



Texas Commission on Environmental Quality  
Stormwater & Pretreatment Team Leader (MC-148)  
P.O. Box 13087  
Austin, Texas 78711-3087

Re: Phase II MS4 Annual Report Transmittal for the City of New Braunfels  
TPDES Permit Authorization: TXR040469

Dear Ms. Rebecca Villalba:

This letter serves to transmit the 2014/2015 Annual Report for the Texas Pollutant Discharge Elimination System Small Municipal Separate Storm Sewer System General Permit, Authorization Number TXR040469 for the City of New Braunfels.

A separate Notice of Change has not been submitted based on the fact that changes have not been proposed for the next permit year.

As required by the general permit, a copy of this submittal has also been mailed to the TCEQ's regional office in San Antonio, Texas.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Ramsey", is written over the typed name and title.

Steve Ramsey, PE, RPLS  
Director of Public Works  
City of New Braunfels

## Phase II (Small) MS4 Annual Report Form

TPDES General Permit Number TXR040000

### A. General Information

Authorization Number: TXR040469

Annual Reporting Year: Fiscal Year 2014/2015

Last day of fiscal year, if applicable: September 30<sup>th</sup>, 2015

MS4 Operator Level: Level 3

Name of MS4/Permittee: City of New Braunfels

Contact Name: Steve Ramsey

Telephone Number: (830) 221-4020

Mailing Address: 424 S. Castell Ave, New Braunfels, TX 78130-7619

E-mail Address: sramsey@nbtexas.org

### B. Narrative Provisions (Part IV Section B.2.(a))

1. Provide information on the status of complying with permit conditions: (Part V - Standard Permit Conditions):

	Yes	No	Explain
Permittee is currently in compliance with the SWMP as submitted to and approved by the TCEQ.	X		
Permittee is currently in compliance with recordkeeping and reporting requirements.	X		
Permittee meets the eligibility requirements of the permit (e.g., TMDL requirements, Edwards Aquifer limitations, compliance history, etc.)	X		

2. Provide a general assessment of the appropriateness of the selected BMPs. Use table below or attach a summary, as appropriate (See Example 1 in instructions):

<b>MCM(s)</b>	<b>BMP</b>	<b>BMP is appropriate for reducing the discharge of pollutants in stormwater (yes or no). Explain.</b>
1: Public Education, Outreach and Involvement	Stormwater Educational Materials and Strategies	Yes, methods and materials to support stormwater education and outreach were developed in Permit Year 1. Outreach methods included printed brochures, newsletters, presentations, and development of a watershed-based website. Educational materials and presentations increased local resident's awareness of stormwater pollution and included tips for minimizing stormwater pollution.
1: Public Education, Outreach and Involvement	Initiate Public Participation and Involvement Program	Yes, a public participation and involvement program was developed to inform residents and civic groups of stormwater management issues and initiatives. The public was encouraged to provide input on stormwater management decisions. The City of New Braunfels (CONB) participated in and coordinated public stream clean-up activities which helped to minimize trash and litter discharges. CONB also sponsored bulky good, household hazardous waste, and electronics drop-off events which helped to minimize illegal dumping.
1: Public Education, Outreach and Involvement	Partnerships with Other Institutions and Organizations	Yes, the CONB continued participation in the Edwards Aquifer Habitat Conservation Plan and collaborated with the Alligator/ Geronimo Creek Watershed Partnership, Texas Stream Team, Guadalupe Blanco River Authority and New Braunfels Utilities. These partnerships helped to disseminate information regarding overall watershed management initiatives in New Braunfels and stormwater awareness.
1: Public Education, Outreach and Involvement	Presentation to Local Elementary Schools	Yes, CONB staff presented to elementary and middle school classes to increase student's awareness of stormwater pollution and to help develop good environmental stewardship habits. Presentations were also provided to local civic groups.
1: Public Education, Outreach and Involvement	Volunteer Program	Yes, volunteer clean-up activities were coordinated in Permit Year 1 which promoted the importance of maintaining litter-free riparian areas and promoted participation in river clean-up activities.
1: Public Education, Outreach and Involvement	Community Arbor Day Program	Yes, tree planting demonstrations were held and free trees were provided to attendees of the CONB-sponsored Community Arbor Day. Tree cover helps to prevent soil erosion and minimizes sediment discharges to local waterways.



