STORM WATER QUALITY

ANNUAL REPORT

19

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 and expired March 14, 2018.

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

CONTENTS

2019 Accomplishments

HHW facility operated all year without a lost time accident

Replaced three Oklahoma River debris barriers

Began inspection of Cosmetic Cleaning permits

Added one new Construction Inspector

Successful Construction Workshop

Retained a consultant for the Lake Thunderbird TMDL program

Resurfaced HHW parking lot

Implemented Industrial "High 5" award program

Implement Industrial Storm Water Webinar Series

Review Accela inspection capability

Finalize Chisholm Trail Hydrodynamic Separator Project

Update Construction Inspection form

Automate HHW SWAP liability waiver

Implement Industrial Lunch-n-Learn series

Retrofit HHW facility to LED lighting

Replace two Oklahoma River debris barriers

2020 Goals

New and Re-Development Projects

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

- 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 submitting a Notice of Termination (NOT) for the project. A storm water construction technician will inspect the site to ensure one of the following requirements have been met:

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

If the NOT is appro
approved and a Ce
583 NOTs were app

A re-inspection fee
additional inspectio
to non-compliance
inspection fees wer

Each application fo
construction land d
permit renewal, is a
Permits expire one
Other fees include
and a re-issuance f

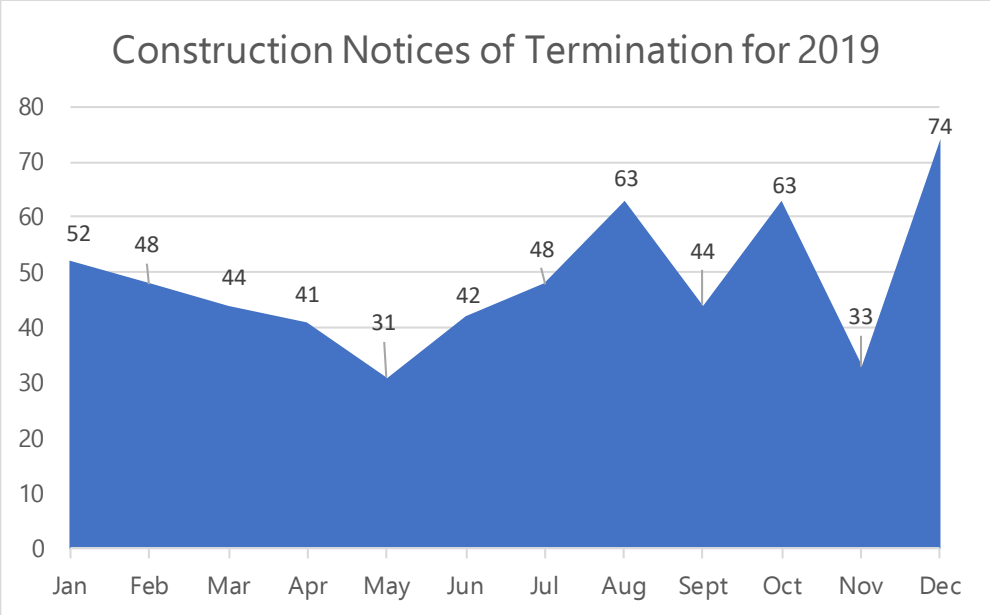
If the work describe
within six months a
expire and the perm
required forms and
to begin work.

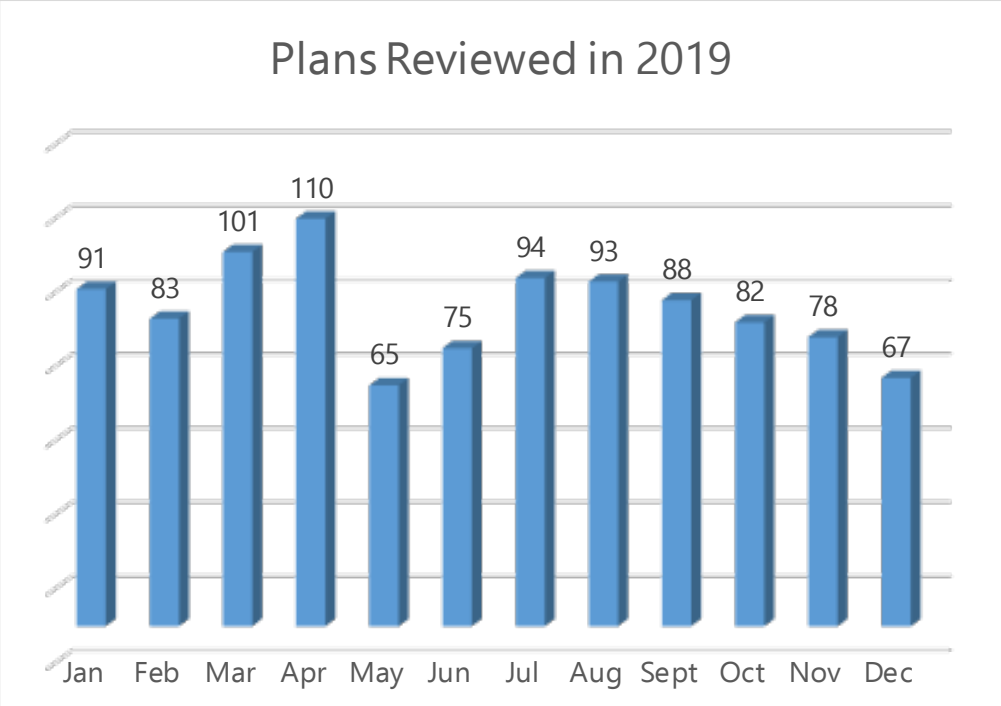
ved, a final inspection is
rtificate of Occupancy is issued.
proved in 2019.

of $35.00 is assessed for each
on of construction sites due
. In 2019, a total of 147 re-
e assessed.

r a storm water quality
isturbing permit, or an existing
ccompanied by a fee of $55.00.
year from the date of issuance.
a late fee of $15.00 per month
ee of $55.00.

ed in the permit has not begun
fter issuance, the permit will
mittee must re-submit all
pay the reissuance fee in order





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.

State Fair Park Sand Filter

The 2007 Bond Program funded a sand filter at State Fair Park. Construction began in January of 2015 and the filter became operational in September the same year. The sand filter has processed 5 million gallons of storm water runoff from since it became operational. Monitoring results indicate 747 lbs. of biochemical oxygen demanding substances (BOD), 5 lbs. of oil and grease, 39 lbs of total phosphorus (TP), 2,978 lbs of chemical oxygen demanding (COD) substances, 12 lbs of total nitrogen (TN), 31 lbs of total kjeldahl nitrogen (TKN) and 927 lbs of total suspended solids (TSS) were removed by the filtering process to date.

SWQ continued to monitor the sand filter during the 2019 permit term. 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 formed on the sand bed surface which can inhibit efficient drainage through the sand media. The sand filter bed was raked in June.

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 1,025,328 gallons of water were processed through the filter in 2019. The filter removed an estimated 61 lbs of BOD, 0 lbs of oil and grease, 10 lbs of TP, 590 lbs of COD, 3 lbs of TN, 11 lbs of TKN, and 214 lbs of TSS. Nitrate plus nitrite values exhibited an export of 9 lbs from the filter.

State Fair Park Sand Filtration Unit

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, private contractors maintained drainage related property within the City limits. As contracts expired through 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 and river banks of the North Canadian River including the area designated as the Oklahoma River and City owned vacant lots purchased for storm water drainage projects. In 2019, 53 miles of creeks, 248 acres of detention ponds, 18 acres of vacant lots along with 22 miles of concrete lined channel were maintained.

Public Works Drainage Maintenance Division is also responsible for repairs made to drainage structures, concrete-lined channels, creeks and manholes. There were 1,089 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 395 tons of debris in 2019.

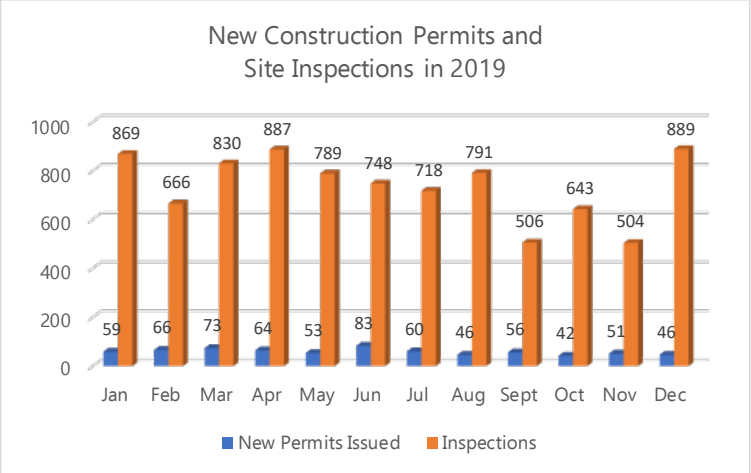
The Public Works Storm Water Quality Construction Section and Engineering Division will continue to review construction plans for the development of retention/detention ponds for compliance with the Oklahoma drainage and flood control ordinances.

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

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 699 construction storm water quality discharge permits were issued in this reporting period for a total of 1,401 active permits.

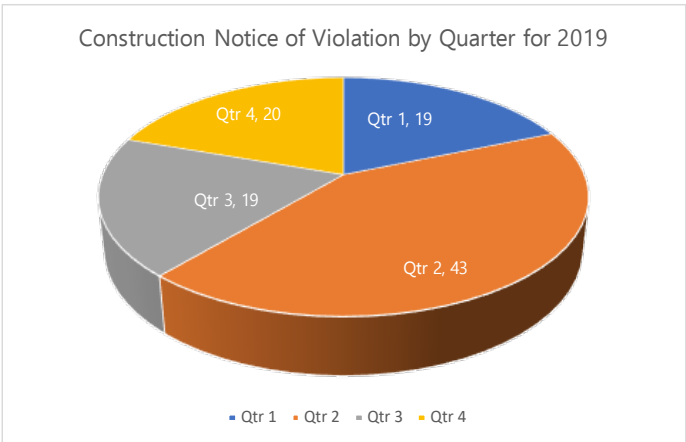
As permits are issued, they are entered in the V360 Accela Automation permitting database. This database provides multiple departments within the City a solution to automate workflow. It manages all land use and community development activities such as permits, inspection and reviews, zoning, project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

A total of 8,840 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 their audits, input the data, print and/or email the results to site operators.

If the operator is not at the site, a call will be made following the inspection to discuss any deficiencies. If the deficiencies are not corrected, a Notice of Violation (NOV) will be 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 will be filed with the City's Municipal Counselor's office.

One hundred one NOVs were issued and five affidavits of probable cause were processed for construction-related activities during this reporting period.



Construction Workshop

A one-day (two-session) workshop was held on October 3rd. Subject matter included: storm water permitting, OKR-10 requirements, site inspections, enforcement and a developer presentation on BMPs. A total of 69 attended the workshop.

Quality Assurance Program

In 2019, the construction environmental unit supervisor conducted 113 inspector audits under the Quality Assurance Program (QAP) - an internal program where the supervisor evaluates a technicians' 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 an 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. Effective July 1, 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 onsite for review. Thirty-one new industrial storm water discharge permits were issued during this reporting period, for a total of 419 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 51 NOVs relating to industrial discharge activities were issued for failure to maintain SWPPP documentation or SWPPP-related activities, or for illicit discharges.

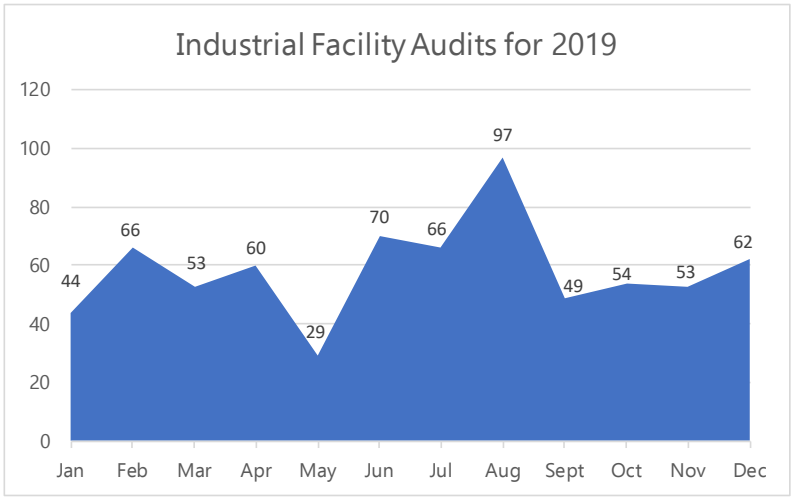
A re-inspection fee of $35.00 is assessed for each additional facility inspection due to non-compliance. In 2019, six industrial facility re-inspection fees were assessed. A $15.00 per month late fee applies to facilities or properties that have failed to renew their permit prior to expiration.

