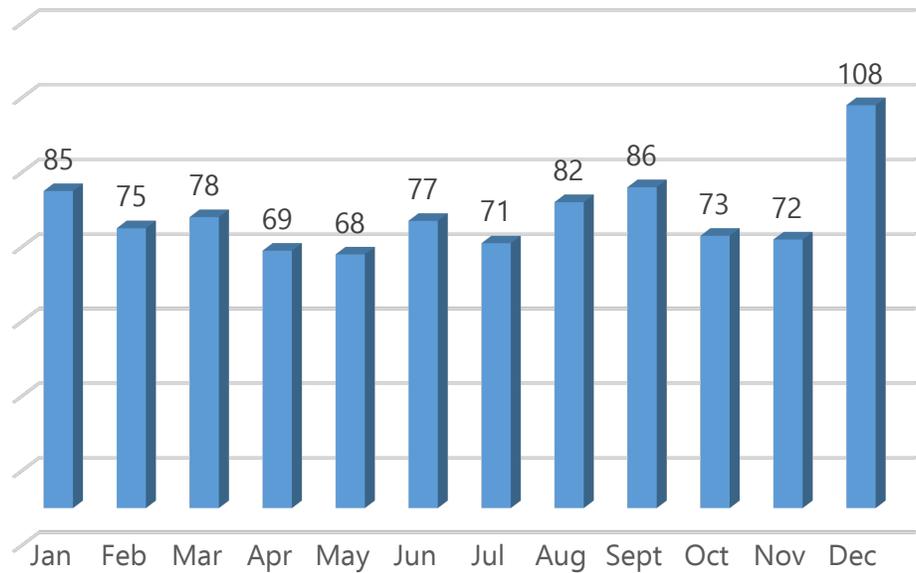
n sites due to non-

existing permit renewal, is
other fees include a late fee

e permit will expire and
o begin work.



Plans Reviewed in 2020



The SWMP was revised to reflect the permit requirements of OKS000101 dated March 15, 2013, and includes criteria and procedures for determining requirements for structural and non-structural controls on new and significant reconstruction of roadways and highways.





FLOOD CONTROL PROJECTS AND STRUCTURAL CONTROLS

On December 11, 2007, Oklahoma City voters passed an \$835 million bond issue, with all 11 propositions garnering at least 78% approval of the vote.

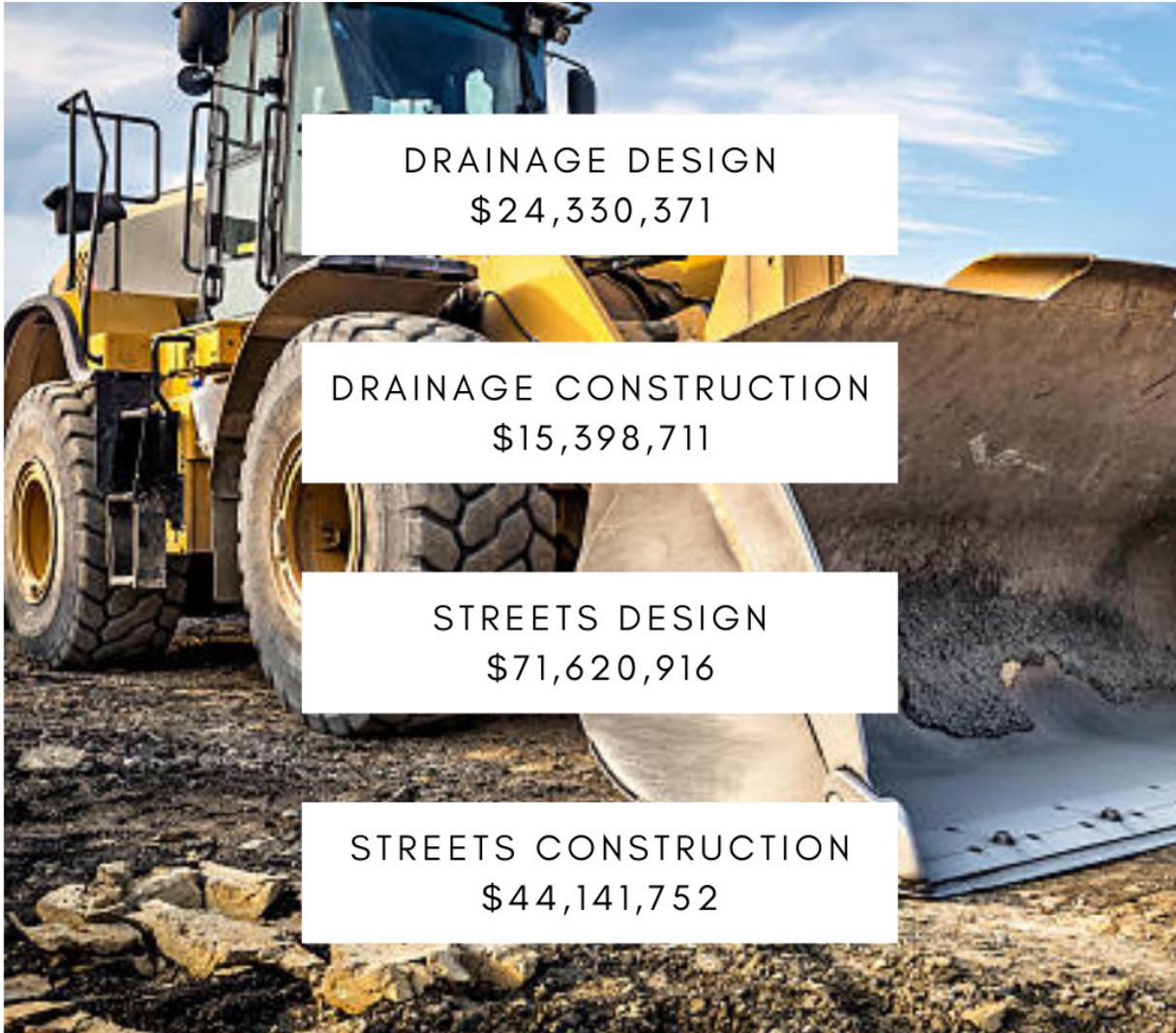
The largest portion, \$497 million, was allocated to roadway improvements. Among other projects, the bond issue includes \$90 million for parks and \$32 million for drainage projects.

Prior to 2015, the City contracted certain drainage related maintenance services to private contractors. As contracts expired in 2019, the total budget was \$185,550. The Streets, Traffic and Drainage Maintenance Division assumed maintenance operations of existing detention ponds, unimproved channels, certain tributaries, the river banks of the North Canadian/Oklahoma River and City owned vacant lots purchased due to repetitive flooding. In 2020, work orders identified single, or multiple, maintenance activities covering 178 stream miles, 897 acres of detention ponds, 56 acres of vacant lots and 6 miles of concrete lined channel.

Public Works Drainage Maintenance Division is also responsible for repairs made to drainage structures, concrete-lined channels, creeks and manholes. There were 2,585 repairs to drainage structures and 383 repairs to creek/concrete channels. Six staff members, with a budget of \$790,267, provided routine maintenance repairs to the waterways, dams and locks on the Oklahoma River and removed 128 tons of debris in 2020.

The Public Works Storm Water Quality Construction Section and Engineering Division will continue to review construction plans for the development of retention/detention ponds for compliance with the Oklahoma drainage and flood control ordinances.

The City continues to evaluate, prioritize and install structural controls on developed areas and/or retrofit existing structures.



DRAINAGE DESIGN
\$24,330,371

DRAINAGE CONSTRUCTION
\$15,398,711

STREETS DESIGN
\$71,620,916

STREETS CONSTRUCTION
\$44,141,752

State Fair Park Sand Filter



Crews removing surface crust accumulation in sand filtration unit

The 2007 General Obligation Bond Program funded a sand filter at State Fair Park. The project began in January 2015 and the filter became operational in September that year. The sand filter has processed 6.3 million gallons of storm water runoff since it started. Monitoring results indicate 804 lbs of biochemical oxygen demanding substances (BOD), 5 lbs of oil and grease, 48 lbs of total phosphorus (TP), 3,458 lbs of chemical oxygen demanding (COD) substances, 14 lbs of total nitrogen (TN), 31 lbs of total kjeldahl nitrogen (TKN) and 1,125 lbs of total suspended solids (TSS) were filtered out.

SWQ continued to monitor the sand filter during the 2020 permit term. Required maintenance is indicated by observing the frequency of discharge intervals from the forebay to the sand filter bed. A significant increase in time between discharge intervals is indicative of poor drainage through the sand media. Hand raking breaks surface crusts that develop on the sand bed surface which can inhibit efficient drainage through the sand media.

Maintenance records indicate surface crust was manually removed and superficially raked in September. Inspections of the forebay and diversion weir were conducted in November. Debris was removed at the diversion weir which was partially blocking storm water discharge to the filtration unit.

Telemetry is provided by a data logger installed in the forebay which enables near real-time measurements of the water level to manage the sand filter unit. To determine the pollutant reductions, personnel periodically monitor the influent and effluent water quality. These monitoring data provide the information needed to determine the amount of pollutants removed from the captured storm water. Monitoring results indicate that 948,726 gallons of storm water were processed through the filter in 2020. The filter removed an estimated 57 lbs of BOD, 48 lbs of TP, 546 lbs of COD, 3 lbs of TN, 11 lbs of TKN, and 198 lbs of TSS. Nitrate plus nitrite values exhibited an export of 8 lbs from the filter.

Brock Creek Bank Erosion Stabilization Project

Funded through the 2007 General Obligation Bond Authorization, Oklahoma City developed a project to mitigate streambank erosion along 1,900 linear feet of Brock Creek near the confluence with the Oklahoma River.

The project was advertised for engineering design services in June 2015. Olsson & Associates were retained to design the project with the goal to reduce nutrients and sediments contributed from eroding streambanks and to stabilize streambanks in a manner which compliments the natural environment.

Construction began in May of 2020 with substantial completion in early November of 2020.

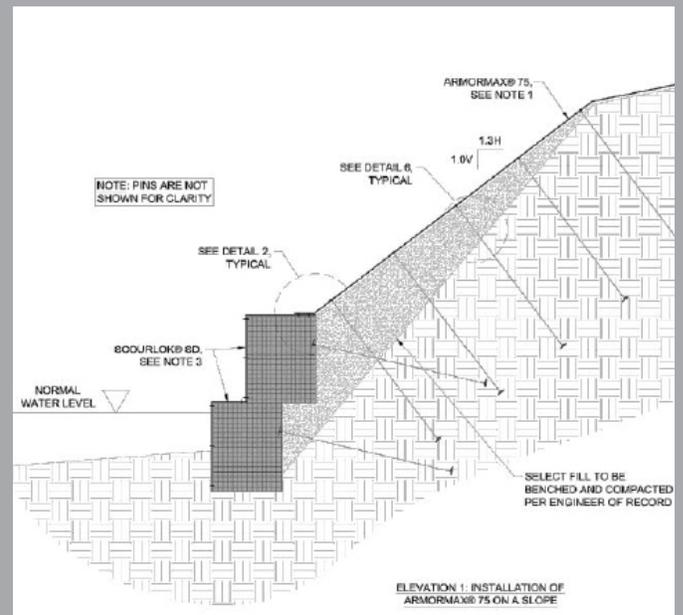
Innovative materials were selected to enhance the environmental benefits of the project. SDS Scourlok baskets with a non-woven geotextile

internal liner were used below and slightly above the normal water line. These baskets were filled aggregate materials to establish a stabilized streambank toe. A second scourlok basket was stacked off-center and towards the streambank and filled with localized earthen materials to reduce the need for offsite material delivery.

The banks were backfilled and compacted to a 1 to 1.3 slope. Armormax 75 was used to stabilize the upper bank and secured with engineered earth pins into permanent placement. The site was stabilized using live stake willow poles near the waters edge and a selection of deep-rooted perennial grasses were selected for the upper banks. Unfortunately, weather conditions prevented the installation of the perennial grasses until the spring of 2021.



Brock Creek Bank Erosion Stabilization







CONSTRUCTION SITE RUNOFF

A construction storm water quality discharge permit is required prior to the start of all land disturbing activities for the construction of:

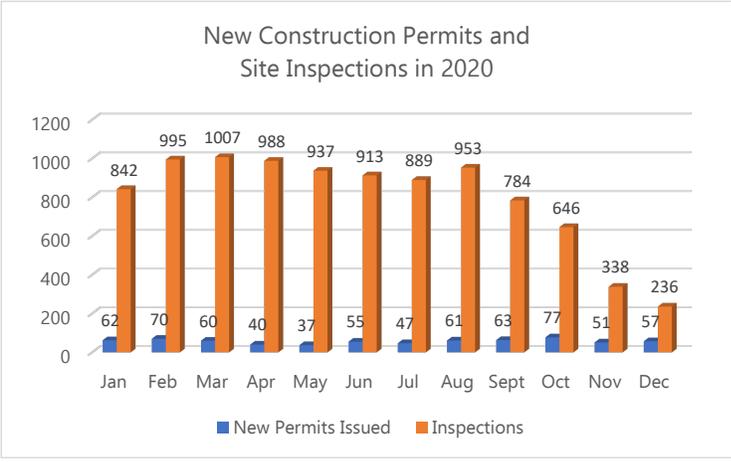
- New utilities
- Industrial, commercial or institutional facilities
- Residential subdivisions
- Demolition of structures

It is the responsibility of the owner/operator to secure the permit. A total of 680 construction storm water quality discharge permits were issued in this reporting period for a total of 1,539 active permits.

As permits are issued, they are entered in the V360 Accela Automation permitting database. This database provides multiple departments within the City a solution to automate workflow. It manages all land use and community development activities such as permits, inspection and reviews, zoning, project plans and code enforcement. The program provides multiple City departments the ability to track, change and share information regarding permitted activities.

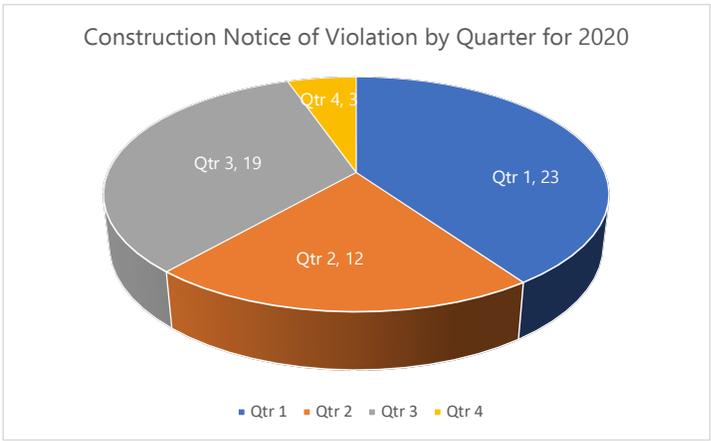
A total of 9,528 construction site inspections were completed during this reporting year.

