STORM WATER MANAGEMENT PLAN (SWMP)
FOR THE CITY OF RIVER OAKS, TARRANT COUNTY, TEXAS

(Approx. 1.9 miles on the west side of Dallas Fort Worth Metroplex within the 5-mile radius Loop defined by Interstate Loop 820 around Fort Worth)

GENERAL PERMIT NUMBER TXR040146
COVERAGE EFFECTIVE: May 1, 2009
REVISED SWMP RECEIVED BY TCEQ: April 25, 2014
PERMIT ISSUED BY TCEQ: December 11, 2014
PERMIT RESUBMITTED: September 25, 2019
ADOPTED: September 24, 2019 by Ordinance # 1248-2019
(Proposed Draft Revision to 2019 SWMP Submitted)

CHAPTER 13 "UTILITY"

"ARTICLE 13.10 STORM WATER MANAGEMENT PROGRAM

DIVISION 1. STORM WATER MANAGEMENT PLAN (SWMP)

13.10.001 INTRODUCTION

(a) GOALS AND OBJECTIVES OF SWMP

The goals for managing Storm Water Quality are:

1. Protect the health, safety and welfare of the general public;
2. Protect the environment;
3. Maintain good water quality;
4. Effectively address state and federal regulations;
5. Foster community cooperation and share knowledge and experience;
6. Educate the public employees, businesses, and general public about hazards associated with illegal discharges and improper disposal of waste;
7. Educate public about the impacts stormwater can have on water quality, and steps they can take to reduce pollutants in stormwater;
8. Reduce costs of the program by conducting cooperative activities whenever possible;
9. Appropriate and distribute educational information to the public;
10. Provide training and education about storm water quality to the community, governmental staff and developers;
11. Identify high-priority community-wide issues;
12. Facilitate the collection and distribution of information to agencies;
13. Facilitate consistency in the collection and interpretation of water quality data;

14. Identify appropriate and cost-effective Best Management Practices;
15. Set realistic measurable goals that can be implemented over the next 5-years
16. Achieve proportionate share of pollution reduction in the watershed

(b) CONTEXT

The City of River Oaks is located in a naturally **wooded** area defined by the meandering course of the West Fork of the **Trinity River**, just downstream from Lake Worth. The name of the city celebrates these natural features of the landscape by reminding residents of the many mature oaks trees throughout the city and the close proximity of the Trinity River corridor and the recreational amenities of Lake Worth.

The City of River Oaks is approximately **1.9 square miles** in area (1,216 acres) on the west side of the Dallas-Fort Worth Metroplex in North Central Texas. River Oaks is a suburban city, but it is located within the five-mile radius loop defined by Interstate Loop 820 around Fort Worth, in Tarrant County, Texas. It is completely surrounded by long-developed areas of the City of **Fort Worth** and the City of **Sansom Park** (north). The city limits are set, since there is no extra territorial jurisdiction (ETJ) or unincorporated territory for expansion of the city limits.

(c) HISTORY

In 1941 the voters unanimously approved incorporating as a village. Since the area incorporated was not located entirely in "the Castleberry area" the village was named for the river and oak trees and became River Oaks Village. On **May 7, 1946** the Board of Aldermen changed the name to the City of River Oaks. **The City Charter was officially enacted on January 11, 1949.**

In 1942, the Army Air Force constructed and operated Tarrant Field Air Dome adjacent to the newly built Consolidated Aircraft Corporation's B-24 "Liberator" bomber manufacturing facility, known today as Lockheed Martin Tactical Aircraft Systems. Early in the 1950's, the field became a part of the Strategic Air Command and was renamed **Carswell Air Force Base**, which remained in operation for over 40 years. In 1994 Carswell was designated as a Joint Reserve Base to be shared by the Navy, Marines, Air Force and Texas National Guard. Over the years River Oaks has been a prime location for base personnel to locate.

The first year that River Oaks appeared in the US Census was 1950, with a population of 7,097. ***The current population from the 2010 census is 7,427 and the estimated population in 2017 was 7,703, which is the estimated population being served by the MS4.*** The population of River Oaks is approximately 0.38% of the population projection of Tarrant County.

The TCEQ has reissued the Small MS4 General Permit, TXR040000, with an effective date of January 24, 2019. This general permit authorizes the discharge of storm water from small MS4s located in urbanized areas state-wide and certain non-storm water discharges into surface water in the state. The General Permit for Phase II (small) municipal separate storm sewer systems (MS4) was first issued and effective on August 13, 2007. The City of River Oaks Permit # TXR040146 was coverage

effective on 05/01/2009 and was re-issued on December 11, 2014 that expires on December 13, 2018. The renewal period ended on July 23, 2019 and therefore the City of River Oaks with this Storm Water Management Plan will be required to resubmit for **permit authorization for permit term year 2019**. *The SWMP shall be reviewed annually in conjunction with preparation of the annual report. The MS4 in conjunction with the preparation of the annual report shall check if a waterbody has been added to the latest EPA approved Integrated Report of Surface Water Quality for Clean Water Act (CWA).*

(d) EXISTING LAND USE

The City of River Oaks is basically completely built-out. The North Central Texas Council of Governments (NCTCOG) calculates that only 1% of the property in River Oaks is undeveloped or vacant. This means that 99% of the property in the city limits is developed. The three-fourths of the developed land in the city is **single family residential**. These residential properties are grouped into five major neighborhoods: 1) west of Roberts Cut-Off and north of Meandering Road, 2) south of Meandering Road and northwest of River Oaks Boulevard/SH 183, 3) east of Roberts Cut-Off and northwest of River Oaks Boulevard/SH 183, 4) southeast of River Oaks Boulevard/SH 183 and east of Roberts Cut-Off, and 5) west of Roberts Cut-Off and southeast of River Oaks Boulevard/SH 183. Lot sizes and housing sizes vary from neighborhood to neighborhood. There are a couple of apartment complexes, but the number of **multifamily** dwelling units in the city is very low compared with other area cities. There are also few medium density residential units (duplex, triplex, townhouse, zero lot line, etc.) in the city.

The second major land use is **parks and floodplain** due to the portion of YMCA Camp Carter located within the city limits. The eastern portion of Camp Carter (east of the West Fork of the Trinity River) is in River Oaks. This includes the YMCA Equestrian Center, day camp multi-purpose activity area, chapel, some cabins and the Castleberry ISD ball fields that are located on Meandering Road. The majority of the Camp Carter property is west of the river and located within the city limits of Fort Worth. The only city owned parklands are the McGee Park ball fields and the nearby undeveloped park property between Glenwick Drive and Lawther Drive. There is also "permanent open space" provided by the floodplain area of the creek adjacent parallel to Jacksboro Highway. The steep sloped areas overlooking the West Fork of the Trinity River are also shown as "open space" on the Existing Land Use Map, but these areas are privately owned by the adjacent residential home owners and are not conducive to development due to the steep slopes.

The existing **commercial** uses are concentrated along River Oaks Boulevard/SH 183 and Jacksboro Highway/SH 199. There are other scattered commercial uses along Roberts Cutoff.

Institutional land uses (public and semi-public) account for an equal amount of property. The Castleberry ISD school campuses and the municipal facilities are public uses. There are 20 area churches and 13 of these are located within the city limits, and these are considered semi-public uses.

There are no significant existing **industrial** or manufacturing land uses located within the city limits of River Oaks. Since there are no large undeveloped tracts available, no industrial facilities are planned. Economic development focuses on commercial retail and office uses for new job opportunities.

Summary of River Oaks Existing Land Uses

Land Use Type	Acres	Developed %	Total %
Single Family Residential	**937**	74.66%	73.90%
Multifamily Residential/Apartments	**5**	0.40%	0.39%
Manufactured Housing	**2**	0.16%	0.16%
Parks & Floodplain	**165**	13.15%	13.01%
Public/Semi-Public/Institutional	**72**	5.74%	5.68%
Commercial	**72**	5.74%	5.68%
Industrial	**0**	0.00%	0.00%
Infrastructure	**2**	0.16%	0.16%
Subtotal Developed	**1,255**	100.00%	98.97%
Vacant/Undeveloped	**13**		1.03%
Total	**1,268**		100.00%

Source: MPRG, Inc. Field Survey, October 2003 and NCTCOG estimates from aerial photos

(e) GOVERNMENT

The City of River Oaks is a home rule city acting under its charter adopted by the Electorate pursuant to Article XI, Section 5, of the Texas Constitution and Chapter 9 of the Local Government Code. The municipal government provided by this charter shall be known as "Council-Manager Government." Pursuant to the provisions of, and subject only to the limitations imposed by the state constitution, state laws and this charter, all powers of the city shall be vested in an elective council, hereinafter referred to as the "council" or "city council." (Sec. 1.03 added. by Resolution 965-2019, prop. B, adopted 5/14/19)

(f) BOUNDARIES

The boundaries and limits of the City of River Oaks shall be those as established and described in ordinances duly passed by the city council in accordance with state law. The city secretary shall at all times keep a correct and complete description and official map on file, with recent annexations or disannexations.

(g) OPERATIONS

The City of River Oaks revenues have been unstable. Income is derived primarily from property tax, sales tax, Water and Sewer charges, and general fees and charges. Our 2019-2020 revenues in the General and Water Funds was projected to be $8,880,859 and with expenditures of $8,960,357 dollars that was balanced using $79,498 from the prior year fund balance in both the General and Water Funds. Our expenditures per capita are approximately $ 1206.46 of which $ 470.40 is directly related to water and sewer service. In 2017 the city obtained a low interest loan from the Texas Water Development Board in the amount of $15,000,000 to replace old deteriorated water and sewer mains throughout the City. There are currently 58 paid employees in the City of River Oaks that will be increased to 69 employees in October 2019 with the addition of a full-time fire department. The Public Works Department is responsible for water, sewer, drainage, streets, sanitation, parks and recreation and code compliance. A certified commissioned fire fighter is on staff and performs annual fire inspections.