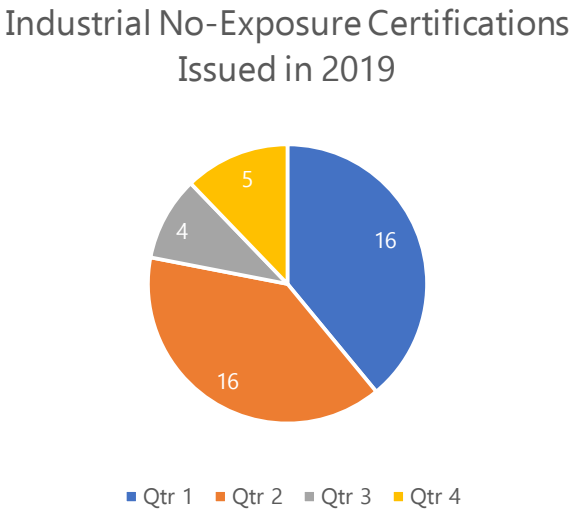
Industrial Audit Report

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 industrial environmental technician screens these businesses, and other facilities with the potential to cause pollution, for inclusion in the industrial auditing program.

703 industrial facility audits were performed

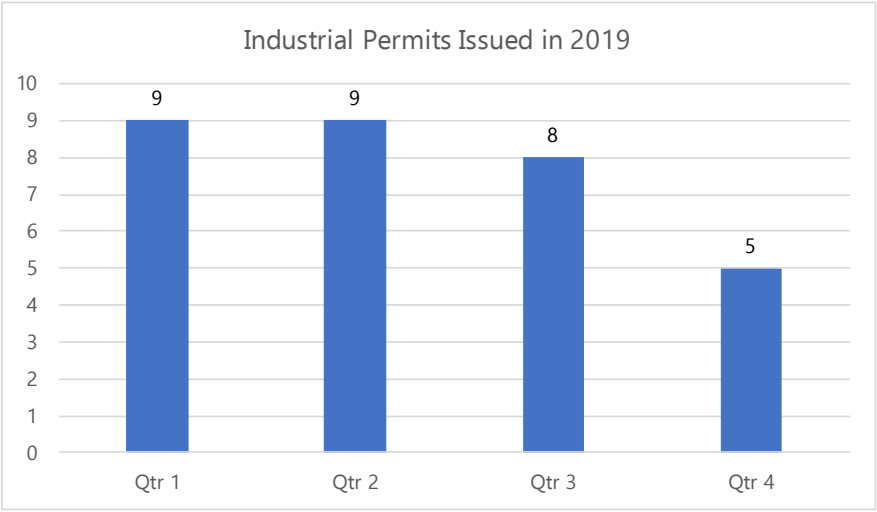
A No-Exposure Certification (NEC) for exclusion from storm water quality permitting is issued to industrial facilities that meet strict guidelines. A condition of no exposure exists at an industrial facility when all industrial materials and activities are protected by a storm-resistant shelter to prevent exposure to precipitqation 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 SWQ industrial environmental technician to perform inspections to confirm the conditions of no exposure.





During the reporting period, forty-one new no-exposure certifications were issued for a total of 848.

In 2019, industrial environmental technicians continued the five-year re-certification process for businesses with an existing industrial no-exposure certification. During this reporting period, 52 re-certifications were completed.



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 199 self-audits were performed and, beginning July 1, inspectors began conducting site inspections of Cosmetic Cleaning permittees. This year 128 site inspections were performed and a total of 21 new cosmetic cleaning permits were issued for a total of 226 active permits.

The Industrial Storm Water Section held a two-day workshop in the Spring and Fall to provide the 266 attendees information regarding storm water requirements and permit updates. Industrial workshop sessions included the following topics:

266 attendees at the two-day industrial workshop

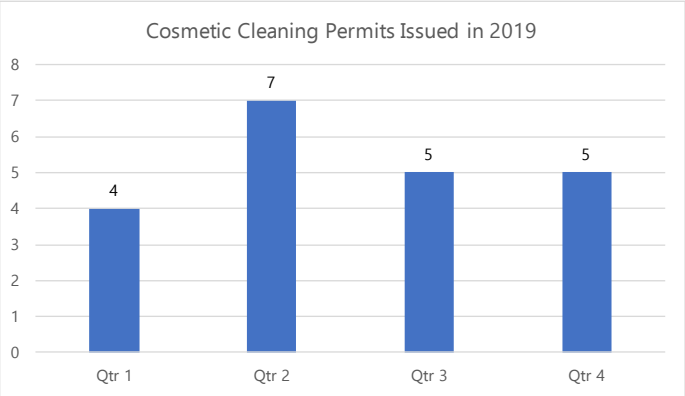
- Guidelines and regulations
- Spill remediation
- OKR05 permit overview and updates
- SWP3 requirements
- Forms and reports
- Permit administration
- Inspections and enforcement
- Quarterly visual monitoring

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 (EPCRA) to Know Act 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 75 industrial facilities that are classified as high-risk sites; 22 no-exposures, one Affidavit of No Discharge, and 52 high-risk sites that are required to submit analytical sampling data. No-exposure and Affidavit of No Discharge facilities that are classified as high-risk are not required to perform sampling.

Data collected by the 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.

July 1, a new tracking program was implemented to document non-Accela inspections, outreach and investigations. Seven hundred and seventy-seven entries were recorded with 215 noting pollution at time of inspection, 573 contacts were made with entities about site conditions, and in 347 entries BMP education was conducted.



The Affidavit of No Discharge for storm water discharges associated with industrial activities program certifies that 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 in order 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 13 active no discharge permits.

The QAP is an internal program where the supervisor evaluates a technicians' 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 2019, there were 67 QAP industrial audits performed.

Oklahoma State Fair

The Industrial Section trained 897 food vendors, in conjunction with the Oklahoma City County Health Department, regarding the proper disposal of wastewater and grease. The section also conducted 36 inspections during the state fair, which included the setup and dismantling of vendor booths and rides.

State fair vendor training

Household Hazardous Waste/Used Motor Vehicle Fluids

Mobile Collection Events

Mobile collection events are outreach programs designed to collect household chemicals from residents in their neighborhoods. Not only does this program allow staff to educate residents on identifying household hazardous chemicals and proper disposal methods, the program also provides a remote service to the elderly and home bound residents of Oklahoma City. Doing the right thing couldn't be easier. Just drive or walk by and drop off your leftover household hazardous waste products.

There were four mobile collection events held with 448 participants and a total of 184,063 pounds of waste collected. One special collection event was held at the Oklahoma State Fairgrounds to accept tires, e-waste, medications and ammunition for recycling or disposal.

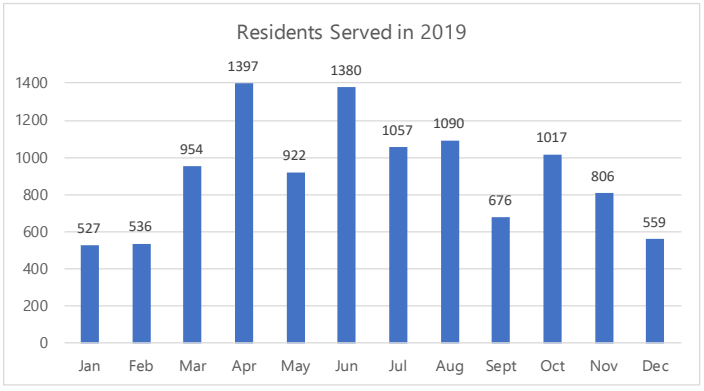
Mobile events collected 184,063 pounds of waste

Three special neighborhood collection events were also held for Windsor Oaks (two) and North Coronado Heights neighborhood residents. The hazardous wastes received were properly packaged for transportation and disposal. Special collection events will continue during 2020.

Opened in 2003, the Household Hazardous Waste Collection Facility (HHWCF) diverts household hazardous materials from the municipal waste streams and provides numerous benefits:

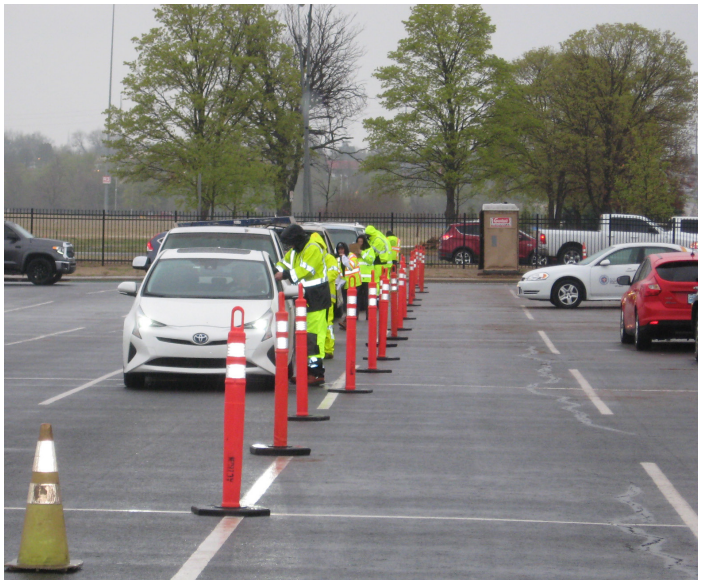
- An opportunity for waste reduction education
- Allows for the recovery of materials as resources
- Reduces toxicity of solid waste landfills and wastewater systems
- Helps the public to avoid improper disposal practices
- Protects waste processing equipment and handlers from exposure to hazardous materials

Oklahoma City's 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 on an annual basis. The HHWCF 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.

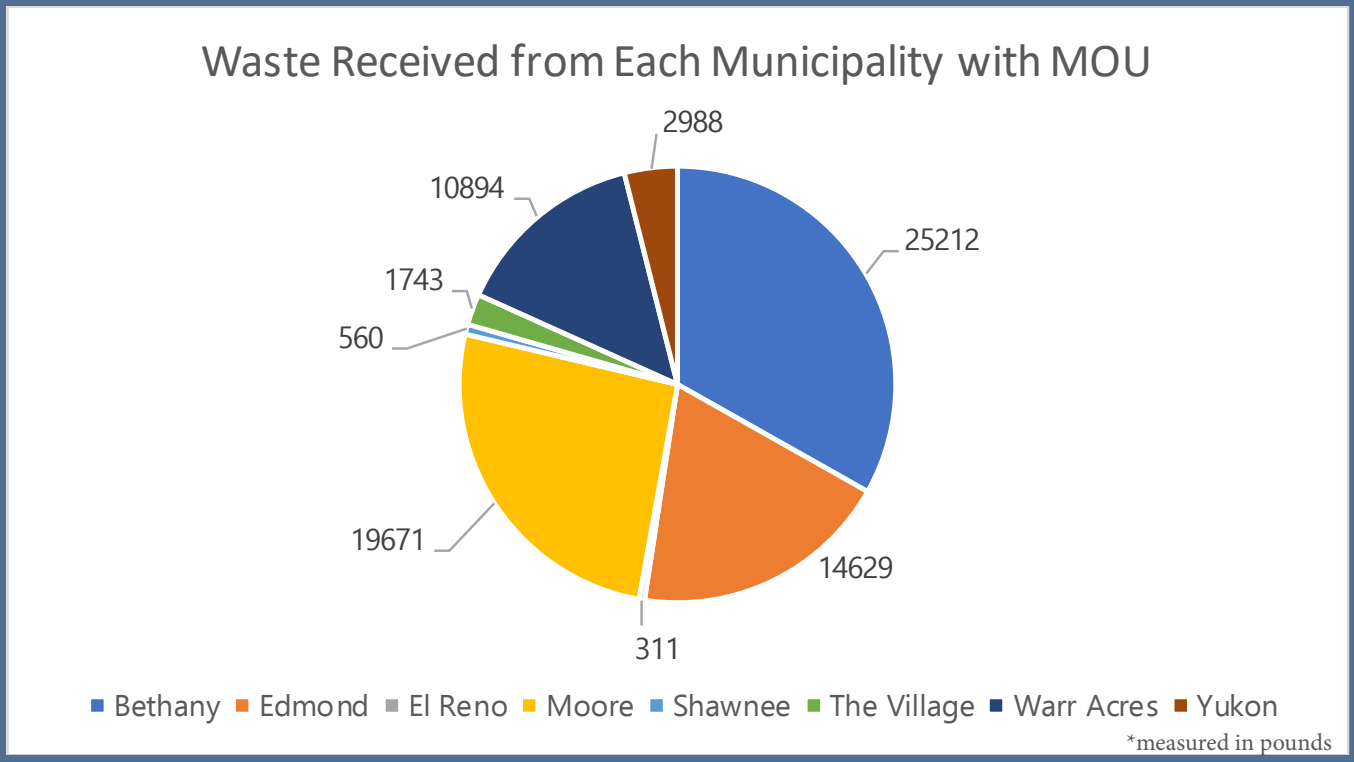
Due to permit restrictions, unacceptable wastes include: radioactive materials, high-pressure gas cylinders, biohazards, explosives, PCB containing materials, dioxins and highly reactive chemicals.



