The City of Live Oak

Storm Water Management Plan

Implementation Program

Givler Engineering, Inc.
1901 NW Military Hwy., Suite 201
San Antonio, Texas 78213
(210) 342-3991

Project No. LVOAK-001

June 2014

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Overview

The Federal Water Pollution Control Act was passed in 1972. After the law was amended in 1977, it became commonly known as the Clean Water Act[1]. The Act established the structure for federal regulation of pollutant discharges into the waters of the United States, authorized the Environmental Protection Agency (EPA) to implement pollution control programs, extended the requirement to establish standards for surface water contaminants, and made it unlawful to discharge unpermitted point source pollutants into navigable waters. The Act also established funding for construction of sewage treatment plants and promoted planning to address non-point source pollution. In order to reduce storm water pollution, amendments were made to the Clean Water Act in 1987, requiring storm water discharges to be permitted in two phases.

Phase 1 applied, among other things, to larger cities with separate storm water sewer systems. The regulations required those cities to obtain National Pollutant Discharge Elimination System (NPDES) permits. The permit process imposed controls on the cities to reduce pollution in storm water discharges.

Phase 2 applies to smaller cities. In 1999, the EPA issued final regulations for Phase 2. The Texas Commission on Environmental Quality (TCEQ) issued the original Texas Pollutant Discharge Elimination System (TPDES) General Permit Number TXR040000 (General Permit) for Phase 2 Storm Water on August 13, 2007 in order to create a mechanism for non-Phase 1 Texas cities with populations of over 1,000 to come into compliance with the federal regulations. The TCEQ renewed and expanded the original permit for an additional 5-Year term on December 13, 2013.

The process of applying for coverage under and maintaining conformance to the renewal General Permit begins with submitting two documents to the TCEQ. The first document is a form provided by the TCEQ, called a Notice of Intent (NOI). The second document is this document, which you are reading. It is the proposed Implementation Program for the Storm Water Management Plan (SWMP).

The Implementation Program for the SWMP proposes to reduce storm water pollution by increasing the city's control of pollution sources. The Implementation Program provides maps and photos (see Tab 2), which identify many of the points where storm water is discharged from the city to other municipalities.

The plan must be fully implemented within 5 years of the TCEQ's issuance of the General Permit. The general schedule is as shown:

August 13, 2007 The TCEQ issued the original Phase 2 General Permit.

February 11, 2008 Submit original NOI and SWMP Implementation Program to the TCEQ.

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[1] **Current efforts to reduce the pollution found in municipal storm water discharges are substantially driven by federal legislation. As expected with government programs, there are many special terms and acronyms that apply to the topic of storm water pollution. Therefore, a list of definitions from the TPDES General Permit is provided behind Tab 10.**

August 13, 2012 The original SWMP was fully implemented.

December 13, 2013 The TCEQ issued the renewal General Permit.

June 11, 2014 Submit new NOI and a new SWMP Implementation Program to the TCEQ.

1. Publish notice of the executive director's preliminary determination on the NOI and SWMP.
2. Receive public comment for at least 30 days. Hold a public meeting if a high level of interest exists. TCEQ staff will facilitate the meeting.
3. File a copy and an affidavit of the publication of notice(s).
4. The TCEQ shall, approve, approve with conditions, or deny the NOI.

December 12, 2018 The renewal SWMP must be fully implemented.

A detailed, comprehensive schedule for the Implementation Program is provided behind Tab 8 of this document.

The Implementation Program proposes the means to develop, to implement, and to enforce a plan to reduce the discharge of pollutants to the maximum extent practicable (MEP). It identifies seven Minimum Control Measures (MCMs), which are required to be addressed by the General Permit:

1. **Public Education, Outreach and Involvement** – Distribute educational materials and/or provide public presentations to inform citizens about storm water pollution, and provide opportunities for citizens to participate in program development and implementation. See Tab 1.
2. **Illicit Discharge Detection and Elimination** – Detect and eliminate illicit discharges to the storm system. See Tab 2.
3. **Construction Site Storm Water Runoff Control** – Control erosion and sediment in non-municipal construction activities. See Tab 3.
4. **Post-Construction Storm Water Management in New Development and Redevelopment** – Control pollutant discharges from new development and redevelopment areas. See Tab 4.
5. **Pollution Prevention/Good Housekeeping** – Prevent or reduce pollutant runoff from municipal operations. See Tab 5.
6. **Industrial Stormwater Sources** (applicable to Level 4 MS4's) – Identify and control pollutants in stormwater discharges to the MS4. See Tab 6.
7. **Municipal Construction Activities** (optional) – Control erosion and sedimentation on municipal projects. See Tab 7.

The Implementation Program proposes scheduling for each MCM and establishes criteria for measuring the success of the implementation. The detailed proposals for each MCM are provided behind tabs which are numbered correspondingly.

The city must maintain records on the SWMP, submit an annual report to the TCEQ regularly, and submit other records to the TCEQ when requested. The records must include documentation pertaining to the effectiveness of BMPs and shall be included in the annual reports as required in

Part IV.B.2. of the General Permit. The records must also be kept available to the public. Any changes to the SWMP must be included in the annual report as described in Part IV.B.2. of the General Permit and must meet the requirements of Part II.E.3. and 5. of the General Permit. The city must report non-compliance with the General Permit to the TCEQ and ensure the maintenance of accurate records at TCEQ offices.

Minimum Control Measure No. 1: Public Education, Outreach, and Involvement on Storm Water Impacts

The city will develop and implement a public education program which will distribute educational materials to the community and/or conduct equivalent outreach activities that will be used to inform the public. The city will direct its education and outreach efforts toward multiple segments of the population to promote a broad understanding among those who have the potential to impact storm water quality. Emphasis will be placed on obtaining the public involvement by encouraging citizens and business owners to invest themselves more into preventing and reducing storm water pollution, thereby increasing the effective resources in perceiving and in addressing storm water pollution problems. Efforts will be directed toward residents, visitors, public service employees, businesses, commercial and industrial facilities, and construction site personnel. This MCM will inform the public about the impacts that storm water runoff can have on water quality, hazards associated with illegal discharges and improper disposal of waste, and steps that can be taken by both the city and its citizens to reduce pollutants in storm water runoff. Materials addressing individual educational components will be distributed to each component's target audience.

The city will also develop and implement means for the public to become involved and to participate in the process of preventing or reducing storm water pollution. The city will seek to encourage citizens and business owners to invest themselves more into preventing and reducing storm water pollution and, thereby, to increase the effective resources in perceiving and in addressing storm water pollution problems. The city will, as a minimum, comply with any state and local public notice requirements when implementing this public involvement/participation program. The general rule will be to open opportunities to participate in the SWMP development and implementation to all people in the city.

The city shall document the activities performed and materials used to fulfill this MCM. Documentation shall be detailed enough to demonstrate the amount of resources used to address each group. This documentation shall be included in the annual reports which are required in Part IV.B.2. of the General Permit.

Discussions of the Best Management Practices (BMPs) to be utilized in public education, outreach, and involvement stormwater pollution prevention follow:

BMP 1.1: NOI and NOC Public Comment

Description – Post this SWMP Implementation Program in a public place at city hall for public review. When comments from the TCEQ's Executive Director are received regarding this SWMP Implementation Program, publish in the city's official notice newspaper a notice that states that the comments have been received and that public review and comment are invited. Provide at least 30 days for public comment. In the event that significant public interest exists, host a public meeting that would be facilitated by the TCEQ and that would allow for public participation.