Construction field laptops are fully ruggedized. The laptops enable the technicians to conduct work remotely. The speed and dependability allow technicians to immediately load audits, input data, print and/or email the results to site operators.



If the operator is not at the site, a call is made following the inspection to discuss any deficiencies. If the deficiencies are not corrected, a Notice of Violation (NOV) is issued to the operator, with a date set for the site to be in compliance. If the site is not in compliance on the set date, an Affidavit of Probable Cause is filed with the City’s Municipal Counselor’s office.

Fifty-seven NOVs were issued and no affidavits of probable cause were processed for construction-related activities during this reporting period.



Construction Workshop

A virtual workshop series (three, one-hour sessions) was held via Microsoft Teams. Presentations were provided by staff from Oklahoma City, Oklahoma Department of Environmental Quality and Triangular Silt Dike. Subject matter included: construction site permitting, site inspections and best management practices. A total of 133 attended the workshop series.



Quality Assurance Program

In 2020, the construction environmental unit supervisor conducted 25 inspector reviews under the Quality Assurance Program (QAP) - an internal program where the supervisor evaluates a technician's ability to correctly perform audits. This allows continuous feedback and ensures audits are being performed consistently within federal and state guidelines.





INDUSTRIAL AND HIGH-RISK RUNOFF

In order to minimize the impact of storm water discharges from industrial facilities, the storm water quality program includes an industrial storm water permitting component. Operators of industrial facilities that are in one of the 10 categories of storm water discharges associated with industrial activity that discharge or have the potential to discharge storm water to a Municipal Separate Storm Sewer System (MS4) or directly to waters of the United States, require authorization under an NPDES industrial storm water permit.

Permitting requires that a Notice of Intent (NOI) be submitted along with the permit fee. New permittees must also submit a copy of their facility's Storm Water Pollution Prevention Plan (SWPPP) with the NOI and fee. A working copy of the SWPPP must remain on site for review. Twenty-five new industrial storm water discharge permits were issued during this reporting period, for a total of 423 active permits.

Site inspections are performed on either an annual or semi-annual basis. Any deficiencies noted on the inspection report are discussed at the time of inspection. During the next inspection, if the deficiencies have not been corrected, an NOV will be issued. If the facility remains deficient, SWQ will begin enforcement procedures with Oklahoma City's Municipal Counselor's Office. During this reporting period, a total of 18 NOVs relating to industrial discharge activities were issued for failure to maintain SWPPP documentation or SWPPP-related activities, or for illicit discharges.

A re-inspection fee of \$35.00 is assessed for each additional facility inspection due to non-compliance. In 2020, eleven industrial facility re-inspection fees were assessed. A \$15.00 per month late fee applies to facilities or properties that have failed to renew their permit prior to expiration.

Industrial Audit Report

Permitted businesses located within the City limits are audited on a regular basis. The intent of these audits is to reduce or eliminate polluted surface runoff from each facility. An environmental technician screens these businesses, and other facilities with the potential to cause pollution, for inclusion in the industrial auditing program.



749 industrial facility audits were performed

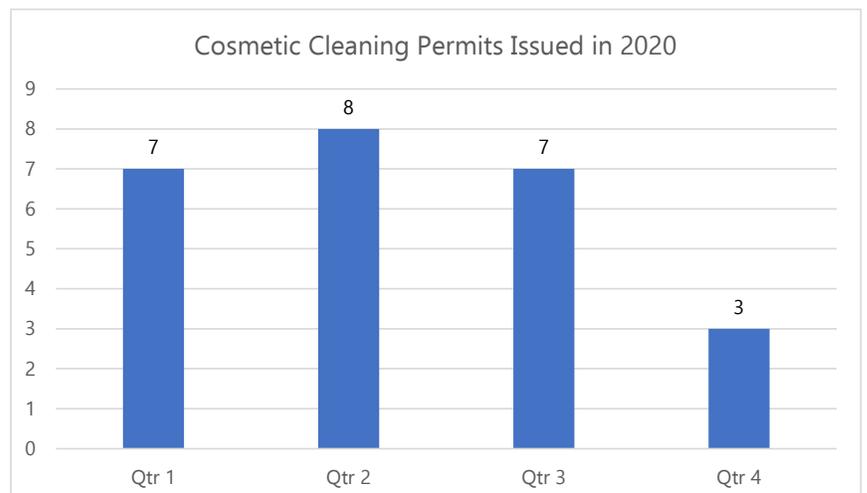
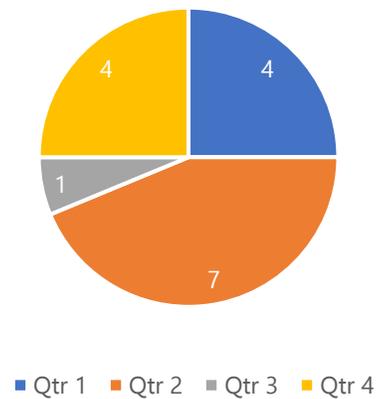
A No-Exposure Certification (NEC) for exclusion from storm water quality permitting is issued to industrial facilities that meet strict guidelines. A condition of no exposure exists at an industrial facility when all industrial materials and activities are protected by a storm-resistant shelter to prevent exposure to precipitation and subsequent runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. The owner/operator is required to submit the certification form once every five years and must allow the environmental technician access to perform inspections to confirm the conditions of no exposure.

During the reporting period, sixteen new no-exposure certifications were issued for a total of 808.

In 2020, environmental technicians continued the five-year re-certification process for businesses with an existing industrial no-exposure certification. During this reporting period, 138 re-certifications were completed.



Industrial No-Exposure Certifications Issued in 2020



Cosmetic cleaning permits are issued to companies using any system or machine to remove undesirable substances from any surface or façade creating free foreign matter. This includes carpet cleaning and power washing companies.

SWQ continued the self-audit process. Each active permittee was mailed a self-audit form one month prior to permit expiration. A total of 184 self-audits were performed. Inspectors conducted site inspections of Cosmetic Cleaning permittees, completing 233 site inspections. A total of 24 new cosmetic cleaning permits were issued for a total of 227 active permits.

The Industrial Storm Water Section held an online workshop in the Fall to provide the 140 attendees information regarding storm water requirements and permit updates. Industrial workshop sessions included the following topics:

- Guidelines and regulations
- Spill remediation
- OKR05 permit overview and updates
- SWP3 requirements
- Forms and reports
- Permit administration
- Inspections and enforcement
- Quarterly visual monitoring

New in 2020, the Industrial section implemented two online learning programs. The programs included three virtual Lunch-N-Learn events and four Industrial-focus webinars.

The Lunch-N-Learn events were held in March, September and November with a total of 92 attendees. Sponsors provided information to attendees regarding many of their products and services, including: sediment and erosion control product options, Low Impact Development options and storm drain inlet filtration devices. Another sponsor provided information on the differences between filtering and damming sediment control products.

The Industrial-focus webinars were held in February, April, May and July with a total of 195 attendees. Topics included Employee Training, Industrial Site Inspections, Quarterly Visual Monitoring and Effluent Limitations Guidelines Monitoring.

As part of the City's permit requirements from the EPA and the Oklahoma Department of Environmental Quality (ODEQ), the City requires all Emergency Planning & Community Right to Know Act (EPCRA) Superfund Amendments and Reauthorization Act (SARA) Title III, Section 313 reporters (Toxic Release Inventory [TRI] facilities), Treatment, Storage, and Disposal (TSD) facilities, and municipal landfills that do not qualify for no-exposure, to establish a "high risk" storm water runoff program in conjunction with all other permit requirements.

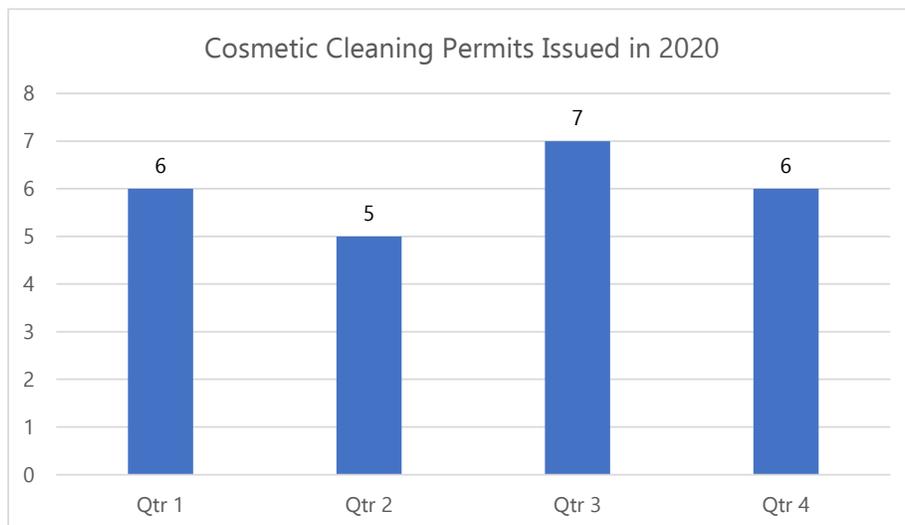
Currently, there are 70 industrial facilities that are classified as high-risk sites; 19 no-exposures, one Affidavit of No Discharge, and 50 high-risk sites that are required to submit analytical sample data. No-exposure and Affidavit of No Discharge facilities that are classified as high-risk are not required to perform sampling.

Data collected by an industrial facility to satisfy the monitoring requirements of an OPDES or NPDES permit may be used to satisfy the “high risk” sampling requirement, provided that each of the required constituents are analyzed. The City requires the indicated industrial facilities to conduct self-monitoring and report the analytical results to SWQ once during the City’s permit term with ODEQ.

Tracking of non-Accela inspections, outreach and investigations was continued during the review period. One thousand three hundred and forty entries were recorded with 276 noting pollution at time of inspection, 772 contacts were made with entities about site conditions, and in 431 entries BMP education was conducted.

The Affidavit of No Discharge for storm water discharges associated with industrial activities program certifies a condition of no discharge exists at an industrial facility or site. The affidavit is re-submitted at least once every five years. The industrial facility operator must maintain a condition of no discharge at its facility for the no discharge exclusion to remain applicable. If conditions change which result in storm water discharges to State waters, including MS4s, the facility operator must obtain authorization to discharge under a storm water permit before any discharges occur beyond the boundaries of the facility. There are 8 active no discharge permits.

The QAP is an internal program where the supervisor evaluates a technician’s ability to correctly perform audits. Criteria such as “Were City safety policies followed?,” “Was all documentation reviewed for updates and compliance?” and “Was enforcement required and performed properly?” are noted. This allows the technician to clarify and ensure that audits are being performed consistent with federal and state guidelines. In 2020, there were 31 QAP industrial audits performed.







**HOUSEHOLD
HAZARDOUS WASTE
COLLECTION
SERVICES**

The Household Hazardous Waste Collection Facility (HHWCF) was opened in 2003 and diverts household hazardous materials from municipal waste streams and provides numerous benefits:

- waste reduction education
- recovery of materials as resources
- reduction of solid waste landfill and wastewater systems toxicity
- education to avoid improper disposal
- reduction of hazardous waste exposure to waste process handlers and equipment.

The HHWCF is conveniently located near the I-40 and I-44 junction. The facility is designed to accommodate a high volume of traffic and manage large quantities of household hazardous waste each year. The facility serves the residents of Oklahoma City covering 620 square miles.

The HHWCF provides a safe and economical process for managing a full range of household hazardous materials. Typical types of household hazardous waste received include: cleaning products, automotive products, flammable products, lawn and garden chemicals, indoor pesticides, workshop/painting supplies and other products containing hazardous materials.

Due to permit restrictions, unacceptable wastes include: radioactive materials, high-pressure gas cylinders, biohazards, explosives, PCB containing materials, dioxins and highly reactive chemicals.

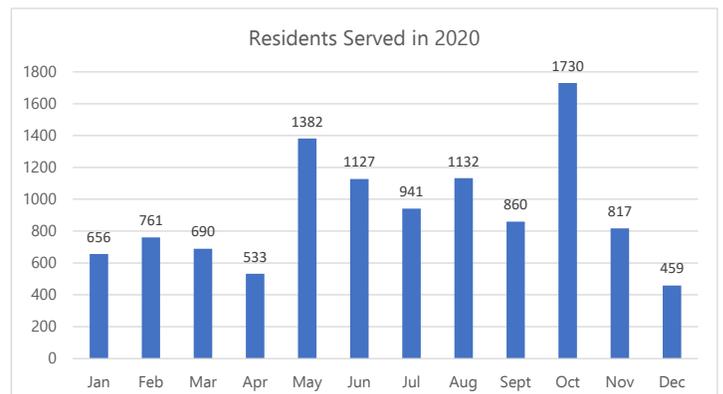
The HHWCF received 775,631 pounds of household hazardous waste for recycling or disposal. Additionally, 49,310 pounds of household hazardous waste were collected, separated and released to the public for reuse.

