RESOLUTION ADOPTING STORMWATER GUIDANCE MANUAL AND PENALTIES FOR VIOLATION

Fort Bend County Levee Improvement District No. 15 ("District") is a conservation and reclamation district created under Article XVI, Section 59, of the Texas Constitution and operating under Chapters 49 and 57 of the Texas Water Code.

The Board of Directors of the District wishes to adopt a Stormwater Guidance Manual for the District.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE DISTRICT THAT:

Section 1: The Stormwater Guidance Manual attached hereto is approved and adopted by the District.

Section 2: The provisions of the Stormwater Guidance Manual shall be considered rules of the District, and violations of such rules shall be subject to appropriate penalties under Section 49.003 of the Texas Water Code.

Section 3: The provisions of this Resolution will be effective as of the date of adoption and must remain in effect until modified by action of the Board of Directors.

PASSED AND APPROVED on October 17, 2018.

President, Board of Directors

(SEAL)

FORT BEND COUNTY LEVEE IMPROVEMENT DISTRICT NO. 15
FORT BEND COUNTY, TEXAS

4828-4404-9783, v. 1

STORMWATER GUIDANCE MANUAL

Part I - Introduction

Permit Overview

The Texas Commission on Environmental Quality (TCEQ) issued the Texas Pollutant Discharge Elimination System (TPDES) General Permit Number TXR040000 (the Permit) on December 13, 2013. This Permit supersedes and replaces the TPDES General Permit No. TXR040000, issued August 13, 2007. The Permit provides authorization for stormwater and certain non-stormwater discharges from small municipal separate storm sewer systems (MS4s) to surface waters of the State.

The underlying purpose of the Permit is to require regulated small MS4s, such as the district (the District), to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of Section 402 of the Clean Water Act and Section 26.040 of the Texas Water Code.

In order to achieve these goals, the Permit requires the District to submit a Notice of Intent (NOI) and develop and manage a Stormwater Management Program (SWMP) for all stormwater discharges that reach Waters of the United States, as defined in the Clean Water Act and the Clean Water Rule, regardless of whether the discharge is conveyed through a separately operated storm sewer system. By implementing the SWMP and the selected best management practices (BMPs) in accordance with the Permit, the District will be considered meeting the standard of reducing pollutants to the MEP, and will be deemed in compliance with the Permit.

Legal Authority

The District is a body politic and a political subdivision of the State of Texas created under the authority of Article XVI, Section 59 of the Texas Constitution and operating under and governed by the provisions of Chapters 49, 54, and 57 of the Texas Water Code, as amended. The District owns and operates a municipal separate storm sewer system as defined in the permit (the Storm Sewer System), and is considered a "Non-traditional Small MS4 Operator" as defined in the Permit. The Permit defines the District as a Level 2 MS4 and is obligated to comply with all requirements, to develop rules and regulations and to exert enforcement actions to require compliance with this SWMP. Such required compliance may be implemented by the incorporation of rules into the District's rate order (the Rate Order), if one has been adopted and/or the District's adoption the stormwater guidance manual (Stormwater Guidance Manual) via resolution of the District's Board of Directors.

Part II – Storm Sewer User Responsibilities

Discharges to the Storm Drainage System

The District has a stormwater management program (SWMP) in effect. The SWMP includes this Stormwater Guidance Manual with which all the users of the District's stormwater system (the Storm Sewer Users) must comply.

District Responsibilities

Illicit Discharge Inspections – It's the District's obligation to protect the Storm Sewer System within its boundaries. The District, or representatives of the District, may perform illicit discharge inspections within the District's boundaries. Should an inspection reveal an illicit discharge of any substance to the District's stormwater conveyance system, a Notice of Violation (NOV) will be issued to the Storm Sewer User. Any violation will be subject to fines and penalties as outlined in this Stormwater Guidance Manual, as may be amended from time to time. The District, at its sole option, may have the illicit discharge remedied at the Storm Sewer Users' expense.

Residential User Responsibilities

Residential Customers, as defined in the District's Rate Order, as applicable may discharge storm water flows to the curb and gutter system. Otherwise, no physical connection to the Storm Sewer System shall be made by Residential Customers without the prior written consent of the Board of Directors of the District. The Board of Directors may grant, deny, or condition such consent at its sole discretion. Physical connection to the Storm Sewer System by a Residential Customer shall at all times be subject to such terms and conditions as may by specified by the Board of Directors, if and to the extent consent is given. Physical connection to the Storm Sewer System may be made by non-Residential Customers, subject to compliance with the provisions of the District's Rate Order, as applicable.

Contractor Responsibilities

Contractors providing services to the District that have the potential to discharge pollutants in stormwater runoff are required to comply with these rules and to prevent the discharge pollutants in stormwater runoff to the maximum extent practicable. These services may include, but are not limited to, business entities providing the following:

(a) Water and wastewater operations, maintenance, and repair;
(b) Landscaping;
(c) Trash and solid waste management;
(d) Painting; or
(e) General contractors.

It is required that business entities, as appropriate: (i) contain and report spills; and (ii) comply with District stormwater control measures, good housekeeping practices and procedures, and facility specific operating procedures relating to the reduction of pollutants in stormwater.

Failure to Comply

Construction Sites*

Failure of each construction site operator (Constructions Site Operator) to comply with these Construction Site Operator responsibilities will be considered a violation of the Rate Order and may subject the Construction Site Operator to penalties as outlined in the District's Rate Order, where applicable (in addition to all other legal remedies available to the District, including all penalties and remedies set out in the respective Rate Orders and/or the Construction General Permit (CGP) TXR150000.