Frequency – This will occur once, when the NOI has been submitted and the initial comments are received from the Executive Director. It will also occur on a recurring basis at least to the extent required by the TCEQ when NOCs are submitted.

Evaluation Criteria for Effectiveness – Record copies of the Executive Director's comments, the public newspaper notice, public meeting records, and any written public comments in the document file.

Implementation Start Date - Publish the newspaper notice inviting public review and comment within two weeks of receipt of the Executive Director's preliminary determination (comments). Host the public meeting within 90 days of receipt of the Executive Director's preliminary determination (comments). The same time frames will apply to the NOC process if required by the TCEQ.

BMP 1.2: Recurring Public Comment

Description – Post this SWMP Implementation Program at city hall and make it available for ongoing public review. Provide regular opportunities for attendees of city council meetings to address the council on matters concerning the SWMP and its Implementation Program. The regular "Citizens to Be Heard" item on the agenda (or its equivalent) will satisfy this requirement.

Frequency – This will occur approximately once per month, according to the regular city council meeting schedule.

Evaluation Criteria for Effectiveness – Whenever stormwater issues are discussed, record copies of city council minutes and supplemental documents, if any, in the document file.

Implementation Start Date - The city will receive recurring comment after the initial comment period is complete. This schedule is not controlled by the city, but is dependent on when the TCEQ review of the NOI is completed. However, it is estimated that the opportunity for public comment will commence on or about June 12, 2014.

BMP 1.3: Brochures and Fact Sheets

Description – Develop or obtain informational brochures and fact sheets pertaining to the improvement and preservation of storm water quality. Distribute through city newsletter. Place informational materials (such as posters or brochures) at public meeting places, including but not limited to City Hall. Coordinate with other government offices and/or utilities whenever possible to share resources in a productive manner.

Frequency and Target Population – Publication of informational brochures, issuance of fact sheets, or updating of materials at public meeting places will be accomplished two (2) times per year at a minimum. The BMP will be directed toward:

1. **residents** through periodic residential newsletter mailings and through continuous postings at city hall,
2. **visitors** through continuous postings in city hall,
3. **public service employees** through continuous postings at city hall and in public works offices,
4. **businesses** through direct periodic business contact,
5. **commercial and industrial facilities** through direct periodic business contact, and
6. **construction site personnel** through instructions attached to the building permit. The instructions will require contractors requiring building permits to prominently display a particular brochure or fact sheet on the project site in plain view for the workers to read.

Topics – Brochures and fact sheets will educate residents on how to maintain their homes in an environmentally-friendly manner including proper lawn and garden activities, including fertilizer, herbicide, and pesticide use; proper waste disposal; water conservation practices; and proper septic system maintenance. Other brochures and fact sheets will address commercial, industrial, and institutional pollution issues.

Evaluation Criteria for Effectiveness – This BMP has been evaluated as reaching a broad segment of the targeted audience, and has been selected for inclusion in the new SWMP. The city shall conduct research to maintain the accuracy of information provided to the public, and update educational topics as necessary. The number and frequency of mailings and publishings shall be recorded in the document file.

Implementation Start Date – The city has already implemented this BMP under the provisions of the original General Permit. The city will update the brochures, fact sheets and educational materials regularly, introduce new topics as they become available, and will continue to implement the BMP throughout the entire permit term.

BMP 1.4: State of Stormwater Pollution Prevention Address

Description – The city's stormwater program manager will make presentations at city council meetings on program compliance status, stormwater pollution prevention efforts, and their effectiveness.

Frequency – The city council will be addressed whenever program milestones are reached, once annually at a minimum.

Target Population – The BMP will be directed toward all of the following who attend city council meetings:

1. **residents**,
2. **visitors**,

3. **public service employees,**
4. **businesses,**
5. **commercial and industrial facilities,** and
6. **construction site personnel.**

Evaluation Criteria for Effectiveness – This BMP was presented as "Speakers to Address Public Groups" under the original permit. Evaluation of the BMP indicated that scheduling appropriate speakers was both ineffective and burdensome. This BMP as updated will allow the individual most knowledgeable regarding stormwater pollution prevention activities, the program manager, to educate and engage the broadest segment of the public. The number, frequency, and topic of the presentations shall be recorded in the document file.

Implementation Start Date - The stormwater program manager will address the public at city council meetings beginning with the completion of the Year-1 Annual Report, and thereafter once annually at a minimum.

BMP 1.5: Public Service Announcement

Description – Continue to coordinate airing of Stormwater PSA on local media outlets. Work with other municipalities, agencies and utilities to coordinate efforts.

Frequency – Airing of PSA will be coordinated on an ongoing basis during the entire permit term.

Target Population – The BMP will be directed toward all of the following who view local television programming:

1. **residents,**
2. **visitors,**
3. **public service employees,**
4. **businesses,** and
5. **commercial and industrial facilities.**

Evaluation Criteria for Effectiveness – This BMP was implemented under the previous permit, and determined to be an effective tool for reaching a large public audience. PSA activities shall be recorded in the document file.

Implementation Start Date – The Public Service Announcement to educate the public on storm water pollution prevention shall be reviewed, updated and edited annually. Efforts to secure airing on local television stations will be made on an ongoing basis, as dictated by the requirements of individual television stations.

BMP 1.6: Drain Marking

Description – Continue to survey public storm drains. As necessary, arrange for city stormwater staff to re-mark public storm drains with a durable paint, stamp, and/or plaque. Modify the city's drainage standards to require all new city inlets to be marked prior to the city's acceptance.

Frequency – Check the messages once every two years and repaint or replace the messages as needed. Do this during the calendar year in even years.

Target Population – The BMP will be directed toward anyone in the vicinity of the storm drain, potentially including **residents, visitors, public service employees, businesses, commercial and industrial facilities,** and **construction site personnel.**

Evaluation Criteria for Effectiveness – Record the location, date, stencil condition, and activity pertaining to each inlet in the document file.

Implementation Start Date – The city implemented this BMP under the previous permit, and determined it to be an effective tool for reaching a large public audience.

BMP 1.7: Questionnaires

Description – The city will issue a questionnaire periodically to invite comments and observations from the public regarding storm water pollution. The questionnaire will be distributed through the city newsletter, the city web site, and/or utility mailings such as bills and notices. The questionnaire will also be publicized at city hall in a conspicuous and publicly accessible location. Responses to the questionnaire will be evaluated by city personnel and/or consultants to determine if repairs, construction projects, ordinances, or changes in city practice are appropriate. City staff will make recommendations to council if appropriate.

Frequency – The questionnaire will be issued and tabulated every two years in odd-numbered years.

Evaluation Criteria for Effectiveness – Copies of the completed questionnaires shall be kept in the document file.

Implementation Start Date – The city implemented this BMP under the previous permit, and determined it to be an effective tool for reaching a large public audience. The city will consider local conditions, developing questions, and updating of the questionnaire from October 1, 2014 through September 30, 2015. The city will issue and tabulate results from its first batch of questionnaires by December 12, 2015.

Minimum Control Measure No. 2: Illicit Discharge Detection and Elimination

The city will continue to implement a program to detect and to eliminate illicit discharges to the MS4. The program includes an ordinance. This MCM specifies the techniques to be used to detect illicit discharges, provides actions for eliminating the illicit discharges, and provides the basis for maintaining and updating the ordinance. The ordinance is, to the extent allowable under state and local law, to establish enforcement procedures for removing the source of an illicit discharge. Additionally, the city does not operate any on-site sewage disposal systems. Therefore, the prevention and correction of on-site sewage disposal system leakage into the city's MS4 is not applicable.