(h) PUBLIC NOTICE REQUIREMENTS

1) Public Hearings, Community Forums and meetings of the Storm Water

Task Force (SWTF) will be published by the City Secretary 72-hours in advance by posting notice in the bulletin outside of city hall located at 4900 River Oaks Blvd., River Oaks, Texas, a place that is accessible to the public at all times;

2) Notice of Public Hearings shall also be posted on the City's Website @ www.riveroakstx.com;
3) Notice of storm water programs, educational materials and meetings of the Storm Water Task Force (SWTF) will be posted on line @ www.riveroakstx.com.
4) **SWMP updates that are considered major permit modifications require public notice and an opportunity for a public meeting.**

(i) MS4 MAPPING:

(1) Outfall drainage basins are established in the City's Drainage Master Plan as WF 5, 6, 7, 8, 10, 11 and WF 12 as enclosed on the following Map (Attachment A). The West Fork of the Trinity River is the main MS 4 receiving stream for drainage discharge from the City of River Oaks that loops the city boundary on the western and southern sides of the City (Attachment B). Lake Worth located on the northwest side of the City is located outside the boundary of River Oaks in the City of Fort Worth and receives little or no drainage discharge from River Oaks.

(2) Storm Water Outfall Base Map (Attached as Attachment B): The base map plots the main drainageways and the outfall points of the entire city. Levels of sampling is recorded and reported with the annual permit. *Levels of the small MS4 is based on the most recent U.S. Census at the time of permit issuance. A national Census held during a permit year term will not affect the level on an MS4 until the general permit is renewed*. The outfall points are:

i. Surface drainage from Drainage Basin WF11 from north end of city.*(Sample to be taken on city property before the Trinity River)*
ii. Underground pipe under street then natural surface drainage in Drainage Basin WF11 across private property to Trinity River *(on private property)*
iii. Underground drainage pipe from WF11 across private property to Trinity River *(on private property)*
iv. Underground drainage pipe from WF11 across private property to Trinity River *(on private property)*
v. Combination surface drainage and underground drainage piping in WF11 to Baylor Ave.; underground storm drain flows back west on Baylor Ave. and terminates in manhole at the dead-end of Baylor Rd. at the west city limits *(sampling point at manhole).*
vi. Surface drainage in Drainage Basin WF 7 on Meandering Road from the street inlet at 5800 Meandering Road; then northerly into Fort Worth through an open drainage channel. *(River Oaks sample site is located at the street inlet in the 5800 block of Meandering Road).*
vii. Surface drainage on the northwest side of River Oaks Blvd. in Drainage Basin WF 11 to the Trinity River. *(Samples would have to be taken from the concrete lined drainageway on the north side of River Oaks Blvd. in the 5600 block).*

viii. Surface drainage on the southwest side of River Oaks Blvd in Drainage Basin WF 11 to the Trinity River. *(Samples to be taken from the drainageway ravine on the south side of River Oaks Blvd.).*

ix. Drainage channel from River Oaks to Fort Worth that flows north to south under Sam Calloway Road through an underground conduit and interconnects to an open earthen channel in Fort Worth that ultimately flows to the Trinity River. (Drainage Basin WF8) *(Samples can be taken from outlet on the north side of Sam Calloway Road in the right-of-way before flowing south through an underground conduit under Sam Calloway Rd into the Fort Worth drainageway that flows from there into the Trinity River).*

x. Surface Drainage only from Drainage basin WF7 in River Oaks south into Fort Worth *(Natural drainage flow into Fort Worth) (any sampling would have to be a grab sample taken from the street right-of way).*

xi. Surface street drainage on Churchill Rd. to Fort Worth and ultimately to the Trinity River in Drainage Basin WF 12. *(Street Drainage into Fort Worth)*

xii. Surface drainage from Worthview and Shear Drive into street inlets on Shear Drive that drains underground from Shear Drive in River Oaks and interconnects on Churchill Road with Fort Worth Storm Drainage System *(Sample to be taken at box inlet in Drainage Basin WF 10 located on the vacant lot at 329 Churchill Rd.) (Block 6, Lot 12; Doyle-Head 2nd Filing)*

xiii. From private drainageways in Drainage Basin WF11 to Fort Worth behind the 4600 block of Barbara Road *(Sample to be taken from drainage channel @ Springer Road and Barbara Road)*

xiv. From private drainageways in Drainage Basin WF6 to Fort Worth. Includes drainage flow from drainageway behind the 1100-1200 blocks of Churchill and from there southeast behind the 4500 block of Ohio Garden Road to Fort Worth. *(Sample point to be taken from drainageway in the rear of property in the 4500 block of Ohio Garden Road.)*

xv. Drainageway into River Oaks from Fort Worth under Long Avenue located behind the 2600 block of Jacksboro Highway in River Oaks and back out to Fort Worth at River Oaks Blvd. *(Sample has to be taken from the point it comes into River Oaks and another sample from the point it leaves River Oaks)*

xvi. Combination surface drainage from Hillside Dr. and Hilltop Circle in River Oaks into street inlet on Hillside Drive; then east under Hillside Dr. through an underground conduit that interconnects with the drainageway in Fort Worth located behind 1509 Hillside Dr. *(Sample point where conduit behind 1509 Hillside Dr. flows out into Fort Worth drainageway).*

(3) Improvement Mapping: During the 5-year permit, city engineer to the maximum extent practicable design scaled plans as revised for the entire storm water drainage system including existing and planned improvements. The Maps will designate all outfall points and sampling stations throughout the city to be used to detect and monitor illicit discharges into the MS4.

(i) **Priority Areas:** The SWTF has designated the Priority Areas for drainage improvements as being high priority as follows:

A. Drainage Basin WF 11 from Castleberry Cut Off Rd south to Baylor Avenue of approximately 12,000 feet at an estimated cost of $3,370,000. The drainage channel in this area is located primarily within private drainageways that is undersized earthen channels. The earthen channel north to south is free flow and terminates into Baylor Road and from there is designed to flow back west creating a high potential for flooding.

B. Inspiration Estates: Potential street flooding due to the lower elevation of properties. Culverts to the River are partial blocked in some cases and the earthen channel on the east side in the 1700 block of Inspiration Lane is susceptible to erosion and becomes a source of mosquito breeding due to the stagnant water. Estimated cost is about $200,000 for conduit, channel lining and inlets.

C. Almena Drainage Channel: Project location is for the earthen drainage channel from the drainage way entrance located in the rear of 1466 Greenbrier Dr. on the south side of McGee Park continuing southward to the rear of the city hall at 4900 River Oaks Blvd. Project improvements include erosion and sediment control, grading channel to meet engineered design flow rate, concrete lining, installation of box culverts, relocate utilities including excavation, installation and embedment. Estimated cost is approximately 1.3 million dollars.

D. Schieme Drainage Channel: Project location is in the street from 613 Schieme southwest to its intersection with Thomas Lane and east by south on Thomas Lane to its intersection with Taylor Road. Problem existing is inadequate drainage runoff flow causing standing water that won't drain off. Improvements include installation of underground storm water conduit, street drainage inlets and relocation of public utilities. Estimated construction cost is approximately 1.3 million dollars.

(ii) **Non-Priority areas that are being considered for future improvements:**

A. Intersection Yale at River Oaks Blvd.: Street flooding located in Drainage Basin WF11. Engineering studies performed with the study over the high-priority drainage improvements in the 5400 block of River Oaks Blvd. Inadequate drainage runoff. Further drainage improvement planning as a part of the Master Plan with NCTCOG for the River Oaks Streetscape project ("River Oaks Revival) in 2014-2015.

B. Drainage Basin WF5: Located partially in flood plain. There is a low-line flooding potential. Fort Worth apparently has utility easement inclusive of the main drainage channel that flows from north to south from Long Avenue to River Oaks Blvd.

- **2609 Jacksboro Highway**: Drainage Channel in the WF5 Drainage Basin from Jacksboro Highway westerly to the drainage channel in the rear of the properties. It is grown up with vegetation and has signs of probable erosion. Staff research by the SWTF

indicates that it is a private drainageway.

C. Drainage Basin WF6: Street flooding. 2003 Drainage study estimates costs of $1,028,000 for drainage improvements including underground storm conduits, culverts and approximately 1,110 feet of new concrete lined channel for adequate storm water runoff.

D. Drainage Basin WF8: (600 block of Merritt) Potential street and property flooding during heavy rains located in both the WF7 and WF8 drainage basins. Area drainage system possibly was originally improperly designed or has become undersized with property development. Estimated costs to Drainage Basin WF 8 were approximately $800,000.

E. Drainage Basin WF10: Included in Drainage study. Area around Middle School. Shear Drive improvements previously performed. No further on-going studies done.

F. Drainage Basin WF12: No improvements planned for in the City's Drainage Study.

(iii) **Low-priority drainage problem areas:**

A. Storm Water Channels throughout the City: All earthen channels in the city except for the channel located in Drainage Basin WF7 are privately owned. In order for the city to make planned improvements to them it would necessitate obtaining storm water utility easements for those channels to be dedicated to the city.