Mobile Collection Events

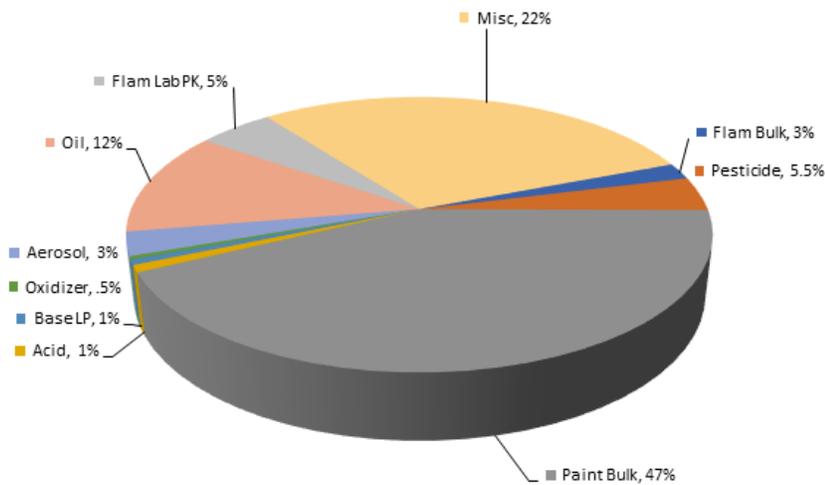
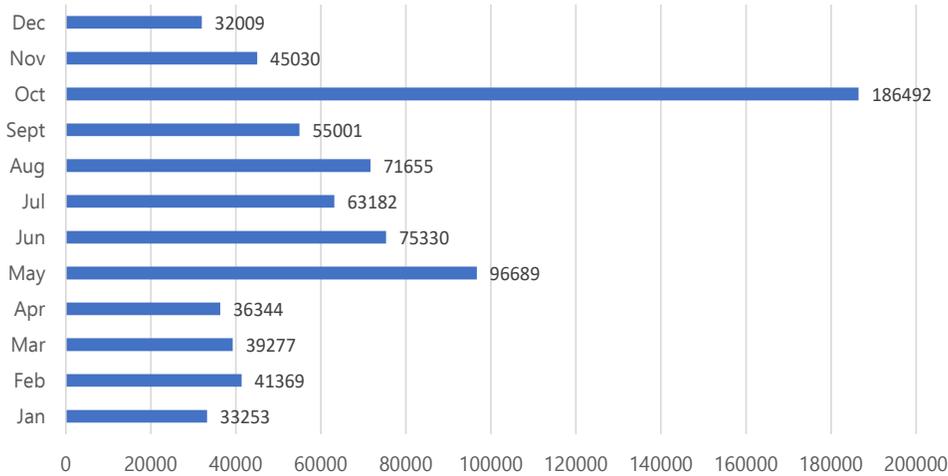
Mobile collection events are outreach programs designed to collect household chemicals from residents in their neighborhoods. This program provides opportunities for staff to educate residents on identifying household chemicals and proper disposal methods, and also provides remote collection services to the elderly and home-bound residents. Due to COVID-19, there were no mobile collection events held in 2020. The program will continue in 2021.

Special Collection Events

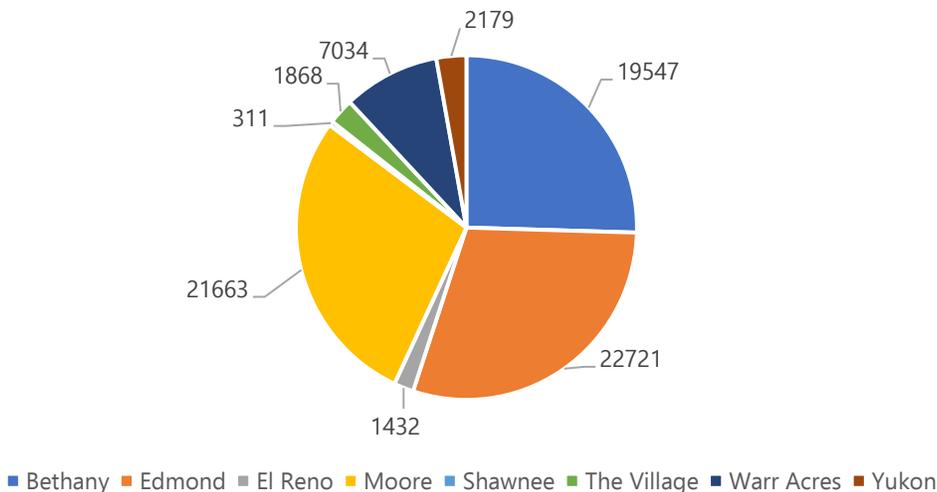
One special collection event was held, with 364 participants and a total of 110,142 lbs of waste collected. The event was held at the Oklahoma State Fairgrounds and accepted tires, e-waste, medications and ammunition for recycling or disposal. Hazardous wastes received were properly packaged for transportation and disposal. These events will continue in 2021.



Pounds of Waste Received by Month in 2020



Waste Received from Each Municipality with MOU



Memorandum of Understanding (MOU)

allows: residents outside the City limits to utilize services offered at the HHWCF - an excellent opportunity for surrounding Phase II communities to work with the City to properly manage household hazardous waste.





PUBLIC OUTREACH, PARTICIPATION AND INVOLVEMENT

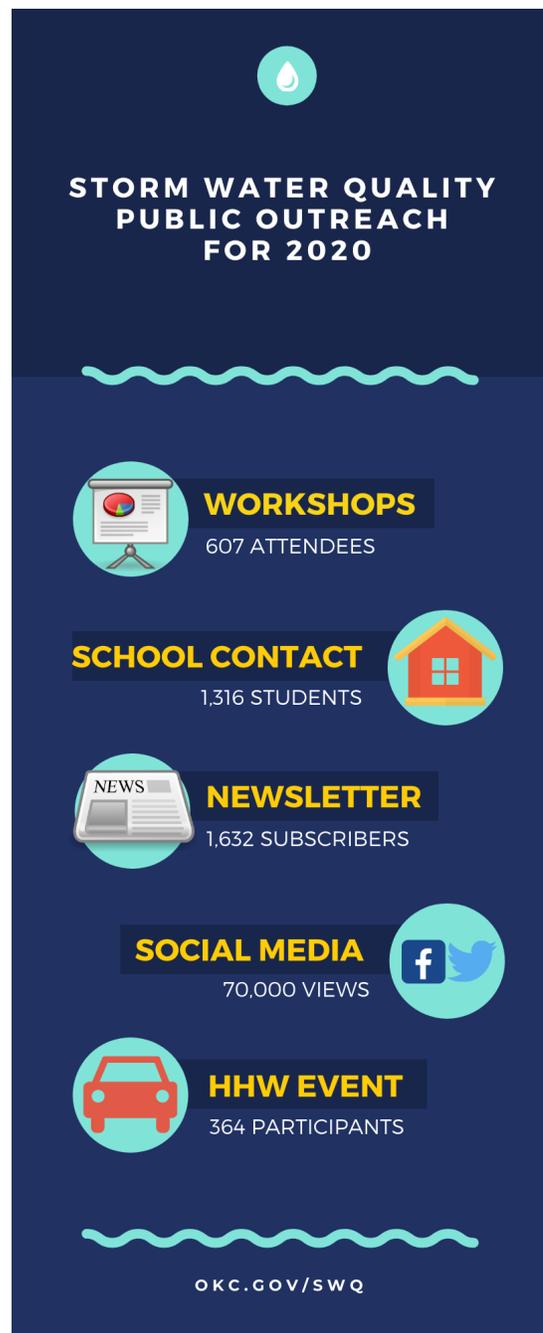
Storm Water Quality has a variety of outreach programs that include outreach to local neighborhoods, schools and businesses. Some of the programs offered include: Adopt-a-City Street, Curbs to Creeks, Waterway Clean Sweep and a variety of workshops. In 2020, Storm Water Quality continued the “Protecting Our Water Resources” program for Oklahoma City schools. Storm Water Quality expanded its education efforts by developing new web-based seminars, workshops and Lunch N’ Learn events.

The Division hosted thirteen training events with over 607 participants. The Household Hazardous Waste special collection event for tires, computers, medications and ammunition was postponed from the normal spring schedule to a fall collection event. Public participation included 364 participants. In addition to hosting events, Storm Water Quality reaches out to the public by using a variety of media outlets.

The Storm Water Quality newsletter, distributed quarterly, is composed of a range of storm water related articles and updates. The newsletter is circulated through e-notices to 1,632 subscribers.

The “Protecting Our Water Resources” program is for elementary school students throughout Oklahoma City. The program teaches students about storm water pollution prevention using hands-on activities. The program was enhanced to include online teaching videos for additional opportunities using distance-based learning. Six unique video sessions were designed and recorded for teachers to use in their lessons.

Additionally, three take home experiments were created and supplied to students to enhance their understanding of storm water pollution. Eight Oklahoma City elementary schools participated in the program in 2020. Storm Water Quality also provided education services to two high schools and one local college. Over 1,316 students participated in the program.



The spring 2020 advertising campaign to promote awareness of services provided by the HHWCF to Oklahoma City residents and other metropolitan municipalities was planned and implemented. After evaluating a variety of advertising alternatives, staff determined that the most effective impact could be accomplished by utilizing the following media outlets during the 2020 advertising campaign:

The Tyler Media Radio campaign aired on radio stations 107.7 KRXO 'The Franchise' and 92.2 KOMA throughout March, April, August and September. This campaign utilized the slogan "Everyday Environmentalist" while addressing the issue of proper disposal of household chemicals.

The Tyler Media Outdoor Advertising campaign consisted of printed advertisements on 50 bus stop shelters and benches throughout the city during the months of April and August. These advertisements featured the slogan "Bring It On" encouraging residents to bring common household chemicals to HHWCF for proper disposal or recycling.

The HHWCF hosted five disposable Mask Giveaway Events to help OKC Mask-Up for COVID-19 while also increasing awareness about the services provided at the facility. Over 777 residents participated

in the program by bringing in household hazardous waste in exchange for a free box of disposable masks. Live interviews were held with three local news stations to promote the event.



Bus stop shelter and bench advertisements

According to the City of Oklahoma City Resident Survey - awareness of the HHW facility decreased by 4% in 2020.

Curbs to Creeks

As provided in Part III. An Implementation and Augmentation of SWMP(s), SWMP component 7(b) "Install an average of 500 curb markers annually using volunteers and City employees." Storm Water Quality personnel and volunteer groups installed, replaced, or identified 578 curb markers during the 2020 permit term. After installation, all markers affixed in the field were recorded into a field book and entered into the City's Geographic Information System database.

Industrial Audit Section inspectors continued encouragement of permitted industries to participate in the program. Curbs to Creeks Program information was included in presentations to industries attending various training workshops and webinars.

Waterway Cleanup Program

The Waterway Clean Sweep Program encourages residents to take an active role in preserving the health and beauty of our local waterways. This program offers groups an opportunity to help restore impaired waterways through litter collection. Due to COVID-19 concerns, events were not held for the program during 2020.

Central Oklahoma Storm Water Alliance

The City and the Central Oklahoma Storm Water Alliance (COSWA) partnered together to encourage residents to conserve water and reduce pollution through the use of rain barrels.

City Municipal Code allows a maximum of two 85-gallon rain barrels in the front yard. Any number of rain barrels can be placed on the side or back of a property, as long as they are not visible from the street. The containers must be securely covered, and any openings must be covered with a screen that prevents infestation by insects and other pests.

COSWA, with the support of ODEQ, organized a display booth at the January OKC Home and Garden show, held at the Oklahoma State Fairgrounds Park. The purpose was to promote the use of rain barrels and other storm water BMPs.

The annual rain barrel event was promoted on social media with an estimated 70,000 views on Facebook, Instagram, Nextdoor and Google. Oklahoma City held a two-day pick-up event and distributed 179 rain barrels with 514 distributed metro-wide.

Other COSWA outreach opportunities include news releases, Facebook, water utility bills, information cards and a COSWA webpage. The COSWA webpage had 780 views from 266 visitors.



Adopt-A-City Street Program

Residents, organizations and businesses can make a difference in their community by adopting a city street. The Adopt-A-City Street Program supports environmental stewardship while encouraging the spirit of volunteerism.

Participants may adopt one mile of a city-maintained street for a two-year period. A minimum of four litter collection events are required each year. The participating group is also required to submit an Activity Request form prior to each event and a Litter Collection Report after each event. Each group receives a sign installed at each end of their adopted street which remains in place until the group discontinues participation in the program.

Volunteers in the program include groups of all sizes with individuals of all abilities. In 2020, 46 activity permits were issued for litter collection events. During these events, 368 volunteers collected 303 bags of litter totaling an estimated 8,888 pounds. This partnership between residents and city government has multiple social, environmental, public health and economic benefits for all parties involved.

NEW ORGANIZATIONS FOR 2020

IPMA-HR Oklahoma Chapter

Phi Iota Alpha Inc.

CDR Global

BSA Troop 117

Poetic City

Sooner Turf LLC

Next Level Acquisitions

Rich Movement



Bagworms

- Conifer (large larvae)
- Phosphate (Orthene, Lepitect)
- Methrin (Onyx, Talstar)
- Carbaryl (Sevin)
- Chlorantraniliprole (Acelepryn)
- Cyfluthrin (Tempo, D)
- Deltamethrin (Delta)
- Permethrin (Astro, F)
- Lambda cyhalothrin (M)

EMPLOYEE EDUCATION

Training

A total of 769 training hours were accomplished by Storm Water Quality staff members to meet safety, license, professional development and/or certification training requirements. Safety topics included subjects such as compactor safety, personal hygiene, heat stress, chemical segregation, personal protective equipment, energetic materials, confined space entry/rescue, fire extinguisher safety, hazardous communication, hearing conservation and job-related fatigue, among others.

Licenses

Oklahoma Department of Environmental Quality Class C and D Water Works Operators, Class B, C and D Wastewater Works Operators, Class A and B Wastewater Works Laboratory Operators, Confined Entry/Rescue, 40-Hour HAZWOPER, 40 Hour HAZWOPER for First Responders Operations Level and Streetcar Safety.

Professional Development

Training included policy review, workshops, conferences, meetings, online seminars and presentations. Subjects included effective communication, unconscious bias, internal technology, remote work practices and leadership skills. Storm water related subjects included low impact development, green infrastructure, Oklahoma Environmental law enforcement training, National Effluent Limit Monitoring (NELM) requirements, OKR05 quarterly visual monitoring and various vendor conducted trainings related to application and effectiveness of storm water products.

Memberships

- Lake Thunderbird Watershed Alliance
- Lake Thunderbird Watershed Partnership
- Central Oklahoma Storm Water Alliance
- Oklahoma Environmental Crime Investigators Association
- International Erosion Control Association
- Local Emergency Planning Committee
- Oklahoma Kill Response Management Team
- American Public Works Association

Several staff members hold nationally recognized professional certifications including:

- National Storm Water Center
 - Certified Stormwater Inspector (CSI)
- EnviroCert International
 - Certified Professional in Erosion and Sediment Control (CPESC)
 - Certified Professional in Storm Water Quality (CPSWQ)
 - Certified Professional in Industrial Stormwater Management (CPISM)
- National Registry of Environmental Professionals
 - Registered Environmental Manager (REM)

Conferences and Workshops Attended

- 2020 EPA Region 6 Virtual Stormwater
- Oklahoma Floodplain Managers Association (Technical)
- International City/County Management Association
- Accela Conference (Virtual)
- Oklahoma Compost Conference (Virtual)
- Oklahoma Environmental Law Enforcement Training Seminar



ROADWAY OPERATION AND MAINTENANCE

The Public Works Department, Streets and Drainage Maintenance Division, manages the panning crews which provide maintenance of the curb inlets. Through this program, eight staff members are equipped with two Vactor trucks, loaders, trucks and various other support vehicles/equipment used to remove sediment and debris from the storm sewer system. The reporting period budget was \$782,297. Crews removed 25 tons (50,700 pounds) of debris during the permit term.