The following non-storm water flows (from lists in Part II.C and Part VI.B of the General Permit) do not need to be considered as illicit discharges requiring elimination unless the Operator of the MS4 or the Executive Director identifies the flow as a significant source of pollutants to the MS4:

1. water line and fire hydrant flushing (excluding discharges of hyperchlorinated 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;
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 wash water;
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. Uncontaminated water used to control dust;
16. discharges or flows from emergency fire-fighting activities (fire-fighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, and similar activities);
17. other allowable non-storm water discharges listed in 40 CFR ' 122.26(d)(2)(iv)(B)(1);
18. non-stormwater discharges that are specifically listed in the TPDES Multi Sector General Permit (MSGP) or the TPDES Construction General permit (CGP);
19. discharges that are authorized by a TPDES or NPDES permit or that are not required to be permitted; and
20. other similar occasional incidental non-storm water discharges.

The listed sources are not expected to be significant sources of pollutants because of the nature of their discharges. Consequently, no special controls or conditions are established.

Any changes to the SWMP must be included in the annual report as described in Part IV.B.2. of the General Permit and must meet the requirements of Part II.D.3. of the General Permit. The city shall maintain and update inspection forms and document MS4 inspections and the results of the inspections. This documentation shall be retained in the annual reports which are required in Part IV.B.2. of the General Permit.

Discussions of the Best Management Practices (BMPs) to be utilized in illicit discharge detection and elimination follow:

BMP 2.1: Storm Sewer Map

Description – The city has mapped the storm sewer system. The map, with its source cited, is found in this section (Tab 2) following the list of BMPs.

The map includes the location of all outfalls, the names and locations of all waters of the U.S. that receive discharges from the outfalls, zones pertaining to inspection schedules, and additional information required to implement the SWMP. The source of information used to develop the storm sewer map is cited on the map. A description of how the outfalls were verified will be maintained and updated with photos, where possible.

Photos of some outfalls and other significant storm conveyance features are keyed to the map (Tab 2) and are found following the map within the same section (Tab 2). The Storm Sewer Map will be updated periodically based on inspection records and construction drawings for recently completed projects that affect the drainage system.

Frequency – The Storm Sewer Map will be revised every two years in even-numbered years.

Evaluation Criteria for Effectiveness – At least one copy of the completed/revised Storm Sewer Map, marked with the latest revision date, shall be recorded in the document file.

Implementation Start Date – The city will continue making site visits, performing surveys, and/or reviewing construction documents from December 12, 2014 through the end of the permit term. The map will be updated every two years.

BMP 2.2: Illicit Discharge Detection Plan

Description – The city has implemented a plan listing techniques to be used to detect illicit discharges as well as forms to be used to document the results of inspections. The plan identifies city staff that will perform, and training methods for conducting, the inspections. Inspection techniques may include: visual observation, conventional photography, in-pipe photography, sampling and analysis of water quality and water characteristics, dye testing, and smoke testing.

The plan also provides actions for eliminating the illicit discharges as established in the ordinance. The city will use the most current edition of the Storm Sewer Map to update the inspection plan as necessary. The map divides the city into inspection zones. The plan designates a regular time each year for each zone to be inspected for illicit discharges. The plan facilitates public reporting of illicit discharges and provides response procedures for discharges and complaints.

Frequency – Each zone identified on the Storm Sewer Map has been assigned to an inspection season, which is a portion of the calendar year during which the zone's storm water conveyance system will be inspected. The inspections will occur annually during dry weather, when illicit discharges are easier to identify. Allowance shall be made for the fact that weather does not always permit inspections to occur at the scheduled times.

Evaluation Criteria for Effectiveness – The city shall file completed inspection forms documenting MS4 inspections and the results of the inspections in the document file with photos and other supporting documents as appropriate.

Implementation Start Date – The city will continue implementation during the calendar year 2014 and each year thereafter. Inspections of all zones, based on the most current edition of the Storm Sewer Map, will be completed in accordance with the inspection plan.

BMP 2.3: Illicit Discharge and Dumping Hotline

Description – The city has established a phone number for reporting illicit discharges and publishes the phone number in places that are readily accessible to the public. At the special number, the phone will be answered by trained staff that will be equipped with forms for recording incoming phone calls and trained in how to refer the information for action. A recording system will accept phone calls after hours.

Frequency – The hotline will be maintained on an ongoing basis.

Evaluation Criteria for Effectiveness – Completed forms, showing the nature of incoming phone calls and the resulting actions will be filed in the document file.

Implementation Start Date – The city has implemented the hotline and will continue to maintain it beginning the effective date of permit renewal.

BMP 2.4: Illicit Discharge Ordinance Update

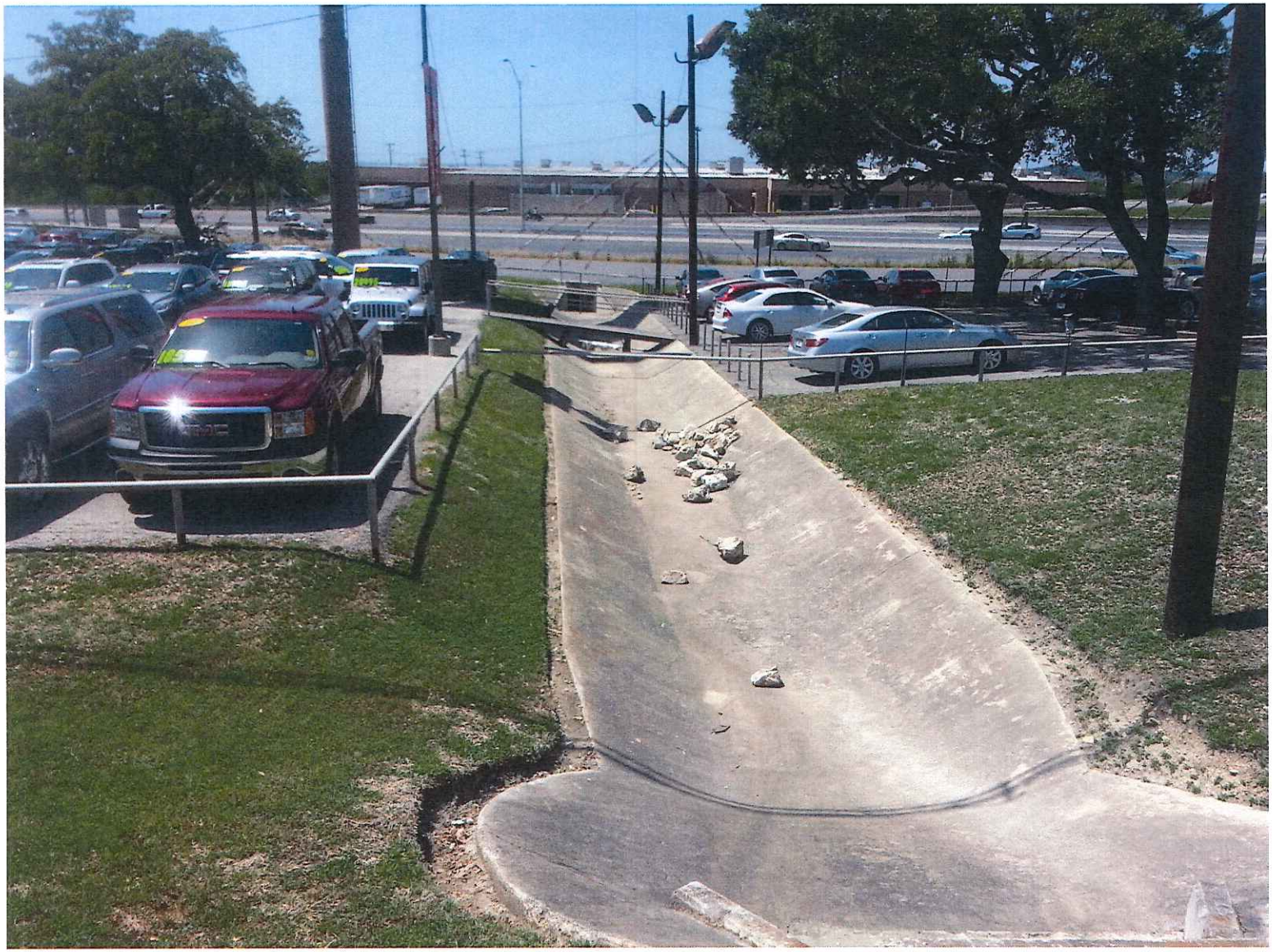
Description – Under the previous General Permit, the city passed an ordinance which, to the extent allowable under state and local law, identifies illicit discharges, prohibits illicit discharges, and establishes enforcement procedures for removing the sources of illicit discharges. The city shall continually monitor changes in conditions and regulations, and update the ordinance as necessary, once during the permit term at a minimum.