B. Street Flooding: The SWTF will continually monitor and investigate problem street flooding areas and with the engineer as the consultant make recommendations for improvements.

C. River Oaks Highway Corridor Improvements: Streetscape planning of River Oaks Blvd from Jacksboro Highway to the Trinity River located just west of Sam Calloway Road. The Master Planning was completed in 2017. Funding has not yet been allocated.

(j) Training Methods for MS4 Field Operators:

A. Consultation with City Engineering
B. Training Seminars and sessions
C. Follow the iSWM manual as a guide for site development.
D. Follow City adopted Storm Water Management Plan
E. Storm water Task Force sub-committees
F. Cooperation with City of Fort Worth

(k) Electronic Reporting Rule: By December 21, 2020 permittees must submit applications and annual reports online using the electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

(l) Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation: Implementation of the SWMP in new areas must

be done as expeditiously as possible, but no later than three years from the addition of the new area. Within 90 days of transfer of ownership, operational control, or responsibility for SWMP implementation the MS4 must have developed a plan for implementing the SWMP.

If operational control of the small MS4 changes, the present operator must submit an NOT and the new operator must submit an NOI and SWMP to obtain authorization under this general permit. The NOT and NOI must be submitted concurrently no later than 10-days after the change occurs.

An NOC is also required for changes to the SWMP that are made after TCEQ has approved the NOI and SWMP. Updates to the SWMP during the permit term may be made by submittal of a NOC unless the changes are non-substantial in which a NOC is not required.

If public notice is required, the MS4 is required to publish notice on the MS4 website, along with NOC and revised SWMP for any proposed changes submitted by MS4 classified as a major permit modification.

13.10.002 DEFINITIONS

When used in this Plan, these terms shall be defined as follows:

Benchmark Value: a standard or point of reference against which things may be compared or assessed.

BMP: Best Management Practices

Construction Activity: activity resulting in the land disturbance of one-acre or greater including construction related activities such as stockpiling of fill material and demolition (40 CFR § 122.34(b)(4).

Feasible: possible to do easily; convenient; likely; probable. ie: "if feasible" means if possible; when or if applicable.

Grab Sample: A sample, which is taken from, a waste stream on a one-time basis with no regard to the flow of the waste stream and without consideration of time. The sample is collected over a period of time not exceeding 15 minutes.

Impaired Water: include waters with an EPA approved TMDL that are found on the latest EPA approved *Texas Integrated Report of Surface Water Quality for Clean Water Act (CWA) Sections 305(b) and 303(d)* which lists the category 4 and 5 water bodies as not meeting applicable state water quality standards.

Implementation Plan: An implementation plan when pertaining to the SWMP is the objectives, control measures and best management practices needed to fulfill the primary goal of protecting and maintaining storm water runoff into the MS4.

Infeasible: not possible to do easily or conveniently; impracticable. In SWMP also means not applicable.

Illicit Discharge: discharges from storm sewers including improper and illegal wastewater connection from homes or businesses and infiltration of flow from broken

sewer mains and discharges of wastewater from automobile service stations, car washes or light industrial facilities.

MCM: Minimum Control Measure

MS4: Municipal Separate Storm Sewer System

NCTCOG: North Central Texas Council of Governments

NOI: Notice of Intent permitting for Storm Water Discharges from small Municipal Separate Storm Sewer Systems

NOT: Notice of Termination must be submitted when authorization is no longer needed

Remand Rule: Issued on December 9, 2017 to make language clear, specific and measureable.

SWP3: Storm Water Pollution Prevention Plan

SWMP: The Storm Water Management Program

SWP3: Storm Water Pollution Prevention Plan

SWTF: Storm Water Task Force established pursuant to Section 13.10.007

TCEQ: Texas Commission on Environmental Quality (regulatory agency of the state of Texas)

TMDL: Total Maximum Daily Load

Toxic Discharge: hazardous or poisonous chemicals discharged into the storm water-receiving stream that can jeopardize public health and the safety of the environment.

TPDES: Texas Pollutant Discharge Elimination System Permit: Permit issued by the Texas Commission on Environmental Quality under authority delegated pursuant to 33 USC 1342(b) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group or general area-wide basis.

UA: Urbanized Area as determined by 2000 or 2010 Decennial Censuses. Permit requires that operators of a small MS4 that are fully or partially located within an urbanized area obtain authorization for the discharge of storm water runoff and are eligible for coverage under the general permit unless otherwise specified.

Waters of the United States: includes small streams, tributaries, lakes, rivers and ponds that receive a discharge from the small MS4. (40 CFR § 423.11)

Watershed: land area that storm water runoff flows into that drains into the receiving waters such as a river or lake that ultimately may be the source point for raw water used in a water treatment process.

13.10.003 DEVELOPMENT OF STORM WATER MANAGEMENT PLAN

(a) DEVELOPMENT OF SWMP

Cheatham and Associates Engineering developed a Master Drainage Plan that was adopted by the City of River Oaks in 2003. In that plan, the City was divided into several drainage watersheds. Many of the drainage systems flow into the City of Fort Worth. The storm drain design can basically be divided into two parts. The first of which is the determination of the quantity of storm runoff that is likely to occur at any given point in the system. The second part of the design involves the hydraulics of flow in order to adequately size the facility, which will transport the runoff.

The City has one stream identified as **Drainage System WF5** on the FEMA Flood Insurance Rate Map No. 48439C0170 K dated September 25, 2009 as revised on March 21, 2019. This stream is just southwest of Jacksboro Highway on the city eastern most boundary and extends from Skyline southward to River Oaks Blvd. The Map also indicates the floodplain touching Isbell Rd. on the southeast boundary line with Fort Worth. *Other identified systems are:*

(1) Drainage System WF7a begins in Fort Worth north of McGee Park and traverses thru the park and continues southward between Greenbrier and Glenwick thru the city of River Oaks.

(2) Drainage System WF11a begins in Fort Worth northeast of Roberts Cut Off Rd. and traverses between Roberts Cut Off and Yale in a southerly direction.

(3) There is a subdivision, **Inspiration Point Estates**, in the City's northwest quadrant where construction of new houses has been on going since 1998 and is also controlled by a Homeowners Association. Any construction plans as approved by the **Inspiration Point Estates Architectural Committee** must also be submitted to the City for approval in accordance to all adopted City Codes. Because that these lots impact acreage downstream and to the Trinity River, no plans will be approved and construction cannot commence until each lot is determined to be (1) feasible to be built upon; and (2) has filed with the MS4 an approved SWP3 in accordance to Chapter 26 of the Texas Water Code and Sec. 402 of the Clean Water Act. Small construction sites greater than one-acre, but less than 5-acres may discharge to the surface waters of the state providing they meet certain conditions as regulated in TPDES General Permit # TXR 150000 and files an NOI Permit.

13.10.004 OVERALL PROGRAM CHECKLIST

(a) **The City's Best Management Practices (BMP'S) includes:**

- □ Adopt Storm Water Management Plan (SWMP); fully implemented within 5-years
- □ Developing an Outreach Strategy
  - Classroom education;
  - Promotional giveaways (flyers, backpacks, promotional items);
  - Provide flyers and educational materials to community;
  - Coordinate volunteer programs;
  - Present educational programs and displays at community events;
  - Use of Media;
  - Community Involvement;
  - Education/Outreach for commercial activities;
  - Education for businesses:
    i. Automobile Maintenance

ii. Pollution Prevention for Businesses
iii. Promoting Low Impact Development

- Educate public about impact of storm water discharges on receiving water bodies and what steps to be taken to reduce the contamination of storm water (www.epa.gov/nps/toolbox);
- Tailoring Outreach Programs to Minority and Disadvantaged Communities and Children.
- Education to Homeowners:
  i. Alternatives to Toxic Substances
  ii. Chlorinated Water Discharge Options
  iii. Landscaping and Lawn Care
  iv. Pest Control
  v. Pet Waste Management
  vi. Proper Disposal of Household Hazardous Wastes
  vii. Residential Car Washing
  viii. Trash and Debris Management
  ix. Water Conservation Practices for Homeowners *(Art. 13.07 River Oaks Code of Ordinances)*
  x. Encourage low-impact development (smartscape & zeroscape landscaping); reforestation programs;

- □ Protect the Watershed, wetland plantings if applicable;
- □ Inspect private drainageways (Article 6.06 2006 River Oaks Code of Ordinances);
- □ Monitor illicit discharges through Code Enforcement;
- □ Take grab samples of storm water runoff for analysis of toxins from a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory according to state rules listed in 30TAC Chapter 25 from outfall points as plotted on the City's Outfall Map;
- □ Monitor storm water discharge from business areas; take samples periodically to verify illicit discharges;
- □ Pollution prevention in commercial areas, volunteer monitoring;
- □ Enforce established regulations regarding industrial wastewaters pursuant to contract with City of Fort Worth;
- □ Pollution Prevention for Municipal Operations;
- □ Continue monthly public meetings with Storm Water Task Force to increase public participation, education and recommend drainageway improvement plans to the Council. Include City Engineer as consultant in meetings.