*The District reserves the right to charge the Construction Site Operator for any and all expenses incurred while inspecting or correcting the deficiencies listed in the Notice of Violation.

Storm Sewer Users*

The failure of a Storm Sewer User to comply with these Storm Sewer User responsibilities will be considered a violation of the Rate Order, where applicable and may be subject the Storm Sewer User to penalties as outlined in each District's Rate Order, as applicable (in addition to all other legal remedies available to the District, including all penalties and remedies set out in the respective Rate Orders and/or the Construction General Permit (CGP) TXR150000):

*The District reserves the right to charge the Storm Sewer User for any and all expenses incurred while inspecting or correcting the deficiencies listed in the Notice of Violation.

A Construction Site Operator or Storm Sewer User who fails to comply with the requirements of this Guidance Manual shall be subject to the penalties described herein. Any violation of the requirements of this Guidance Manual shall be considered a violation of the District's adopted rules and may be subject to civil penalties of up to $10,000 per violation, in accordance with Section 49.003, Texas Water Code. Each day that a violation continues shall be considered a separate violation. These penalties shall be in addition to other penalties, fees, and charges provided by the laws of the State of Texas and in addition to any other legal rights and remedies of the District as may be allowed by law.

Additional Penalties for Notices of Violation

The failure of a Storm Sewer User, including Construction Site Operators to comply with the terms of this section will be considered a violation of the respective District's Rate Order, as applicable. If such a violation occurs, or if the District determines the existence of a serious threat to the integrity of the District's waters or Storm Sewer System, the District, in its sole discretion, may, in addition to all other legal remedies available to it, including those fines, penalties, and remedies set out in this Stormwater Guidance Manual and each District's Rate Order, as applicable, immediately terminate service or, at the Storm Sewer User's sole cost and expense, install the fixtures or assemblies necessary to correct the illicit connection or unacceptable discharge. If the District terminates service in order to preserve the integrity of the District's waters or Storm Sewer System, service will be restored only when the source of the potential contamination no longer exists or until additional safeguards have been taken and all fines/penalties have been resolved. Any and all expenses associated with the enforcement of this section shall be billed to the Storm Sewer User.

Illicit Discharge Detection and Elimination

Illicit Discharge Detection and Elimination Program

Purpose

The Districts of Riverstone are implementing an illicit discharge detection and elimination program (IDDE) as part of its Stormwater Management Program (SWMP) in accordance with TPDES General Permit No. TXR040000. The objective of this program is to reduce the amount of pollution carried in the Districts' Municipal Separate Storm Sewer System (MS4) by identifying and eliminating illicit discharges flowing into the MS4. The program will establish a systematic approach assisting in the identification of illicit discharges that may be implemented during performance of routine operations; while providing contact information for public reporting of illicit discharges and illegal dumping. The program will also establish a response plan to address known and identified illicit discharges, address citizen complaints, and will also develop follow-up procedures. By implementing the IDDE program, illicit connections, illicit discharges and specific sources of pollution can be identified and eliminated accordingly.

MS4 Mapping

MS4 Operator will maintain an up-to-date MS4 map, which must be located on site and available for review by the TCEQ. The MS4 map must show at a minimum the following information:

- The location of all small MS4 outfalls that are operated by the permittee and that discharge into waters of the U.S;
- The location and name of all surface waters receiving discharges from the small MS4 outfalls;
- Priority areas identified under Part III.B.2. (e)(1), if applicable.

The MS4 map will be used by applicable parties to effectively develop detection strategies, assess outfalls, collect samples, and respond to discharge complaints, where necessary.

Education & Training

MS4 Operator shall implement a method for informing or training all the applicable parties that may come into contact with or otherwise observe an illicit discharge or illicit connection to the small MS4 as part of their normal job responsibilities. Training program materials and attendance lists must be maintained on site and made available for review by the TCEQ.

Public Reporting of Illicit Discharges and Spills

To the extent feasible, the MS4 Operator must publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from the small MS4. The MS4 Operator will provide a central contact point to receive reports. Additionally, The MS4 shall develop and maintain on site procedures for responding to illicit discharges and spills.

Response to Complaint

The Districts will respond to all credible complaints within 72 hours. The Districts will take steps to identify the source of the complaint, attempt to clean up or remove the illicit discharge, and, if necessary, make repairs or alterations to prevent reoccurrence. Typical complaint response procedures will follow the Detection protocols as set forth in the previous section.

Detection

The Districts will implement an ongoing storm water outfall screening program for the detection and elimination of illicit discharges and improper disposal into the collective MS4. This program consists of field screening during dry weather and will target the outfalls that discharge into the receiving Waters of the US surrounding the Districts. The IDDE program also establishes a public website (http://www.cleanbayous.org) that can be used by the public to report illicit discharges or illegal dumping.

Field screening is an active approach to detecting the presence of possible pollutant discharges from the Districts' municipal separate storm sewer system and may involve chemical screening or sampling of unknown discharges observed from outfalls, in sewers through manholes, or ditches/conveyances that are part of the MS4.