Frequency – The ordinance will be enforced on an ongoing basis.

Evaluation Criteria for Effectiveness – A copy of the adopted ordinance has been placed in the city code book and in the document file.

Implementation Start Date – The city will continue enforcement of the current ordinance. The city will monitor changes in conditions and regulations during the first two permit years, and update the ordinance, if necessary by December 12, 2015.

Tributary of Selma Creek



Tributary of Salitrillo Creek

LEGEND

	CHANNEL
	STORM DRAIN PIPE OR CULVERT
	LIVE OAK INLETS
	TXDOT INLETS
JUD-I-3◎	INLETS REQUIRING MEDALLIONS
JUD-I-3	UNKNOWN OUTLET
	CITY LIMITS
	TXDOT RIGHT-OF-WAY
⑧	INSPECTION ZONE

PLAN

SCALE: 1"=1500'

NORTH

Texas Registration #F-002573
1901 NW Military Hwy, Suite 201
San Antonio, Texas 78213
Phone: (210) 342-3991

GEI ENGINEERING, INC.

Storm Water Map

City of Live Oak
8001 Shin Oak
San Antonio, Texas

REVISIONS

JOB NO.
LVOAK-001
DESIGNED BY
-
CHECKED BY
-
DRAWN BY
JOS
DATE
Jun. 4, 2014

Inspection Zones

SHEET NO.
1
OF
1

Minimum Control Measure No. 3: Construction Site Storm Water Runoff Control

The city has, to the extent allowable under State and local law, implemented and enforces a program to reduce pollutants in construction storm water runoff from projects that disturb areas of one or more acres of land or projects that are part of a larger common plan of development or sale that would disturb one or more acres of land. The plan will not pertain to sites where the construction site operator has obtained a waiver from permit requirements under NPDES or TPDES construction permitting requirements based on a low potential for erosion. The program includes the implementation of an ordinance requiring erosion and sediment controls with sanctions to ensure compliance to the extent allowable under state and local law; requirements for construction site contractors to control erosion and sediment; requirements for controlling construction waste; procedures for the city's review of site plans; procedures for receiving information and complaints; and procedures for the city to inspect construction sites and to enforce controls.

The city shall document the activities conducted and materials used to fulfill this MCM. This documentation shall be retained in the annual reports which are required in Part IV.B.2. of the General Permit.

Discussions of the Best Management Practices (BMPs) to be utilized in construction storm water runoff control follow:

BMP 3.1: Technical Manual for Construction Runoff

Description – The city has developed a manual to explain appropriate erosion and sedimentation controls for construction sites. The manual provides alternative solutions and gives guidance as to when those alternatives are appropriate. The manual also establishes minimum control thresholds and proper maintenance criteria. The manual was developed with the intent of establishing consistency with other small cities in the region and providing a streamlined approach that will be user-friendly for designers and contractors.

Frequency – The technical manual will be maintained at city offices with building permits.

Evaluation Criteria for Effectiveness – The city has officially adopted the technical manual and incorporated it into the building permit process. A copy of the technical manual will be recorded in the document file.

Implementation Start Date – The city will maintain and update the manual from December 13, 2013. Developers and contractors are required to conform to the manual. The manual will be reviewed for updates at least every three years.

BMP 3.2: Site Plan Review Program

Description – A program has been developed that requires city staff to review site plans and storm water pollution prevention plans for eligible projects. The review process will be attached to the building permit process and will ensure that proper measures are incorporated into the construction procedures that will control erosion, sedimentation, and other sources of storm water pollution. The plan identifies city staff to perform the reviews.

Frequency – Site plans will be reviewed on an ongoing basis as the plans are submitted to the city for review.

Evaluation Criteria for Effectiveness – Review all eligible projects. Execute review forms and record results with photos and other pertinent materials in the document file.

Implementation Start Date – The program will continue from December 13, 2013. The program will be reviewed for updates at least annually.

BMP 3.3: Construction Site Inspection Program

Description – The city has developed procedures for inspecting construction sites for erosion, sedimentation, and other sources of storm water pollution. The program identifies which city staff will perform inspections. It also provides a protocol for inspectors and includes inspection forms.

Frequency – Inspections will be conducted on an ongoing basis as new construction and redevelopment projects are approved during the city's building permit application process.

Evaluation Criteria for Effectiveness – Inspect all eligible projects. Resolve all instances of non-compliance. Record copies of completed inspection forms and related documents, such as photos, in the document file.

Implementation Start Date – The program will continue from December 13, 2013. The program will be reviewed for updates at least annually.

BMP 3.4: Construction Runoff Hotline

Description – The city has established a phone number for reporting illicit discharges and construction erosion and sedimentation, and publishes the phone number in places that are readily accessible to the public. At the special number, the phone will be answered by trained staff that will be equipped with forms for recording incoming phone calls and trained in how to refer the information for action. A recording system will accept phone calls after hours.

Frequency – The hotline will be maintained on an ongoing basis.

Evaluation Criteria for Effectiveness – Completed forms, showing the nature of incoming phone calls and the resulting actions will be filed in the document file.

Implementation Start Date – The city has implemented the hotline and will maintain it beginning the effective date of permit renewal.

BMP 3.5: Construction Storm Water Management Ordinance Update

Description – The city has adopted an ordinance which, to the extent allowable under State and local law, establishes eligibility for construction sites to be inspected and enforced by the city; establishes requirements for contractors to reduce pollutants in construction storm water runoff; specifies sanctions to ensure compliance; establishes requirements to control construction waste; and requires city review of site plans.

Frequency – The ordinance will be enforced on an ongoing basis.

Evaluation Criteria for Effectiveness – Adopted ordinance and supplemental documents, if any, will be maintained in the city code and in the document file.

Implementation Start Date - The city will continue enforcement of the current ordinance. The city will monitor changes in conditions and regulations during the first two permit years, and update the ordinance, if necessary by December 12, 2015.

Minimum Control Measure No. 4: Post-Construction Storm Water Management in New Development and Redevelopment

The city has, to the extent allowable under State and local law, implemented and enforces a program to address storm water runoff from eligible new development and redevelopment projects. The program applies to projects that disturb one acre of land or more and smaller projects that are part of a larger common plan of development or sale that will result in a total disturbance of one or more acres. The program will continue to ensure that controls are implemented to prevent or to minimize water quality impacts. The program provides for continued implementation of strategies which include a combination of structural and/or non-structural BMPs appropriate for the community. The city has adopted an ordinance to address post-construction runoff and ensure adequate long-term operation and maintenance of the implemented BMPs.