13.10.005 CONTRIBUTIONS TO DEVELOPMENT & IMPLEMENTATION OF SWMP

(a) Private and Public Engineering Studies performed on development projects.
(b) Master Plan and Comprehensive Text Study performed by Municipal Planning Resources Group, Inc. (Adopted by Ordinance # 636-04 on January 27, 2004, amendments adopted April 11, 2006)
(c) 2003 Engineered Drainage Study by Cheatham and Associates Engineering Firm of Arlington, Texas
(d) Future funding will have to be allocated thru the City's General Budget pertaining to revenues from Inspection fees and Code Compliance fees, EDC Funding when applicable and any appropriated drainage access fees once adopted. (Ordinance Planned for Drainage Districts)

13.10.006 MINIMUM CONTROL MEASURES

I. MCM 1: Public Education, Outreach and Involvement*

(a) Storm Water Education and Outreach program to educate public employees, business and the general public about hazards associated with illegal discharges and improper disposal of waste and about the impacts storm water can have on water quality, and steps they can take to reduce pollutants in stormwater.

* The permittee must post its SWMP and annual report on the city's website at www.riveroakstx.com

Remand Rule: Issued on December 9, 2017 to make language clear, specific and measureable.

(1) **Education Materials:**

1. Texas Smartscape CD available now for contractors, visitors, landscape consultants at the City Hall. **(on-going)**
2. Storm Water Pamphlets as approved by the Task Force are made available to businesses at least annually. *Business Member of Task Force will head up business outreach.* **(on-going).**
3. School Programs at least annually & other outreach programs **(on-going)**
4. Storm Water Management Information will be included on the City's website and through the media. Example: Activate local city channel with Spectrum.
5. City's storm water program will be included on the City's Demographic Newsletter that is scheduled to be updated in **2019.**
6. Task Force will continue making monthly reports to the City Council **(on-going).**

(b) Web Access and Media:

(1) Pamphlets and literature on Storm Water Management planned to be posted on the city's webpage at www.riveroakstx.com. **(2019)**
(2) Public Education outreach on Storm Water Management planned through the Media on the City's Cable channel. Storm water Task Force Meetings are streamlined live on www.riveroakstx.com. **(2019)**
(3) Public Input in the implementation of the program. **(2019)**
(4) the SWMP is provided on line at www.riveroakstx.com under Resources, click on Code of Ordinances and scroll down to Article 13.10 "Storm Water Management Plan"

(c) Public Hearings:

(1) **SWMP updates** that are considered major permit modifications require public notice and an opportunity for a public meeting.

(2) Public Hearings, Community Forums and meetings of the Storm Water Task Force (SWTF) will be published by the City Secretary 72-hours in advance by posting notice in the bulletin outside of city hall located at 4900 River Oaks Blvd., River Oaks, Texas, a place that is accessible to the public at all times.

(3) Notice of Public Hearings shall also be posted on the City's Website @ www.riveroakstx.com;

(4) Regular Meetings held monthly by the Storm Water Task Force where citizens have opportunities in the implementation of control measures.

II. MCM 2: Illicit Discharge Detection and Elimination

(a) DISCHARGE PROHIBITIONS AND LIMITATIONS

(1) **Discharges to storm drains and watercourses:** It shall be unlawful for any person to discharge or cause to be discharged any wastewater into any storm drain or watercourse within the City, except for those persons with approved permits for such discharges.

(2) **Prohibited discharges:** No person shall discharge or cause to be discharged any storm water, surface water, ground water, artesian well water, roof runoff, subsurface drainage, condensate, deionized water, non-contact cooling water, and unpolluted wastewater or drainage from downspouts, yard drains, yard fountains and ponds, or lawn sprays into any sanitary sewer.

(i) Any substance that will cause the POTW to violate its TPDES or other disposal system permits, or the receiving stream water quality standards.
(ii) Complaints received of wastewater discharges into a receiving stream shall be immediately inspected and reported to TCEQ; follow up with written report back to complainant.
(iii) Violators will be prosecuted for Illegal dumping of garbage into a watershed or receiving stream.

(b) BMP's (Best Management Practices) CHECKLIST FOR ILLICIT DISCHARGES

- □ Identify illicit discharges
- □ Develop a storm water system map that if possible is linked to a Geographic Information System (GIS)
  (1) Location of all outfalls
  (2) Names of all waters of the U.S that receive discharges from outfalls
    (i) West Fork of Trinity River
    (ii) Eagle Mountain Dam & Reservoir/Lake Worth
- □ Future funding will have to be allocated thru the City's General Budget pertaining to revenues from Inspection fees and Code Compliance fees, EDC Funding when applicable and any appropriated drainage access fees.
- □ Report discharges promptly to the appropriate agencies
- □ Follow Sampling and Monitoring Requirements
- □ Train MS4 Operators on methods in tracing and eliminating illicit discharges
- □ Educate Public on illicit and toxic discharges
  (1) Make public aware of the contract with Fort Worth Hazardous Collection Center for the collection and disposal of hazardous wastes. Notify Public as to the date of the "Crud Mobile" that collects hazardous waste within the City.
  (2) Take used oil to Used Oil Collection Centers
  (3) Enforce maintenance of private drainageways thru Code Compliance
  (4) Public awareness of River Oaks Clean Up Month

- □ Adopt Ordinances to prohibit and eliminate illicit discharges and establish penalties for violators
- □ Identify outfalls and receiving streams
- □ Control illegal dumping pursuant to Section 6.02.002 of the River Oaks Code of Ordinances. Control thru Code compliance enforcement and monitoring.
- □ Illegal wastewater connections to any storm drain or receiving stream is prohibited
- □ Plumbing Inspections to find and eliminate illegal wastewater connections
- □ Monitor business and industrial connections
- □ Protect raw water intake from boating, fishing, and recreational use within 200-feet
- □ When applicable, Dye testing may be used to tract discharges
- □ Report violations to State and all other MS4 permittees
- □ Publicize and facilitate public reporting

(c) **MEASURABLE GOALS (Monitoring and Sampling Checklist)**

- □ Measurable goals to be clear and specific;
- □ Taking action to isolate the illicit/toxic discharge;
- □ Report toxic and/or illicit wastewater discharges promptly to TCEQ;
- □ When it has been determined that a possible illicit discharge that may be toxic has been discharged into a receiving stream, a grab sample will be taken and forwarded to an approved Laboratory for analysis.
- □ Provide notification to the Emergency Management Coordinator and follow Emergency Management Plan for hazardous spills (Annex Q).
- □ Notice shall be immediately made to the downstream MS4 municipal permittee of any toxic discharge;
- □ If further monitoring is required, an independent Laboratory that specializes in monitoring of toxic wastes will be contracted with in order to verify the toxicity levels and what appropriate action is required to be taken.
- □ Violators will be prosecuted in accordance to the law and of any city ordinances applicable.
- □ Follow appropriate actions to ensure the illicit discharge has been neutralized in the receiving stream thru sampling.
- □ Notify all agencies previously notified when receiving stream is again cleared and the toxic and/or illicit discharge has been neutralized and is no longer a threat to Public Health.

(d) **DETECTION OF ILLICIT DISCHARGES**

1. Dye Testing;
2. Sampling;
3. Report discharges to state, federal and local agencies upon determination that an illicit or toxic discharge has occurred;
4. In the case of hazardous spills contact the City's Emergency management Coordinator;
5. Follow procedures of the Emergency Management Plan for Hazardous Materials and Oil Spill Response found in Annex Q of the Emergency Plan of the City of River Oaks.

(e) **NON-STORM WATER DISCHARGE**

1. Examples:
   A. Swimming Pool being drained
   B. Condensate Water
   C. Irrigation water
   D. Recreational Type

2. Procedures:
   A. If possible, contain to area
   B. Check for chlorine residual
   C. As much as possible avoid highly chlorinated water over 2.0 mg/L from being discharged into a waterway.
   D. If it does get into the waterway, try to contain it and treat it with E.P.A. approved chemicals that are safe for the environment
   E. Monitor and Sample if necessary
   F. If in doubt always seek assistance from a certified hazardous spill trained professional or contact the Fire Department for assistance
   G. **Always report all wastewater overflows to TCEQ within 24-hours**
   H. Educate residents about the use of fertilizers, insecticides and pesticides that irrigation water can carry off with it to the waterway
   I. Residents should be notified prior to draining any pool, check with the City
   J. Adopt restrictions on unnecessary yard runoff into the street due to watering of lawns. Educate Public on water conservation methods to control watering and excess waste.

(f) **IMPLEMENTATION:** See 13.10.010 "Measureable Goals" including specific schedules and milestones for SWMP to be fully implemented within 5-years from general permit issuance date of January 24, 2019.