State fairgrounds collection

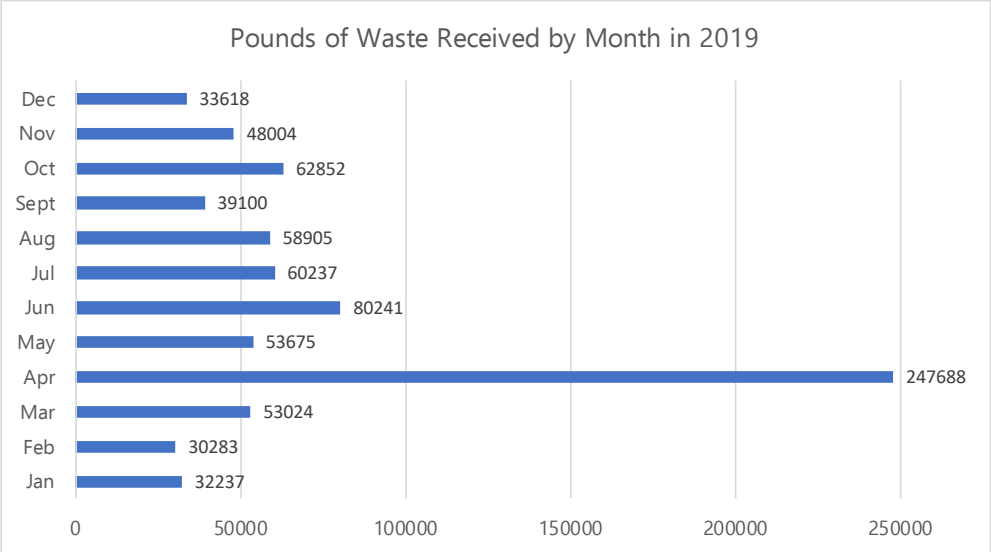
Memorandum of Understanding (MOU)

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.

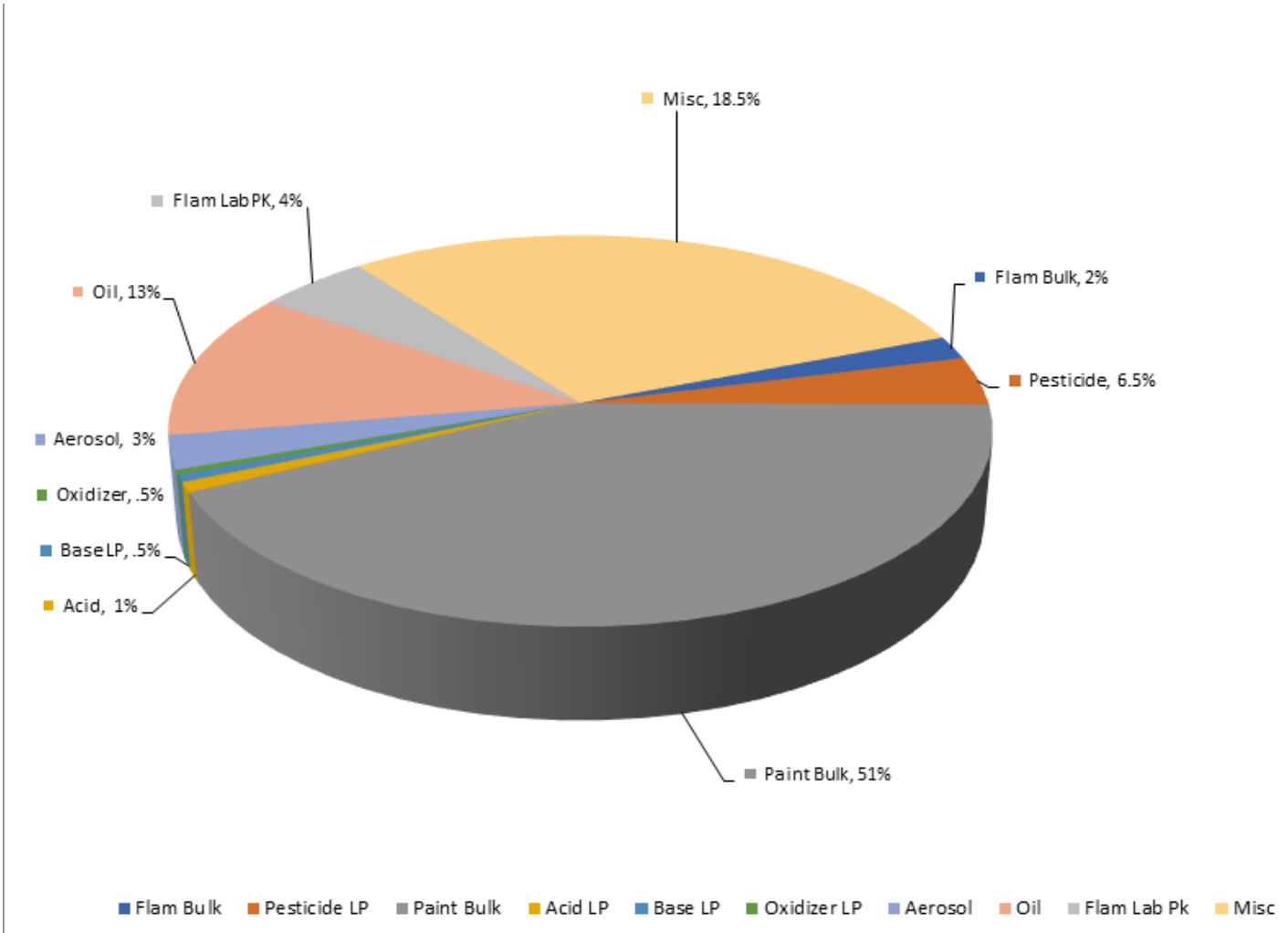


The HHWCF received 799,864 pounds of household hazardous waste for recycling or disposal. Additionally, 60,630 pounds of household hazardous waste were collected, separated and released to the public for reuse.

A total of 860,494 pounds of household hazardous waste was received and processed by the HHWCF.



*excludes re-used materials



Resident Comments

"Thank you for taking the time to give us a tour of your household hazardous waste facility.

The facility was very impressive. The pride in your facility and the way you guys operate it was even more impressive.

Thank you again."

-Nathan

"I thank you so very much for you picking up the hazardous waste.

A special thanks to Lyndel Gibson. He was so very nice.

I offered him a small tip. He thanked me, but did not take one cent.

Thanks again."

-Patricia Niles

Public Outreach

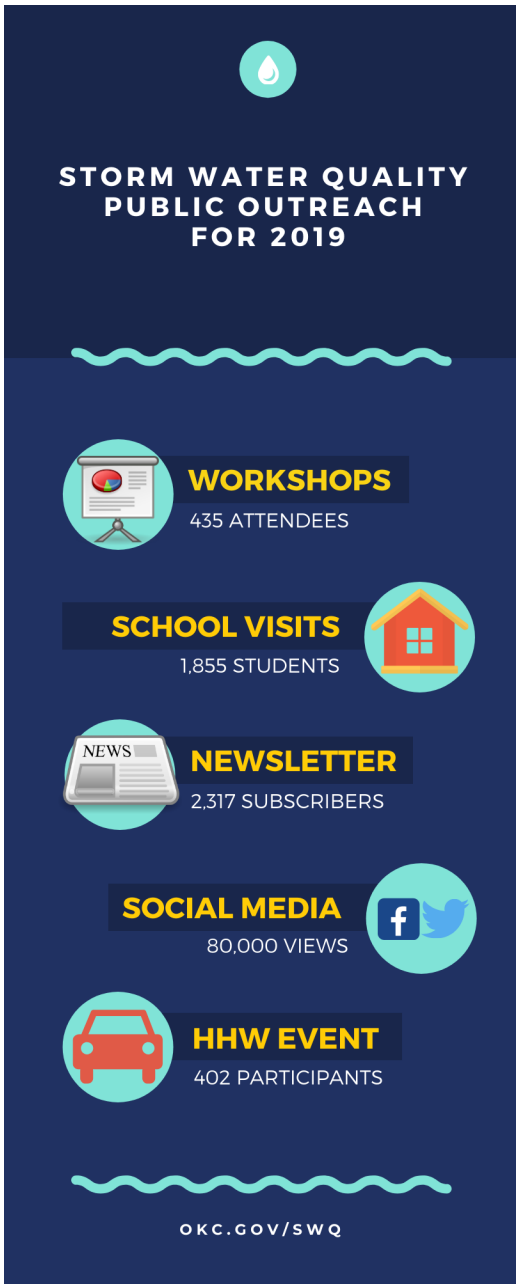
Storm Water Quality has a variety of outreach programs that include outreach to local neighborhoods, schools, and businesses. Some

Adopt-A-City Street Meeting

of the programs offered are: Adopt-a-City Street, Curbs to Creeks, Waterway Clean Sweep and a variety of workshops. In 2019, Storm Water Quality continued the "Protecting Our Water Resources" program for Oklahoma City schools. Storm Water Quality also hosted five training workshops, two included a partnership with the Oklahoma Department of Environmental Quality. There was also one Household Hazardous Waste special collection event. In addition to hosting events, Storm Water Quality reaches out to the public by using a variety of media outlets.

The Storm Water Quality Downstream Newsletter is an effective communication tool, distributed quarterly, to deliver its message on clean water issues. The newsletter is circulated through e-notices to 2,317 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 also featured at school assemblies with Wayne Drop the Storm Water Quality mascot. Five Oklahoma City elementary schools participated in the program in 2019. Storm Water Quality also provided education to one high school and three local colleges. Over 1,855 students participated in the program last year.



The spring 2019 advertising campaign to promote awareness of services provided by the HHWCF to the residents of Oklahoma City 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 2019 ad campaign:

The Daily Oklahoman campaign occurred during a three month period. The Oklahoman was distributed to the following geo-targeted areas: Edmond, Yukon, Mustang, Piedmont, Deer Creek, NW Oklahoma City, Nichols Hills, The Village, Quail Creek, Moore, Oklahoma City (South), Midwest City, Del City and Choctaw. These impressions were 1/4 page advertisements. The Oklahoman has a weekday circulation of over 92,073. Impressions also appeared on NewsOK.com with estimated views of over 20,409 per month.

The Daily Oklahoman digital video screen located in downtown Oklahoma City was also utilized during this ad campaign. Twenty-one advertisements appeared daily on the third Saturday of each month over the same three month period.

The Tyler Media Radio campaign aired on radio stations 107.7 KRXO 'The Franchise' and 92.2 KOMA throughout August and September. This campaign utilized the slogan 'Everyday Environmentalist' while addressing the issue of proper disposal of household chemicals. A live interview was also conducted with the HHWCF Annual Special Collection as the primary topic.

The Tyler Media Outdoor Advertising campaign consisted of printed ads on 45 bus stop shelters and benches throughout the city during the month of August. These ads featured the slogan 'Bring It On' encouraging residents to bring common household chemicals to HHWCF for proper disposal or recycling.

According to the City of Oklahoma City Resident Survey - awareness of the HHW facility increased by 7% in 2019.

Bus stop shelter and bench advertisements

Public Participation and Involvement

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 525 curb markers during the 2019 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. Information regarding the Curbs to Creeks Program was added to presentations to industries attending the spring and fall industrial workshops.