The city shall document the activities performed and materials used to fulfill this MCM. This documentation shall be retained in the annual reports which are required in Part IV.B.2. of the General Permit.

Discussions of the Best Management Practices (BMPs) to be utilized in post-construction storm water management in new development and redevelopment follow:

BMP 4.1: Technical Manual for Post-Construction Runoff

Description – The city has developed a manual to explain appropriate erosion, sedimentation, and other pollutant controls for developed sites. The manual provides alternative solutions and gives guidance as to when those alternatives are appropriate. The manual also establishes minimum control thresholds and proper maintenance criteria. The manual is intended to establish consistency with other small cities in the region and provide a streamlined approach that is user-friendly for developers.

Frequency – The technical manual will be maintained at city offices with building permits.

Evaluation Criteria for Effectiveness – The city has adopted the technical manual and incorporated it into the building permit process. A copy of the technical manual will be recorded in the document file.

Implementation Start Date – The city will maintain and update the manual from December 13, 2013. Developers and contractors are required to conform to the manual. The manual will be reviewed for updates at least every three years.

BMP 4.2: Site Plan Review Program for Post-Construction Runoff

Description – A program has been developed that requires city staff to review site plans and storm water pollution prevention plans for eligible projects. The review process will be attached to the building permit process and will ensure that proper measures are incorporated into the construction procedures that will control erosion, sedimentation, and other sources of storm water pollution. The plan identifies city staff to perform the reviews.

Frequency – All eligible plans will be reviewed.

Evaluation Criteria for Effectiveness – Review all eligible projects. Execute review forms and record results with photos and other pertinent materials in the document file.

Implementation Start Date – The program will continue from December 13, 2013. The program will be reviewed for updates at least annually.

BMP 4.3: Long-Term Inspection and Maintenance Plan for Post-Construction Runoff

Description – A program has been implemented for city staff to inspect post-construction storm water management controls on a long-term basis. The program identifies which city staff will perform inspections, identifies control performance criteria, establishes the means for determining what maintenance is required, and establishes a protocol for inspectors to follow.

Frequency – All eligible projects will be reviewed.

Evaluation Criteria for Effectiveness – Record copies of the forms, checklists, and written procedures in the document file.

Implementation Start Date – The program will continue from December 13, 2013. The program will be reviewed for updates at least annually.

BMP 4.4: Post-Construction Storm Water Management Ordinance Update

Description – The city has adopted an ordinance which, to the extent allowable under State and local law, establishes requirements for storm water quality controls for post-construction conditions; specifies sanctions to ensure compliance; establishes long-term inspection and maintenance requirements; and requires city review of proposed long-term storm water pollution prevention plans.

Frequency – The ordinance will be enforced on an ongoing basis.

Evaluation Criteria for Effectiveness – Record copies of adopted ordinance and supplemental documents, if any, will be maintained in the document file.

Implementation Start Date - The city will continue enforcement of the current ordinance. The city will monitor changes in conditions and regulations during the first two permit years, and update the ordinance, if necessary by December 12, 2015.

Minimum Control Measure No. 5: Pollution Prevention/Good Housekeeping for Municipal Operations

The city has developed and implemented an operation and maintenance program with the goal of preventing or reducing pollutant runoff from municipal operations. Examples of municipal operations include, but are not limited to:

1. park and open space maintenance;
2. street, road, or highway maintenance;
3. fleet and building maintenance;
4. storm water system maintenance;
5. new construction and land disturbances;
6. municipal parking lots;
7. vehicle and equipment maintenance and storage yards;
8. waste transfer stations; and
9. salt/sand storage locations.

The program provides employee training and a list of applicable BMPs. The training program applies to all employees who are responsible for municipal operations that are subject to the pollution prevention/good housekeeping program. The training program includes training materials directed at preventing and reducing storm water pollution from municipal operations. The city has developed a maintenance plan for structural BMPs that establishes the frequency and manner of approach and preserves the effectiveness of the BMPs. The plan also addresses the disposal of waste, including dredge spoil; accumulated sediments; and floatables. The program includes a list of municipal operations that are subject to the operation, maintenance, or training program developed under the conditions of this section; and municipally owned or operated industrial activities that are subject to TPDES industrial storm water regulations.

The city shall document the activities performed and materials used to fulfill this MCM. This documentation shall be retained in the annual reports which are required in Part IV.B.2. of the General Permit.

Discussions of the Best Management Practices (BMPs) to be utilized in pollution prevention/good housekeeping for municipal operations follow:

BMP 5.1: Municipal Employee Pollution Prevention Manual

Description – The city developed a comprehensive written manual for city employee reference related to proper handling of processes which may impact storm water quality. The manual specifies what methods will be used to reduce the potential for polluting, and what methods should be used to clean up spills and other types of pollution. The manual provides a basis for training as listed in BMP 5.2.

Frequency – See BMP 5.2 for training frequency. The manual is updated as required by new or changing accepted practices and/or regulations, or whenever new information becomes available.

Evaluation Criteria for Effectiveness – The completed manual is recorded in the document file. The manual was distributed to all city employees during the first municipal training session conducted under the previous permit. Copies are also distributed to all new hires to city public works staff.

Implementation Start Date – The manual was initially implemented during the previous permit term. Updates to the manual will be made on an annual basis, at a minimum.

BMP 5.2: Municipal Employee Training

Description – The city developed a program to train city employees who handle processes which may impact storm water quality. The program identifies what processes have the potential to impact storm water, identifies what employees should receive training, specifies what methods will be used to train them, and what forms and methods are used to certify that the training has been accomplished.

Frequency – The city will provide training on an annual basis and when employees are introduced to pertinent processes.

Evaluation Criteria for Effectiveness – Copies of the completed program shall be recorded in the document file. The training completion documentation shall also be recorded in the document file.

Implementation Start Date – Training began during the previous permit term. Training of all municipal employees involved in pertinent processes is conducted once annually, at a minimum.

BMP 5.3: Sediment Trap Planning

Description – The city's storm sewer system was inspected and studied during the previous permit term to determine if it is discharging an excess sediment load that could be contributing storm water pollutants. The system was reviewed to see if there are any locations that would be suitable for feasible sediment traps. Sediment loading will continue to be monitored, and if appropriate the design, installation, and maintenance of sediment traps will be implemented.

Frequency – Review the entire storm water drain system.

Evaluation Criteria for Effectiveness – Issue brief report updates and record with photos and other pertinent materials in the document file.

Implementation Start Date – The original study was conducted during the previous permit cycle. Inspections will be made and the report updated once annually from December 13, 2013.

BMP 5.4: Trash Trap Planning

Description – The city's storm sewer system was inspected and studied during the previous permit term to determine if it is discharging an excess trash load that could be contributing storm water pollutants. The system was reviewed to see if there are any locations that would be suitable for feasible trash traps. Trash loading will continue to be monitored, and if appropriate the design, installation, and maintenance of trash traps will be implemented.

Frequency – Review the entire storm water drain system.

Evaluation Criteria for Effectiveness – Issue brief report updates and record with photos and other pertinent materials in the document file.

Implementation Start Date – The original study was conducted during the previous permit cycle. Inspections will be made and the report updated once annually from December 13, 2013.