III. MCM3: Construction Site Stormwater Runoff Control

(a) Applies to all new construction and developments that impact one-acre or greater.
(b) Applies to small construction sites that could impact adjacent subdivisions or developments of one-acre or more.
(c) **Follow BMP Checklist for Construction Site Storm Water Runoff Control**
(d) Construction site & maintenance checklist must be filled out by the inspector, before, during and after construction. The parameters include:
   1) Following the iSWM manual as a guide for site development
   2) setting and followed measurable goals of construction runoff BMP's
   3) recording any environmental impacts associated with construction and actions taken to protect the environment
   4) Reporting sampling records on soil before during & after construction
   5) Soil stabilization must be completed as soon as practicable, but no more than 14 calendar days after the initiation of soil stabilization measures to be consistent with the TPDES CGP TXR 150000.
   6) Stream bank protection Plan (feasible engineer design)
   7) Proof of Water Quality protection (sampling parameters)
   8) Erosion Control Plan (engineer design criteria)
   9) Landscaping Plans (Sec. 27A, Landscaping Requirement; Zoning Ord as amended)
   10) Public Notice requirements met
   11) Include any other sampling or monitoring reports
   12) Educate construction operators on illicit discharges

13) Waste Hauling requirements met (TCEQ Rules & Regulations)
14) Monitoring and Reporting; investigate and report on public information & complaints; public complaints may be filed on line at www.riveroakstx.com
15) Notification to dischargers of responsibilities to comply with TPDES requirements
16) Hire consultant to review construction site plans, when deemed necessary;
17) Site enforcement action when discharger found to be in violation.
18) File ***NOT*** (Notice of Termination) Permit (if applicable)

(e) **Small Construction Site Maintenance Checklist** *(applies to small construction sites that could impact adjacent subdivisions or developments of one-acre or more)*

□ Construction Site: _____
□ NOI Permit Number: _____

For: □ Municipal □ Development □ Other

Describe work: _____

□ Contractor: _____
□ Watershed: (Drainage Basin)
□ **Plan for on-going Inspections:** _____
□ SWP3 being followed
□ BMP Checklist (Measurable goals)
- □ Construction area free of excess debris
- □ Proper Material Storage; minimize exposure of stormwater to building materials
- □ Waste disposal container on site; minimize exposure to construction waste,
- □ Minimize exposure to landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials; Silt fencing secure and in place
- □ Sampling records up to date
- □ Natural drainageway has not been blocked or altered
- □ No illicit discharges/illegal WW connections found
- □ Implement BMP's to control pollutants from vehicle & equipment washing, etc.
- □ On-going Construction Site Operator Training (per ISWM Manual)

□ Report and Record violations *if any found*: _____

□ Stop Work Order, issued *if Violations present:*	□ Yes	□ No	□ N/A
□ Violations, *if any found,* have been reported:	□ Yes	□ No	□ N/A
□ *If feasible* Emergency Response Plan in place for spills	□ Yes	□ No	□ N/A
□ Structural Control Checklist is complete	□ Yes	□ No	□ N/A
□ Structural Control in compliance	□ Yes	□ No	□ N/A
□ Structural Control not in compliance	□ Yes	□ No	□ N/A

□ Further Action required as follows: _____

□ NOT (Notice of Termination) required: □ Yes □ No □ N/A

INSPECTED BY: _____ **DATE:** _____

APPROVED BY: _____ **DATE:** _____

(f) SWP3 (Storm Water Pollution Prevention Plan) in accordance with TPDES Construction General Permit TXR150000 for all new construction activities that impact areas greater than one-acre prior to permitting and commencement

(g) If applicable all Subdivision Requirements are complied with

(1) Utility Exaction
(2) Rough Proportionality
(3) Platting
(4) Completeness Determination
(5) Site Plan Approval

(h) Verification that the storm water runoff grade is adequate and construction will not alter the natural runoff in the watershed.

(i) Silt fencing around construction sites if included in SWP3

(j) Construction sites must provide waste containers from the permitted waste hauler for the City of River Oaks

(k) Submit landscaping plans that include:

(1) erosion control
(2) sediment control
(3) Retaining Walls (if applicable)

(l) Public Hearings in accordance to the Local Government Code may be required. Public Notification within 200-feet may be required for Site Plan Approval, Development Plans and replatting

- □ Site Plan approval must include water quality impacts
- □ Site Inspections required prior to project commencement

(m) Post Permit in a conspicuous place viewable by the Public

(n) City Engineer may be hired to also review construction plans, the cost will be the responsibility of the developer.

(o) Prohibit discharge into MS4 where necessary; minimize discharges from leaks & spills.

(p) Construction site operators must be educated on construction site discharges that may impact water quality

(q) All plats must have a Completion of Determination Approval from the City's Public Works Director

(r) An NOI Permit from TCEQ is required prior to commencement and is to be filed with the City of River Oaks as the Municipal MS4 Permittee.

(s) Provide for public input; written notifications in response to complaints.

(t) **MEASURABLE GOALS**

1. Amend SWMP in 2019
2. Implement Plan in 2019
3. Site Inspections (on going)
4. Investigate illegal connections (on going)
5. Report & Record Illicit Discharges (on-going)
6. Adopt Development Checklist (done)
7. Update Subdivision Ordinance (done)
8. Contractor & Developer Training (on-going)
9. Tract Progress annually (on-going)
10. Annual report to state

11. Rate Performance; measurable goals that are clear and specific.

(u) **METHOD OF MEASUREMENT**

1. Number of illicit discharges
2. Frequency of Sampling
3. Site housekeeping
4. Maintain Silt Fencing
5. Progress Reports
6. Inspection Reports
7. Water Quality Reports
8. Complaints filed
9. Overall performance
10. Implementation not to exceed 5-years from general permit issuance date of January 24, 2019

IV. MCM 4: Post Construction Stormwater Management in New Development and Redevelopment

(a) **PROGRAM**

(1) Storm Water runoff from new developments and redevelopment projects that disturb at least one acre are required to submit a Storm Water Pollution Prevention Plan (SWP3) from a certified and registered Engineer that is qualified to perform a SWP3.
(2) Contractor must implement BMP's for storm water management for new development and redevelopment
(3) NOI Permit is on file
(4) Post Construction Checklist:

- □ Follow the iSWM manual as a guide for site development
- □ set and followed measurable goals of construction runoff BMP's
- □ record any environmental impacts associated with construction and actions taken to protect the environment
- □ Report sampling records on soil before during & after construction
- □ Stream bank protection Plan; watershed protection Plan
- □ proof of Water Quality protection
- □ Erosion Control Plan
- □ Impervious area square feet: _____ curb/guttering □ yes □ No
- □ Landscaping Plans; Xeriscaping (Sec 27A, Zoning Ord as amended)
- □ Follow 2004 Land Use Plan & Zoning Ord 1158-2017 as amended
- □ Public Notice requirements met
- □ Include any other sampling or monitoring reports
- □ Educate construction operators on illicit discharges
- □ Waste Hauling requirements met (TCEQ Rules and Regulations)
- □ Program Monitoring and Reporting; document and maintain enforcement records & long-term maintenance and operations.
- □ Requirements for Wet Ponds met (if applicable)
- □ Rate performance; clear, specific and measurable addressing storm water quality
- □ File ***NOT*** (Notice of Termination) Permit

(5) City will be considering the adoption of the *Integraded Storm Water Management Design Manual* for Site Development for their post-construction storm water management requirements.
(6) Related iSWM materials to address post construction storm water management for streets and highways are being developed.
(7) Training Programs will be added to address post-construction storm water management

(b) **ADDITIONAL REGULATIONS OF POST CONSTRUCTION STORM WATER MANAGEMENT**

(1) Contractors and developers are required to incorporate structural and non-structural storm water management into the SWP3. Examples of non-structural storm water management will include an Erosion and Sediment Control Plan with an Engineers Seal affixed to the Plan.
(2) Recommended BMP's in the SWP3 must be approved by the City Engineer and the City's Public Works Director and be incorporated into the Plan.

(c) **SITE PLAN REVIEW**

(1) All development plans will require site plan approval in accordance to Section 25 C of the City's Zoning Ordinance as adopted and as amended.
(2) SWP3 must be submitted along with the application for site plan approval
(3) All Exaction and Rough Proportionality requirements must be met
(4) Completeness of Determination approval in writing by the Public Works Director
(5) Public Hearings are required prior to Site plan Approval, first before the Planning and Zoning Commission followed by the City Council
(6) All Public Notification of property owners within 200-feet of the proposed development and Newspaper Publication requirements pursuant to the local Government Code must be met.

(d) **PLAN IMPLEMENTATION*:** Implementation not to exceed 5-years from general permit issuance date of January 24, 2019

* Remand Rule: Issued on December 9, 2017 to make language clear, specific and measureable.

(1) Plan must ensure long-term operations and maintenance of BMP's
(2) NOT Permit from TCEQ must be filed with the City
(3) Sampling and Monitoring Plan must be implemented regarding illicit discharges
(4) City may require periodically sampling to verify water quality due to runoff from development

(e) **MEASUREABLE GOALS:** (See Note[1])

[1] 60% means with 3 years completed during the 5-year permit. 100% means the goal is completed but may be continued annually thereafter.

(1) Educate Construction Site Operators on illicit discharges **("ANNUAL**--*due by December 31st of the permitting year".)*
(2) Post all permits on the job site in a conspicuous place **(ONGOING)** *(due by December 31st of the permit year)*
(3) *2 sets of plans required at submittal for construction permitting that include:

(A) SWP3
(B) BMP Manual (if separate from SWP3)
(C) Landscaping plans
(D) Construction Plans

* **ANNUALLY** *(due by December 31st of the permitting year)*

(4) BMP manual and construction plans are to be on the job site at all times after construction is commenced **(ANNUAL**--*due by December 31st of the permitting year.)*
(5) Properly dispose of construction debris in an approved waste container **(ANNUAL**--- *due by December 31st of the permitting year.**)***
(6) When applicable Provide plan for recycling **(100%).**
(7) Construct silt fence around construction site **(ONGOING)** *(due by December 31st of the permitting year.)*
(8) Public notice to adjacent properties when necessary **(100%)** (when applicable)
(9) Insure there are no illegal wastewater connections **(ON GOING)** *(due by December 31st of the permitting year.)*
(10) Do not cover up any plumbing lines or facilities unless approved by the city Inspection Department **(100%)** *(due by December 31st of the permitting year.)*
(11) When applicable, monitor and sample runoff water and report findings **(ONGOING)** *(due by December 31st of the permitting year.)*
(12) Tract measurable goals on a checklist in accordance to approved SWP3 and **Report progress annually** to the State *(due by December 31st of the permitting year.)*
(13) **Inspect 20% of post construction BMP's each year to insure that** Long-term maintenance is occurring. Increase by 20% each year during the 5-year life of the plan. Ultimate goal will be to inspect 100% of the annual post construction projects by plan deadline date. **(60%)**

V. MCM 5: Pollution Prevention and Good Housekeeping for Municipal Operations : (See Note[1])

[1] 60% means with 3 years completed during the 5-year permit. 100% means the goal is completed but may be continued annually thereafter.