OKC has regional snow routes which are annually coordinated with sixteen cities and four counties through ACOG. The routes are the application areas for salt or other materials to assist in traction control, evaporation or melting of ice and snow to reduce the risk to roadway users. The materials used to reduce the snow and ice hazards are located at two facilities

in OKC: Central Maintenance Facility (3738 SW 15th Street) and the North Salt Barn (11633 N Santa Fe Avenue). These facilities are permitted through the SWQ Industrial Program and inspected annually for storm water compliance.

The regional snow routes include 119 bridges and overpasses; and 104 street segments which includes 1,500 lane miles. Deicing material usage for snow routes varies from year-to-year. In 2020, crews treated bridges and overpasses on 2,481 occasions and treated over 35,859 lane miles using 1,782 tons of salt and 6,970 gallons of brine slurry. The SWMP was updated to include any roadway operation and management changes in April 2018.



Unlimited Sweepers & Cleaners LLC swept 23,400 curb miles during this permit period. The average amount monthly was 1,950 curb miles.

Street sweepers collected a total of 3,253 tons of debris in 2020.





PESTICIDE, HERBICIDE AND FERTILIZER APPLICATION

The City is required to provide at least one annual training event for City employees related to pesticide and fertilizer application. To address this requirement, the SWQ Division facilitates and provides pesticide/fertilizer training. Due to COVID-19, the 2020 Pesticide Workshop was postponed and held in January 2021.

Our goal is to ensure that every City employee that works with or applies pesticides is a Certified Applicator, Certified Service Technician or an applicator-in-training. This requires a close relationship with the Oklahoma Department of Agriculture Food and Forestry (ODAFF) to ensure the appropriate regulatory training requirements are met and consistent documentation of Continuing Education Units (CEU) are achieved. Oklahoma State University's Cooperative Extension Service is an essential resource in our technical pesticide, herbicide and fertilizer training.

Classes are publicized by e-mail, e-newsletter, word of mouth and fax communications. Staff from the Parks and Recreation Department, Public Works Department, Utilities Department, Department of Airports and Oklahoma City Zoo participated in the workshop.

In accordance with the "Combined Pesticide Law & Rules: Title 2, Oklahoma Statutes, Section 3-81 through 3-86; 35:30-17-1 through 35:30-17-99", our CEU and initial classes cover:

- Laws and rules
- Pesticides (formulations, registrations, labeling and label comprehension, handling and storage, toxicity and hazards)

- Application equipment and calibration
- Pests and Integrated Pest Management
- Identification of hazardous areas
- Drift prevention
- Endangered species
- Surface and groundwater protection
- Worker protection

Speakers and trainers are drawn from a knowledgeable and experienced group of professionals, including: pesticide vendors, University staff, ODAFF personnel, City employees and other subject matter professionals.

Speakers included Dr. Dennis Martin, Dr. Marley Beem and Jennifer Olson, covering Educational Tips for the Category 3a, 5 and 6 Oklahoma Certified Pesticide Applicator, Overview of Aquatic Plant Management and Use of Aquatic Herbicides and Diagnosing and Managing Tree Diseases.

The postponed 2020 workshop was held virtually on January 29, 2021 and offered a total of 8 CEUs in:

- ornamental/turf (category 3a),
- demonstration/research (category 10),
- right-of-way (category 6),
- aquatic (category 5)

A total of 240 CEUs were earned during the training event.

Pesticide General Permit

Oklahoma City submitted a Notice of Intent (NOI) to the Environmental Protection Agency for coverage under the first National Pollutant Discharge Elimination System Pesticide General Permit (PGP) in 2012. Permit coverage began on March 4, 2012 and expired on October 31, 2016. On December 20, 2012, ODAFF received authorization to regulate certain PGP activities in Oklahoma. Upon expiration of the first permit, the ODAFF revised the PGP and Oklahoma City submitted a second NOI on July 17, 2017 covering the pesticide use activities: mosquito/other flying insect pest control and weed/algae pest control.

Oklahoma City requested one stream segment classified as Tier 2 or Sensitive Public and Private Water Supply (SWS) be considered as existing discharge (discharges existing prior to June 11, 1989) and two stream segments be considered new discharges eligible for herbicidal treatment. In addition, Oklahoma City requested that ODAFF consider Lake Stanley Draper for continued herbicide treatment activities to control Phragmites.



Mosquito Larvicide and Trapping Programs

Oklahoma City has worked with the Oklahoma City/County Health Department (OCCHD) for the past 18 years to monitor and control mosquito populations within Oklahoma City.

SWQ used larvicides to control temporary and permanent mosquito nursery pools, which included



Mosquito trapping equipment

applications to the MS4. Altosid XR (EPA Registration Number 2724-421), is used in transitory or perennially inundated areas that support mosquito egg laying, larval growth and emergence. The pesticide's active ingredient is (s)-Methoprene (2.1% dry weight basis) which functions as a larval growth inhibitor. This larval growth inhibitor specifically stops the mosquito life cycle in larval stages and can be effective up to 150 days in the application area.

Altosid Pro-G (EPA Registration Number 2724-451) was added as an alternative to Altosid XR.

As with Altosid XR, (s)-Methoprene is the active ingredient. However, Altosid Pro-G is effective for a shorter duration of time (~30 days

versus ~150). A granular formula was preferred for habitats which required smaller applications due to water depth, proximity to larger non-infested waters or waters which are transient and more permanent control was unnecessary.

OCCHD provided Oklahoma City an additional pesticide for larvae control. FourStar (EPA Registration Number 8336-3) is used in temporary or permanent water sources and can control mosquito larvae through a sustained release of up to 180 days. This particular formulation is in briquette form and is a *Bacillus sphaericus* strain 2362, *Bacillus thuringiensis* sp. Israelensis Serotype H14.

Trained personnel respond to calls regarding suspected or confirmed mosquito habitat. Field observations are recorded and applications will be conducted if habitat is present and mosquito larvae are detected.

Mosquito Investigation / Application Statistics



This year, SWQ personnel conducted 29 mosquito investigations, which resulted in 15 applications and a surface treatment area of approximately 2,673 sq. feet. The application rate versus the investigation rate was 52%.

In early 2013, efforts were initiated between Oklahoma City and OCCHD to begin an adult mosquito surveillance program. This program was continued during the 2020 permit term. Oklahoma City staff provided secure mosquito monitoring locations, personnel and maintenance of the surveillance equipment. OCCHD provided the adult mosquito traps, taxonomic identification and testing for the presence of West Nile Virus (WNV). Two types of mosquito traps are currently

used; six gravid traps and three BG Sentinel 2 traps. Nine monitoring stations were assessed throughout the mosquito season accounting for 207 field visits. Technicians collected 12,138 adult mosquitos of which approximately 87% (10,538) were tested for the presence of the WNV. Seventeen station test results were positive for the presence of WNV.



Monitoring results are currently being used

to understand local mosquito population densities and dynamics, identify the presence of the WNV in mosquito populations, and identify key mosquito species which show the presence of WNV. The program is expected to continue during the 2021 mosquito season.





**POLLUTION
COMPLAINTS AND
SPILL RESPONSE
PROGRAM**

Action Center

In an effort to make neighborhoods a great place to live, the City provides a one-stop resident assistance office. Residents can contact the Action Center to report problems or get information about City services. When a problem is reported, the appropriate department is notified. The Action Center request is tracked and an e-mail is sent to the resident to let them know the City is working on a solution. During the reporting period, SWQ personnel responded to 323 Action Center requests.

The online Action Center service request form makes it easier for residents to find and accurately report problems in their neighborhood. The system includes all valid Oklahoma City street addresses, an expanded list of service types and access to previously reported requests.

To report a problem, residents select a request type such as: swimming pool water discharge, grass clippings being dumped into the MS4, or blowing dust and debris. Detailed comments may also be submitted with the request. The system assigns a confirmation number that allows a person to check the status of the request. Not only can residents check the status of their service request, they can see if there are other existing requests at a specific address.



Residents are encouraged to use the online system to report non-emergency problems. The online service request form may be submitted 24 hours a day, seven days a week. Problems may also be reported by calling, emailing, or texting the Action Center.

Hazardous Spills and Illicit Discharge Response

The Storm Water Quality Management Division responds as technical advisors to the fire department hazardous materials unit on emergency spill calls to ensure proper cleanup. SWQ staff are on-call 24 hours a day for response to spills and to serve as technical advisors



to prevent and/or mitigate contaminated runoff from entering the storm sewer system. During the reporting period, SWQ technicians responded to 111 incidents.

SWQ technicians also respond to pollution source investigations. Discharges can occur through illicit plumbing connections to the City's storm sewer system, deliberate dumping or accidental spills. The program works to reduce the number of discharges by tracking and eliminating illicit connections, enforcing state and local statutes regarding illegal discharges, and responding to spills to ensure material containment and cleanup.

During the reporting period, SWQ responded to 64 pollution source investigations.

Others Responses and Referrals

Various other division efforts are tracked including manager requests, departmental requests, requests for research, special event inspections, open records requests and State complaint referrals. The division responded to 189 of these requests this year.

Public Works Response Manager

The division also utilizes an internal system to track resident concerns. The system, known as the Public Works Response Manager, allows employees to enter a resident's concern, assign the concern to the appropriate division, check the status of the concern and mark the item as complete. The tracking system assists in providing a timely response to concerned residents.

Storm Water Quality responded to 3 Response Manager requests in 2020.



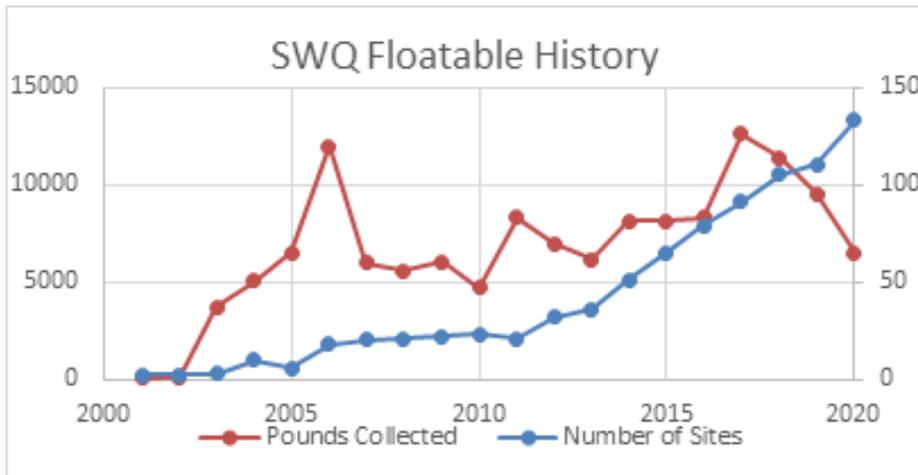


FLOATABLE DEBRIS MONITORING PROGRAM

One hundred and thirty three floatable debris collection stations (excluding the Oklahoma River debris barriers) were active during 2020.

To reduce the discharge of floating debris into the Oklahoma River, 26 river debris barriers were installed in the Paul H. Brum, May Avenue, and Eastern Avenue river basins. The barriers are

continuously monitored and debris is removed on an as-needed basis by Oklahoma City crews. As these structures are subject to harsh environmental conditions, damage to the debris barriers is anticipated. Twenty-five barriers are still in place. A comprehensive inspection was conducted in December 2020. Field notes indicate two barriers require replacement during the 2021 permit term.



Oklahoma City uses channel-wide netting, circular outfall netting, storm drain inserts and debris barriers to

The Floatable Debris Program is targeted to assess factors from human-generated debris carried into streams and storm drainage networks during elevated flow conditions. Quantities collected are expected to fluctuate with the volume of runoff associated with each individual storm event. Certain debris items, such as algal biomass and grass clippings, are also expected to fluctuate seasonally when algae metabolism slows or warm season grasses become dormant.



capture or contain floating debris from the drainage systems and waterways.

Removal and categorization of debris from the 133 stations occurred after each rainfall event or on an as-needed basis. A total of 6,474 pounds were collected during 1,127 site visits. Approximately 654 pounds (10%) of trash was collected from these events. The remaining 5,820 pounds (90%) of the debris collected was classified as natural debris.

The Public Works Department, Streets, Traffic and Drainage Maintenance Division provides a significant role with regard to the floatable debris management. On average, the division employs six staff members to remove debris and provide maintenance in the impounded segments of the Oklahoma River. Seasonally, additional employees may be added on an as-needed basis to provide increased support for the debris removal activities.

During 2020, the Oklahoma River Maintenance Crew removed and properly disposed of 109 tons of debris. Records are maintained for each basin (Western, Eastern and May Avenue basins). The Western Avenue basin accounted for the highest amount of debris removed (72 tons), followed by the May Avenue (28 tons) and the Eastern Avenue (9 tons).

FLOATABLES

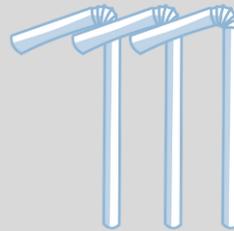
floatable debris collection classification



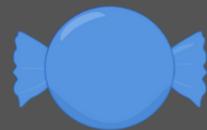
cups



bags



straws



wrappers



packing peanuts

cigarettes



bottles



cans



utensils



**WET
WEATHER
ANALYTICAL
MONITORING**

During the 2020 permit term, SWQ selected three stations to monitor; 85, 616 and 754. No optional stations were monitored during the permit term.