BMP 5.5: Disposal of Waste Materials

Description – The city will review waste disposal procedures and processes for both municipal solid waste and hazardous materials. The city will ensure that all materials removed from the MS4 are disposed of in accordance with Chapters 330 and 335 of Title 30, Texas Administrative Code, as applicable. Compliance will be maintained by including 30 TAC requirements during municipal employee training as described in BMP 5.2.

Frequency – Monitoring of municipal solid waste and hazardous materials waste disposal procedures and processes will be undertaken on an ongoing basis and incorporated into the training program in accordance with the implementation schedule.

Evaluation Criteria for Effectiveness – Training completion documentation, which will include waste material disposal regulations, shall be recorded in the document file.

Implementation Start Date – Compliance monitoring by city public works supervision will be ongoing and training will be incorporated into municipal employee pollution prevention training by December 12, 2014.

BMP 5.6: Contractor Oversight Procedures

Description – Contractors hired by the city to perform maintenance activities on city-owned facilities will be contractually required to comply with all of the stormwater control measures, good housekeeping practices, and facility-specific stormwater operating procedures described in Parts III.B.5.(2-6) of the General Permit. The city will provide oversight of contractor activities to ensure that they are using appropriate control measures and SOP's.

Frequency – Contractors' contractual requirements will be studied, and planning of oversight procedures will be conducted during the first permit year. Oversight procedures will be developed by the city during the second permit year. Contractual obligations will be enforced during years 3 through 5 of the permit.

Evaluation Criteria for Effectiveness – Contractor oversight procedures, once completed, shall be recorded in the document file.

Implementation Start Date – Contractors' contractual requirements will be studied and planning of oversight procedures will be conducted during the first permit year. Planning will be completed by December 12, 2014. Oversight procedures will be developed by December 12, 2015, with enforcement of contractual requirements being implemented during the final three (3) years of the permit term.

BMP 5.7: Inventory of Facilities and Stormwater Controls

Description – The city will develop and maintain an inventory of facilities and stormwater controls that it owns and operates within the regulated area of the city's MS4. Where feasible, the inventory will include all applicable permit numbers, registration numbers, and/or authorizations for each facility or control. The inventory will be available for review by the TCEQ and will include, at a minimum, the following facilities and/or controls, as applicable:

1. Composting facilities;
2. Equipment storage and maintenance facilities;
3. Fuel storage facilities;
4. Hazardous waste disposal facilities;
5. Hazardous waste handling and transfer facilities;
6. Incinerators;
7. Landfills;
8. Materials storage yards;
9. Pesticide storage facilities;
10. Buildings, including schools, libraries, police stations, fire stations, and office buildings;
11. Parking lots;
12. Golf courses;
13. Swimming Pools;
14. Public works yards;
15. Recycling facilities;
16. Salt storage facilities;
17. Solid waste handling and transfer facilities;
18. Street repair and maintenance sites;
19. Vehicle storage and maintenance yards; and
20. Structural stormwater controls.

Frequency – Facilities and storm water controls will be studied during the first two permit years. An inventory form will be developed during permit year three, and a comprehensive inventory will be conducted during the fourth permit year. The inventory will be adopted in the final permit year, and updated afterward as necessary, once annually at a minimum.

Evaluation Criteria for Effectiveness – Inventory shall be recorded in the document file.

Implementation Start Date – The inventory form will be developed by December 12, 2016. Facilities and/or controls will be reviewed and inspected, with an initial inventory being completed by December 12, 2017. A final inventory will be completed by December 12, 2018.

BMP 5.8: Assessment of Operations and Maintenance Activities

Description – The city will evaluate municipal operations and maintenance (O&M) activities for their potential to discharge pollutants in stormwater. The assessment will include (but not be limited to):

1. Road and parking lot maintenance, including pothole repair, pavement marking, sealing, and re-paving;
2. Bridge maintenance including such areas as re-chipping, grinding, and saw cutting;
3. Cold weather operations including sanding, plowing, and application of deicing and anti-icing compounds, and maintenance of any snow disposal areas; and
4. Right-of-way maintenance including mowing, herbicide and pesticide application, and planting of vegetation;

The city will 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). The city will 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:

1. Replacing materials and chemicals with more environmentally benign materials or methods;
2. Changing operations to minimize the exposure or mobilization of pollutants to prevent them from entering surface waters; and
3. Placing barriers around or conducting runoff away from chemical storage areas to prevent discharge into surface waters.

Frequency – Evaluation will occur on a quarterly basis during the first two years of the permit term to identify pollutants of concern. During the third permit year, a determination will be made as to which pollution prevention measures will best prevent discharges into surface waters. These procedures will be fully implemented during the fourth permit year and continued during the remaining permit term.

Evaluation Criteria for Effectiveness – The controls or measures utilized in implementation will be inspected once annually, at a minimum, and records of the inspections will be kept in the documentation file.

Implementation Start Date – Evaluation will be completed by December 12, 2016. Pollution prevention measures will be selected by December 12, 2017. Inspections will be conducted on an annual basis, at a minimum, beginning December 13, 2017.

Minimum Control Measure No. 6: Industrial Stormwater Sources

This MCM would require the city to identify and control pollutants in stormwater discharges to the MS4 from landfills; other treatment, storage, or disposal facilities for municipal waste (for example, transfer stations and incinerators); hazardous waste treatment, storage, disposal, and recovery facilities, and facilities that are subject to Emergency Planning and Community Right-to-Know Act (EPCRA) Title III, Section 313; and any other industrial or commercial discharge the city determines is contributing substantial pollutant loading to the MS4. The program would include priorities and procedures for inspections, and for implementing control measures for such discharges.

However, under the provisions of the permit, Minimum Control Measure 6 applies only to level 4 MS4's, and the city does not currently meet the population threshold requiring compliance with the MCM. Since the city is not presently required to comply with this MCM, no documentation will be required.

Minimum Control Measure No. 7: Authorization for Municipal Construction Activities

This MCM would establish a city procedure for permitting its own eligible municipal construction activities instead of the default requirement to obtain coverage under TPDES General Permit TXR150000. However, this MCM is optional and **the city has elected not to use this MCM.** The reason for non-implementation of this MCM is twofold. First, most of the city's projects are too small to require permitting under TPDES General Permit TXR150000. Second, most of the city's projects are performed by contractors who are hired by the city. Conformance to TPDES General Permit TXR150000 is routinely made part of the construction contract.

If the city elects to implement this MCM in the future, it will be authorized within the regulated area to discharge storm water and certain non-storm water from construction activities where the permittee can meet the definition of "construction site operator" as defined in the General Permit. An NOC would have to be submitted notifying the executive director of the change. If implemented, the MCM would have to include:

1. a description of how construction activities will generally be conducted by the permittee so as to take into consideration local conditions of weather, soils, and other site specific considerations;
2. a description of the area that this MCM will address and where the permittee's construction activities are covered;
3. a general description of how a SWP3 shall be developed, according to Part VI.E. of the general permit, for each construction site; and
4. a description of how the permittee will supervise or maintain oversight over contractor activities to ensure that the SWP3 requirements are properly implemented at the construction site, or a description of how the permittee will make certain that contractors have a separate authorization for storm water discharges.

Since the city elects not to implement this MCM at this time, no documentation will be required.