(a) Good Housekeeping and Best Management Practices includes:

(1) Maintenance of Streets

(A) **Street Sweeping:** 43-miles of city streets swept monthly on 4 weekly routes of approximately 11-miles each. **(On-Going)** *(due by December 31st of the permitting year.)*
(B) Properly clean up oil and petroleum spills (Hazardous Spills are dispatched by the Fire Department and are cleaned up by certified Hazardous Waste Contractors) **(On-Going)** *(due by December 31st of the permitting year.)*
(C) Establish regulations thru Ordinance adoption regarding car wash water from being drained into the street that ultimately may end up in the receiving stream **(100%)**
(D) Public education on water conservation and the needless runoff caused from yard irrigation systems **(On-Going)** *due by December 31st of the permitting year.*

(2) Parks

(A) Use only fertilizers, insecticides and pesticides that are proven to be environmentally safe and are EPA Approved **(100%)**
(B) Implementing the following practices to minimize generating pollutants related to landscaping. **(60%)**

i. Education for applicators and distributers
ii. Encouragement of non-chemical solutions for pest management
iii. Development of schedules that minimizes discharge of pollutants.
iv. Ensuring collection and proper disposal of unused pesticides, herbicides, and fertilizers.

(C) Inspect drainage areas periodically and remove debris **(On-Going)** *(due by December 31st of the permitting year*
(D) Check grades before landscaping to ensure natural drainage flow is not altered **(On-Going by City Engineer prior to start of construction)** *(due by December 31st of the permitting year).*

(3) Vehicles & Equipment

(A) Routine Maintenance Checks **(100%)**
(B) Inspect and repair oil and hydraulic Leaks **(On-Going by City Mechanic) (100%)**
(C) Do not wash vehicles where runoff will discharge into receiving streams or drainageways. **(On-Going by City) (100%)**

(4) Buildings

(A) Routine inspections and cleaning of complex rain gutters every quarter **(On-Going) (100%)**
(B) Inspect for illegal connections to storm water drains **(On-Going)** (Plumbing Inspections) *(due by December 31st of the permitting year)*
(C) Clean parking lots periodically with sweeper **(City Complex done daily) (100%)**
(D) Keep outside areas clear of all debris that can be discharged into storm system; cigarette butt disposal containers **(done daily) (100%)**
(E) City Complexes and Park areas on routine clean-up scheduling thru City Departments **(On-Going) (100%)**
(F) adopt a highway program in place for River Oaks Blvd. to keep trash picked up along roadway periodically **(100%)**
(G) Pest Management **(100%)**
(H) Thru Code Compliance **(100%)**

(5) Storm Water System

(A) Maintenance and Repairs **(On-Going)** *due by December 31st of the permitting year*
(B) Ordinances for enforcement of other types of discharges **(Industrial Waste Ordinance 911-2011 as amended) (100%)**
(C) Video-tape storm system **(20%)**
(D) Sampling of illicit discharges & outfall lines **(On-Going) (100%)**

(E) Recommendations for Improvements to Storm System **(60%)**
(F) Projected commencement of storm system Improvements **(20%)**
(G) Storm Drain Stenciling Program **(0%)**
(H) Adopt-a-Stream Program **(0%)**
(I) Wetland Plantings (if applicable) **(0%)**

(6) New Construction and Land Disturbances (on-Going)

(A) MS4 evaluates O&M activities for their potential to discharge pollutants in stormwater for road and parking lot maintenance, bridge maintenance, cold weather operations, and right-of-way maintenance etc. **(60%)**
(B) MS4 identifies pollutants of concern that could be discharged from the O&M activities. **(60%)**
(C) MS4s develop and implement pollution prevention measures that will reduce discharge of pollutants from O&M activities. **(100%)**
(D) **MS4s inspects pollution prevention measures at MS4 facilities. **Contractor required to:**

1) remove excavation spoils from construction areas daily
2) do not block storm drains and inlets with stockpiles of dirt or base material.
3) If possible, cover stockpiles with plastic sheathing
4) Keep stockpiles properly barricaded
5) Soil tests when applicable

** **(100%)**

(E) Storm Water Discharge sampling **(100%)** *due by December 31st of the permitting year*
(F) MS4 maintains structural control **(100%)**

(7) Dirt/Sand Storage Areas (on-going)

(A) Locate so as to not block natural drainageway **(100%)**
(B) If necessary provide inlet or outlet drainage piping that will maintain the natural flow of runoff **(100%)**
(C) If possible locate sand/dirt stockpiles in bins **(60%)**
(D) Maintain natural drainage flow on lot where stockpiles are located **(100%)**
(E) Keep area clean of other debris **(100%)**

(8) Development Plans (throughout permit)

(A) Development Plans including replats, completeness determination, exaction requirements, Rough Proportionality is included in the current Subdivision Ordinance. Such plans are reviewed and approved in accordance to the provisions established in the Local Government Code and of the City's Code of Ordinances. **(100%)**
(B) Permit application processing due to accrued vested rights may be up to 2-years and even more depending on the extenuating circumstances of the application. Once construction is commenced, a Development Permit is issued, and the time limits are subject to approval by the City Council. **(100%)**

(i) Utility contractors usually install the utilities, followed by construction permits that are usually issued by individual lots and those permits are valid for 180-days and are renewable every 6-months pending approval by the Building Official. **(100%)**

(C) **Site Plans** are required to be submitted first to the Planning and Zoning Commission who recommends approval or denial to the City Council. Then the application is submitted to the Council for final approval. Site Plans must meet all the provisions set forth in Section 25 of the Zoning Ordinance before construction may start. (***Right now, these procedures are already in place and being enforced.)*** **(100%)**

(D) **Contractors** that are hired by MS4 or that contract to perform construction activities must comply with all operating procedures. **(100%)**

(9) Storm Sewer System Maintenance & Operations

(A) Clean out catch basins & bar screens regularly **(On-going**) **(100%)** *(due by December 31st of the permitting year).*

(B) Identify areas with recurrent illegal dumping:

(i) Cul-de-sak at the end of Inspiration Lane **(100%)**
(ii) Along road to Water Plant **(100%)**
(iii) Lot at Worthview & Shear **(100%)**
(iv) 5201 Ohio Garden Rd. (city storage lot) **(100%)**
(v) Dead End Streets **(60%)**
(vi) Vacant lots---(Annual due by December 31st of the permitting year).

(C) Keep city-owned drainage channel from Thurston Rd. to back of city hall clean and graded **(Designed & seeking funding**) (**20%)**

(D) Private Drainageways enforced through code enforcement **(100%**)

(b) Training

(1) Employee Training **(On-Going)** *(due by December 31st of the permitting year).*

(A) Storm Water Management Plan **(100%)**
(B) Be familiar and follow BMP checklist **(100%)**
(C) Set and monitor measurable goals of BMP's **(100%)**
(D) Expand Training Methods **(60%)**
(A) Reporting of abnormalities *(due by December 31st of the permitting year).*

(2) Contractor training **(On-Going)**

(A) Pre-Construction Meeting with City **(On-Going)** *(due by December 31st of the permitting year).*

(B) Familiarize contractor with SWMP **(On-Going*)*** *(due by December 31st of the permitting year).*

(C) Evaluate contractor operations and maintenance activities **(On-Going)** *(due by December 31st of the permitting year).*

(D) Provide contractor with BMP checklist and measurable goals **(100%)**

(E) Identify pollutants of concern; total suspended solids, toxins. **(100%)**

(F) Contractor sets measurable goals and records progress; develop pollution prevention measures; silt screen, storm inlet protection. **(60%)**

(G) Contractor hold daily tailgate meetings with site operators about SWMP **(60%)**

(c) Implementation: Implementation not to exceed 5-years from general permit issuance date of January 24, 2019 (REFER TO SECTION 13.10.010 OF THIS PLAN) **(60%)**

(d) Waste Disposal

- **Wastes generated by maintenance of the storm sewer system (60%)**

(e) Plan & Checklist (100%):

□ Date □ Inspector: _____
□ Type of Waste generated: _____
□ Hazardous Spill: □ Yes □ No
□ Non-hazardous: □ Yes □ No
□ Samples taken: □ Yes □ No □ N/A
□ Manifest: □ Yes □ No □ N/A
□ Manifest Number: _____
□ Sample Results: □ Positive □ Negative □ Toxic
□ Sample Test For: □ Soil □ Storm Water □ Other
□ Chemical

□ Emergency Response Plan Action Required: □ Yes □ No
□ Proper Disposal Methods: _____
_____
_____
□ Disposal Contractor: _____
□ Location of disposal: _____
□ Landscaping Plan in place: □ Yes □ No
□ Tract Measurable Goals
□ Report Progress to State***
□ Approved □ Not Approved

(f) Wastes generated by Structural Storm Water Controls (On-Going) *(due by December 31st of the permitting year).*

Plan & Checklist:

□ Date □ Inspector: _____
□ Type of waste generated: _____
□ Sampling required: □ Yes □ No

For Sampling follow Checklist in Section 13.10.012(c)

□ Location of Waste: _____
□ Disposal Methods: _____
□ Disposal Contractor: _____
□ Place of Disposal: _____
□ Manifest number if required: _____
□ Sample Results: □ Positive □ Negative
□ Other Actions required if any: _____

□ Landscaping Plan in place: □ Yes □ No
□ Tract Measurable Goals that are clear, specific & measurable
□ Progress Reported to State***
□ Approved □ Not Approved

The Appropriate TCEQ Regional Office is:

Region 4—Dallas/Fort Worth Office
2309 Gravel Dr.
Fort Worth, Texas 76118-6951
817-588-5800 Fax: 817-588-5700

(g) Implementation

(A) Include with permitting procedures after adoption of Plan in 2019 **(100%)**

(B) Tract Progress of measurable goals and best management practices over next 5-Years; Implementation not to exceed 5-years from general permit issuance date of January 24, 2019 **(60%)**

(C) Rate progress annually, make recommendations to improve plan *(due by December 31st of the permitting year).*

VI. MCM 6: Industrial Stormwater Sources (See Note[1])

[1] 60% means with 3 years completed during the 5-year permit. 100% means the goal is completed but may be continued annually thereafter.