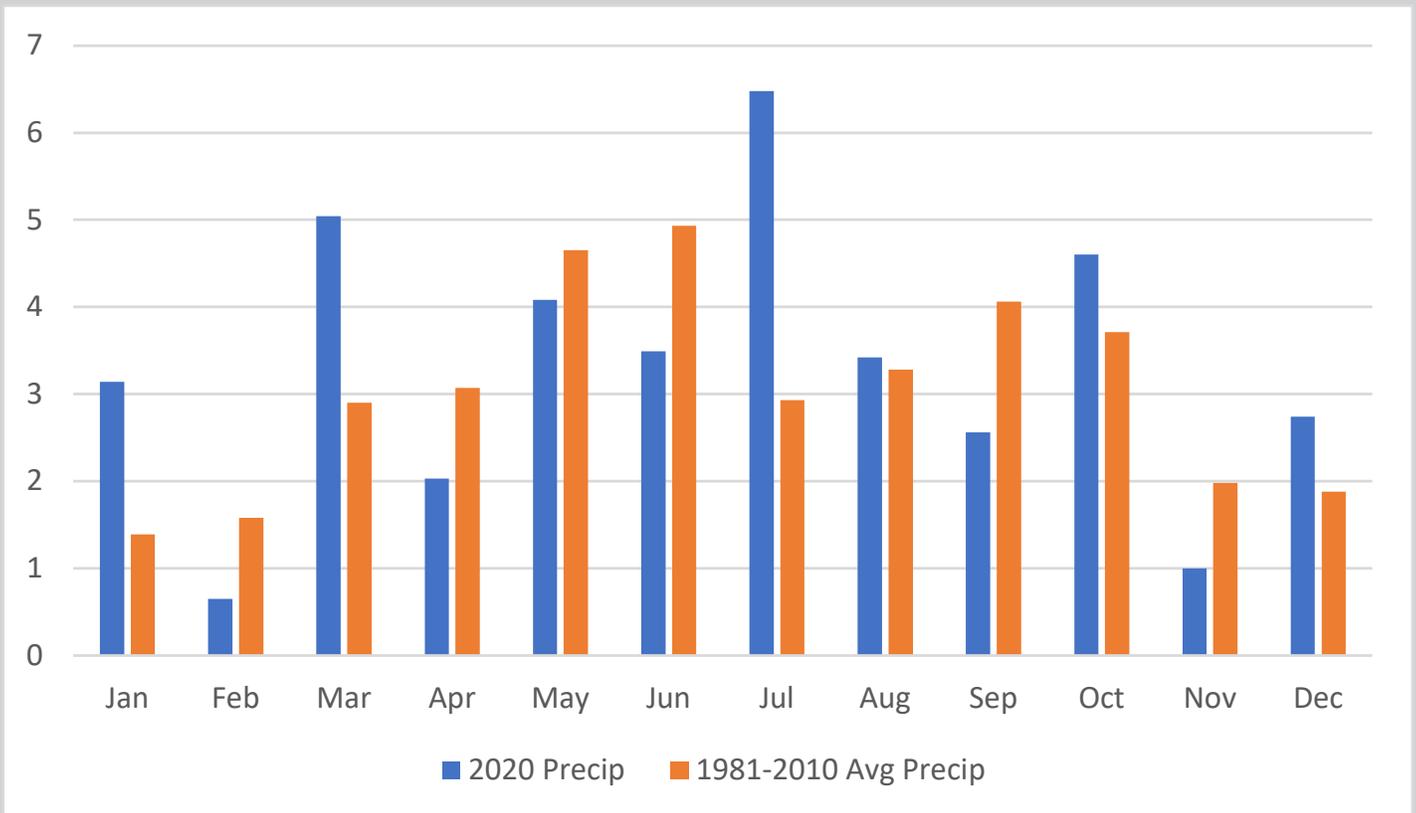
Accomplishments for this program included 100% completion of the three permit required wet weather stations at a frequency of two times per permit year. A total of six rainfall events were attempted or conducted. Six precipitation events were successfully monitored.

National Weather Service historical records for Oklahoma City (Will Rogers World Airport) were researched for precipitation data.

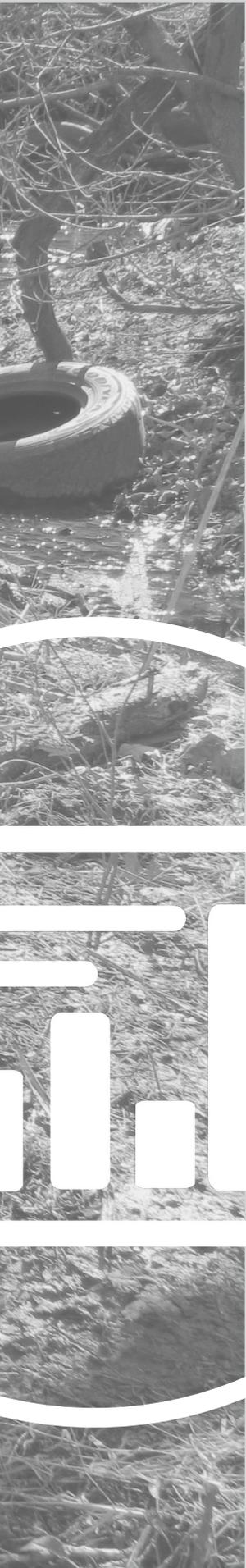
The 2020 monthly precipitation totals were compared to the corresponding thirty-year average monthly totals from 1981 through 2010.

The annual precipitation for Oklahoma City in 2020 was 39.23 inches, 2.87 inches greater than the thirty-year average of 36.36 inches. In January, March, July, August, October and December of 2020, Oklahoma City received greater precipitation than the 30-year average for the corresponding months. For all other months, Oklahoma City received less than average monthly precipitation.

Precipitation Amounts for 2020





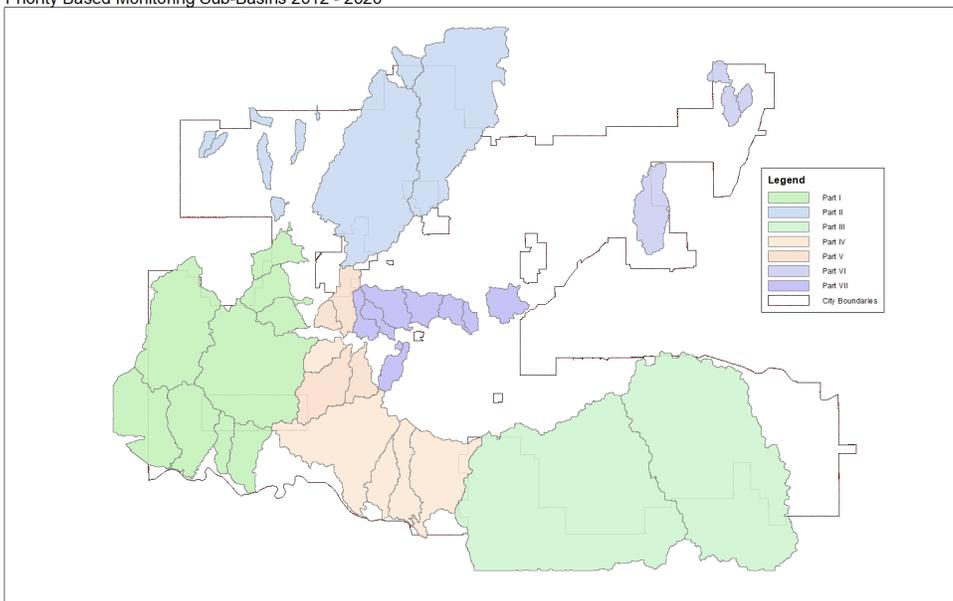


PRIORITY BASED MONITORING PROGRAM

The Priority Based Monitoring Program was developed to acquire additional information within basins identified during the Watershed Characterization Program as not meeting one or more State Water Quality Standards. Impairment listings identified in the Integrated Report were also used to prioritize additional watersheds for inclusion in the program.

Quality Assurance Project Plans (QAPPs) were developed for each study basin. QAPPs describe the purpose, scope and quality assurance/quality control objectives for the monitoring efforts. The scope of the project is to identify specific sub-drainage areas which may be contributing to the impairment listing.

Priority Based Monitoring Sub-Basins 2012 - 2020



The initial planning stages for the project were implemented during late 2011 and early 2012. The project spanned two Municipal Separate Storm Sewer System Permit cycles. Part I monitoring requirement was initiated in April 2012.

Program milestones:

- Completion of QAPP documentation for Part I through Part VII.
- 100% completion of all monitoring requirements for Parts I-VII.
- 100% data review of Parts I-VII monitoring data.
- 100% completion of summary reporting for Parts I-VII.
- 100% completion of the monitoring requirements for Part VII.



Technician collecting runoff samples

Water Quality Monitoring Activities

General Overview

The number of monitoring stations selected was based on the data needs of each study area. In situ monitoring and laboratory test parameters are determined based on information needed to describe any relevant water quality problems identified by previous water studies or external sources. Generally, each location selected for study will be visited during thirty fixed interval monitoring events over a fifteen month period.

A tailored monitoring plan for each basin was developed by selecting from a list of field observations and laboratory parameters. Laboratory study parameters could include: total phosphorus, total nitrogen, nitrate as nitrogen, nitrate plus nitrite, biochemical oxygen demanding substances (BOD), carbonaceous biochemical oxygen demanding substances (CBOD), chemical oxygen demanding substances (COD), *E. coli*, Enterococci, total suspended solids (TSS), total dissolved solids (TDS), sulfate, caffeine, triclosan, optical brightener, ammonia nitrogen and selenium. In situ test parameters could include dissolved oxygen (grab and diurnal), swath based optical brightener, water temperature, specific conductance, discharge, oil & grease (visual), pH, habitat assessment, turbidity, total chlorine and free chlorine. Biological collections (fish) were collected at certain stations.

Priority Monitoring Part VII Water Quality Monitoring Summary

- Twenty-three monitoring locations were selected in nine sub-basins of the North Canadian watershed.



Technician collecting Benthic Macroinvertebrates

- Part VII monitoring activities started in March 2019 and were completed in May 2020.
- 208 station records were reviewed which included the collection of 191 water samples and 190 field chemistry reports.
- Site constraints prohibited diel studies at stations 351, 366, 701 and 785. A diel was attempted at station 1453 on multiple occasions, however records indicate the site was at no flow or dry conditions throughout the monitoring timeframe.
- At the end of the 2020 permit term, the water sampling component of Part VII was 100% complete.





**ILLICIT DISCHARGE
DETECTION AND
ELIMINATION
PROGRAM**

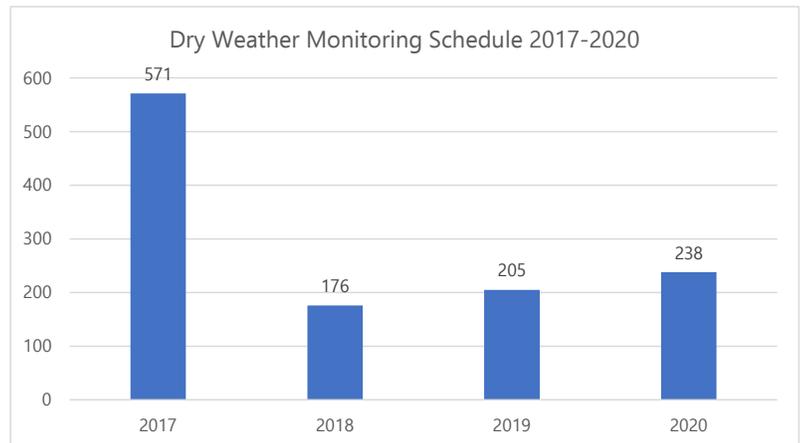
Dry weather screening is a field monitoring technique used by the City to detect illicit discharges such as illegal connections, potable water line leaks, wastewater line leaks, illegal discharges and out-of-compliance discharges from construction activities, industrial operations and residential land uses.

Part III.A.14 of the OKC MS4 Permit requires the completion of 100% of the 554 Dry Weather Field Screening stations three times each permit term. Years 1 and 5, 100% of the sites will be monitored. Years 2, 3 and 4 roughly 1/3 of the sites will be monitored.

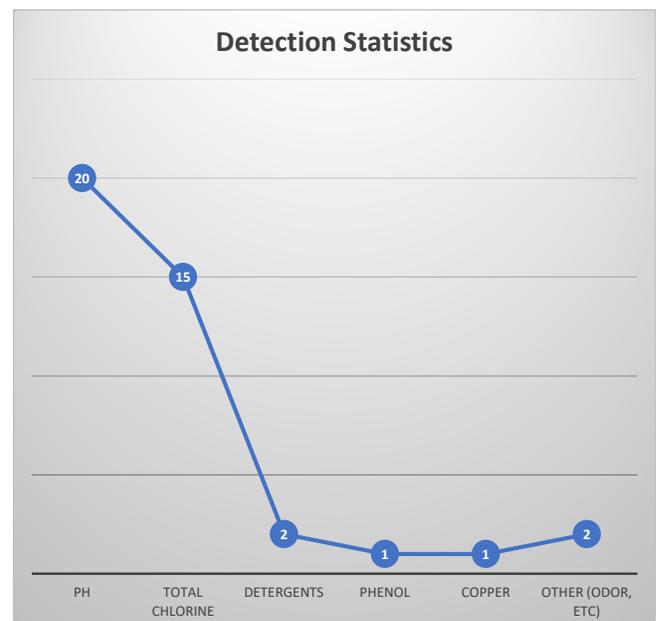
A total of 240 station visits were completed from January through December 2020. This accounts for 100% completion rate of the 2020 testing requirements. Verification of field paperwork indicated that 37 stations required follow-up visits to determine the cause of the elevated field test results. Two of the 240 stations monitored from 2020 were follow up visits for 2019 stations.

Sixty-six percent of the stations monitored had sufficient water for testing. The remaining 34% were determined to have insufficient water for sampling; however, field observations were conducted. One station was not monitored due to access issues.

Thirty-seven follow-up investigations were conducted during the 2020 permit term. Remedial actions were sought by the responsible parties, when applicable.



2020 field testing results indicated variability with regard to parameters which require additional follow-up. pH accounted for the highest percentage (49%) followed by total chlorine (37%), detergents (5%), other (odor, etc.) (5%), copper (2%) and phenol (2%). Some sites had multiple parameter detects (total chlorine, copper and phenol) and is the reason for the higher number of detections to the number of investigation sites.



Storm Water Quality continued to utilize the CUES steerable storm drain camera system to identify sources of pollutants, verify structural defects, confirm repairs and isolate blockages within the storm drainage network.