Comprehensive Schedule for Storm Water Management Plan Implementation Program

BMP No.	Scheduling Item	2013	2014				2015				2016				2017				2018			
		December 13, 2013	June 11, 2014	June 30, 2014	September 30, 2014	December 12, 2014	March 31, 2015	June 30, 2015	September 30, 2015	December 12, 2015	March 31, 2016	June 30, 2016	September 30, 2016	December 12, 2016	March 31, 2017	June 30, 2017	September 30, 2017	December 12, 2017	March 31, 2018	June 30, 2018	September 30, 2018	December 12, 2018
	TCEQ issued TPDES General Permit No. TXR040000																					
	Deadline Submittal Date for City NOI and SWMP IP																					
1.1	NOI and NOC Public Comment *																					
1.2	Recurring Public Comment																					
1.3	Brochures and Fact Sheets																					
1.4	State of Stormwater Pollution Prevention Address																					
1.5	Public Service Announcement																					
1.6	Drain Marking																					
1.7	Questionnaires																					
2.1	Storm Sewer Map																					
2.2	Illicit Discharge Detection Plan																					
2.3	Illicit Discharge and Dumping Hotline																					
2.4	Illicit Discharge Ordinance Update																					
3.1	Technical Manual for Construction Runoff																					
3.2	Site Plan Review Program																					
3.3	Construction Site Inspection Program																					
3.4	Construction Runoff Hotline																					
3.5	Construction Storm Water Management Ordinance Update																					
4.1	Technical Manual for Post-Construction Runoff																					
4.2	Site Plan Review Program for Post-Construction Runoff																					
4.3	Long-Term Insp. and Maint. Plan for Post-Constr. Runoff																					
4.4	Post-Construction Storm Water Management Ordinance Update																					
5.1	Municipal Emplyoee Pollution Prevention Manual																					
5.2	Municipal Employee Training																					
5.3	Sediment Trap Planning																					
5.4	Trash Trap Planning																					
5.5	Disposal of Waste Materials																					
5.6	Contractor Oversight Procedures																					
5.7	Inventory of Facilities and Stormwater Controls																					
5.8	Assessment of Operations and Maintenance Activities																					
	Deadline for Implementing SWMP																					

GEI GIVLER ENGINEERING, INC.

Givler Engineering, Inc.
1901 NW Military Highway, Suite 201
San Antonio, Texas 78213

Milestone Date Established by TCEQ

Planning and/or Study to Prepare for Implementation

Implementation

* Exact scheduling for this item is not controlled by the city. The schedule for this item represents an educated guess rather than a commitment.

The city has no receiving waters of impaired quality appearing on the Clean Water Act §303(d) List.

Definitions and Acronyms

The following explanations of stormwater management terminology are from the TCEQ's TPDES General Permit No. TXR040000.

A. Definitions

Arid Areas - Areas with an average annual rainfall of less than ten (10) inches.

Best Management Practices (BMPs) - Schedules of activities, prohibitions of practices, maintenance procedures, structural controls, local ordinances, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spills or leaks, waste disposal, or drainage from raw material storage areas.

Catch Basins - Storm drain inlets and curb inlets to the storm drain system. Catch basins typically include a grate or curb inlet that may accumulate sediment, debris, and other pollutants.

Classified Segment - refers to a water body that is listed and described in Appendix A or Appendix C of the Texas Surface Water Quality Standards, at 30 TAC § 307.10.

Clean Water Act (CWA) - The Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972, Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.

Common Plan of Development or Sale - A construction activity that is completed in separate stages, separate phases, or in combination with other construction activities. A common plan of development or sale is identified by the documentation for the construction project that identifies the scope of the project, and may include plats, blueprints, marketing plans, contracts, building permits, a public notice or hearing, zoning requests, or other similar documentation and activities.

Construction Activity - Soil disturbance, including clearing, grading, and excavating; and not including routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (e.g., the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities). Regulated construction activity is defined in terms of small and large construction activity.

> **Small Construction Activity** is construction activity that results in land disturbance of equal to or greater than one (1) acre and less than five (5) acres of land. Small construction activity also includes the disturbance of less than one (1) ace of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one (1) and less than five (5) acres of land.

Large Construction Activity is construction activity that results in land disturbance of equal to or greater than five (5) acres of land. Large construction activity also includes the disturbance of less than five (5) acres of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than five (5) acres of land.

Construction Site Operator - The person or persons associated with a small or large construction project that meets either of the following two criteria:

(a) the entity or entities that have operational control over construction plans and specifications (including approval of revisions) to the extent necessary to meet the requirements and conditions of this general permit; or

(b) the entity or entities that have day-to-day operational control of those activities at a construction site that are necessary to ensure compliance with a stormwater pollution prevention plan (SWP3) for the site or other permit conditions (e.g. they are authorized to direct workers at a site to carry out activities required by the Stormwater Pollution Prevention Plan or comply with other permit conditions).

Control Measure - Any BMP or other method used to prevent or reduce the discharge of pollutants to water in the state.

Conveyance - Curbs, gutters, man-made channels and ditches, drains, pipes, and other constructed features designed or used for flood control or to otherwise transport stormwater runoff.

Discharge - When used without a qualifier, refers to the discharge of stormwater runoff or certain non-stormwater discharges as allowed under the authorization of this general permit.

Edwards Aquifer - As defined in 30 TAC §213.3 (relating to the Edwards Aquifer), that portion of an arcuate belt of porous, water-bearing, predominantly carbonate rocks known as the Edwards and Associated Limestones in the Balcones Fault Zone trending from west to east to northeast in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, and Williamson Counties; and composed of the Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil's River Limestone, Person Formation, Kainer Formation, Edwards Formation, and Georgetown Formation. The permeable aquifer units generally overlie the less-permeable Glen Rose Formation to the south, overlie the less-permeable Comanche Peak and Walnut Formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

Edwards Aquifer Recharge Zone - Generally, that area where the stratigraphic units constituting the Edwards Aquifer crop out, including the outcrops of other geologic formations in proximity to the Edwards Aquifer, where caves, sinkholes, faults, fractures,

or other permeable features would create a potential for recharge of surface waters into the Edwards Aquifer. The recharge zone is identified as that area designated as such on official maps located in the offices of the TCEQ or the TCEQ website.

Final Stabilization - A construction site where either of the following conditions are met:

(a) All soil disturbing activities at the site have been completed and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

(b) For individual lots in a residential construction site by either:

(1) The homebuilder completing final stabilization as specified in condition (a) above; or

(2) The homebuilder establishing temporary stabilization for an individual lot prior to the time of transfer of the ownership of the home to the buyer and after informing the homeowner of the need for, and benefits of, final stabilization.

(c) For construction activities on land used for agricultural purposes (e.g. pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to a surface water and areas which are not being returned to their preconstruction agricultural use must meet the final stabilization conditions of condition (a) above.

(d) In arid, semi-arid, and drought-stricken areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:

(1) Temporary erosion control measures (e.g., degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by the operator, and

(2) The temporary erosion control measures are selected, designed, and installed to achieve 70 percent vegetative coverage within three years.

General Permit - A permit issued to authorize the discharge of waste into or adjacent to water in the state for one or more categories of waste discharge within a geographical area of the state or the entire state as provided by Texas Water Code (TWC) §26.040.

Groundwater Infiltration - For the purposes of this permit, groundwater that enters a municipal separate storm sewer system (including sewer service connections and foundation drains) through such means as defective pipes, pipe joints, connections, or manholes.

High Priority Facilities - High priority facilities are facilities with a high potential to generate stormwater pollutants. These facilities must include, at a minimum, the MS4 operator's maintenance yards, hazardous waste facilities, fuel storage locations, and other facilities where chemicals or other materials have a high potential to be discharged in stormwater. Among the factors that must be considered when giving a facility a high priority ranking are: the amount of urban pollutants stored at the site, the identification of improperly stored materials, activities that must not be performed outside (for example, changing automotive fluids, vehicle washing), proximity to waterbodies, proximity to sensitive aquifer recharge features, poor housekeeping practices, and discharges of pollutant(s) of concern to impaired water(s).