The Districts will concentrate its dry weather outfall screening activities in areas that have a greater potential of having an illicit discharge or illicit connection. Sites may be chosen based on previous screening results, complaints, land use, physical evidence or other factors. Field screening will be conducted during dry weather periods. Regulations define dry weather as a period preceded by at least 72 hours with no precipitation (rainfall total less than 0.10 inch). Verification and documentation of the dry period may be obtained through the use of onsite rain gauges or a local rain gauge network such as the web-based network maintained by the Harris County Office of Emergency Management website (www.hcoem.org) which extends to portions of Fort Bend County. During dry weather screening activities, field teams will visit the screening sites during dry weather conditions to determine whether an illicit discharge is present. Physical characteristics of the discharge such as color, odor, turbidity, surface scum, and oil sheen will be recorded on outfall inspection forms.

If the initial visual inspection reveals the possibility of an illicit discharge, samples may be taken of the suspected illicit discharge and sent to a lab for screening. The lab tests chosen should correlate to the physical suspicions found during the initial inspection. If sewage is suspected, for example, a sample should be collected for E. coli and fecal coliform at the screened site for laboratory analysis. The team may also collect laboratory samples from the discharge for ammonia, chlorine, copper, total suspended solids (TSS), and biochemical oxygen demand (BOD). Sample collection and analysis will be in accordance with methods outlined in the IDDE Protocol Supplement. If screening values exceed established thresholds or sample results indicate a potential illicit discharge, then a more detailed investigation is needed and tracking the discharge source will be conducted. If warranted, notification will be made to the TCEQ regional office.

Source Investigation and Elimination

Upon becoming aware of an illicit discharge, applicable party shall conduct an investigation to identify and locate the source of such illicit discharge as soon as practicable.

- MS4 Operator shall prioritize the investigation of discharges based on their relative risk of pollution.

- MS4 Operator shall report to the TCEQ immediately upon becoming aware of the occurrence of any illicit flows believed to be an immediate threat to human health or the environment.

- MS4 Operator shall track all investigations and document, at a minimum, the date(s) the illicit discharge was observed; the results of the investigation; any follow-up of the investigation; and the date the investigation was closed.

Identification and Investigation of the Source of the Illicit Discharge

- All MS4 Operators shall investigate and document the source of illicit discharges within its jurisdiction to complete such an investigation.
    - If the source of illicit discharge extends outside its boundary, the MS4 shall notify the adjacent permitted MS4 operator or TCEQ's Field Operation Support Division according to Part III.A.3.b.

Corrective Action to Eliminate Illicit Discharge

- If and when the source of the illicit discharge has been determined, the MS4 shall immediately notify the responsible party of the problem, and shall require the responsible party to perform all necessary corrective actions to eliminate the illicit discharge.

Elimination

Intermittent discharges are difficult to detect through outfall screening. The best way to manage these discharges is to prevent them from occurring. For this reason, education and outreach materials targeting residents, municipal operations, and businesses have been developed by the Districts. Some common specific residential neighborhood discharges include vehicle fluid, car wash, household hazardous waste, and swimming pool draining. For more information, see the Public Education Section.

1. Identify the potential illicit discharge area by reviewing maps of the MS4, most notably the storm sewer conveyance map prepared by the Districts' Engineer.

2. The field crew will locate the site in the field and record initial field observations on the field form including:
    - Time
    - Date
    - Investigator names
    - Site location
    - Weather (antecedent dry period)
    - A short site description
    - Any odors or algal build up
    - Characteristics of discharge (if there is a discharge)
    - Note land uses along the MS4

3. If no discharge is observed during this visit, the crew will look for evidence of intermittent flow, make a land use survey and verify the MS4 system (search for interconnects). The field notes will be recorded in the database and the case can be closed if warranted; unless there is evidence that an intermittent problem exists which may require further investigation with subsequent visits to the area.

4. If a discharge is observed, the field crew may chemically screen the outfall and record the data. Photos of the discharge will be captured including the outfall, manhole, and drainage ditch. If elevated levels are still present (exceed the threshold levels), the following procedures will occur for the identification of a potential illicit connection:

    a) Determine where the upstream storm sewers are located relative to the potential illicit discharge point.

    b) Once the location of the upstream sewer lines are identified, pulling up manhole covers will enable investigation and tracking of the discharge to its source.

    c) When pulling manhole covers and tracking flow, investigators will record all the information about the discharge and each location visited. This can be easily accomplished by drawing arrows on the direction of flow on a map and recording physical characteristics in the field form.

    d) Continue up the line until the discharge no longer appears in the MS4 or until the source has been identified. Record any pertinent information on the field form. A sample should be collected as close to the source as possible and submitted to the laboratory for analysis if the discharge is still an unknown or classified as a suspected illicit discharge. If the discharge is determined to be an allowable discharge, then it should be noted and the case may be closed.

Inspections

- Responsible party shall conduct inspections, as determined appropriate, in response to complaints, and shall conduct follow-up inspections as needed to ensure that corrective measures have been implemented by the responsible party.

MSGP within District Boundaries

Industrial activities operating within District boundaries may be a significant source of pollutant load into the storm water conveyance system. For that reason, it is important to identify and regulate facilities that qualify for a multi-sector general permit (MSGP). There will be two methods to identifying the potential industrial facility:

1. New Construction
    - The District will scrutinize all new construction and redevelopment plans to determine if the resulting facility will qualify for a MSGP. This may be done using SIC codes or Industrial Activity Codes.
2. Existing Businesses
    - The District will regularly analyze their tax roll for businesses that may qualify for a MSGP. This may be done using SIC codes or Industrial Activity Codes.

If the facility is found to qualify for a MSGP, then the District will require that business to file the proper paperwork with the suitable regulatory agency as soon as appropriate.