CUES camera

The camera system is housed in an enclosed cargo trailer which can be used as a stand-alone unit or towed behind a vehicle to locations throughout

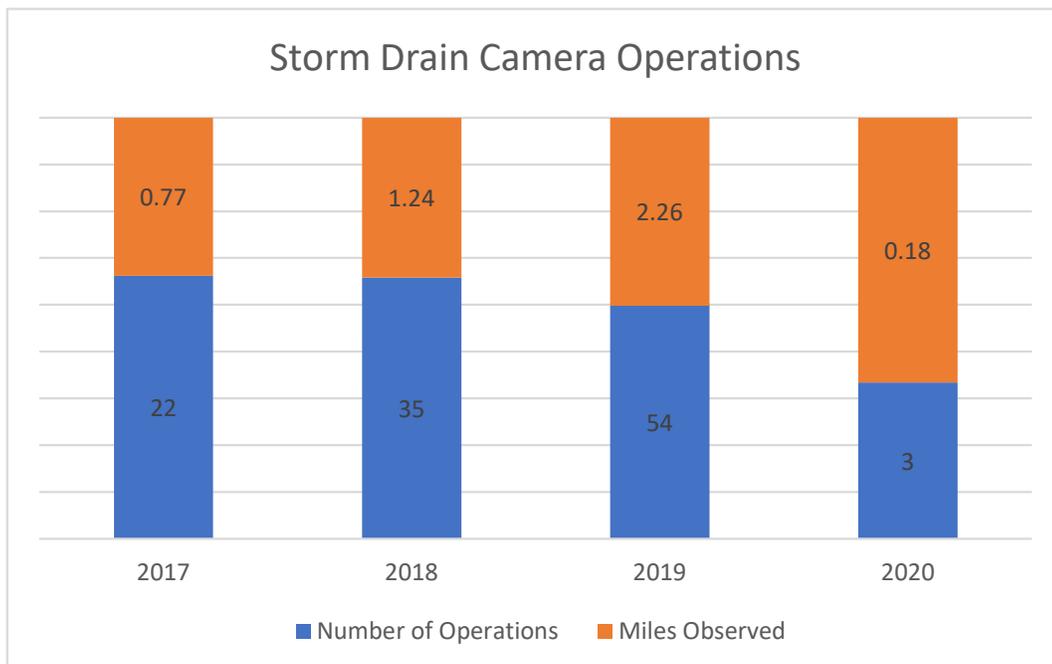
the city. Video inspections are recorded onto a DVD for documentation purposes. A standardized field form is completed for each video inspection. Investigation location information, conduit size and configuration, time, defects and other problems encountered are recorded. Specific distances of items noted are recorded for any necessary follow-up actions.

During 2020, Storm Water Quality Management performed 3 camera operations. 937 feet (0.18 miles) of storm drains were inspected during these investigations.

In addition to Storm Water Quality's camera operations,

the Streets, Traffic and Drainage Maintenance Division of the Public Works Department provides camera inspection services. Crew tasks generally include isolating structural problems, responding to poor drainage or inspecting replaced or reconditioned storm drainage structures. Thirty-two camera inspections were completed during the permit term which totaled 6,561 feet (1.24 miles).

Streets, Traffic and Drainage Maintenance and Storm Water Quality performed a combined total of 35 closed circuit storm drain camera inspections during the 2020 permit term which accounted for 7,498 linear feet (1.42 miles) of assessed structural assets.

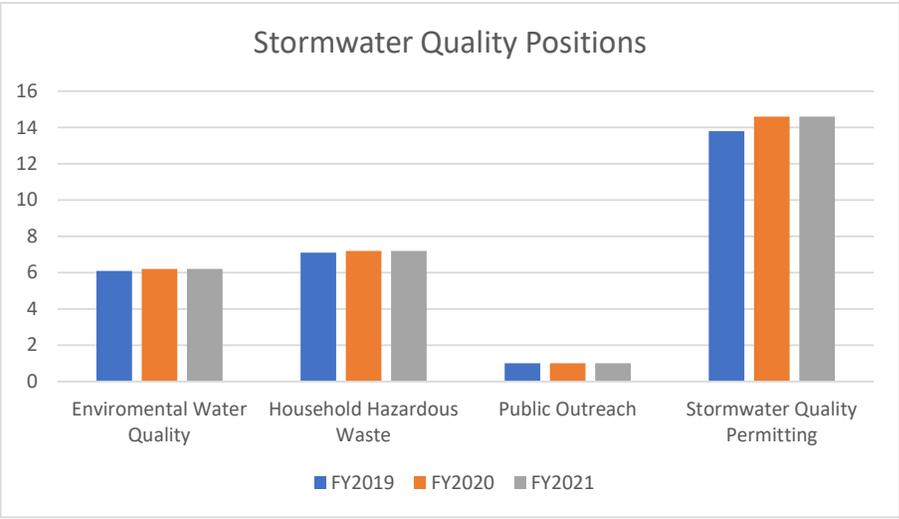
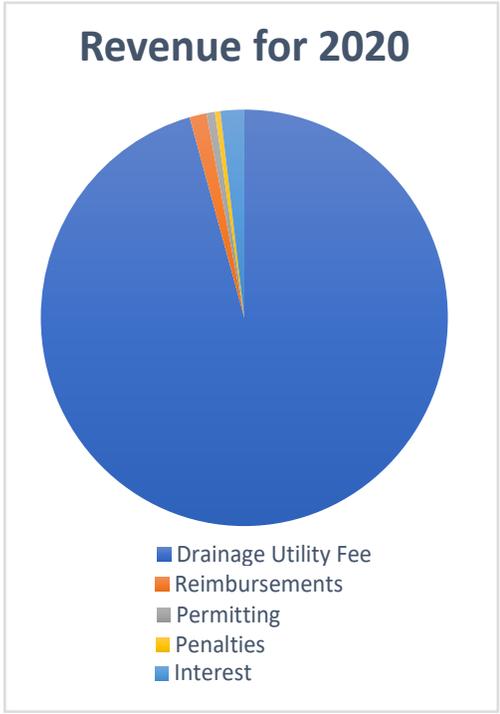
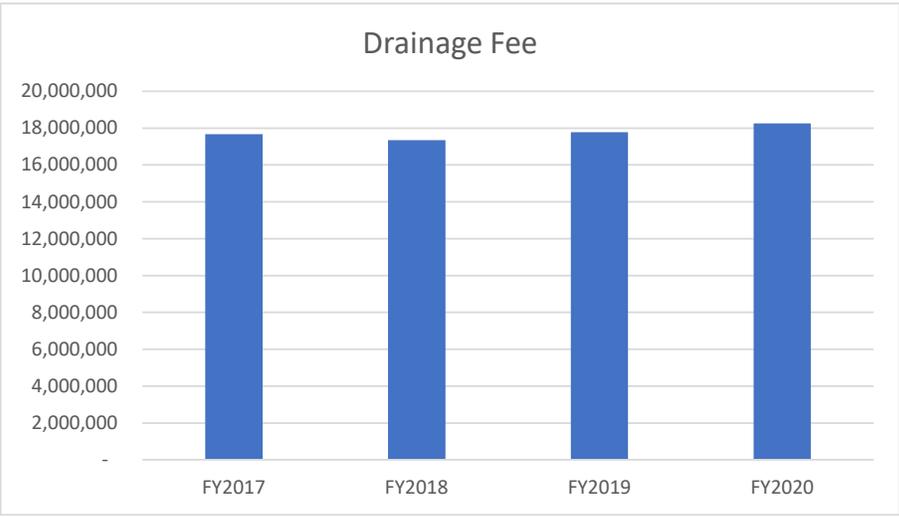
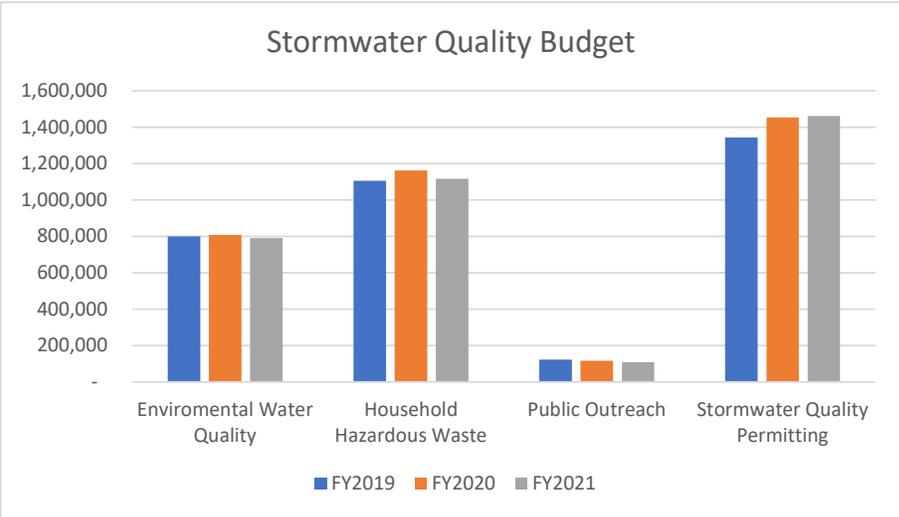


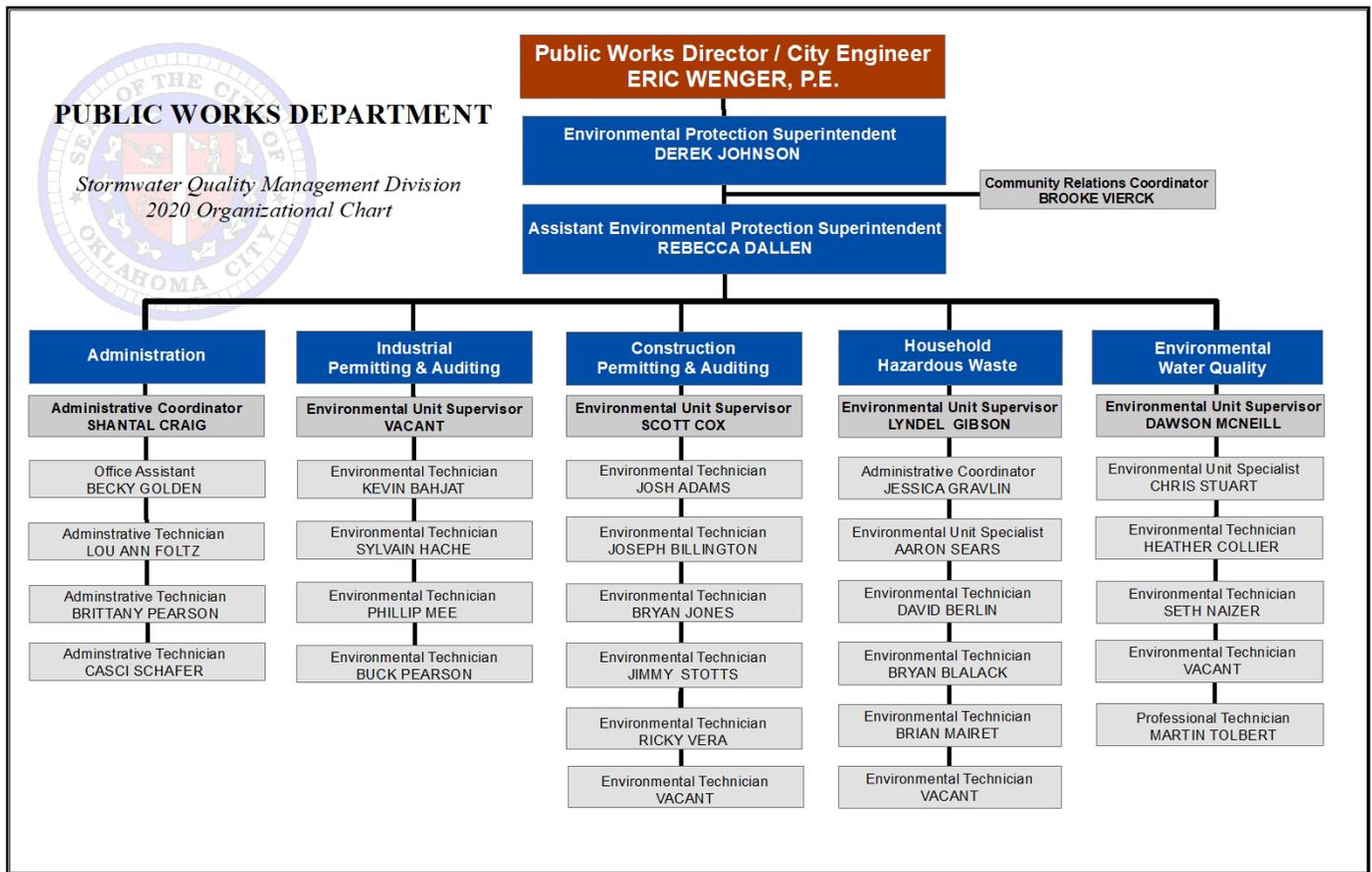




**SUPPORTING
CONDITIONS,
PROGRAMS AND
DOCUMENTS**

The storm water drainage utility was established by city council on June 13, 1995 to address federal mandates governing National Pollution Discharge Elimination System (NPDES) programs. Its' responsibilities are to plan and implement strategies to improve the quality of storm and other runoff waters. The utility is an enterprise with operating revenues generated from a drainage fee, billed monthly, along with water, wastewater and solid waste.





Oklahoma River Bacteria Program

To generate the information needed to assess the levels of fecal contamination indicators in the Oklahoma and North Canadian River, SWQ initiated a three-part bacteria monitoring program. The program includes dry weather, wet weather and fixed interval sampling efforts with focus on the bacterial parameters *E. coli* and enterococci. Data were reported for one monitoring station (1359) during 2020. Fifty sampling events were recorded during the permit year. An additional six samples were collected or created as part of the project's quality assurance efforts. Quality control samples included three trip blanks and three splits.

In efforts to foster safe water recreation, Oklahoma City allows swimming in natural waters on a permit basis. These revocable permits have specific language detailing indicator bacteria (*E. coli*) and blue-green algae threshold counts to discontinue an event which includes primary body contact recreation. Revocable permits for the primary body contact related events at Lake Hefner and at the Oklahoma River were cancelled due to COVID-19 concerns. No bacteria samples were acquired for these events in 2020.





MS4 SPECIFIC REQUIREMENTS

Program Component - Part II.B.2 of the Oklahoma City (OKC) MS4 Permit requires certain initiatives to incorporate, plan and implement processes or controls to reduce the discharge of pollutants into waters of the State. The following sections provide the requirements and annual program accomplishments for the applicable Total Maximum Daily Loads in OKC.