Hyperchlorinated Water - Water resulting from hyperchlorination of waterlines or vessels, with a chlorine concentration greater than 10 milligrams per liter (mg/L).

Illicit Connection - Any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

Illicit Discharge - Any discharge to a municipal separate storm sewer that is not entirely composed of stormwater, except discharges pursuant to this general permit or a separate authorization and discharges resulting from emergency firefighting activities.

Impaired Water - A surface water body that is identified on the latest approved CWA §303(d) list as not meeting applicable state water quality standards. Impaired waters include waters with approved or established total maximum daily loads (TMDLs), and those where a TMDL has been proposed by TCEQ but has not yet been approved or established.

Indian Country - Defined in 18 USC Section (') 1151, means (a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation; (b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. This definition includes all land held in trust for an Indian tribe.

Indicator Pollutant - An easily measured pollutant, that may or may not impact water quality that indicates the presence of other stormwater pollutants.

Industrial Activity - Any of the ten (10) categories of industrial activities included in the definition of "stormwater discharges associated with industry activity" as defined in 40 Code of Federal Regulations (CFR) §122.26(b)(14)(i)-(ix) and (xi).

Maximum Extent Practicable (MEP) - The technology-based discharge standard for municipal separate storm sewer systems (MS4s) to reduce pollutants in stormwater discharges that was established by CWA §402(p). A discussion of MEP as it applies to small MS4s is found at 40 CFR §122.34.

MS4 Operator - For the purpose of this permit, the public entity or the entity contracted by the public entity, responsible for management and operation of the small municipal separate storm sewer system that is subject to the terms of this general permit.

Municipal Separate Storm Sewer System (MS4) - A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(a) Owned or operated by the U.S., a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over the disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under the CWA §208 that discharges to surface water in the state;

(b) That is designed or used for collecting or conveying stormwater;

(c) That is not a combined sewer; and

(d) That is not part of a publicly owned treatment works (POTW) as defined in 40 CFR §122.2.

Non-traditional Small MS4 - A small MS4 that often cannot pass ordinances and may not have the enforcement authority like a traditional small MS4 would have to enforce the stormwater management program. Examples of non-traditional small MS4s include counties, transportation authorities (including the Texas Department of Transportation), municipal utility districts, drainage districts, military bases, prisons and universities.

Notice of Change (NOC) - Written notification from the permittee to the executive director providing changes to information that was previously provided to the agency in a notice of intent.

Notice of Intent (NOI) - A written submission to the executive director from an applicant requesting coverage under this general permit.

Notice of Termination (NOT) - A written submission to the executive director from a permittee authorized under a general permit requesting termination of coverage under this general permit.

Outfall - A point source at the point where a small MS4 discharges to waters of the U.S. and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels, or other conveyances that connect segments of the same stream or other waters of the U.S. and are used to convey waters of the U.S. For the purpose of this permit, sheet flow leaving a linear transportation system without channelization is not considered an outfall. Point sources such as curb cuts; traffic or right-of-way barriers with drainage slots that drain into open culverts, open swales or an adjacent property, or otherwise not actually discharging into waters of the U.S. are not considered an outfall.

Permittee - The MS4 operator authorized under this general permit.

Point Source - (from 40 CFR §122.22) any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

Pollutant(s) of Concern – For the purpose of this permit, includes biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids (TSS), turbidity or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from an MS4. (Definition from 40 CFR § 122.32(e)(3)).

Redevelopment - Alterations of a property that changed the "footprint" of a site or building in such a way that there is a disturbance of equal to or greater than one (1) acre of land. This term does not include such activities as exterior remodeling, routine maintenance activities, and linear utility installation.

Semiarid Areas - Areas with an average annual rainfall of at least ten (10) inches, but less than 20 inches.

Small Municipal Separate Storm Sewer System (MS4) - A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(a) Owned or operated by the United States, a state, city, town, borough, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or

other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under CWA §208;

(b) Designed or used for collecting or conveying stormwater;

(c) Which is not a combined sewer;

(d) Which is not part of a publicly owned treatment works (POTW) as defined at 40 CFR § 122.2; and

(e) Which was not previously regulated under a NPDES or TPDES individual permit as a medium or large municipal separate storm sewer system, as defined in 40 CFR §§122.26(b)(4) and (b)(7).

This term includes systems similar to separate storm sewer systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. This term does not include separate storm sewers in very discrete areas, such as individual buildings. For the purpose of this permit, a very discrete system also includes storm drains associated with certain municipal offices and education facilities serving a nonresidential population, where those storm drains do not function as a system, and where the buildings are not physically interconnected to an MS4 that is also operated by that public entity.

Stormwater and Stormwater Runoff - Rainfall runoff, snow melt runoff, and surface runoff and drainage.

Stormwater Associated with Construction Activity - Stormwater runoff from an area where there is either a large construction activity or a small construction activity.

Stormwater Management Program (SWMP) - A comprehensive program to manage the quality of discharges from the municipal separate storm sewer system.

Structural Control (or Practice) - A pollution prevention practice that requires the construction of a device, or the use of a device, to capture or prevent pollution in stormwater runoff. Structural controls and practices may include but are not limited to: wet ponds, bioretention, infiltration basins, stormwater wetlands, silt fences, earthen dikes, drainage swales, vegetative lined ditches, vegetative filter strips, sediment traps, check dams, subsurface drains, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins.

Surface Water in the State - Lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state (from the mean high water mark (MHWM) out 10.36 miles into the Gulf), and all other bodies of surface water, natural or artificial, inland or coastal,

fresh or salt, navigable or nonnavigable, and including the beds and banks of all water-courses and bodies of surface water, that are wholly or partially inside or bordering the state or subject to the jurisdiction of the state; except that waters in treatment systems which are authorized by state or federal law, regulation, or permit, and which are created for the purpose of waste treatment are not considered to be water in the state.

Total Maximum Daily Load (TMDL) - The total amount of a substance that a water body can assimilate and still meet the Texas Surface Water Quality Standards.

Traditional Small MS4 - A small MS4 that can pass ordinances and have the enforcement authority to enforce the stormwater management program. An example of traditional MS4s includes cities.

Urbanized Area (UA) - An area of high population density that may include multiple MS4s as defined and used by the U.S. Census Bureau in the 2000 decennial census.

Waters of the United States - (from 40 CFR § 122.2) Waters of the United States or waters of the U.S. means:

(a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(b) All interstate waters, including interstate wetlands;

(c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds that the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(3) Which are used or could be used for industrial purposes by industries in interstate commerce;

(d) All impoundments of waters otherwise defined as waters of the United States under this definition;

(e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;

(f) The territorial sea; and

(g) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR § 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

B. Commonly Used Acronyms

BMP	Best Management Practice
CFR	Code of Federal Regulations
CGP	Construction General Permit, TXR150000
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EPA	Environmental Protection Agency
FR	Federal Register
IP	Implementation Procedures
MCM	Minimum Control Measure
MSGP	Multi-Sector General Permit, TXR050000
MS4	Municipal Separate Storm Sewer System
NOC	Notice of Change
NOD	Notice of Deficiency
NOI	Notice of Intent

NOT	Notice of Termination (to terminate coverage under a general permit)
NPDES	National Pollutant Discharge Elimination System
SWMP	Stormwater Management Program
SWP3, SWPPP	Stormwater Pollution Prevention Plan
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TPDES	Texas Pollutant Discharge Elimination System
TWC	Texas Water Code