Waterway Cleanup Program

The Creek 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. In 2019, five events were held during which 78 volunteers donated 276 hours to this program. These volunteers collected 164 bags which totaled 5,210 pounds of litter.

Earth Day

Storm Water Quality celebrated Earth Day by participating in various festival style events. At our booths, we informed residents how to prevent storm water pollution and distributed information about positive environmental practices. The following are some of the outreach events Storm Water Quality participated in and the estimated number of visitors to our booths:

- Earth Day Festival at Mike Monroney Aeronautical Center - 1,000 booth visitors
- Dell Earth Day Festival - 500 booth visitors
- OKC Zoo Party for the Planet - 1,000 visitors
- Martin Nature Park Earth Fest - 200 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 2019, 80 activity permits were issued for litter collection events. During these events, 733 volunteers collected 378 bags of litter. This partnership between residents and city government has multiple social, environmental, public health and economic benefits for all parties involved.

NEW ORGANIZATIONS FOR 2019

UCO National Pan-Hellenic Council

Aaron Shirazi

World Water Works

Metro Park Neighborhood Association

Oklahoma County Sheriff's Office

Selfless Hands Foundation

MJT Ministries

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 best management practices.

The annual rain barrel event was promoted on social media with an estimated 82,100 views on Facebook, Instagram, Nextdoor and Google. Oklahoma City held a two-day pick-up event and distributed 230 rain barrels with 503 distributed metro-wide.

Other COSWA outreach opportunities include news releases, Facebook, water utility bills, information cards and a COSWA webpage. The COSWA webpage had 830 views from 394 visitors.

Employee Education

Training

A total of 1,187 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 winter driving safety, vehicle fueling safety, rail car incident response, railroad emergency response, defensive driving, lock-out-tag-out (LOTO), heat stress, fire prevention, fire extinguisher safety, personal protective equipment, compressed gas cylinder safety, blood borne pathogens, hazard communication and forklift safety.

Licenses

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

Professional Development

Training included policy review, workshops, conferences, meetings, online seminars, tabletop excercises and presentations. Subjects included low impact development, green infrastructure, security, total maximum daily loads, OKR05 corrective actions, visual monitoring, effluent limitations, pesticides, erosion and sediment control, urban hydrology and SWPPP training.

Memberships

- 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 Storm Water Inspector
- Enviro-Cert International Inc. Certified in
  - Erosion and Sediment Control
  - Storm Water Quality
  - Industrial Stormwater Management
- National Registry of Environmental Professionals
  - Registered Environmental Manager

Conferences and Workshops Attended

- APWA State Conference
- 21st Annual EPA Region 6 Storm Water
- Annual Oklahoma Floodplain Managers
- Oklahoma Floodplain Managers Technical
- International Erosion Control Association
- Accela Conference
- Oklahoma Compost Conference
- Law Enforcement and Code Enforcement
- North American Hazardous Material Management Association

Roadway Operations 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, twelve staff members are equipped with three 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 30 tons (60,000 pounds) of debris during the permit term.

Oklahoma City uses the roadway inspection company Fugro-Roadware to inspect the arterial streets, and two in-house pavement inspectors to evaluate residential streets. Inspections by Fugro-Roadware are completed by driving each arterial, while sensors collect the amount and type of distress on that road. These distresses are used to calculate a Pavement Condition Index (PCI), a scale of 0-100, according to American Society for Testing and Materials (ASTM) standards.

In-house inspectors use ArcGIS mobile application to record the type and amount of distress for residential streets and those data are then used to calculate a PCI using MicroPaver, which operates on the same ASTM standards. The final score for each segment, along with traffic count, citizen input and historical treatments, are used to prioritize maintenance needs.

The SWMP was updated to include any roadway operation and management changes. The most recent revision was April 2018.

Unlimited Sweepers & Cleaners LLC swept 22,473 curb miles during this permit period. The average amount monthly was 1,873 curb miles. A total of 3,076 tons of debris was collected.

A total of 22,473 curb miles were swept in 2019

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.

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. The Parks and Recreation Department, Public Works Department, Utilities Department, Department of Airports and Oklahoma City Zoo personnel participate in the classes.

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, Grant Graves, and Wes Lee, who covered weed identification in turf and right-of-way, impacts of pesticides in aquatic environments, best management practices, and using online weather tools to plan pesticide applications.

Oklahoma River tributary

Pesticide and Fertilizer Training

The workshop was held December 5th at the Mike DeGiacomo Training Facility and offered a total of 10 CEUs in:

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

A total of 217 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 (NPDES) 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 Application Program

Oklahoma City has worked with the Oklahoma City/County Health Department (OCCHD) for the past 17 years to monitor and control mosquito populations within Oklahoma City.

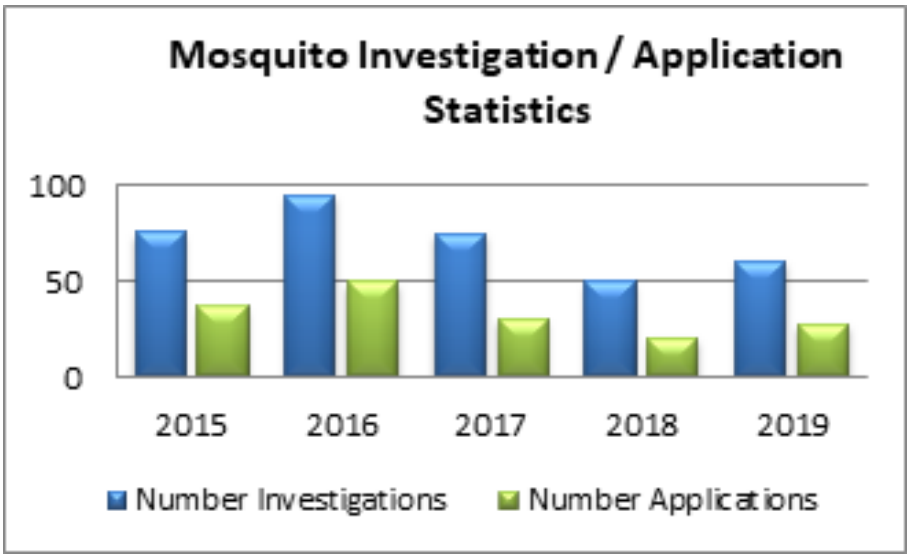
SWQ used larvicides to control temporary and permanent mosquito nursery pools, which included applications to the MS4. Altosid XR (EPA Registration Number 2724-421), is used in transitory or perennially inundated areas that support mosquito egg laying, larvae growth and emergence. The pesticide's active 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.

Mosquito habitat investigation equipment

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.



During the 2019 permit term, SWQ personnel conducted 61 mosquito investigations, which resulted in 28 applications and a surface treatment area of approximately 13,175 sq. feet. The application rate versus the investigation rate was 46%.

In early 2013, efforts were initiated between Oklahoma City and OCCHD to begin an adult mosquito surveillance program. This program was continued during the 2019 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 4,520 adult mosquitos of which approximately 84% (3,815) 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 2020 mosquito season.

Mosquito monitoring

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 email is sent to the resident to let them know the City is working on a solution. During the reporting period, SWQ personnel responded to 499 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 existing other requests on a specific address.

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

Hazardous Spills and Illicit Discharges 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 Environmental Technicians 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 92 incidents.

SWQ Environmental 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 76 pollution source investigations.

SWQ responded to 92 hazardous materials incidents

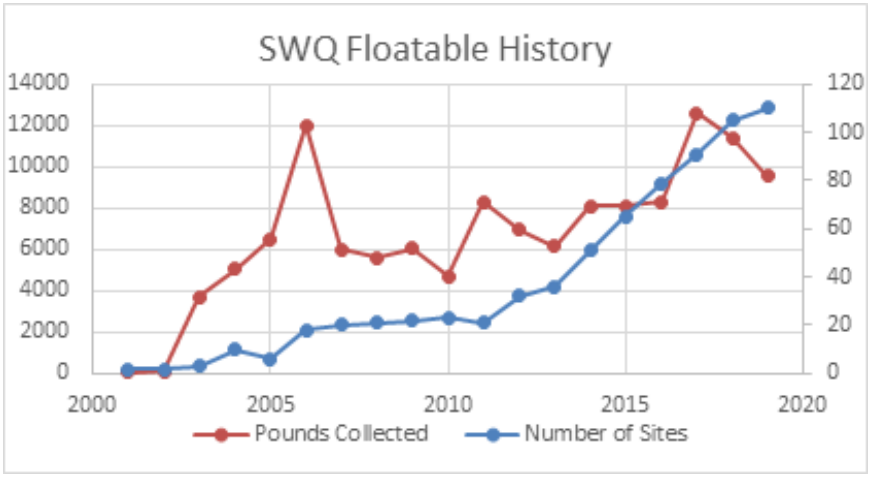
PUBLIC WORKS RESPONSE MANAGER

Storm Water Quality utilizes an internal system to follow resident concerns. The system, known as the Public Works Response Manager, allows employees to enter the residents' concern, assign the concern to the appropriate division, check the status of the concern and mark the item as complete. The system assists in the timely response to concerned residents.

Storm Water Quality responded to 4 Response Manager requests in 2019

Floatable Monitoring Program

One hundred and ten floatable debris collection stations (excluding the Oklahoma River debris barriers) were active during the 2019 permit term.



Oklahoma City uses channel-wide netting, circular outfall netting, storm drain inserts and debris barriers to capture or contain floating debris from the drainage systems and waterways.

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. One barrier station was retired due to non-use and was re-purposed as a replacement for a failing barrier. Three barriers (Eastern 4, Eastern 5, and May 1) were replaced and a comprehensive inspection was conducted. Field notes indicate three barriers will need replacement during the 2020 permit term.

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.

2019 Waterway Clean Sweep Event

Removal of debris from the 105 stations occurred after each rainfall event or on an as-needed basis, roughly 10% included a detailed characterization of the debris collected. A total of 9,538 pounds were collected during 872 site visits. Approximately 813 pounds of trash was collected from these events. The remaining 8,726 pounds of the debris collected was classified as natural debris.

The Public Works Department, Streets 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 2019, the Oklahoma River Maintenance Crew removed and properly disposed of 395 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 (254 tons), followed by the May Avenue (90 tons) and the Eastern Avenue (52 tons).

Wet Weather Analytical Monitoring

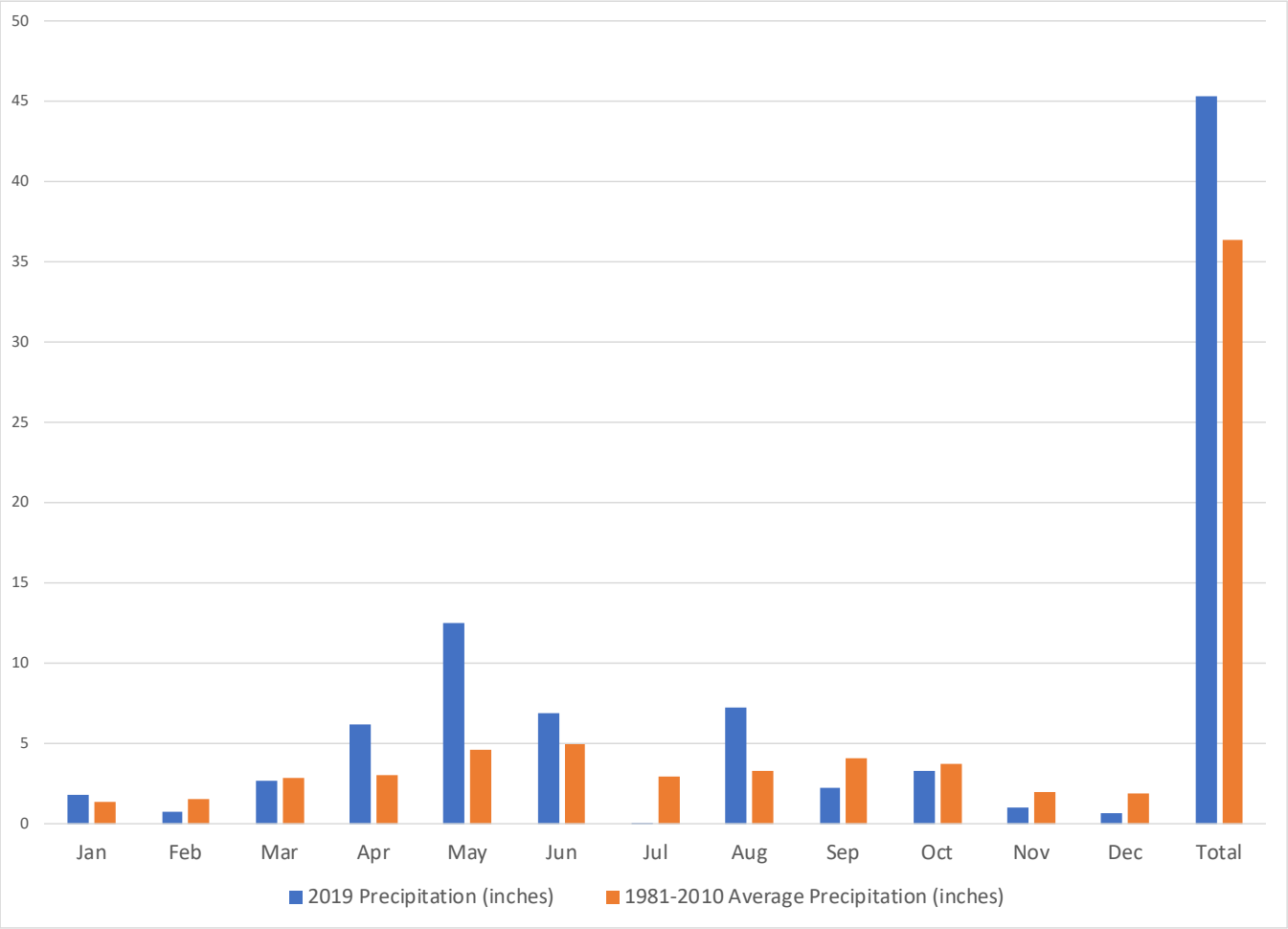
During the 2019 permit term, SWQ selected three stations to monitor; 85, 616 and 754. No optional stations were monitored during the permit term.