Lake Thunderbird TMDL sampling

Part II.B.2 TMDL Allocations

1. Discharge of a pollutant into any water for which a TMDL or watershed plan in lieu of a TMDL for that pollutant has been either established or approved by the Oklahoma Department of Environmental Quality (ODEQ) or Environmental Protection Agency (EPA) is prohibited, unless your discharge is consistent with that TMDL or watershed plan. You must incorporate any limitations, conditions, monitoring and other requirements applicable to your discharges into your SWMP to ensure that the waste load allocation, load allocation and/or

the TMDL's associated implementation plan will be met within any time frames established in the TMDL or watershed plan. You must adopt any WLAs assigned to your discharges specified in the TMDL as measurable goals within the permit.

2. If a TMDL or watershed plan in lieu of a TMDL is approved for any water body into which you discharge after the date that your permit becomes effective, you must incorporate any limitations, conditions, and requirements applicable to your discharges into your SWMP to ensure that the waste load allocation, load allocation and/or the TMDL's associated implementation plan will be met within any time frames established in the TMDL or watershed plan. Monitoring and reporting of the discharges may also be required as appropriate to ensure compliance with the TMDL or watershed plan. You must adopt any WLAs assigned to your discharges specified in the TMDL as measurable goals within the permit.

Lake Thunderbird Report for Nutrient, Turbidity and Dissolved Oxygen TMDL

- November 20, 2013, OKC was notified by the Oklahoma Department of Environmental Quality of EPA approval of the Lake Thunderbird TMDL.
- Requirements included incorporation of the TMDL Waste Load Allocations (WLAs) into the City's Storm Water Management Plan and development of a TMDL Compliance and Monitoring Plan for the Lake Thunderbird watershed in OKC.

2020 TMDL Milestones

Monitoring Summary Quarterly Grab Sample

Collection for Hog Creek (Site 24), Elm Creek (Site 570) and Unnamed Tributary to Little River (Site 568).

- Jan 7 – Completion of 1st quarter samples
- Apr 8 – Completion of 2nd quarter samples
- July 7 – Completion of 3rd quarter samples
- Oct 6 – Completion of 4th quarter samples



TMDL auto-sampling station

Trend Monitoring

Continued monitoring at the three OKC Lake Thunderbird watershed stations, provided continuous discharge measurements and sample collection. Each sample consisted of flow-proportioned aliquots and was collected for weekly analysis. The data are used to calculate the loading for each week of sample collection.

- Fifty-four sampling events were attempted at Station 24. Twenty-five total phosphorus (TP), 20 total suspended solids (TSS), and 23 total nitrogen (TN) event concentration samples that met quality assurance requirements were used to calculate the annual load. Roughly, 56%, 48%, and 53% of the year were sampled for TP, TSS, and TN, respectively. Twenty-nine TP, 34 TSS, and 31 TN samples were flagged for quality assurance violations and not used for calculating the estimated annual load. The average TP, TSS, and TN loads were 2.67 kg/day, 1,447.01 kg/day, and 52.02 kg/day.
- Fifty-two sampling events were attempted at Station 570: 34 TSS, 29 TP and 31 TN sampling event concentrations were used to estimate the annual load. Nearly 64%, 57% and 59% of the year was sampled for TSS, TP and TN, respectively. Eighteen TP, 29 TSS and 21 TN samples were flagged for quality assurance violations and not used for calculating the estimated annual load. The average TSS, TP and TN daily loads were 1,850.50 kg, 2.29 kg and 27.52 kg.
- Sixty sampling events were conducted at station 568; 17 TP, 16 TSS and 16 TN sampling event concentrations were used to estimate the annual load. Around 35%, 33% and 33% of the year was sampled for TP, TSS and TN, respectively. Forty-three TP, 44 TSS and 44 TN samples were flagged for quality assurance violations and thus not used for calculating the estimated annual load. The average TP, TSS and TN daily loads were 0.23 kg, 133.84 kg and 2.29 kg, respectively.
- TMDL compliance was assessed using total loads estimated for 2020 to calculate the long-term average (LTA) load. Annual data was assessed to determine if any maximum daily load (MDL) violations occurred. Two MDL violations were noted at station 24 for TSS and TN. The long-term averages for TP and TSS were below the required TMDL LTAs and TN average was above the TMDL LTA during the reporting period.

Major Outfall Monitoring (Passive Sampling)

- March 22 - Sampling event conducted.
- June 28 - Sampling event conducted.
- September 9 - Sampling event conducted.

Dry Weather Screening (IDDE Monitoring)

- Seventeen stations were visited from June 2 - June 12, 2020.
- Ten stations were dry and seven stations were screened with the field test kits.

Test results were within acceptable ranges and no follow-up actions were necessary.

Non-Structural BMP Load Reductions

Existing non-structural BMP pollutant removals (calculated using the Watershed Treatment Model) includes erosion & sediment control, street sweeping and catch basin clean outs. Staff identified 25 active construction or land disturbing permits in the watershed with a total of 142 acres disturbed. Fifteen new permits were issued and comprised of 24 acres. Model results estimated non-structural BMPs removed 62 lbs./year TN, 10 lbs./year TP, and 25,740 lbs./year TSS.

Structural BMP Load Reductions

Ongoing modeling of structural BMPs such as detention, retention, and bio-infiltration has provided the estimated annual removal of 631 lbs/year TN, 230 lbs/year TP and 22,059 lbs/year TSS.

Parameter	OKC Calculated Load	OKC TMDL MDL (Single Day)	OKC LTA
Total Phosphorus (kg/day)	6.6	49.4	13.2
Total TSS (kg/day)	4354.5	27049.9	7392.46
Total TN (kg/day)	103.9	261.8	66.69



TMDL related equipment training for City staff

Training

Staff participated or presented at multiple trainings, seminars or workshops related to best management practices, storm water infrastructure, sustainability, and other storm water topics during the annual review period. Training on subject matter which is related to the TMDL totaled over 115 hours.

Meetings and other Collaborative Efforts

Staff logged 30 meetings and reports related to the Lake Thunderbird watershed. The Lake Thunderbird Watershed Partnership met three times during the review period:

- February 21
- September 18
- December 11

In September of 2017, a general bond obligation initiative passed providing \$13M for drainage control funding for the Lake Thunderbird watershed. The Elm and Hog Creek drainages to Lake Thunderbird are currently being evaluated to determine best practices and approaches to remove key pollutants as identified within in the TMDL study.

OKC met consulting staff from C.H. Guernsey & Company on 25 occasions to discuss the project status of DC-0299 and DC-0300. Contracted services include the following project goals for the Elm and Hog Creek drainages:

- Determine if OKC is currently in TMDL compliance.
- Develop structural and non-structural controls to reduce existing and future pollutant loads.
- Identify key areas for installation or retrofitting storm water control facilities.
- Develop associated long-term maintenance costs and plans for proposed water quality control facilities.



Monitoring documentation

Other

Outreach efforts included an estimated 1,409,197 contacts within the OKC Lake Thunderbird watershed. The watershed-specific contacts were estimated by multiplying the Division's City-wide contacts for 2020 by the percentage of the City's population in the watershed. This number was further refined to determine the number of contacts that potentially retained the information. The final retention rate contacts are estimated at 486,503.

Fifteen rain barrels were sold to residents in the Lake Thunderbird watershed.

City staff identified 25 embossed storm drain inlet locations. These locations were added to the curb marker locations ArcGIS file.

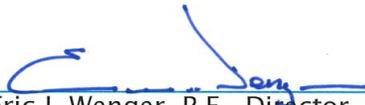


The City of
OKLAHOMA CITY
DEPARTMENT OF PUBLIC WORKS

CERTIFICATION STATEMENT

**NPDES Permit No. OKS000101
Review of Storm Water Annual Report**

I certify under penalty that this document, and all attachments, were prepared under my direction, or supervision, in accordance with a system designed to assure qualified personnel properly gathered and evaluated 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 is, to the best of my knowledge and belief, true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.


Eric J. Wenger, P.E., Director
Public Works/City Engineer

3/2/21
Date



Oklahoma Department of Transportation
Annual Report
for
January 1, 2020 through December 31, 2020

CERTIFICATION STATEMENT

NPDES Permit No. OKS000101
Review of Storm Water Annual Report

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

Brian Taylor
Chief Engineer

A handwritten date "3/1/21" in black ink is written over a horizontal line.

Date

Association of General Contractors, is working on innovative solutions for final stabilization under and around bridge structures in order to comply with OKR10 Notice of Termination Requirements.

Non-Traditional MS4 Program

Due to the global pandemic, as well as the Department's modernization efforts the negotiations with DEQ for obtaining an individual non-traditional MS4 permit have slowed. However, ODOT has continued to prepare and plan for this permit and is still working alongside a consultant to continue the planning and negotiation process.

Illicit Discharge Detection and Elimination Program (IDDE)

ODOT Maintenance facilities continue to use the guidance document which was developed to assist ODOT personnel in identifying and reporting an Illicit Discharge. As well as the storm water program having opportunity for IDDE reporting on their webpage. There were ten reported spills on ODOT Right of Way in the year 2020. Discussion on tracking Highway Spills from accidents is ongoing between ODOT Environmental Division, Maintenance personnel and the Highway Patrol.

Good Housekeeping / Pollution Prevention Plans (GHPPP)

ODOT has completed an inventory survey of facilities statewide to develop training on Good Housekeeping and Pollution Prevention. Funding for facility upgrades and/ or relocation is being pursued by the Agency. Currently, each of the eight Field Divisions are evaluating location, condition and need to determine which County facility will be moved or rebuilt on site. These upgrades will further the Good Housekeeping /Pollution Prevention Minimum Control Measure by adding updated secondary containment devices and retention facilities. In addition, ODOT has developed a Good Housekeeping Pollution Prevention Plan Facility template. The templates are being completed for facilities in the regulated areas to satisfy DEQ requirements. GHPPP's and training are being developed.

Herbicide Application

The application of herbicides is performed by Oklahoma Department of Transportation employees. ODOT closely follows the procedures, rules, and regulations contained in the Oklahoma Pesticide Applicators Law. ODOT requires all its applicators to be licensed and are subject to the implementing regulations of this law. ODOT partners with the Oklahoma Department of Agriculture to offer the Pesticide Applicators test required for a license during our annual workshops.

ODOT has a contract with the Oklahoma State University/ Oklahoma Cooperative Extension Service to provide annual herbicide applicator workshops. In October of 2020, an online platform of the continuing education units were developed to accommodate for the Pandemic restrictions of

in person classes. This gave ODOT personnel October through December of 2020 to complete these trainings.

On October 31st, 2011, new EPA regulations were promulgated that brought Pesticide Application under the Clean Water Act, if applicable. ODOT has adopted a thirty foot buffer zone from all USGS “Blue Line” streams to meet EPA’s Pesticide General Permit requirements. By using “terrestrial only” applications, ODOT will not be required to obtain Pesticide Application permits under the Clean Water Act. ODOT Environmental Programs Division attended the Field Division workshops, explained the buffer zone requirements, demonstrated how this process of shutting off the spray in the correct areas and the importance of complying with this regulation. An interactive, online map of Oklahoma USGS “Blue Line” streams was created by ODOT GIS personnel to assist applicators in identifying shut off areas for their prospective roadways.

Public Education and Outreach

ODOT developed a storm water coloring book to distribute electronically in 2021. The book incorporate storm water concepts, state animals and fun activities. The agency is also working to schedule regular social media posts to highlight storm water topics and is working with the Central Oklahoma Storm Water Alliance (COSWA) to participate in their outreach efforts.

ODOT has continued the statewide anti-litter campaign, “Oklahoma, Keep Our Land Grand”. The litter hot-line (1-888-5-LITTER), is available to report littering anywhere across the state. Callers can report the offenders tag number. The people observed littering were sent a postcard requesting them to help “Keep Our Land Grand”. Littering is against the law and offenders can be fined from \$200 to \$2000.

In 2020, 6,107 school-age children participated in our annual poster contest, sponsored by ODOT; Oklahoma Department of Environmental Quality, Oklahoma State Department of Education, Keep Oklahoma Beautiful, Oklahoma Environmental Management Authority, Oklahoma Rural Water Association, Oklahoma Chapter of the Sierra Club, Solid Waste Institute of NE Oklahoma, Waste Research, Inc., Oklahoma Arts Council, Oklahoma Employees Credit Union, OGE Energy Corporation, Veolia Water, Oklahoma Tourism & Recreation Department (Oklahoma State Parks), Wal-Mart, AEP-Public Service Company of Oklahoma, Oklahoma Turnpike Authority and the Oklahoma Highway Safety Office. The winning posters are printed for distribution to schools, businesses, and chambers of commerce. 35,000 posters were printed and distributed with over 400 requests coming into the department for calendars. 98% of these requests were from outside of Oklahoma and even other countries like India, Pakistan, Canada, and Qatar.

Adopt-a-Highway/ TRASH-OFF

ODOT’S anti-litter efforts are still on-going and include one hundred thirty eight separate “Adopt-a-Highway” groups who remove litter from their two mile section of state highways at an interval

of four times a year, and the “TRASH-OFF”, an annual volunteer spring roadside cleaning sponsored by ODOT. Oklahoma City has twenty five “Adopt-a-Highway” groups covering fifty miles at a minimum of four times a year.

Though the Annual TRASH-OFF was scheduled in 2020, due to the pandemic the event did not continue. As ODOT distributes trash bags and supplies for the annual TRASH-OFF, many participants collected their materials but there was not a state-wide event. The department partners with Keep Oklahoma Beautiful for this event and both parties are planning for a great event in 2021.

Wildflowers

Wildflower planting was ODOT’s first landscaping program which started in 1976, but went into full scale planting in 1987. There are more than two thousand, two hundred acres in five hundred eighty six sites planted statewide. The Oklahoma Legislature passed a bill in May 2006 creating a new Oklahoma wildflower car tag. Every wildflower tag will donate twenty dollars toward the planting of wildflowers on Oklahoma roadsides.

Citizen donations of \$280,086 have purchased wildflower seed for planting along highways during the last 25 years. To date, ODOT has planted approximately two thousand three hundred acres on roadside sites statewide.

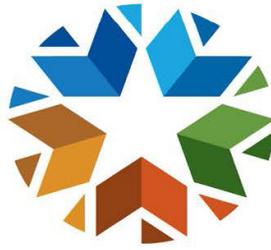
Three drill seeders, specifically designed for wildflower seed, are used by ODOT for planting on highway roadsides. These drills are available for use by Oklahoma communities and organizations.