Point Source Investigation Tests

The following is a list of the possible methodologies that will be employed in the IDDE program depending on the extent, nature, and of the problem.

- Dye Testing
- Closed Circuit Television (CCTV)
- Optical Brighteners
- Dissolved Oxygen (DO) measurements
- Constituent measurements using a Colorimeter

1. Quantitative Dye Tests
   The purpose of the quantitative dye test is to determine the connectivity of the storm sewer lines and possibly the locations of illicit connections. An organic dye, commonly used in tracer studies and medical applications, will be employed. The dye is highly visible in the water and will help to track the flow of the storm sewer system. The dye will be released at either the upstream or at the suspected illicit discharge site and then monitored downstream to determine the connectivity.

2. Closed Circuit Television (CCTV)
   CCTV may be performed to identify undocumented connections leading into the storm sewer system, and to locate those connections found, on a site map. Such an investigative tool may only be used in dry weather conditions. All surface drainage appurtenances in the public ROW will be located and connections will be noted. When all connections have been accounted for as permitted dischargers, the remaining connections will be considered for additional investigation. Entry onto private property during a follow up investigation may identify allowable connections (inlets draining private parking lots or back lot areas).

Allowable Non-Storm Water Discharges

The following non-stormwater sources may be discharged from the small MS4 and are not required to be addressed in the small MS4's Illicit Discharge and Detection or other minimum control measures, unless they are determined by the permittee or the TCEQ to be significant contributors of pollutants to the small MS4, or they are otherwise prohibited by the MS4 operator:

1. Water line flushing (excluding discharges of hyper-chlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life);
2. Runoff or return flow from landscape irrigation, lawn irrigation, and other irrigation utilizing potable water, groundwater, or surface water sources;

3. Discharges from potable water sources that do not violate Texas Surface Water Quality Standards;
4. Diverted stream flows;
5. Rising ground waters and springs;
6. Uncontaminated ground water infiltration;
7. Uncontaminated pumped ground water;
8. Foundation and footing drains;
9. Air conditioning condensation;
10. Water from crawl space pumps;
11. Individual residential vehicle washing;
12. Flows from wetlands and riparian habitats;
13. Dechlorinated swimming pool discharges that do not violate Texas Surface Water Quality Standards;
14. Street wash water excluding street sweeper waste water;
15. Discharges or flows from emergency firefighting activities (firefighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, and similar activities);
16. Other allowable non-stormwater discharges listed in 40 CFR § 122.26(d) (2) (iv) (B) (1);
17. Non-stormwater discharges that are specifically listed in the TPDES Multi Sector General Permit (MSGP) TXR050000 or the TPDES Construction General Permit (CGP) TXR150000;
18. Discharges that are authorized by a TPDES or NPDES permit or that are not required to be permitted; and
19. Other similar occasional incidental non-stormwater discharges such as spray park water, unless the TCEQ develops permits or regulations addressing these discharges.

Failure to Comply

When a storm sewer user is caught dumping illicit discharge into the storm sewer system, they are liable for fines and penalties according to this guidance manual and the Districts' rules and regulations. Post-construction runoff and discharges are subject to the parameters outlined in this chapter. Any illicit discharge relating to a post-construction stormwater control will be addressed via these IDDE policies and enforced under the adopted regulatory mechanisms as outlined in the Districts' Rate Orders, as applicable and this guidance manual. Failure of a builder to comply with applicable builder responsibilities expressed in this guidance manual will be considered a violation of the Districts' Rate Orders, as applicable and will subject the builder to penalties set forth in this guidance manual. Further, the Districts, at its sole option, may perform or have performed any of the builder's responsibilities and back-charge the builder for the cost. Failure to timely pay a back- charge or to comply with these responsibilities will subject the builder to termination of service or withholding of taps in accordance with the Districts' Rate Orders, as applicable.

Forms

DISTRICT NAME

Date: _____

Inspector: _____

Ultimate Outfall Location: _____

Last Rainfall Event (>2 inches): _____ Current Weather: _____

2 *Indicate Responses in the Box Below*

Item #		Yes	No
1	Is the Inspector Qualified to perform inspection		

3 *Illicit Discharge Detection*

Item #	Illicit Discharge Detection	Acceptable	Repairs	Description
2	General Cleanliness of Outfall Area			
3	Are there any sheens, oils, or harmful liquids present?			
4	Are there any unusual odors eminating from outfall?			
5	Trash Management effective at outfall areas			
6	Outfall testing			

Have all Major Outfalls and the Ultimate Outfall been inspected? | | |

4 *Post Construction Storm Water Management*

Item #	Post Construction Controls	N/A	Acceptable	Repairs	Description
7	Trash Screens and Floatables Collection Devices				
8	Oil, Grit, Trash Separators				
9	Stabilization Measures				
10	Other:				

Have all Storm Water Quality Features been Inspected? | | |

5 *Municipal Operations Pollution Prevention*

Item #	Minnimum Control Measures	Acceptable	Repairs	Description
11	Common areas and open spaces clean and free of debris			
12	Storm Sewer Inlets clean and free of debris			
13	Streets free of debris and dirt			
14	Storage areas clean and free of spills			
15	Materials in Storage areas Stored Properly			
16	No evidence of leaks or spills on ground			
17	Spill Kits accessible			
18	Trash receptacles in use			
19	Sanitary facilities clean and free of spills			
20	Disposal of facility wastes and debris			

Have all Municipal Operations been Inspected? | | |

District compliance inspection form enforces Annual Visual Inspection of District facilities, outfalls, and property as required and covered by TXR 040000. Any Lab Testing required is independent of this inspection. All inspection records will be maintained by District Storm Water Representative for the remainder of permit period.