2: Illicit Discharge Detection and Elimination	Storm Sewer Mapping	Yes, storm sewer mapping delineates MS4 outfalls that will be routinely inspected as part of the Illicit Discharge Detection and Elimination (IDDE) dry weather screening program that is planned to be implemented in Year 4 per the City's Storm Water Management Plan (SWMP). Field reconnaissance associated with the mapping of the MS4 system provided an opportunity for CONB staff to assess for illicit discharges.
2: Illicit Discharge Detection and Elimination	Detection and Elimination Program	Yes, the development of a holistic program to identify and eliminate illicit discharges to the MS4 is underway. The IDDE program will ultimately help to minimize pollutant discharges to the MS4 associated with illegal dumping and illicit discharges.
2: Illicit Discharge Detection and Elimination	Field Staff Training	Yes, increased field staff awareness regarding the nature of and negative impacts of illicit discharges to the MS4. Increased awareness enhances the ability of field staff to identify various types of illicit discharges.
2: Illicit Discharge Detection and Elimination	Public Reporting of Illicit Discharges and Spills	Yes, CONB currently has in place methods for the public to report perceived illicit discharges. The ability for the public to report illicit discharges increases the probability of illicit discharge detection.
2: Illicit Discharge Detection and Elimination	Illicit Discharge Ordinance	Yes, an illicit discharge ordinance will increase the City's ability to hold accountable residents and/ or businesses that discharge pollutants to the MS4. An ordinance addressing illicit discharges is expected to be drafted and implemented in Year 2.
2: Illicit Discharge Detection and Elimination	River Clean-up	Yes, river clean-up activities conducted by the CONB and volunteers directly decreases the amount of trash and litter able to be washed into local waterways.
3: Construction Site Stormwater Runoff Control	Construction Site Inspection Program	Yes, the identification of inadequate erosion and sediment control BMPs at active construction sites during routine site inspections helped to reduce pollutant discharges by prompting contractors to install and implement effective BMPs. Improved BMPs help to minimize pollutant discharges and improve the quality of stormwater runoff.
3: Construction Site Stormwater Runoff Control	Construction Site Inventory	Yes, the documentation of active construction sites within the City limits is imperative to guiding routine construction stormwater management inspections.



3: Construction Site Stormwater Runoff Control	Construction Site Waste Control Ordinance	Yes, a construction site waste control ordinance will increase the City's ability to hold accountable construction contractors that improperly dispose of and manage construction wastes. An ordinance addressing construction waste management is expected to be drafted and implemented in Year 2.
3: Construction Site Stormwater Runoff Control	Construction Site Runoff Control Ordinance	Yes, a construction site runoff control ordinance will increase the City's ability to hold accountable construction contractors and operators not meeting the requirements of their SWPPP and the TCEQ Construction General Permit (TXR150000). An ordinance addressing construction site runoff is expected to be drafted and implemented in Year 2 (FY 2015/16).
4: Post-Construction Stormwater Mgmt in New Development	Staff Training on Post-Construction Stormwater Mgmt Structures	Yes, training increases the awareness of field staff regarding proper maintenance and functionality of stormwater management structures. Training increases the ability of inspectors to detect malfunctioning controls and the need for maintenance activities.
4: Post-Construction Stormwater Mgmt in New Development	Post-Construction Development Review Procedures	Yes, the proposed revision of the City's Drainage Criteria Manual (DCM) includes requirements for the installation permanent water quality controls for areas of new development. Technical and public review of the DCM increased awareness of the community of the need for water quality controls.
4: Post-Construction Stormwater Mgmt in New Development	Long-Term Operation and Maintenance	Yes. The inspection program associated with permanent private and public stormwater BMPs is scheduled to be developed and implemented in Year 3 (FY 2016/17) per the SWMP. The inspection and review program will be key to identifying and addressing operational issues associated with water quality BMPs.
4: Post-Construction Stormwater Mgmt in New Development	Post-Construction Stormwater Management Ordinance	Yes. The ordinance is expected to be developed and implemented in Year 2 (FY 2015/16). Public education and review of potential water quality protection measures will increase the public's understanding of the importance of implementing these measures. An ordinance requiring water quality and stormwater BMPs will require developers to implement stormwater BMPs in areas of new development.
4: Post-Construction Stormwater Mgmt in New Development	Encouragement of Low-Impact Development (LID) Design	Yes, the proposed revision of the City's Drainage Criteria Manual (DCM) includes LID design guidelines to encourage developers to implement LID projects. Technical and public review of the LID design guidelines increases awareness of the community on the importance of LID infrastructure in improving the quality of stormwater runoff.
4: Post-Construction Stormwater Mgmt in New Development	Establishment of Riparian Zones	Yes, riparian buffer areas help to filter and remove potential pollutants from stormwater runoff.