In the spring of 2016 a memorandum of agreement was signed in partnership with the Federal Highway Administration and the Missouri, Texas, Iowa, Kansas and Minnesota DOTs designating Interstate 35 as the Monarch Highway. The goal is to protect more of the Monarch Butterfly’s natural habitat by allowing milkweed and native flowers to grow in the right-of-way where possible. In anticipation of the collaboration, ODOT began refraining from mowing highway rights-of-way statewide, except where necessary, until July when the flowers are primed for seed dispersal. Mowing was continued in urban areas and safety zones, which includes medians and rights-of-way up to 30 feet from the pavement’s edge. A pollinator garden was also planted by ODOT staff at the Oklahoma City Welcome Center. The garden, a registered Monarch Waystation, is a 20 foot by 40 foot plot containing five types of milkweed, Black-eyed Susans, purple coneflower and other types of wildflowers. The garden will serve as educational tool for the public to help them recognize and protect milkweed and other native wildflowers.

In 2020, ODOT received their Certificate of Inclusion into the Monarch Candidate Conservation Agreement with Assurances, joining 24 energy and transportation sector organizations in committing to voluntarily adopt conservation measures that are beneficial to the monarch butterfly. As part of this partnership ODOT has made a commitment over the next five years to manage enrolled acres of Oklahoma roadways utilizing conservation measures such as reduced mowing and planting of native vegetation to provide suitable monarch habitat to support breeding and/or foraging requirements.

Collection and Recycling

ODOT’s Oklahoma City Maintenance personnel recycled approximately twelve hundred gallons of oil this past year. The oil is picked up by a private contractor five times a year. The department also collects antifreeze and batteries which are returned to the manufacturer for reuse.



OKLAHOMA Turnpike Authority

SIGNATURE OF RESPONSIBLE OFFICIAL

Oklahoma Turnpike Authority

“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 gathered and evaluated 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 knowing violations.”

Darian L. Butler

Darian Butler, P.E.
Director of Engineering
March 11, 2021

Executive Summary

The Oklahoma Turnpike Authority (OTA) has prepared this 2020 Annual Report to meet the requirement of Part V.C of General Permit OKR04 issued by the ODEQ for Phase II Municipal Separate Storm Sewer System (MS4) discharges within the State of Oklahoma.

This Report addresses progress made on implementing the six Minimum Control Measures (MCMs) as contained in OTA’s Storm Water Management Plan (SWMP) which was revised in October, 2016. The report addresses progress made during the following permit period:

January 1, 2020 to December 31, 2020

Each MCM has a number of Best Management Practices (BMPs) that constitute the core activities pertaining to each MCM.

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ANNUAL REPORT: PHASE II STORM WATER MANAGEMENT PROGRAM

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I. Overview of OTA’s Stormwater Program

Contact Information

The following is the stormwater contact information for OTA:

Oklahoma Turnpike Authority
P.O. Box 11357
Oklahoma City, OK 73136
Contact Person: James Pruett
Telephone Number 405-425-7449

Overview of OTA’s SWMP

The OTA operates 640 miles of roadway in both urban and rural areas. Approximately 139 miles of OTA roadways are within small MS4 boundaries. The OTA applied to renew the OKR04 permit on January 29, 2016. The new permit was received on January 18, 2017. OTA is in the process of designing or constructing three new turnpike segments; however, none of the new segments impact any Phase II MS4s.

The OTA completed a major revision of the SWMP in October 2016. Any reference to BMP numbers in the remainder of this report refers to the BMPs included in the October 2016 revision.

II. Status of Compliance with Permit Conditions/Assessment of Appropriateness/Progress Toward Reducing Pollutants to MEP/Progress Towards Measurable Goals

OTA submitted the first annual report under the new OKR04 permit on February 23, 2017. All subsequent annual reports were submitted by March 1 of each year as required. The OTA is not subject to requirements of any TMDLs. The OTA is in compliance with the new OKR04 permit conditions.

OTA continued the use of web-based stormwater training that was started in 2017. A web based program was presented to OTA staff in calendar year 2018. For calendar year 2020 a revised web based training program was offered to maintenance staff.

This was also the third year of OTA’s “Environmental Programs” section on the OTA website. OTA added an EPA guidance document to the website in 2018 and will post additional information to the website in 2020.

Progress Toward Achieving Measurable Goals for each of the Six Minimum Control Measures

Minimum Control Measure	Relevant BMP#/Title	Assessment of Appropriateness (Explain if not Appropriate)	Progress Towards Reducing Discharge of Pollutants	Progress Towards Measurable Goals	
Public Education and Outreach	1	Brochure for Water Quality Impacts	Yes	Educates the public in ways to reduce pollutants in stormwater	EPA guidance on highway runoff posted on the Environmental section of OTA's website on 12/28/18.
	10	Prepare Annual Report for DEQ	Yes	N/A	Measurable goals have been met
	11	Stormwater Section on OTA's Website	Yes	Provides information that can have an indirect impact of discharge of pollutants	The Stormwater Management page is reviewed periodically and updated as needed.
	12	Clean-up Events and Litter Programs.	Yes	Helps control accumulation of solid waste on OTA property	Trash is picked up regularly and notices are sent to those observed to be littering.
Public Participation and Involvement	1	Brochure for Water Quality Impacts	Yes	Educates the public in ways to reduce pollutants in stormwater	EPA guidance on highway runoff posted on the Environmental section of OTA's website on 12/28/18.
	8	Toll Free Telephone Number	Yes	Helps alert OTA to problem locations	OTA has established separate toll free numbers for stormwater and litter inquiries.
	10	Prepare Annual Reports for DEQ	Yes	N/A	Measurable goals have been met
	11	Stormwater Section on OTA's Website	Yes	Provides information which can have an indirect impact of discharge of pollutants	The Stormwater Management page is reviewed periodically and updated as needed.

Minimum Control Measure	Relevant BMP#/Title	Assessment of Appropriateness (Explain if not Appropriate)	Progress Towards Reducing Discharge of Pollutants	Progress Towards Measurable Goals	
Illicit Discharge Detection and Elimination	1	Brochure for Water Quality Impacts	Yes	Educates the public in ways to reduce pollutants in stormwater	EPA guidance on highway runoff posted on the Environmental section of OTA's website on 12/28/18.
	2	Policy for Chemical Storage and Disposal	Yes	Helps control release of chemicals	Policy was reviewed in June and will be continued for 2020.
	3	Training Module for Maintenance Activities	Yes	Educates employees in ways to reduce pollutants in stormwater	Web-based training titled "MS4 Permits and OTA" is being revised to reflect current information.
	4	Training Module for Stormwater Regulations	Yes	Educates employees in ways to reduce pollutants in stormwater	Four OTA staff attended Oklahoma City's Construction Workshop on October 3, 2019
	6	Develop OTA System Maps	Yes	N/A	Maps are reviewed as needed.
	8	Toll Free Telephone Number	Yes	Helps alert OTA to problem locations	OTA has established separate toll free numbers for stormwater and litter inquiries.
	9	Spill Prevention/Clean-up Policy and Procedure	Yes	Helps control release of chemicals	Policy was reviewed in June and will be continued for 2020.
	10	Prepare Annual Reports for DEQ	Yes	N/A	Measurable goals have been met
	12	Clean-up Events and Litter Program	Yes	Reduces solid waste on OTA right-of-way	Trash is picked up regularly and notices are sent to those observed to be littering.
	13	Storm System Conveyance Inspections	Yes	Helps control discharges of suspended solids	Approximately 50% of all conveyance structures are inspected each year.

Minimum Control Measure	Relevant BMP#/Title	Assessment of Appropriateness (Explain if not Appropriate)	Progress Towards Reducing Discharge of Pollutants	Progress Towards Measurable Goals
	14 Inspections to Detect Illicit Discharge/Enforcement Actions	Yes	Helps control release of chemicals	OTA's Illicit Discharge Investigation Policy requires Maintenance to inspect outfalls on roadways and at Maintenance facilities.
Construction Site Stormwater Runoff Control	4 Training Module for Stormwater Regulations	Yes	Educates employees in ways to reduce pollutants in stormwater	Four OTA staff attended Oklahoma City's Construction Workshop on October 3, 2019.
	7 Highway Design Pollution Prevention Practices	Yes	Helps control discharges of suspended solids and other particulates.	OTA's Standard Specification for Stormwater Pollution Control is in effect for all highway projects.
	10 Prepare Annual Reports for DEQ	Yes	N/A	Measurable goals have been met
	15 Inspection Program for Erosion and Sediment Control	Yes	Helps control discharges of suspended solids	Both contractors and OTA on-site representatives conduct inspections of stormwater BMPs.
	17 Policies and Practices for Erosion and Sediment Control	Yes	Helps control discharges of suspended solids	Measurable goals have been met
	18 Site Plan Review for Erosion and Sediment Control	Yes	Helps control discharges of suspended solids	Measurable goals have been met
Post-Construction Runoff Control	7 Highway Design Pollution Prevention Practices	Yes	Helps control discharges of suspended solids and other particulates.	OTA's Standard Specification for Stormwater Pollution Control is in effect for all highway projects.
	10 Prepare Annual Reports for DEQ	Yes	N/A	Measurable goals have been met
	13 Storm System Conveyance Inspections	Yes	Helps control discharges of suspended solids	Approximately 50% of all conveyance structures are inspected each year.

Minimum Control Measure	Relevant BMP#/Title		Assessment of Appropriateness (Explain if not Appropriate)	Progress Towards Reducing Discharge of Pollutants	Progress Towards Measurable Goals
	15	Inspection Program for Erosion and Sediment Control	Yes	Helps control discharges of suspended solids	Both contractors and OTA on-site representatives conduct inspections of stormwater BMPs.
	16	SWPPP for OTA Maintenance Facilities	Yes	Helps control release of sand, salt, and chemicals	SWPPPs were reviewed and revised in June and July as needed. Pilot project needs to be completed by the end of 2020.
Pollution Prevention/ Good Housekeeping	2	Policy for Chemical Storage and Disposal	Yes	Helps control release of chemicals	Policy was reviewed in June and will be continued for 2020.
	3	Training Module for Maintenance Activities	Yes	Educates employees in ways to reduce pollutants in stormwater	Web-based training titled "MS4 Permits and OTA" is being revised to reflect current information.
	4	Training Module for Stormwater Regulations	Yes	Educates employees in ways to reduce pollutants in stormwater	Four OTA staff attended Oklahoma City's Construction Workshop on October 3, 2019.
	5	Training Module for Pesticides	Yes	Educates employees in ways to reduce discharge of herbicides in stormwater	Measurable goals have been met
	9	Spill Prevention/Clean-up Policy and Procedure	Yes	Helps control release of chemicals	Policy was reviewed in June and will be continued for 2020.
	10	Prepare Annual Reports for DEQ	Yes	N/A	Measurable goals have been met
	11	Stormwater Section on OTA's Website	Yes	Provides information which has an indirect impact of discharge of pollutants	The Stormwater Management page is reviewed periodically and updated as needed.

Minimum Control Measure	Relevant BMP#/Title		Assessment of Appropriateness (Explain if not Appropriate)	Progress Towards Reducing Discharge of Pollutants	Progress Towards Measurable Goals
Pollution Prevention/ Good Housekeeping	12	Clean-up Events and Litter Program	Yes	Reduces solid waste on OTA right-of-way	Trash is picked up regularly and notices are sent to those observed to be littering.
	13	Storm System Conveyance Inspections	Yes	Helps control discharges of suspended solids	Approximately 50% of all conveyance structures are inspected each year.
	14	Inspections to Detect Illicit Discharge/Enforcement Actions	Yes	Helps control release of chemicals	OTA's Illicit Discharge Investigation Policy requires Maintenance to inspect outfalls on roadways and at Maintenance facilities.
	15	Inspection Program for Erosion and Sediment Control	Yes	Helps control discharges of suspended solids	Both contractors and OTA on-site representatives conduct inspections of stormwater BMPs.
	16	SWPPP for OTA Maintenance Facilities	Yes	Helps control release of sand, salt, and chemicals	SWPPPs were reviewed and revised in June and July as needed. Pilot project needs to be completed by the end of 2020.
	17	Policies and Practices for Erosion and Sediment Control	Yes	Helps control discharges of suspended solids	Measureable goals have been met

III. Proposed Changes to BMPs and Stormwater Activities Planned During the Next Reporting Cycle

The following table shows changes made to BMPs since the 2018 Annual Report as well as stormwater activities planned for 2020. All BMPs will be reevaluated for the 2020 Annual Report. For the most part, the stormwater activities planned for 2020 are the BMPs noted in Part II.

BMP	Changes Made since the 2018 Annual Report	Stormwater Activities Planned for 2020
1. Brochure for Water Quality Impacts	None	Post new brochure, bookmark, or information sheet.
2. Policy for Chemical Storage and Disposal	None	Follow BMP and review policy
3. Training Module for Maintenance Activates	None	Produce a new web-based training class
4. Training Module for Stormwater Regulations	None	Follow BMP - External training will be utilized for this purpose when available
5. Training Module for Pesticides	None	Follow BMP
6. Develop OTA System Maps	None	Follow BMP
7. Highway Design Pollution Prevention Practices	None	Follow BMP
8. Toll Free Telephone Number	None	Follow BMP
9. Spill Prevention/Clean-up Policy and Procedure	None	Follow BMP and review policy
10. Prepare Annual Reports for DEQ	None	Follow BMP (will submit next year's report by March 1, 2021)
11. Stormwater Section on OTA's Website	None	Follow BMP + continue to expand and update the stormwater section on website
12. Clean-up Events and Litter Program	None	Follow BMP
13. Storm System Conveyance Inspection	None	Follow BMP and implement annual Maintenance inspection report
14. Inspections to Detect Illicit Discharge/Enforcement Actions	None	Follow BMP, review policy, and implement annual Maintenance inspection report
15. Inspection Program for Erosion and Sediment Control	None	Follow BMP
16. SWPPP for OTA Maintenance Facilities	None	Consider low impact development BMP for a Maintenance yard
17. Policies and Practices for Erosion and Sediment Control	None	Follow BMP
18. Site Plan Review for Erosion and Sediment	None	Follow BMP

BMP	Changes Made since the 2018 Annual Report	Stormwater Activities Planned for 2020
Control		

IV. RESULTS OF INFORMATION COLLECTED AND ANALYZED/PROPOSED CHANGES DUE TO 303(D) OR TMDL REQUIREMENTS

No information has been collected since the October 2016 revision that would impact any aspect of OTA's SWMP.

Information Collected	Impact on SWMP or Reduction of Pollutants to SWMP	Proposed Changes to Reduce Discharges of Pollutants to 303(d) Waters	Proposed Changes to Comply with TMDLs
None	N/A	N/A	N/A



Storm Water Quality Management 2020 Annual Report



OKC.GOV/SWQ