For more information visit:

CleanBayous.Org

Signature: _____

Construction Site Storm Water Runoff Control

Construction Site Runoff Control Program

Purpose

In accordance with TPDES General Permit No. TXR040000, the Districts of Riverstone will implement and enforce a program to reduce pollutants from construction activities as defined in the permit language. The Districts will do so with an emphasis on the standards set forth in the TXR150000 Construction General Permit (CGP). The minimum control measures requirements of the Phase II MS4 Operator General Permit necessitate implementation of a program to reduce pollutants for various size land disturbances. Any land disturbing activities will comply with all required local, state and federal regulations.

Disturbances greater than or equal to 1 acre

Any construction/land disturbance activities administered by the Districts or any other authorized entity are required to adhere to the letter of the TXR150000 CGP at a minimum. The storm water based ordinance language adopted by the Districts covers all construction/land disturbances within Districts' boundaries. The District or site operator must implement the necessary BMP's as described in the CGP. All activities are subject to any further restrictions deemed necessary by District consultants and officials. Any requirements of the CGP may be enforced by the Districts at any time and may also be considered against the language of the current ordinance. All entities will be required to apply for any necessary permits.

Disturbances less than 1 acre

Any construction/land disturbance activities of less than 1 acre are not subject to the requirements of the CGP. Despite the option of a waiver from permitting requirements, the Districts require that any site operator must, at a minimum, implement any necessary erosion and sediment control BMPs while also controlling any waste, trash, wash water or other runoff that may impair water bodies. All activities are subject to any further restrictions deemed necessary by District consultants and officials. The District and its consultants may use discretion in enforcement of the above requirements and always reserves the right to enforce its ordinance.

Plan Review & Inspections

Site plans are regularly reviewed by District engineers and consultants. The water quality impact potential will be considered during review of any plans for District construction or construction within Districts' boundaries. Inspection procedures for disturbances greater than or equal to 1 acre are subject to the inspection requirements of the CGP and are the responsibility of the site operator. The Districts may elect to inspect any active construction site at any time and will do so as deemed necessary.

Construction Site Operator Responsibilities

Compliance with the Construction General Permit TXR150000 - The Construction Site Operator is required to be compliant with the most recent TPDES General Permit No. TXR150000 (the "General Permit") issued by the Texas Commission on Environmental Quality (TCEQ). A Storm Water Pollution Prevention Plan (the "SWPPP") with a SWPPP narrative as well as a Site Plan with

proposed Best Management Practices ("BMPs") (as such term is defined in the General Permit) must be prepared at least seven (7) days prior to commencement of soil disturbing activities. A Notice of Intent (NOI) (as such term is defined in the Construction General Permit) must be submitted by the Construction Site Operator to the TCEQ prior to commencement of soil disturbing activities in accordance with notification requirements outlined in the CGP.

Other Construction Site Operator Responsibilities - The Construction Site Operator is responsible for the management, SWPPP compliance, and Rate Order compliance of all of their subcontractors, trades, suppliers, and agents. Further, the Construction Site Operator is responsible for all miscellaneous items required under the SWPPP, including, but not limited to:

(a) Concrete and masonry material washouts and proper disposal;
(b) On-site sanitary facilities;
(c) Oil and grease containers and proper disposal;
(d) Trash containers and proper disposal; and
(e) Paints & thinners

Builder Responsibilities

Street Cleaning - The builder will be responsible for ensuring that the street in front of their lots stays free from the accumulation of trash, sediment, dirt, and all other debris. Street cleaning will be done by methods that prevent sediments and other pollutants from being introduced into the stormwater conveyance system Washing sediments into the sewer inlets is prohibited by the Districts.

Concrete Wash-Out Site - Each builder will provide a single, dedicated concrete wash-out site on one of the builder's reserved lots, for use during construction. The site selected will be reviewed with the Districts and developer, and an identification sign must be erected on the site by the builder prior to use. The builder will clean and maintain the site as necessary and is responsible for the proper and legal disposal of concrete. Silt fencing must be installed along the curb in front of the wash-out site as well as an access pad. The builder will inform its subcontractors of the location and purpose of the concrete wash-out site.

Signage - Signage shall not be allowed on any District-owned property or along District trails or parks unless approved by the District in writing. Further, any allowed signs shall be kept neat and tidy and shall not be blown into any District storm sewer inlet or ditch. In such event, failure to pick up a blown sign shall be considered a violation of the Stormwater Guidance Manual and/or the Districts' Rate Order, as applicable.

Other Builder Responsibilities - The builder is responsible for observing all provisions of, and for enforcing, this Order with all employees, suppliers, and subcontractors. Builders are responsible for conducting regular inspections of their lots and erosion control measures to insure there is no damage to any District facility and that the erosion control measures are functioning properly.

Failure to Comply

Failure of a builder to comply with these builder responsibilities will be considered a violation of the Stormwater Guidance Manual and/or the Districts' Rate Order, as applicable and will subject the builder to penalties set forth in the section entitled Penalties for Violation. Further, the District, at its

sole option, may perform or have performed any of the builder's responsibilities and back-charge the builder for the cost. Failure to timely pay a back- charge or to comply with these responsibilities will subject the builder to termination of service or withholding of taps in accordance with the Districts' Rate Order, if applicable.