5: Pollution Prevention and Good Housekeeping for Municipal Operations	Street Sweeping	Yes, the existing street sweeping program was continued in Permit Year 1 resulting in the removal of sediment from City streets that would have otherwise been available to be mobilized and transported in stormwater runoff.
5: Pollution Prevention & Good Housekeeping for Municipal Operations	Mapping of Facilities and Inventory Control	Yes, a map of city-owned facilities is beneficial in delineating all facility locations and their proximity to surface waters.
5: Pollution Prevention & Good Housekeeping for Municipal Operations	Municipal Operations and Facility Survey	Yes, facility and operations surveys conducted in Year 1 provided valuable information as to the nature of work conducted and the potential for pollutant discharges at each facility.
5: Pollution Prevention & Good Housekeeping for Municipal Operations	Facility Inspection Program	Yes, facility inspections, conducted on a quarterly basis using inspection forms, helped to identify potential BMPs needed to control pollutant discharges at individual facilities. The inspections also serve to identify spills or litter needing to be cleaned-up.
5: Pollution Prevention & Good Housekeeping for Municipal Operations	Outdoor Storage	Yes, outdoor storage locations were assessed in Permit Year 1. BMPs installed at select outdoor storage locations minimize the potential for pollutant discharges.
5: Pollution Prevention & Good Housekeeping for Municipal Operations	Good Housekeeping Ops: Fleet and Equipment Maintenance	Yes, fleet and equipment maintenance areas were assessed in Permit Year 1. The assessments resulted in improved housekeeping practices, routine fleet inspections, and installation of stormwater BMPs.
5: Pollution Prevention & Good Housekeeping for Municipal Operations	Good Housekeeping Ops: Vehicle and Equipment Washing	Yes, vehicle wash locations were identified and improvements were made to an existing wash facility that will minimize the potential of wash water discharges.
5: Pollution Prevention & Good Housekeeping for Municipal Operations	Good Housekeeping Ops: Landscaping	Yes, management of landscaping operations and chemical applications minimizes the potential for pollutant releases and discharges associated with pesticide, herbicide, and fertilizer usage.



5: Pollution Prevention & Good Housekeeping for Municipal Operations	Structural Control Maintenance	Yes, documentation of City-owned structural stormwater controls will aid in guiding inspection and maintenance of the structures. Routine inspection and maintenance of structural controls will increase the effectiveness and operation of these structures and improve the quality of stormwater runoff.
5: Pollution Prevention & Good Housekeeping for Municipal Operations	Spill Prevention and Response	Yes, spill kits were purchased and provided to additional CONB field staff in Year 1. Spill kits will aid in the clean-up of any spilled material and increase spill clean-up response time.
5: Pollution Prevention & Good Housekeeping for Municipal Operations	Employee Training Program	Yes, training provided to City staff increases the awareness of the city's MS4 programs and the importance of stormwater pollution prevention.
5: Pollution Prevention & Good Housekeeping for Municipal Operations	Green Waste Management	Yes, education and outreach associated with proper management of green waste was conducted which increases public awareness of proper green waste disposal methods.

3. Describe progress towards reducing the discharge of pollutants to the maximum extent practicable. Summarize any information used (such as monitoring data) to evaluate reductions in the discharge of pollutants. Use a table or attach a narrative description as appropriate:

<b>MCM</b>	<b>BMP</b>	<b>Parameter</b>	<b>Quantity</b>	<b>Units</b>	<b>Does BMP Demonstrate a Direct Reduction in Pollutants? (Yes / No / Explain)</b>

The City of New Braunfels did not conduct any water quality monitoring in Permit Year 1 as part of the MS4 program. BMPs implemented in Permit Year 1 are included in the Table presented in Section 4 on the following page.