(a) River Oaks Water Plant (does not require Industrial Storm Water Permit) (NA)

- Sludge Disposal must comply with TCEQ Rules and Regulations

(b) City Stockpile (does not require Industrial Storm Water Permit)

- Follow BMP's of MCM 5 (a) 7 "Dirt/Sand Storage Areas" *(due by December 31st of the permitting year).*

(c) Track and Report Measurable Goals

(1) To State annually **(On-Going)** *(due by December 31st of the permitting year).*
(2) Keep reports on record in City Files **(60%)**
(3) 5-year implementation goal from date of permit issuance **(60%)**

(d) River Oaks has no allowable zoning district within the City for Heavy Industrial Use. There is one zoning district on the City's far eastern boundary on Isbell St. zoned for light industrial. **The City's latest Significant Industrial Users (SIU's) report**

filed with the City of Fort Worth indicated that there are No Significant Industrial Users in the City of River Oaks. (100%)

VII. MCM 7: Municipal Construction Activities (100%)

This MCM is only applicable when MS4 has selected to be the construction site operator for their municipal construction activities. The City of River Oaks (MS4) has not chosen to seek discharge authorization under the Construction Storm Water General Permit TXR150000.

13.10.007 COMMUNITY LOCAL STORM WATER TASK FORCE (SWTF) (See Note[1])

[1] 60% means with 3 years completed during the 5-year permit. 100% means the goal is completed but may be continued annually thereafter.

(a) **Appointments and Organization (100%)**

(1) Appointed by the Mayor with advice and consent of the City Council in June 2008 Task Force (Board) consists of 7 members; City Engineer as consultant only, City Council Member liaison, licensed water operator, resident volunteer, city inspector or code compliance officer, and a business owner;
(2) Board established Board Rules and Procedures of the Board at its first Meeting;
(3) Meetings to be scheduled at the pleasure of the Board;
(4) Open Meetings Act will apply to Meetings.

(b) **Duties of Task Force**

(1) Set guidelines and schedules not to exceed 5-years from Permit Issuance date; **(60%)**
(2) Make recommendation to fund and manage the SWMP through shared costs; pooled expertise, cooperative purchases and shared technical expenses; (establish Storm Water Fund; created Municipal Drainage Utility System) **(100%)**
(3) Outreach programs tailored to community and children about the impacts storm water runoff can have on water quality; **(On-Going)** *(due by December 31st of the permitting year).*
(4) Speakers to Community Groups **(On-Going)** *(due by December 31st of the permitting year).*

(A) Encourage Public Involvement and Participation **(60%)**
(B) Encouragement of low impact development **(60%)**
(C) Encouragement of Water Conservation practices **(60%)**
(D) Educates public on lawn and garden care **(60%)**
(E) Encouragement of pet waste management **(60%)**
(F) Supports pollution prevention for businesses **(60%)**

(5) Coordinate Volunteer Groups; **(20%)**
(4) Coordinate sub-committees to monitor illicit discharges and take samples; **(60%)**
(5) Makes recommendations to City Council regarding Storm Water Management and promotional giveaways; **(60%)**
(6) Prepares annual progress reports to City Staff to be filed with State; **(60%)**
(7) Recommending Board, reports to the City Council. **(100%)**

13.10.008 PUBLIC INVOLVEMENT AND PARTICIPATION (See Note[1])

[1] 60% means with 3 years completed during the 5-year permit. 100% means the goal is completed but may be continued annually thereafter.

(a) Set up information on City Web Page at www.riveroakstx.com; Annually **(60%)**
(b) Set Up Cable Channel Access and Information Hotline at 817-626-5421, ext. 332; **(20%)**
(c) Receive public input during SWTF Meetings, complaints are directed to SWTF for Recommendations to Council; **(100%)** *(due by December 31st of the permitting year).*
(d) Citizens encouraged participating in control measures; **(100%)**
(e) Coordination with School Groups; *(due by December 31st of the permitting year).*
(f) Coordination with local Organizations; **(60%)**
(g) Stream Cleanup and Monitoring Programs; **(0%)**
(h) Set up incentives for businesses to participate; **(0%)**
(i) Adopt-a-stream Program; **(0%)**
(j) Advisory Partner Committees; **(20%)**
(k) Watershed Organization; **(20%)**
(L) Wetlands planting. **(0%)**

13.10.009 MUNICIPAL PARTICIPATION (See Note[1])

[1] 60% means with 3 years completed during the 5-year permit. 100% means the goal is completed but may be continued annually thereafter.

(a) **Checklist**

- □ Amend Storm Water Management Plan as the plan for the Storm Water Management Program for term year 2019; **(60%)**—*will need to be updated by 2023.*
- □ Prohibiting illegal discharges; **(60%)**
- □ Enforce and monitor Industrial Wastewater Ordinance; **(60%)**
- □ Budget funds for outreach programs; **(60%)**
- □ Expand Training; **(60%)**
- □ Budget funds for pamphlets and educational literature; **(100%)**
- □ Storm drain stenciling programs; **(0%)**
- □ Videotape entire storm water collection system and inspect it frequently to remove debris and to report deficiencies; **(60%)**
- □ Monitoring of illicit discharges; **(100%)**
- □ Enforcement action for illegal discharges

    (1) Through Code Compliance **(100%)**
    (2) Through Ordinance adoptions **(100%)**
    (3) Municipal Citations for violators **(100%)**
    (4) Reporting of Violations to the State immediately and no longer than 24-hours in accordance to the Notification requirements; **(100%)**

- □ Assist in following recommendations of the Task Force as adopted by the City Council; **(100%)**
- □ Staff will make recommendations for improvements to drainage System to the City Council

    (1) Pursuant to 2003 Drainage Study as revised; **(60%)**
    (2) High-priority problem areas. **(60%)**

□ Consider additional funding options for Drainage Improvements

(1) Grants and loans **(20%)**
(2) Permit and Inspection Fees **(100%)**
(3) Established the River Oaks Municipal Stormwater Utility System by Ordinance # 913-2012. **(done) (100%)**
(4) Drainage Access/Impact Fees *(Ordinance # 914-2012 as amended)* ***(done) (100%)***

13.10.010 MEASURABLE GOALS. (See Note[1])

[1] 60% means with 3 years completed during the 5-year permit. 100% means the goal is completed but may be continued annually thereafter.

(a) Specific Schedules and Milestones for SWMP:

1. Amend SWMP, Re-submit Phase II MS4 General permitting **(60%);**
2. SWTF will make monthly reports to City Council **(60%);**
3. Task Force will seek additional funding resources **(60%);**
4. Budget funds for outreach programs **(each fiscal year); (100%)**
5. PUBLIC Education and Outreach Program. **(on-going) (60%);**
6. Expand Training **(2019-2023) (60%);**
7. Contractor & Developer Training **(2019) & continuing annually thereafter; (60%)**
8. Establish procedures, monitor illicit discharges, take samples from outfall storm water points, investigate complaints of illicit discharges and report findings to SWTF **(2019)**---***(continuing throughout permit.) (60%)***
9. Set up incentives for businesses to participate **(2019) (0%)**
10. Coordination with School Groups **(On-Going) (60%)**
11. Coordination with local Organizations **(2019-2023) (60%)**
12. Identify high-priority community-wide issues; what is feasible or infeasible? **(on-going) (60%)**
13. Report & Record Illicit Discharges **(on going) (60%)**
14. Investigate illegal connections **(on going) (60%)**
15. Annual report to state **(during term of permit) (60%)**
16. Tract Progress annually starting in **2019 (100%)**
17. Videotape entire storm water collection system and inspect it frequently to remove debris and to report deficiencies **(on-going) (60%)**
18. City Engineer to prepare to scale mapping of drainage system outfalls from the draft maps prepared by City Staff **(continue in 2019) (100%)**
19. Recommendations for drainage system improvements to the City Council. Feasible or infeasible? **(during permit). (60%)**
20. Improvement Strategic Plan **(2019-2023) (60%)**
21. Foster community cooperation and share knowledge and experience **(2019-2023) (20%)**
22. Structure a Storm Water Utility Fee **(done) (100%)**
23. Storm drain stenciling programs **(by 2023) (0%)**
24. Adopt a stream Programs if feasible **(by 2023) (0%)**
25. Advisory Partner Committees if feasible **(2019-2023) (20%)**
26. Wetland Planting and erosion control (**if feasible by 2023) (20%)**
27. Adopt engineered designed set of revised storm water system maps detailing drainage channels, conduits, easements, system facilities and appurtenances and future planned system improvements. **(60%)**