Public Access

All District meetings that result in a quorum are subject to the Open Meetings Act. Public comment regarding any construction activities may be conducted during regular meetings.

Post-Construction Stormwater Management in New Development & Redevelopment

Post-Construction Stormwater Management Program

Purpose

Post-construction stormwater management in areas undergoing new development or redevelopment is necessary because runoff from these areas has been shown to significantly affect receiving waterbodies. Many studies indicate that prior planning and design for the minimization of pollutants in post-construction stormwater discharges is the most cost-effective approach to stormwater quality management. Development of Structural and Non-Structural Best Management Practices (BMPs) is important in mitigating the negative effects of stormwater pollution after major construction activities have ceased. All new development or redevelopment of private or public sites that discharge into the District's municipal separate storm sewer system (MS4), which disturb one acre or more, including projects that disturb less than one (1) acre, and are part of a larger common plan of development or sale within the boundaries of this District, must follow these post-construction stormwater guidelines.

Importance of Post-Construction Runoff Controls

There are generally two forms of substantial impacts of post-construction runoff. The first is caused by an increase in the type and quantity of pollutants in stormwater runoff. As runoff flows over areas altered by development, it picks up harmful sediment and chemicals such as oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus). These pollutants often become suspended in runoff and are carried to receiving waters, such as lakes, ponds, and streams. Once deposited, these pollutants can enter the food chain through small aquatic life, eventually entering the tissues of fish and humans. The second kind of post-construction runoff impact occurs by increasing the quantity of water delivered to the waterbody during storms. Increased impervious surfaces (e.g., parking lots, driveways, and rooftops) interrupt the natural cycle of gradual percolation of water through vegetation and soil. Instead, water is collected from surfaces such as asphalt and concrete and routed to drainage systems where large volumes of runoff quickly flow to the nearest receiving water. The effects of this process include streambank scouring and downstream flooding, which often lead to a loss of aquatic life and damage to property.

Post-Construction Stormwater Guidelines

To address post-construction runoff from new development and redevelopment projects, all projects are required to follow current (at the time of development) pollutant discharge elimination guidelines as outlined by state, federal, and local law and local development standards. Owners and/or operators of new development and redeveloped sites must design, install, implement, and maintain a combination of structural and non-structural BMPs appropriate for the community that protects water quality.

The Environmental Protection Agency's (EPA) "Stormwater Phase II Final Rule" requires an operator of a regulated small MS4 (in this case, the District) to develop, implement, and enforce a program to reduce pollutants in post-construction runoff to their MS4 from new development and redevelopment projects that result in the land disturbance of greater than or equal to one (1) acre. The District is required to:

- Develop and implement strategies which include a combination of structural and/or nonstructural BMPs;
- Have an ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls to the extent allowable under State, Tribal or local law;
- Ensure adequate long-term operation and maintenance of controls; and
- Determine the appropriate BMPs and measurable goals for this minimum control measure.

By implementing and enforcing these post-construction stormwater guidelines, the District can maintain a higher standard of water quality that will translate to the post-construction control of stormwater pollution. Accordingly, the District will utilize adopted regulatory mechanisms to enforce any infractions regarding stormwater structural controls that fall within its jurisdiction. Written procedures describing how the District will implement post-construction stormwater guidelines are included below.

Plan Review and Approval Procedures for Permanent Stormwater Quality BMPs

All parties seeking to develop or redevelop a site that discharges into the MS4 that disturbs one (1) acre or more, including projects that disturb less than one (1) acre that are part of a larger common plan of development or sale, will be required to obtain Stormwater Quality (SWQ) plan approval from the District. The SWQ plan approval will only be issued if the District approves the plans which illustrate the structural and/or non-structural BMPs proposed for the development. The review and approval is also required for an Inspection, Operations, and Maintenance Plan (Plan) which illustrates how stormwater quality BMPs will be inspected and maintained for the life of the project. Required BMPs must be appropriate for the community and must ultimately protect water quality.

Inspections and Long-Term Operations and Management of Permanent SWQ BMP for Third Party Owner/Operators

The District will require permanent record keeping for all SWQ features that have been installed. The District may require that these records be produced on a periodic basis to show proper maintenance has taken place. All structural BMPs must be maintained in accordance with the original Plan that has been approved by the District.

Inspections and Long-Term Operations and Maintenance of Permanent SWQ BMPs for District-Owned Facilities

The District will develop standard operating procedures describing inspection and long term operation and maintenance of SWQ facilities within the District's jurisdiction. The standard operating procedures will require the District to develop and maintain an inventory of these SWQ facilities to define and implement an inspection process, and to define operations and maintenance activities for each these SWQ facilities.

Post Construction Measures

Recommendations of any post-construction stormwater features will be at the discretion of the design engineer for each project. Fort Bend County encourages the use of SWQ BMPs such as floatable collection screens, wet bottom features in detention basins, and other practices. Specific BMPs should be appropriate and site specific for the type of development in the District. The approval of any post-construction stormwater features will be at the discretion of the District and their associated consultants unless required by local, state, or federal regulations. The structural and nonstructural BMPs listed below are not exhaustive, but rather are examples of effective methods for eliminating the trash and large scale pollutants associated with post-construction runoff release. The EPA recommends that small MS4 operators develop and implement these two measures in tandem. The applicant can propose alternate methods for controlling post-construction pollutants. Requested exceptions to the listed structural BMPs, will be reviewed and approved by District consultants in accordance with Part III, Section B (2) of the Permit.