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 nine rainfall events were attempted or conducted. Six precipitation events were successfully monitored, and three events were cancelled due to lack of qualifying rainfall conditions.

Precipitation Amounts for 2019

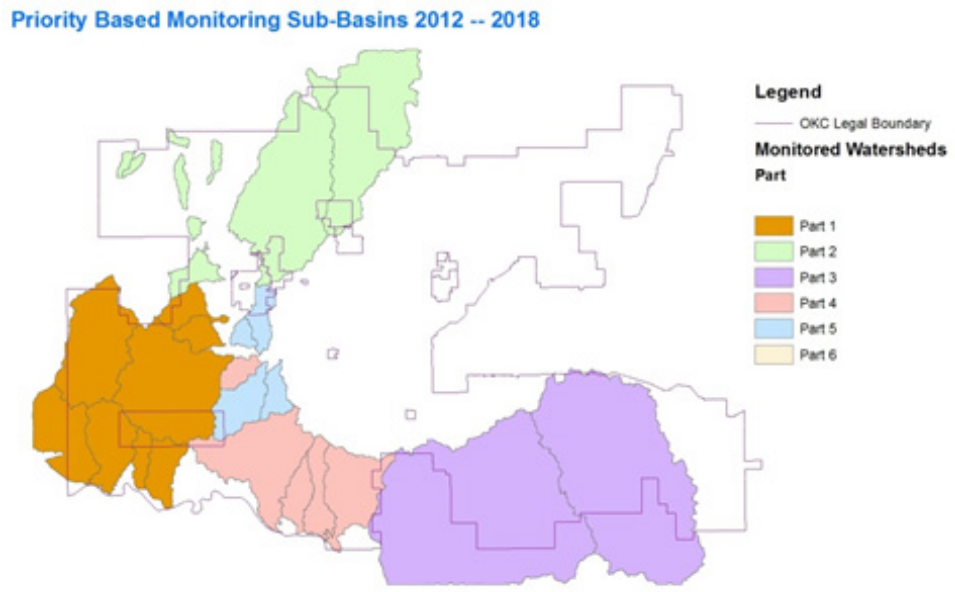
National Weather Service historical records for Oklahoma City (Will Rogers World Airport) were researched for precipitation data. The 2019 monthly precipitation totals were compared to the corresponding thirty-year average monthly totals from 1981 through 2010.

The annual precipitation for Oklahoma City in 2019 was 45.34 inches, 8.98 inches greater than the thirty-year average of 36.36 inches. In January, April, May, June and August of 2019, 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.



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.



The initial planning stages for the project were implemented during late 2011 and early 2012. The anticipated project completion is expected to span two (2) 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-VI.
- 100% data review of Parts I-VI monitoring data.
- 100% completion of summary reporting for Parts I-VI.
- 70% completion of the monitoring requirements for Part VII.

Recording Monitoring Results

Water Quality Monitoring Activities

General Overview

The number of monitoring stations selected is 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 (30) fixed interval monitoring events over a fifteen (15) month period.



Water quality monitoring

A tailored monitoring plan for each basin was developed by selecting from a list of field observations and laboratory parameters. Laboratory study parameters may 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 may 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) may be collected at certain stations.

Priority Monitoring Part V Water Quality Monitoring Summary

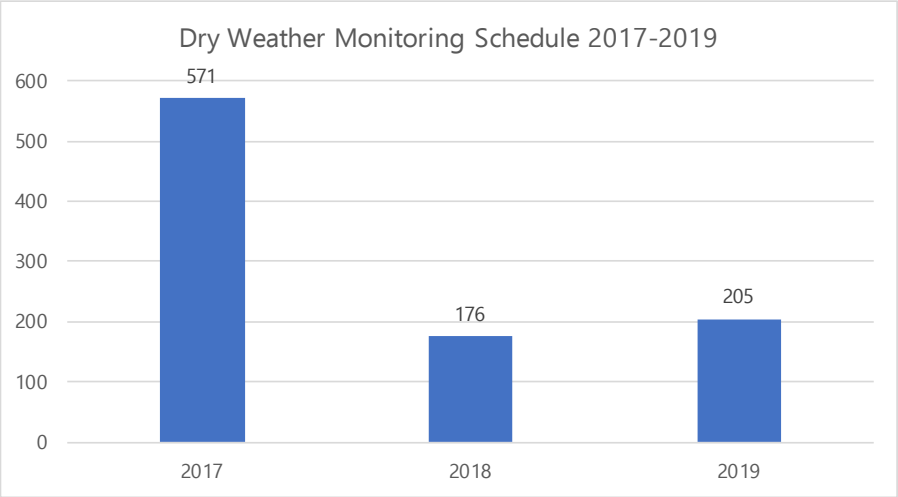
- Eleven monitoring locations were selected in five sub-basins of the North Canadian River and Deep Fork River watersheds.
- Monitoring activities started in January 2018 and were completed in March 2019.
- 116 station records were reviewed which included the collection of 55 water samples, 64 field chemistry reports and 22 quality control samples.
- Three diel studies were completed in January 2019 (stations 1325, 1327 and 1447). 852 diel dissolved oxygen measurements were reported during the permit term.
- Eight water samples (excluding quality control samples) were acquired for triclosan and caffeine.
- At the end of the 2019 permit term, the water sampling component of Part V was 100% complete.

Priority Monitoring Part VI Water Quality Monitoring Summary

- Twenty-three monitoring locations were selected in nine sub-basins of the North Canadian River watershed.
- Monitoring activities started in March and continued through the 2019 permit term.
- Six hundred and forty-four station records were reviewed which included the collection of 537 water samples, 453 field chemistry reports and 85 quality control samples.
- Eighteen diel studies were completed in July (ten stations), August (six stations), September (one station) and December (one station). 6,222 dissolved oxygen measurements were reported during the permit term. Five stations (station 366, 351, 701, 785 and 1453) are scheduled for 2020.
- Seventy-seven water samples (excluding quality control samples) were acquired for triclosan and caffeine.
- One fish collection was completed during the 2019 permit term (station 670).
- At the closure of the 2019 permit term, the water sampling component of Part VII was 70% 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.



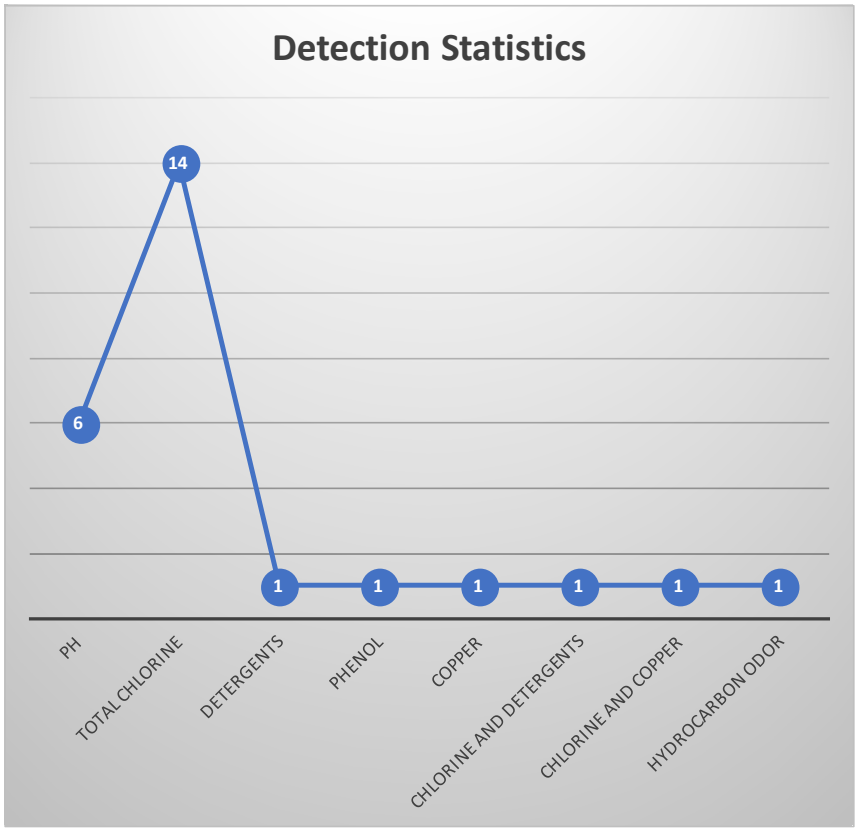
Part III.A.14 of the OKC MS4 Permit requires the completion of 100% of the 554 Dry Weather Field Screening stations three times each permit term. Year 1 and 5, 100% of the sites will be monitored. Year 2, 3 and 4 roughly 1/3 of the sites will be monitored.

A total of 205 station visits were completed from January through August 2019. This accounts for 100% completion rate of the 2019 testing requirements.

Seventy-five percent of the stations monitored had sufficient water for testing. The remaining 25% were determined to have insufficient water for sampling; however, field observations were conducted. Five stations were not monitored due to access issues and one station was not located.

Twenty-five follow-up investigations were conducted during the 2019 permit term. Remedial actions were sought by the responsible parties, when applicable.

2019 field test results at or above actions levels and which required additional follow-up investigations included total chlorine (56%), pH (24%), detergents (4%), and phenol (4%). Station field test results with multiple parameter detections requiring follow-up included chlorine & detergents (4%) and chlorine & copper (4%).