28. SWMP Elements in the Plan if possible, to be completed by 2023. **(60%)**

(b) Specific Schedules & other Measurable Goals of SWMP:

1. SSO (Sanitary Sewer Outreach) Initiative Program has been ongoing since 2006 and renewed in 2016 for 10-years. The 10-year plan is to renovate the sewer collection system. Obtained $8,000,000 low interest loan from the Texas Water Development Board in 2017. Once completed we project 60-70 percent of the city's sewer system will be replaced. **(100%)**
2. Plumbing Inspections are already in place in order to eliminate illegal wastewater connections through the amendment and adoption of Article 3.07 (Substandard Housing). **(100%)**
3. Code Enforcement is already ongoing as outlined in SWMP. **(100%)**
4. All other goals and objectives of the SWMP tentively set and scheduled by the Task Force may be recommended from time to time for revision to the existing adopted plan when it has been determined by the Task Force that such goals and objectives are essential to the continual operations of the SWMP. Upon recommendation by the Task Force any updates to the plan will require approval of an ordinance revising the plan that is approved by a majority vote of the City Council pending authorization by TCEQ. **(60%)**
5. Investigate and report illicit discharges to the proper agencies. **(100%)**
6. Tract Measurable Goals and report annually to the State**. (100%)**

13.10.011 METHOD OF MEASUREMENT OF STORM WATER QUALITY (See Note[1])

[1] 60% means with 3 years completed during the 5-year permit. 100% means the goal is completed but may be continued annually thereafter.

1. Tract the measurable goals and determine storm water quality; *(due by December 31st of the permitting year).*
2. Track reports of illicit discharge; (*due by December 31st of the permitting year).*
3. Has the number of violations been reduced? Has enforcement increased? *(due by December 31st of the permitting year).*
4. Number of Samples taken; *(due by December 31st of the permitting year).*
5. Increased Monitoring? *(due by December 31st of the permitting year*).
6. Increased investigations? *(due by December 31st of the permitting year*).
7. Is training to contractors, developers and citizens proving to be effective? *(due by December 31st of the permitting year).*
8. Measure the Outreach program; *(due by December 31st of the permitting year).*
9. Has the municipality achieved its measurable goals? *(due by December 31st of the permitting year).*
10. Are the Best Management practices being followed? **60%**
11. If not, what areas of the Best Management Practices can be changed to prove to be more effective? What is feasible? What is infeasible? *(due by December 31st of the*

permitting year).

12. Compare the water quality reports to see what water quality we are receiving at the intake compared to previous years? *(due by December 31st of the permitting year).*

13. How has the Plan progressed compared to previous years? Rate progress 1 to 10, with 10 being the highest; What is feasible? What is infeasible? *(due by December 31st of the permitting year).*

14. Tract number of illegal connections found; *(due by December 31st of the permitting year).*

15. Consider annual improvements to the Plan to make it more effective. *(due by December 31st of the permitting year).*

13.10.012 Discharge to MS4 Prohibited.

(a) A person commits an offense if the person introduces or causes to be introduced into the MS4 any discharge that is not composed entirely of storm water including but not limited to:

(1) A discharge or flow diverted from a wastewater overflow that can be possibly diverted into the MS4 receiving stream;

(2) A discharge or flow diverted into the MS4 from a discharge or flow from cold water (or hot water) used in street washing, car washing or cosmetic cleaning that is contaminated with any soap, detergent, degreaser, solvent, emulsifier, dispersant, or any other harmful cleaning substance;

(3) A discharge or flow diverted into the MS4 from a commercial car wash without an approved interceptor and catch basin installed on the property where the run off water is contained and properly collected without run off or diversion to the public right-of-way or upon any other property;

(4) A discharge or flow diverted into the MS4 from a commercial business parking lot or surface car wash using soap, detergent, degreaser, solvent, emulsifier, dispersant, or any other harmful cleaning substance soaps, that are not biodegradable. A person shall not conduct a car wash on any commercial property unless an approved interceptor and catch basin is in place, operational and located on the property where the run off water is contained and properly collected without run off or diversion to the public right-of-way or upon any other property.

(5) A discharge or flow that can possibly be diverted into the MS4 from any unknown source or in violation of the Small MS4 Permit of the City of River Oaks;

(6) A discharge or flow that can be diverted into the MS4 from any industrial or commercial business containing unknown or harmful chemicals;

(7) Any other discharge or flow that can be diverted into the MS4 that is or proven to be polluted, harmful, contaminated or hazardous.

(b) It is an affirmative defense to any enforcement action for a violation of subsection (a) that the discharge was composed entirely of one or more of the following categories of discharges:

(1) A discharge authorized by, and in full compliance with, an NPDES permit (other than the NPDES permit for discharges from the MS4);

(2) A discharge or flow resulting from fire fighting by the Fire Department;

(3) A discharge or flow of fire protection water that does not contain oil or hazardous substances or materials that the Fire Code requires to be contained and treated prior to discharge, in which case treatment adequate to remove harmful quantities of pollutants must have occurred prior to discharge;

(4) Agricultural stormwater runoff;

(5) A discharge or flow from water line flushing or disinfection that contains no harmful quantity of total residual chlorine (TRC) or any other chemical used in line disinfection;

(6) A discharge or flow from lawn watering, or landscape irrigation;

(7) A discharge or flow from a diverted stream flow or natural spring;

(8) A discharge or flow from uncontaminated pumped groundwater or rising groundwater;

(9) Uncontaminated groundwater infiltration (as defined at 40 C.F.R. § 35.2005(20)) to the MS4;

(10) Uncontaminated discharge or flow from a foundation drain, crawl space pump, or footing drain;

(11) A discharge or flow from a potable water source not containing any harmful substance or material from the cleaning or draining of a storage tank or other container;

(12) A discharge or flow from air conditioning condensation that is unmixed with water from a cooling tower, emissions scrubber, emissions filter, or any other source of pollutant;

(13) A discharge or flow from individual residential car washing;

(14) A discharge or flow from a riparian habitat or wetland;

(15) A discharge or flow from cold water (or hot water with prior permission of the Director) used in street washing or cosmetic cleaning that is not contaminated with any soap, detergent, degreaser, solvent, emulsifier, dispersant, or any other harmful cleaning substance; or

(16) Drainage from a private residential swimming pool containing no harmful quantities of chlorine or other chemicals. Drainage from swimming pool filter backwash is prohibited.

(17) A discharge or flow of uncontaminated storm water pumped from an excavation.

(c) No affirmative defense shall be available under subsection (b) if:

(1) the discharge or flow in question has been determined by the Director to be a source of a pollutant or pollutants to the waters of the United States or to the MS4;

(2) written notice of such determination has been provided to the discharger;

(3) and the discharge has continued after the expiration of the time given in the notice to cease the discharge.

(d) A person or association of persons including but not limited to homeowners, yard mowing contractors and lawn maintenance companies or individuals commits an offense if the person or persons is found blowing or leaving grass clippings, leaves or other debris during yard maintenance that can eventually get into the city's storm water drainage system and block culverts and inlets. Any person or persons found to be in violation of this provision shall be subject to the issuance of municipal citations as provided for in Section 1.01.009 "General Provisions for violation of Code; continuing violations" of the River Oaks Code of Ordinances as amended. In addition to the penalty prescribed above, the city may pursue other remedies such as abatement of nuisances, injunctive relief and revocation of licenses or permits.

(e) A person or persons commits an offense if the person introduces or causes to be introduced into the MS4 any other harmful quantity of any substance. Any person or persons found to be in violation of this provision shall be subject to the issuance of municipal citations as provided for in Section 1.01.009 "General Provisions for violation of Code; continuing violations" of the River Oaks Code of Ordinances as amended. In addition to the penalty prescribed above, the city may pursue other remedies such as abatement of nuisances, injunctive relief and revocation of licenses or permits.

13.10.013 SUMMARY

This plan is known as the ***Storm Water Management Plan of the City of River Oaks as amended***. The Plan is an integral part of the ***City's Storm Water Management Program***. The goal of the Plan and of the Program is to develop a watershed-wide approach to storm water management. The plan sets measurable goals and best management practices in order to protect the Watershed and to ensure good Water Quality.

The plan and the program over the next 5-years are implemented to involve the Municipality and Citizenry collectively through public education and community involvement. Through enlisting cooperative involvement and participation, the City of River Oaks feels the program will become a more effective use of resource that will undoubtedly result in better compliance. The success of the Storm Water Management Program depends on the joint endeavors of every citizen, council member, developer, contractor and employee of the City.

Over the next 5-years the City Government, Storm Water Task Force and our partners in the community will be committed to this program in an effort to help eliminate the sources of any illicit discharges into the Storm Water System. The City since 2006 has been partners in Agreement with TCEQ in a Sanitary Sewer Outreach Initiative (SSO) Program designed to renovate the City's Wastewater System by eliminating all of the old, deteriorated collection mains within the city's wastewater Collection System. The SSO program will aid in reducing and ultimately eliminating wastewater infiltration and discharge that could potentially impact the storm water system. We believe that together, the SSO Plan and the Storm Water Management Plan should help the City as a whole achieve its ultimate goal, which is protecting the environment and maintaining good water quality.

In conclusion, this SWMP was drafted in compliance to the Remand Rule that was issued on December 9, 2017 to make language clear, specific and measureable."