Structural BMPs

According to the EPA's "Stormwater Phase II Final Rule," Fact Sheet 2.7 (EPA 833-F-00-009), the following structural BMPs could be used to satisfy the post-construction runoff minimum control measure:

Stormwater Retention/Detention BMPs - Retention or detention BMPs control stormwater by gathering runoff in wet ponds, dry basins, or multichamber catch basins and slowly releasing it to receiving waters or drainage systems. These practices can be designed to both control stormwater volume and settle out particulates for pollutant removal.

Infiltration BMPs - Infiltration BMPs are designed to facilitate the percolation of runoff through the soil to groundwater, and, thereby, result in reduced stormwater runoff quantity and reduced mobilization of pollutants. Examples include infiltration basins/trenches, dry wells, and porous pavement.

Vegetative BMPs - Vegetative BMPs are landscaping features that, with optimal design and good soil conditions, remove pollutants, and facilitate percolation of runoff, thereby maintaining natural site hydrology, promoting healthier habitats, and increasing aesthetic appeal. Examples include grassy swales, filter strips, artificial wetlands, and rain gardens.

<u>Listed below are examples of structural BMPs recommended by Fort Bend County:</u>

Bar Screens/Trash Rack Features – Trash rack screens are effective in mitigating large scale debris and contaminants. They do not, however, provide adequate mitigation of sedimentation which is why their typical implementation is at the outfall point of sedimentation or detention basins. These basins are designed to retain stormwater and allow the sediment to filter to the bottom before discharging into local water bodies. Regular cleaning and maintenance of bar screens/trash racks will be needed to ensure proper function.

Wet Detention Ponds/Settling Basins – Wet detention basins and amenity lakes provide mitigation of sedimentation through settling of solids and slow release rates. Desilting of these basins should be

evaluated periodically based on the sedimentation rates. Regular mowing and maintenance of side slopes and top of bank areas will be needed to ensure slope stability and minimizes soil loss into the settling basin.

Additional examples of structural BMPs may include the following:

Underground Units/Oil Grit Trash Separator (OGT) – New development or redevelopment on smaller tracts is typically best served by underground units when the required capacity will not support a settling basin feature. The units provide measurable data for collection and inspection. Regular cleaning and maintenance of OGTs will be needed to ensure proper function.

Weirs – For the tempered release of an amenity feature or detention pond, weir structures offer a consistent release flow and the opportunity for suspended solids to settle out. They can pose a flooding risk and do not promote the collection of trash, so should only be employed when a bar screen is not an immediate option. Regular cleaning and maintenance will be needed to ensure proper function.

Non-Structural

According to the EPA's "Stormwater Phase II Final Rule," Fact Sheet 2.7 (EPA 833-F-00-009), the following non-structural BMPs could be used to satisfy the post-construction runoff minimum control measure:

Planning Procedures - Runoff problems can be addressed efficiently with sound planning procedures. Local master plans, comprehensive plans, and zoning ordinances, as applicable, can promote improved water quality in many ways, such as guiding the growth of a community away from sensitive areas to areas that can support it without compromising water quality.

Site-Based BMPs - These BMPs can include buffer strip and riparian zone preservation, minimization of disturbance and imperviousness, and maximization of open space.

Operations and Maintenance

The owner/operator of the SWQ facilities will, to the extent allowable under state, federal, and local law, ensure the long-term operation and maintenance of structural stormwater control measures installed through one or both of the following approaches:

District-Owned Facilities:

Maintenance performed by the District. See Part III.B.5.

- (MCM 5) Maintenance of controls will be performed at a frequency determined by the District and consistent with maintaining the effectiveness of the BMP.

Privately-Owned Facilities

Maintenance performed by the owner or operator of a new development or redeveloped site under a maintenance plan.

- The District shall require the owner or operator of any new development or redeveloped site to develop and implement a maintenance plan addressing maintenance requirements for any structural control measures installed on site. The District shall require operation and maintenance performed is documented and retained on site, such as at the offices of the owner/operator, and made available for review by the District.

- The maintenance plan must be filed in the real property records of the county in which the property is located prior to receiving final approval for connection to the District's storm sewer system.

Furthermore, inspections are to be conducted at a frequency determined by qualified personnel selected by the District, who shall document and maintain records of enforcement actions and make them available for review by the TCEQ.

Failure to Comply

Post-construction runoff and discharges are subject to the parameters outlined in the Illicit Discharge Detection and Elimination (IDDE) chapter of the SWQ guidance manual. Any illicit discharge relating to a post-construction stormwater control will be addressed via the IDDE policies and enforced under the adopted regulatory mechanisms as outlined in the District's Rate Order, as applicable and this guidance manual.

Pollution Prevention and Good Housekeeping for Municipal Operations

Operations and Maintenance Program

Purpose

The Districts of Riverstone have established standards that prevent and reduce pollutants from entering drainage ways and appurtenances. This portion of the Storm Water Manual will present the standards with which the Districts' municipal operations will be maintained to reduce the potential for pollutant discharge.

Permitted Municipal Operations

Any municipal operations requiring permitting must file, maintain, and manage the necessary permits at all times. Municipal operations are also subject to any local, state and federal regulations.