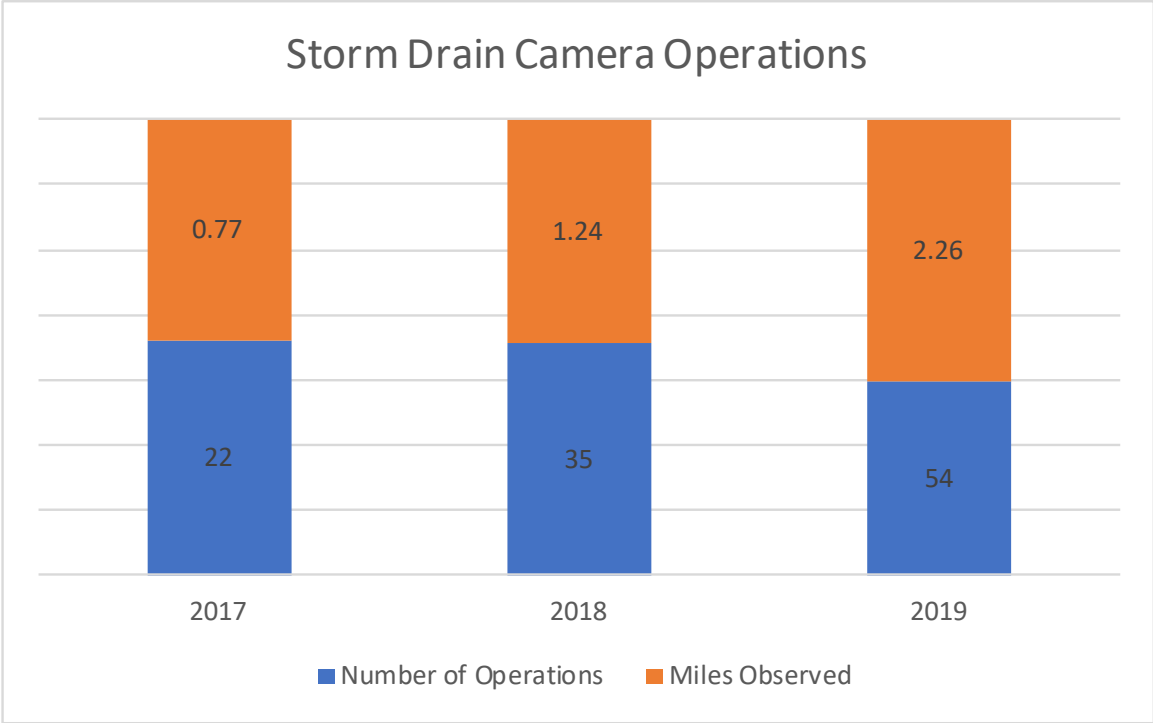
Storm Water Quality Division continued to utilize the CUES steerable storm drain camera system to identify sources of pollutants, verify structural defects, confirm repairs and isolate blockages within the storm drainage network. The camera system is housed in an enclosed cargo trailer which can be used as a stand-alone unit or towed behind a vehicle to locations throughout the City.


CUES camera

Video inspections are recorded onto a DVD for documentation purposes. A standardized field form is completed for each video inspection to record investigation location information, conduit size and configuration, time, defects or other problems encountered.

During 2019, 54 camera operations were conducted where 11,955 feet (2.26 miles) of storm drains inspected during these investigations.

In addition to Storm Water Quality's camera operations, the Streets and Drainage Maintenance Division provides camera inspection services. Crew tasks generally include isolating structural problems, responding to poor drainage or inspecting replaced or reconditioned storm drainage structures. Sixteen camera inspections were completed during the permit term which totaled 2,361 feet (0.50 mile). The crews performed a combined total of 70 closed circuit storm drain camera inspections during the 2019 permit term which accounted for 14,316 feet (2.71 miles) of assessed structural assets.



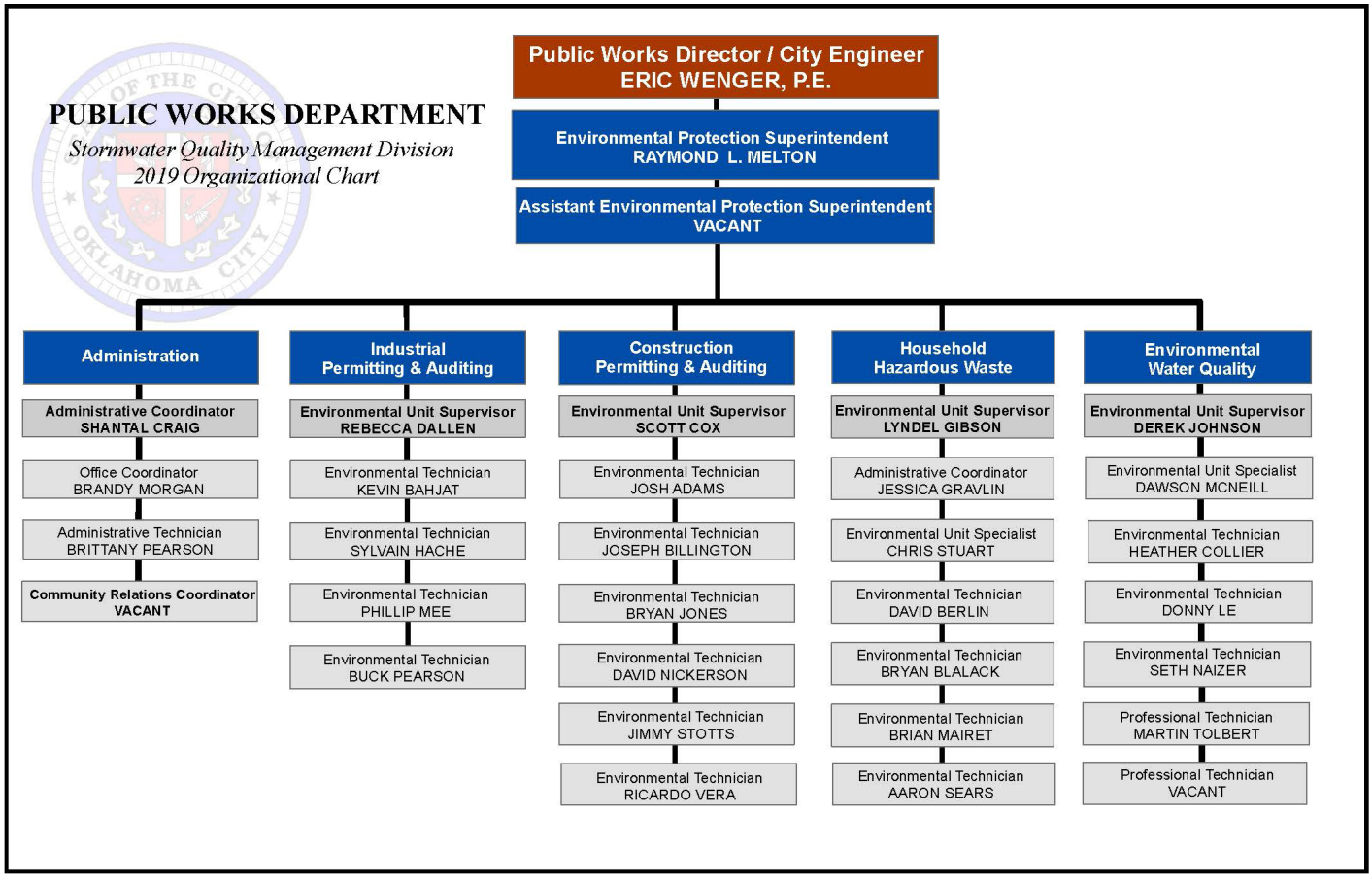
Oklahoma River Bacteria Program

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 2019. Fifty-one sampling events were recorded during the permit year. An additional nine samples were collected or created as part of the project's quality assurance efforts. Quality control samples included four trip blanks and five sample splits.

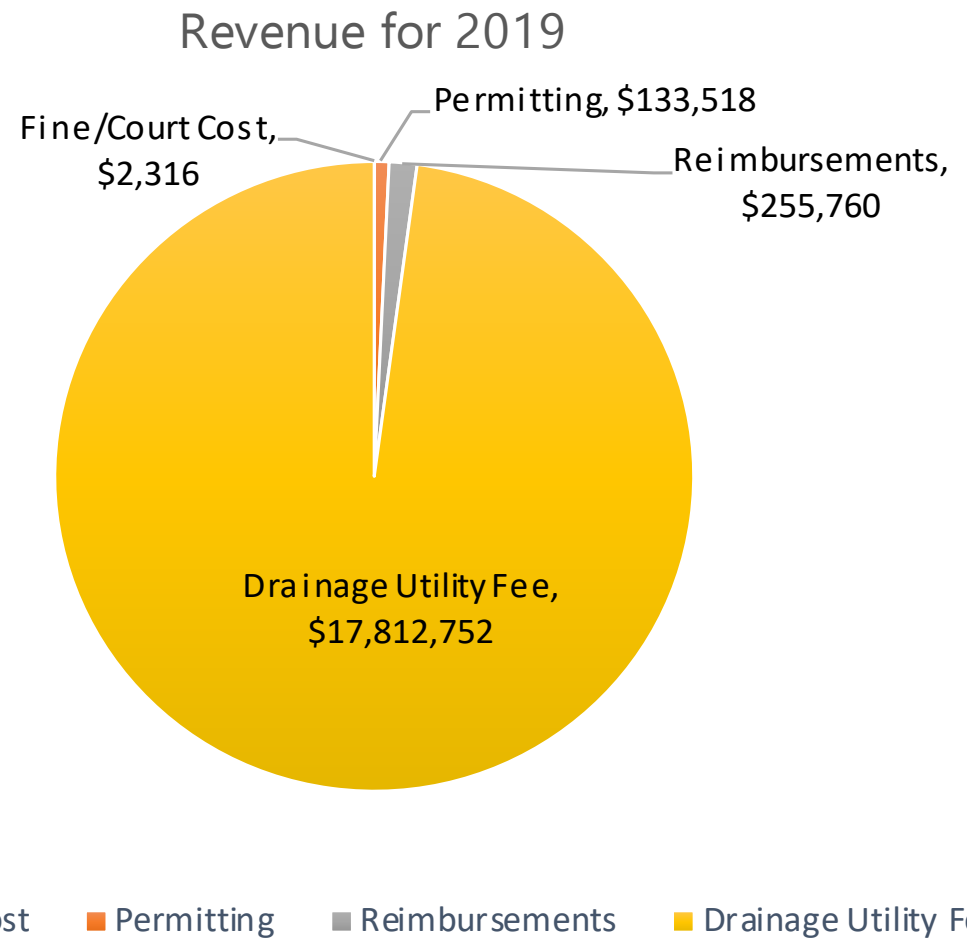
In efforts to foster safe water recreation, Oklahoma City allows swimming in natural waters on a permit basis. These revocable permits have specific language detailing indicator bacteria (*E. coli*) and blue-green algae threshold counts to continue an event which includes primary body contact recreation. Four sampling events were conducted for the Redman Triathlon at Lake Hefner in September.

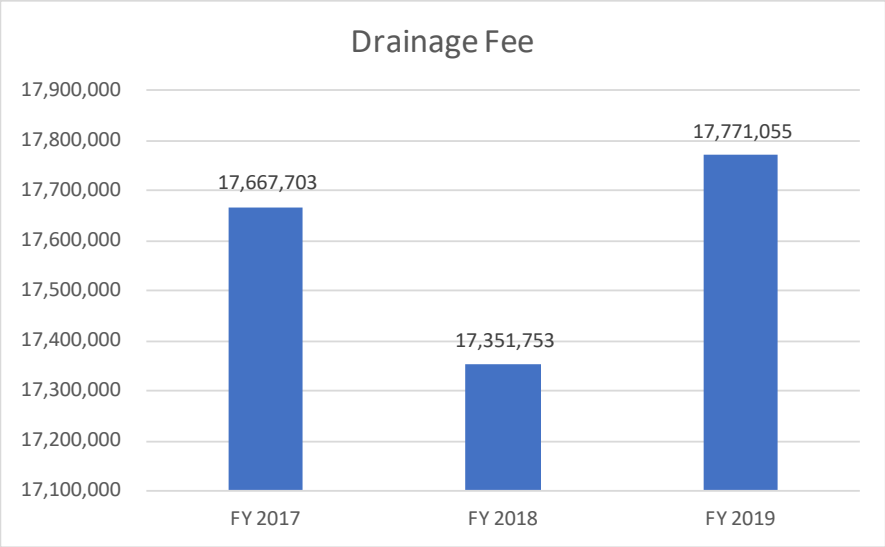
Oklahoma River

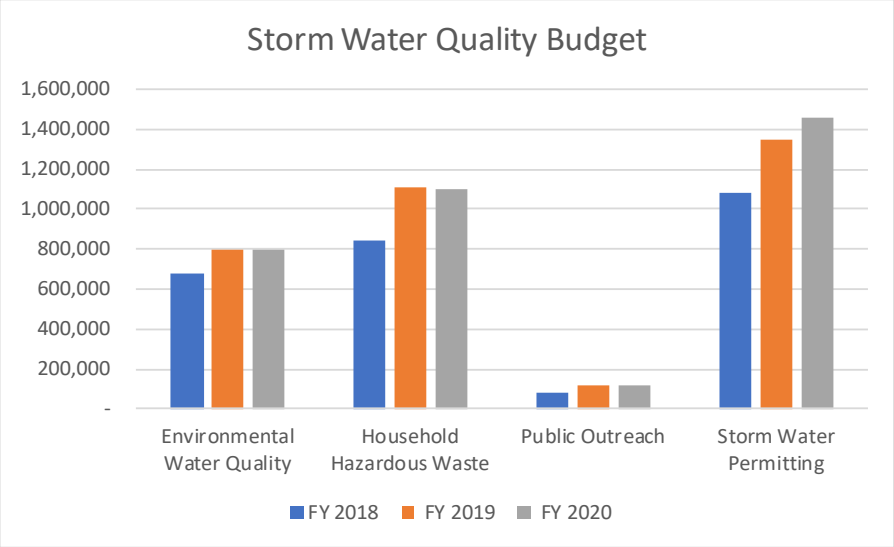
Supporting Permit Conditions, Monitoring Programs and Documents