4. Provide the measurable goals for each of the MCMs, and an evaluation of the success of the implementation of the measurable goals (See Example 2 in instructions):

<b>MCM(s)</b>	<b>Measurable Goal(s)</b>	<b>Success</b>
1	Update City Website, local utility billing mail-outs, and media outlets (PE-1)	<p>Met Goal.</p> <p>A webpage containing information regarding the City's MS4 program and overall watershed management in New Braunfels was developed and posted on the City's website (<a href="http://www.nbtexas.org/watershed">www.nbtexas.org/watershed</a>).</p> <p>The City publishes a quarterly newsletter titled "Making the Most of Our Resources" which is included as an insert in publications of the local newspaper (Herald-Zeitung). The Winter, Fall, and Summer 2015 editions include information regarding stormwater pollution prevention, pet waste management, and green waste management. Each quarter 10,000 copies of the newsletter are distributed in Sunday editions of the Herald-Zeitung with an additional 500 copies distributed at local events.</p>
1	Record the number of education events and meetings conducted (PE-1)	<p>Met Goal.</p> <p>Four educational events were conducted in Year 1 at which stormwater pollution prevention information was disseminated to the public.</p> <p>City of New Braunfels (CONB) staff developed stormwater education materials in Year 1 which included powerpoint presentations regarding watershed management and stormwater pollution prevention, a professional 3-D watershed model for conducting stormwater runoff simulations, and watershed education display posters.</p>
1	Develop a stormwater fact sheet (PE-1)	<p>Met Goal.</p> <p>A stormwater fact sheet has been developed and is included on the City's Watershed Management webpage.</p>
1	Develop stormwater brochures (PE-1)	<p>Met Goal.</p> <p>Brochures containing information regarding stormwater management have been developed by CONB staff. The brochures include information on stormwater runoff, the effects of stormwater pollution and tips for minimizing pollution in stormwater runoff. Approximately 200 brochures have been printed and distributed at City parks, City Hall, City Library, and outreach events.</p>

1	Record the number of events and meetings conducted with citizen watch groups (PE-2)	<p>Met Goal.</p> <p>City staff has continued to meet with the Watershed Advisory Committee (WAC) to provide information and to get feedback regarding the Drainage Criteria Manual and MS4 programs. During Permit Year 1, City staff met with the WAC 2 times.</p> <p>City staff also presented and led discussions with the Friends of Landa regarding water quality protection initiatives.</p>
1	Record number of WQ pollution and illegal dumping incidents reported by citizens (PE-2)	<p>Met Goal.</p> <p>Approximately 14 illegal dumping complaints/ reports were submitted to the City of New Braunfels Public Works Drainage Division in Permit Year 1. All complaints were investigated and resolved.</p>
1	Sponsor, co-sponsor, or participate in annual stream clean-up events (PE-2)	<p>Met Goal.</p> <p>The CONB co-sponsored and provided resources for the 3<sup>rd</sup> Annual Geronimo and Alligator Creek Clean-Up event. 196 volunteers attended the clean-up event. City staff members also volunteered and participated in the clean-up event.</p>
1	Record the number of events and meetings conducted annually with watershed-based organizations (PE-3)	<p>Met Goal.</p> <p>The City continues to be a partner of the Edwards Aquifer Habitat Conservation Plan (EAHCP). City staff works with EAHCP staff on an ongoing basis and attends monthly committee meetings.</p> <p>CONB staff is working with The Meadows Center for Water and the Environment's Texas Stream Team representative to begin a citizen-based water quality monitoring and watch group in New Braunfels.</p>
1	Perform watershed and stormwater educational presentations to local schools. Record number of presentations and participants (PE-4)	<p>Met Goal.</p> <p>City staff presented stormwater pollution prevention information to three separate middle-school classes (approx. 20 students/ class) at the New Braunfels Christian Academy and led field activities for a summer science camp. City staff also presented watershed management and water pollution topics to five separate elementary classes (approx. 20 students/ class) at Timberwood Park Elementary School.</p>
1	Coordinate the activities for at least one volunteer event at local parks. Record the number of events held (PE-5)	<p>Met Goal.</p> <p>City staff helped coordinate and provide assistance and resources for three citizen-led clean-up events in Permit Year 1.</p>