Requirements for the Districts

The Districts shall develop and maintain an inventory of facilities and stormwater controls that it owns and operates within the regulated area of the small MS4. The inventory will include all applicable permit numbers, registration numbers, and authorizations for each facility or controls. The inventory will be available for review by TCEQ and must include all District-owned facilities. Examples include, but are not limited to, the following:

a. Wastewater Treatment Facilities
b. Lift Stations
c. Water Treatment Facilities
d. Composting facilities;
e. Equipment storage and maintenance facilities;
f. Fuel storage facilities;
g. Hazardous waste disposal facilities;
h. Hazardous waste handling and transfer facilities;
i. Incinerators;
j. Landfills;
k. Materials storage yards;
l. Pesticide storage facilities;
m. Buildings, including meeting locations;
n. Parking lots;
o. Golf courses;
p. Swimming pools;
q. Public works yards;
r. Recycling facilities;
s. Solid waste handling and transfer facilities;
t. Street repair and maintenance sites;
u. Vehicle storage and maintenance yards; and
v. Detention Ponds / Structural stormwater controls

Contractor Requirements and Oversight

a. Any contractors hired by the Districts to perform maintenance activities on District-owned facilities will be contractually required to comply with all of the stormwater control measures, good housekeeping practices, and facility-specific stormwater management operating procedures described in Parts III B.5. (2) - (6) of the TXR040000.

b. The Districts shall provide oversight of contractor activities to ensure that contractors are using appropriate control measures and Standard Operating Procedures (SOPs).

Municipal Operation and Maintenance Activities

a. Assessment of District-owned operations

The Districts shall evaluate applicable operation and maintenance (O&M) activities for their potential to discharge pollutants in stormwater, including but not limited to:

(i) Wastewater Treatment Facility Operations

(ii) Right-of-way maintenance and detention pond maintenance, including mowing, herbicide and pesticide application, and planting vegetation.

(iii) Road and parking lot maintenance may include such areas as pothole repair, pavement marking, sealing, and re-paving;

(iv) Cold weather operations, including plowing, sanding, and application of deicing and anti-icing compounds and maintenance of snow disposal areas.

b. The Districts shall identify pollutants of concern that could be discharged from the above O&M activities (for example, metals; chlorides; hydrocarbons such as benzene, toluene, ethyl benzene, and xylenes; sediment; and trash).

c. The Districts shall develop and implement a set of pollution prevention measures that will reduce the discharge of pollutants in stormwater from the above activities. These pollution prevention measures may include the following examples:

(i) Replacing materials and chemicals with more environmentally benign materials or methods;

(ii) Changing operations to minimize the exposure or mobilization of pollutants to prevent them from entering surface waters; and

d. **Inspection of pollution prevention measures** - All pollution prevention measures implemented at District-owned facilities must be visually inspected annually to ensure they are working properly. A log of inspections must be maintained and made available for review by the TCEQ upon request.

Structural Control Maintenance - If BMPs include structural controls, maintenance of the controls must be performed at the required frequency as it applies to the control and consistent with maintaining the effectiveness of the BMP.

Good Housekeeping and BMP's

The following is a list of possible District-owned operations that may require good housekeeping practices, best management practices and qualified personnel:

Park and Open Spaces – Will be maintained in accordance with industry established guidelines. Any fertilizers, pesticides, or activities that may have a detriment to water quality must adhere to the application requirements and industry standards. District drainage ways and appurtenances should be maintained to acceptable standards and by qualified personnel.

Roads & Road right-of-ways – Roads and right-of-ways have direct connections to the Districts' storm sewer system and should be monitored by the Districts' operations consultant or other necessary consultants. The potential for pollutants entering the waterways should be a priority during normal District operations. This includes illicit discharges that may be apparent during day-to-day operations.

Fleet and Building Maintenance – Where applicable, any District facilities and associated fleets should be maintained in a manner as to prevent any harmful discharge to District storm sewers or waterways.

Storm Water System – The Districts' storm water conveyance system is to be maintained to the design capacities of the original system. District consultants may focus maintenance efforts through implementation of inspections during and outside of dry weather periods. These requirements are at the discretion of the Districts, its consultants, and any requirements set forth in the SWMP. Any maintenance activities involving removal of waste from the storm water system must adhere to local, state and federal disposal guidelines. Structural controls associated with the storm water system, where applicable, may need maintenance.

New Construction and Land Disturbances – Any soil disturbing activity or construction is covered by the Construction Site Storm Water Runoff Control chapter of the guidance manual and is subject to the local, state and federal requirements and any permitting associated therein.

Municipal Parking Lots - Where applicable, any District parking lots should be maintained in a manner as to prevent any harmful discharge to District storm sewers or waterways. Spill kits should be readily available in the event of an illicit discharge that could reach the storm sewer system.

Vehicle Maintenance and Storage Yards - Where applicable, any District storage yards and/or vehicle maintenance areas should be maintained in a manner as to prevent any harmful discharge to District storm sewers or waterways. Spill kits should be readily available in the event of an illicit discharge that could reach the storm sewer system.

Waste Transfer Stations and Disposal of Waste Material - Waste materials removed from the small Municipal Separate Storm Sewer System (MS4) must be disposed of in accordance with 30 TAC Chapters 330 or 335, as applicable.

Stockpile of Materials - Where applicable, any stockpile areas should be maintained in a manner as to prevent any harmful discharge to District storm sewers or waterways. Perimeter stormwater controls may be necessary around stockpiles. Spill kits should be readily available in the event of an illicit discharge that could reach the storm sewer system.

Training and Education – Where applicable, the Districts shall inform or train appropriate consultants involved in implementing pollution prevention and good housekeeping practices. The Districts shall maintain a training attendance list for inspection by TCEQ when requested.