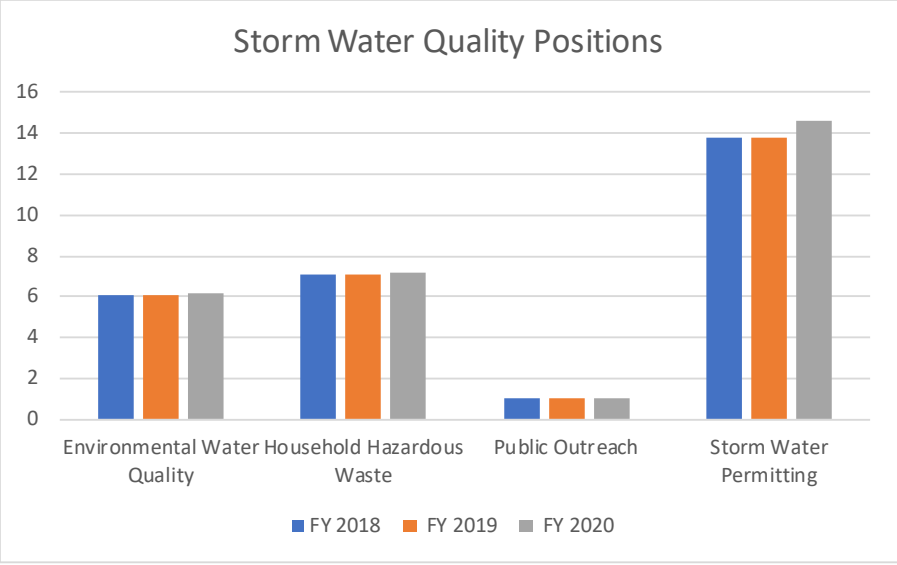


The storm water drainage utility was established by city council on June 13, 1995 to address federal mandates governing National Pollution Discharge Elimination System (NPDES) programs. Its' responsibilities are to plan and implement strategies to improve the quality of storm and other runoff waters.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




Drainage Fee
17,900,000
17,800,000
17,700,000
17,600,000
17,500,000
17,400,000
17,300,000
17,200,000
17,100,000
17,667,703
17,351,753
17,771,055
FY 2017
FY 2018
FY 2019


Storm Water Quality Budget
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
-
Environmental Water Quality
Household Hazardous Waste
Public Outreach
Storm Water Permitting
FY 2018
FY 2019
FY 2020


Storm Water Quality Positions
16
14
12
10
8
6
4
2
0
Environmental Water Quality
Household Hazardous Waste
Public Outreach
Storm Water Permitting
FY 2018
FY 2019
FY 2020

MS4 Specific Requirements

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

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 DEQ or 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 TMDLs associated implementation plan will be met within any timeframes 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 TMDLs associated implementation plan will be met within any timeframes 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 for Nutrient, Turbidity and Dissolved Oxygen.
- Requirements included incorporation of the TMDL Waste Load Allocations into the City's Storm Water Management Plan, and development of a TMDL Compliance and Monitoring Plan for the Lake Thunderbird watershed in Oklahoma City.

2019 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 2 – Completion of 1st quarter samples
- Apr 2 – Completion of 2nd quarter samples
- July 2 – Completion of 3rd quarter samples
- Oct 1 – 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 consists of flow-proportioned aliquots and was collected for weekly analysis. The data are used to calculate the loading for each week of sample collection.

- Seventy-seven sampling events were attempted at station 24. Sixty sampling event concentrations met quality assurance and were used to calculate the total phosphorus (TP) load, 45 for total suspended solids (TSS) and 49 for total nitrogen loads. Roughly 60%, 80% and 65% of the year was sampled for TSS, TP and TN, respectively. Seventeen total TP, 32 TSS and 28 total nitrogen samples were flagged for quality assurance violations and not used for calculating the estimated annual load. The average TP, TSS and TN daily loads were 2 kg, 2,612 kg and 127 kg, respectively.
- Seventy-five sampling events were attempted at Station 570. Thirty-seven TSS, 51 TP and 41 TN sampling event concentrations were used to estimate the annual load at station 570. Nearly 48%, 67% and 57% of the year was sampled for TSS, TP and TN, respectively. Thirty-eight TSS, 24 TP and 34 TN samples were flagged for violations and not used for calculating the estimated annual load. The average TSS, TP and TN daily loads were 28,802 kg, 10 kg and 157 kg, respectively.
- Seventy-four sampling events were attempted at station 568. Forty-four TSS, 57 TP and 46 TN sampling event concentrations were used to estimate the annual load at station 568. Around 58%, 75% and 68% of the year was sampled for TSS, TP and TN, respectively. Thirty TSS, 17 TP and 28 TN samples were flagged for quality assurance violations and thus not used for calculating the estimated annual load. The average TSS, TP and TN daily loads were 674 kg, 0.34 kg and 306 kg, respectively.
- TMDL compliance was assessed using total loads estimated for 2019 to calculate the long-term average (LTA) load. Annual data was assessed to determine if any maximum daily load (MDL) violations occurred. Sixteen MDL violations were noted at station 570 (2 TP, 4 TSS, 4 TN) and 24 (2 TSS, 4 TN). The long-term averages for TP, TSS and TN were above the required TMDL LTAs.

TMDL Compliance and TMDL Monitoring Plans

No changes to the OKC Compliance Plan or TMDL Monitoring Plan were made during the annual review period.

Major Outfall Monitoring (Passive Sampling)

- March 4 – Sampling event conducted.
  Group 1, 71% of stations sampled.
  Group 2, 100% of stations sampled.
- August 13 – Sampling event conducted.
  Group 1, 93% of stations sampled.
- September 13 - Sampling event conducted.
  Group 1, 86% of stations sampled.
- November 7 - Sampling event conducted.
  Group 1, 57% of stations sampled.

Dry Weather Screening (IDDE Monitoring)

- Thirty-three stations were visited from June 4 - July 9, 2019.
- Eleven stations were dry and 22 stations were screened with the field test kits.
- Field test results were all below follow-up action levels.

Other

- July 31 - Installed signage at thirteen locations in the Lake Thunderbird watershed.
- October 27 - LTWP workshop and waterway cleanup event at Lake Thunderbird. Forty-seven volunteers participated, collecting 602 pounds of debris during the event.
- Outreach efforts included an estimated 287,501 contacts in the Lake Thunderbird watershed.
- Four rain barrels were sold to residents in the Lake Thunderbird watershed.
- Oklahoma City personnel installed new, or replaced, historical locations with storm drain markers at 16 locations (15 new markers and 1 replaced) and identified 10 embossed storm drain inlets in the Lake Thunderbird watershed.
- The Lake Thunderbird Watershed Partnership website www.thunderbirdwatershed.org was activated on December 14, 2018. The number of unique visitors (a person who visits the site at least once within the reporting period and only counted one time) was 248.

TMDL related training for City staff

Training

Several trainings, seminars and conferences related to best management practices, storm water infrastructure, sustainability, and other storm water related topics were provided during the annual review period. OKC and other agency staff participated in these trainings. Training on subject matter which is related to the TMDL totaled over 483 hours.

Meetings

January 15 - Authorize contract negoitiation for Lake Thunderbird storm water study with Guernsey.
January 29 - Lake Thunderbird storm water study scope meeting with Guernsey representatives.
February 1 - Lake Thunderbird Watershed Partnership (LTWP) quarterly meeting.
February 28 - Lake Thunderbird storm water study scope meeting with Guernsey representatives.
July 11 - Notice to Proceed for Lake Thunderbird storm water study project.
July 19 - Lake Thunderbird watershed field visit with City staff and Guernsey representatives.
September 27 - LTWP quarterly meeting.
October 7 - LTWP meeting.
October 11 - Lake Thunderbird storm water study meeting with Guernsey and subcontractors.
November 5 - Lake Thunderbird storm water study meeting with Guernsey and subcontractors.
December 6 - Lake Thunderbird storm water study meeting with Guernsey and subcontractors.

Non-Structural BMP Load Reductions

Existing non-structural BMP pollutant removals include erosion & sediment control, street sweeping and catch basin cleanouts. Changes included increased monthly street sweeping, the installation of ten additional storm drain inserts and an increase of active construction acreage. These non-structural BMPs removed 219 lbs total nitrogen, 38 lbs total phosphorus, and 99,591 lbs total suspended solids.

Structural BMP Load Reductions

Ongoing modeling of structural BMPs (calculated using the Watershed Treatment Model) such as detention, retention, and bio-infiltration has provided the estimated annual removal of 680 lbs/year total nitrogen, 230 lbs/year total phosphorus and 22,059 lbs/year total suspended solids.

Technician monitoring

Monitoring documentation

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

3/2/20
Date

January 31, 2020

Eric J. Wenger, P.E., Director
Public Works/ City Engineer
City of Oklahoma City
420 West Main Street, 7th Floor
Oklahoma City, OK 73102

Attention: Raymond Melton

Dear Mr. Melton:

Enclosed is the Oklahoma Department of Transportation portion of the Fiscal Year 2019 Annual Report to be submitted to the Oklahoma Department of Environmental Quality in accordance with the Oklahoma City Municipal Separate Storm Sewer System (MS4) Permit Number OKS000101. This report covers the period from January 1, 2019 through December 31, 2019.

Please provide this office with one copy of the Annual Report as it is submitted. If you have any questions or require further information, please contact Mr. Steven Gauthe at (405) 212-7920.

Sincerely,

Brian Taylor
Chief Engineer

Enclosure

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 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.

B. TA

2/3/2020

Brian Taylor
Chief Engineer

Date

FISCAL YEAR
2019
ANNUAL REPORT
BY THE
OKLAHOMA DEPARTMENT OF TRANSPORTATION (ODOT)
ON
OKLAHOMA CITY MS4 PERMIT # OKS000101

January 31, 2020

Status

The Oklahoma Department of Transportation (ODOT) has implemented and is in compliance with the Storm Water Management Plan. The following items demonstrate activities undertaken for this annual report period.

Expenditures

As part of ODOT's Storm Water Management Program, the Oklahoma City metro area highway system shoulders are swept to remove sediment and debris. This sweeping program for the annual report period collected 3148 square yards of trash and debris at the expense of $411,128.42. A private contractor picks up litter from the highways in the city at an annual cost of approximately $400,000. We spent $555,651.20 on storm drain cleaning along the highways in the city. ODOT allocated $364,078.00 for litter and debris clean up and spend $221,781.81.

Erosion and Sediment Control

ODOT's "Storm Water Management Guidelines for Design and Construction Activities" is used by ODOT design, construction and maintenance personnel, consulting engineers and contractors to select, design and maintain appropriate erosion control measures for our construction and maintenance activities. Currently, ODOT is working with a consultant to create manuals for Design, Implementation and Inspection of erosion and sediment control devices for construction projects. An internal Erosion and Sediment Control task force was formed in January 2003 to improve and standardize best management practices for ODOT and entities acting on their behalf.

The Department's Storm Water Advisory Team (SWAT) has been working on updating standard drawings for sediment and erosion control BMPs to ensure proper installation and application in the field. The team is also working on research for new BMPs to implement on ODOT projects.

procedures have been reviewed with their Maintenance Supervisors. GHPPP's and training are being developed.

ODOT has incorporated a "Clean Sweep" program at all of the facilities throughout the State. This program is intended to remove old materials that may be potential pollutants. This program is ongoing and is being conducted with the assistance of the Department of Central Services on the sale of the material that can be repurposed. This undertaking is being done for the Good Housekeeping/ Pollution Prevention MCM, as well as evaluating which facilities will require Spill Prevention, Control and Countermeasure (SPCC) plans. It has been determined that many facilities will not meet the required capacity for SPCC plans, after the Clean Sweep operation has been conducted.

Additionally, ODOT has hired a Consultant to map all the maintenance facilities in the regulated areas for possible water quality impacts, e.g., sensitive waters, aquatic resources of concern, endangered and threatened species. This information will be incorporated into the mapping database mentioned in the IDDE section.

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. Four Pesticide Applicator Certification Schools were conducted and overall, 62 ODOT staff trained. There were eight employees present at the Oklahoma City training. A large portion of this workshop covered the various issues concerning environmentally safe usage of herbicides. Following this training, the attendees have an opportunity to take the core exam to become a Certified Pesticide Application in Oklahoma. Of the 62 attendees, 38 elected to take the exam and 38 people passed. ODOT has scheduled the continuation of this training/certification for the coming year.

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/ Litter Program

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.

School-age children are invited annually to enter a 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. Nearly fourteen thousand students, grade Kindergarten through 12th participated in the 2019 contest. The winning posters are printed for distribution to schools, businesses, and chambers of commerce. A quantity of forty five thousand calendars, featuring the winning posters, will be printed and distributed statewide to schools, libraries city, county, state and federal offices. One of the twelve winning posters will be featured on fourteen thousand color reprints distributed for promotional display purposes to spread the anti-litter message to Oklahoma citizens of all ages.

The 28th Annual State poster contest winners were honored at an April awards luncheon at ODOT's office in Oklahoma City. Each state poster winner received a monetary award of $250, $150 or $100 for first, second or third place. Winners also received a mounted reprint of their poster, placemats and t-shirts bearing their design. The thirteen winners were then presented to the Oklahoma State House of Representatives at the Capitol. Each of the thirteen students had the opportunity to get their photos taken with their respective representative.

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.

The Thirtieth Annual TRASH-OFF was held on Saturday, April 21, 2018. This year's event involved one hundred and thirty eight cities, eighteen counties, twenty five groups/organizations,

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/ Litter Program

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.

School-age children are invited annually to enter a 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. Nearly fourteen thousand students, grade Kindergarten through 12th participated in the 2019 contest. The winning posters are printed for distribution to schools, businesses, and chambers of commerce. A quantity of forty five thousand calendars, featuring the winning posters, will be printed and distributed statewide to schools, libraries city, county, state and federal offices. One of the twelve winning posters will be featured on fourteen thousand color reprints distributed for promotional display purposes to spread the anti-litter message to Oklahoma citizens of all ages.

The 28th Annual State poster contest winners were honored at an April awards luncheon at ODOT's office in Oklahoma City. Each state poster winner received a monetary award of $250, $150 or $100 for first, second or third place. Winners also received a mounted reprint of their poster, placemats and t-shirts bearing their design. The thirteen winners were then presented to the Oklahoma State House of Representatives at the Capitol. Each of the thirteen students had the opportunity to get their photos taken with their respective representative.

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.

The Thirtieth Annual TRASH-OFF was held on Saturday, April 21, 2018. This year's event involved one hundred and thirty eight cities, eighteen counties, twenty five groups/organizations,

two Corps of Engineers lakes, sixty one "Adopt-a-Highway" groups and twenty State parks in the cleanup effort. Many groups have expanded TRASH-OFF day to TRASH-OFF week or month. ODOT distributes trash bags for the annual TRASH-OFF. Last year, this effort resulted in one million five hundred thousand pounds of litter and debris collected from Oklahoma roadsides and public areas by 50,000 volunteers. This saved taxpayers an estimated 5 million dollars in clean-up costs. In addition, Keep Oklahoma Beautiful sponsors a banquet in the fall where awards are given to participants for "Best First Effort" and "Best Overall Effort".

ODOT is a member of the Central Oklahoma Storm Water Alliance (COWSA.) ODOT created a Storm Water contact link to the Website to receive questions or concerns regarding our processes and/or construction projects.

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.

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. Approximately one hundred and fifty gallons of antifreeze was recycled and ninety eight batteries were returned to the manufacturer for reuse.

Mowing

ODOT's maintenance activities are being performed by private contractors that mow just over forty seven hundred acres per year in the Oklahoma City metropolitan area.

OKLAHOMA
TURNPIKE
AUTHORITY

March 13, 2020

Derek Johnson
420 West Main Street Suite 360
Oklahoma City, Oklahoma 73102

Dear Mr. Johnson

Enclosed is the Oklahoma Turnpike Authority's portion of the Annual Report to be submitted to the Oklahoma Department of Environmental Quality (DEQ) in accordance with the City of Oklahoma City's Separate Storm Sewer System (MS4) Permit Number OKS000101. This report covers the period from January 1, 2019 through December 31, 2019.

Please provide this office with one copy of the Annual Report when it is submitted to DEQ.

Sincerely,

James Pruett
Project Manager

OKLAHOMA
TURNPIKE
AUTHORITY

NPDES Permit No. OKS000101
January 1, 2019 through December 31, 2019
Annual Report for
Oklahoma Turnpike Authority (OTA)

This report covers OTA's stormwater management activities for the Turnpikes within the Oklahoma City MS4 (OKCMS4) area. Currently 12.5 miles of the west end of the Turner Turnpike and the entire 25.3 miles of the John Kilpatrick Turnpike are in the OKCMS4. As part of the Driving Forward initiative, the OTA is constructing an extension to the John Kilpatrick Turnpike and a new turnpike the Kickapoo Turnpike in eastern Oklahoma County connecting Turner Turnpike (I-44) with I-40. Construction on these Turnpikes is currently underway, and when complete, the OTA will have a total of 46.3 miles of roadway within the OKCMS4 area.

1. Status of the Implementation of the Storm Water Management Program (SWMP).

   Requirements outlined in the Part 2 of OPDES Permit OKS000101 have been met.

   Structural Controls and Storm Water Collection System Operations:

   All of OTA's below ground stormwater carrying structures are inspected on a biannual time schedule as part of OTA's commitment to a well-maintained stormwater system. In 2019, one hundred fifty-six (156) structures were inspected on the Turner Turnpike. There were no critical findings. In 2020, there will be approximately seven hundred-twelve (712) to be inspected on the John Kilpatrick Turnpike.

   Above ground stormwater controls are monitored daily by the maintenance staff who are equipped to handle any flow problems that could arise. Examples of such controls include detention areas and roadside ditches. To ensure the stormwater is

flowing efficiently, OTA mows four (4) cycles per season. Approximately one-thousand eighty-one (1,081) acres are mowed per cycle.

Roadways:

Seventy-five (75) lane miles are swept twice per year to ensure that the John Kilpatrick and Turner Turnpikes are operating in a manner that will minimize discharge of pollutants from the roadway. During this operation, shoulders are swept to remove accumulated sediment, salt, and other debris.

In addition to the five (5) trash containers that are maintained year-round along the John Kilpatrick and Turner Turnpikes, maintenance staff also collected and properly disposed of approximately nine hundred fifty (950) cubic yards of trash.

The OTA also participates in the Great American Clean-up from March to May, in which trash and litter are picked up from the Turnpike roadsides and the volume is reported to Keep Oklahoma Beautiful (KOB).

Pesticide, Herbicide, and Fertilizer Application:

The OTA requires all turnpike herbicide applicators as well as all contract applicators to be licensed and subject to all of the regulations under the Oklahoma Herbicide Applicators Law including re-certification. Applicators receive yearly training on pesticides, herbicides, and fertilizers from the Oklahoma Vegetation Management Association (OVMA). The OTA has fifteen (15) certified applicators on the John Kilpatrick and Turner Turnpikes. Approximately four hundred-sixty four (464) gallons of herbicide were applied around sign footings, fences, and at various other locations within the limits of the right of way.

Illicit Discharge and Improper Disposal:

As part of the belowground stormwater control structures inspection, no illicit discharges were detected.

OTA's maintenance staff collected and recycled two thousand, eight hundred seventy-six (2,876) quarts of oil. The oil is routinely picked up at the maintenance yard by a private contractor. In addition to the oil, OTA recycled two hundred fifteen (215) filters. OTA also returned twenty-five (25) batteries and eighty (80) tires for recycling to the location where new ones were purchased.

Spill Prevention and Response:

OTA operates two Maintenance facilities on the Kilpatrick Turnpike, and the OTA has developed a Stormwater Pollution Prevention Plan (SWPPP) for each. Spill prevention and response procedures are specified in Section 3.4 of their respective SWPPPs. An SWPPP has been developed for two salt barns in the OKCMS4 area:

the barn at I-44 and I-35, and the barn at I-44 and Hogback Road. Construction of the plan is planned for 2020.

Construction Site Runoff:

The Oklahoma Turnpike Authority *Standard Specification for Turnpike Construction* (current edition is 2010) sets forth requirements designed to "minimize or eliminate air pollution and pollution of rivers, streams, impoundments, and private properties from the discharge of dust and/or storm water associated with construction activity.

OTA will use a number of Best Management Practices (BMPs) on a site-specific basis to implement an effective erosion and pollutant control program for active construction sites. Where needed, plan sheets are developed to note the location/description of projects, sequence of erosion control activities, areas disturbed, names of receiving waters, soil stabilization practices, structural practices, offsite vehicle tracking, and a layout showing exactly where soil stabilization and structural practices should be placed.

During construction, all stormwater activities are monitored and enforced daily by the OTA's on-site representative.

Upon project completion, OTA conducts a final inspection and requires that the areas impacted by OTA projects are restored to compliance level within 30 days after the final inspection.

Public Education:

OTA maintains a "Stormwater Management" section on the agency's website. This section includes educational materials such as brochures and bookmarks. The website includes documents related to OTA's Phase I and Phase II MS4 permits that the public can review

Employee Education:

OTA John Kilpatrick Turnpike Maintenance employees attend quarterly safety meetings that can include stormwater topics. Four (4) OTA employees attended Oklahoma City's Construction Workshop on October 3, 2019.

Public Participation and Response:

OTA is part of the anti-litter campaign, "Oklahoma Keep Our Land Grand." As part of this campaign, OTA offers a toll free number to call to report littering as well as a place to report littering on the website. Individuals who are observed littering are sent a notice to remind them that littering is a punishable offense and that the goal is to keep Oklahoma land looking grand. For the year 2019, twenty

four (24) litter calls were received by the Pikepass Office, which is a 95.3% decrease over the number of calls received in year 2018 .

Landscape:

OTA maintains seven (7) wildflower plots and two (2) tree farms on the right-of-way adjacent to the turnpikes.

2. Proposed SWMP Changes.

The OTA does not propose any changes to the SWMP.

3. Revision to the Assessment of Controls and the Fiscal Analysis.

The OTA proposes no revision to the assessments of controls. The Fiscal Analysis is shown on the City of Oklahoma City's Report.

4. Monitoring Data Accumulated Throughout the Reporting Year.

Refer to the Regional Storm Monitoring Report.

5. Annual Expenditures for the Reporting Period with a Breakdown for the Major Elements of the SWMP and the Anticipated Expenditures for the Year Following each Annual Report.

Description	Cost
Structural Controls Inspections	$ 6,850.00
Mowing	$ 241,996.50
Sweeping	$ 18,675.55
Trash Collection and Disposal	$ 84,149.38
Herbicide Licensing	$ 2,064.00
Herbicide (Product + Application)	$ 39,151.24
Landscape	$ 1,426.77
Public Education	$ 2,000.00
Total	**$ 396,3113.44**

OTA will spend an estimated $ 400,000.00 in 2020 for the major elements of this SWMP.

6. A Summary Describing the Number and Nature of Enforcement Actions, and Inspections.

   All enforcement actions in OTA's watershed located within the City's jurisdiction are issued by the City of Oklahoma City in concurrence with the OTA.

   All Turnpike roadway areas are inspected regularly as part of ongoing Maintenance activities. Routine monthly inspections and quarterly visual assessment inspections take place at the John Kilpatrick Turnpike and Turner Turnpike Maintenance yards per the SWPPPs developed for those facilities.

   Additional inspections of OTA stormwater infrastructure are described in the *Structural Controls and Storm Water Collection System Operations* section earlier in this report.

7. Identification of Water Quality Improvements or Degradation.

   OTA did not identify any water quality improvements or degradations during this report period.

8. Regional Monitoring Report.

   Please see the City of Oklahoma City's report.

CERTIFICATION

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

James Pruett
Oklahoma Turnpike Authority

03·13·2020
Date

Storm Water Quality Management 2019 Annual Report

OKC.GOV/SWQ