1	Annually sponsor reforestation event. Record the number of events held, number of trees planted and participants (PE-6)	<p>Met Goal.</p> <p>The City's Parks and Recreation Department held a Community Arbor Day Event at Landa Park. The event was attended by approximately 400 people. Twelve trees were planted along with a planting demonstration and 800 trees were provided to attendees.</p>
2	Develop MS4 Outfall Map (ID-1)	<p>Met Goal.</p> <p>The City has begun a comprehensive MS4 mapping effort. Mapping efforts include not only storm drain outfalls but also channels, drainage inlets, and retention basins. The mapping project is being conducted with a Trimble GPS unit with all data being exported to an internal GIS server and included in a comprehensive ArcGIS stormwater basemap. By September 2015, approximately 85% of the MS4 system had been mapped. The mapping effort is ahead of the schedule provided in the SWMP.</p>
2	Develop policies and procedures to ensure GIS data is acquired for new development (ID-1)	In Permit Year 1, CONB staff continued to develop a comprehensive MS4 map of existing storm water drainage infrastructure. Once mapping of all existing infrastructure has been completed, CONB will develop policies and procedures for mapping newly constructed infrastructure.
2	Develop and implement IDDE program (ID-2)	The SWMP specifies development of IDDE procedures in Years 1-3. CONB began the development of IDDE criteria in Year 1 and performed IDDE investigations in response to complaints and field identification of illicit discharges. CONB will continue development of IDDE program guidelines in Year 2.
2	Assess status of program and record number of illicit discharges detected, eliminated, and follow-up actions (ID-2)	The IDDE program is currently being developed per the schedule set forth in the SWMP. An illicit discharge from a local carwash facility was reported by City staff and was further investigated. City staff met with management of the carwash who took action to eliminate the discharge of wash water.
2	Perform dry weather screening to detect potential illicit discharges (ID-2)	<p>Dry weather screening program implementation is scheduled for Years 4&amp;5 per the CONB's Storm Water Management Plan (SWMP). A water quality multi-probe (pH and Temperature) and a HACH stormwater test kit was purchased in Year one which will be utilized for the screening program.</p> <p>Although a comprehensive screening program is still being developed, dry weather discharges to receiving waters that have been observed and/ or reported have been screened and documented. To date, screening efforts and results have not yielded concern of pollutant discharges. City staff also assessed stormwater drainage infrastructure (i.e. channels, inlets, outfalls) for dry weather discharges during MS4 mapping efforts.</p>

2	Provide illicit discharge detection training to City staff. Report names of and number of attendees. Document training materials ( ID-3)	<p>Met Goal.</p> <p>Watershed management staff provided training for the City's Streets and Drainage field crews and foremen (14 attendees). Agendas, sign-in sheets, and training materials are retained in internal filing system.</p> <p>City Watershed Management and Engineering staff attended a four-part webinar series titled "Pathogens in Urban Stormwater Systems" which contained sections on understanding and identifying bacteria and pathogen sources.</p>
2	Develop public reporting method for illicit discharges, spills, and water quality complaints. Record and report the number of spills and illicit discharges reported (ID-4)	<p>Met Goal.</p> <p>The CONB developed and implemented an online water quality complaint and spill reporting form to accept complaints from the general public. The electronic reporting form is posted on the City's Watershed Management website (<a href="http://www.nbtexas.org/watershed">www.nbtexas.org/watershed</a>). The City received three water quality complaints in Year 1. Each complaint was investigated.</p>
2	Develop and implement illicit discharge ordinance (ID-5)	The SWMP specifies completion and adoption of an illicit discharge ordinance in permit Year 2.
2	Record and report on trash collection operations and river clean-ups (ID-6)	<p>Met Goal.</p> <p>The CONB maintains two separate contracts associated with river clean-up activities. The first contract is for litter clean-up activities at four City riverfront parks (Landa Lake Park, Hinman Island Park, River Acres Park, and Prince Solms Park) between Feb 1<sup>st</sup> and Sept. 30<sup>th</sup> of each year. The second contract involves weekly litter and trash collection between March and October along the banks and within the Comal and Guadalupe Rivers within the City limits.</p>
3	Develop construction site inspection procedures and forms (CS-1)	<p>Met Goal.</p> <p>City staff has developed a Standard Operating Procedure (SOP), including a standardized inspection form, to guide construction stormwater management inspections. The SOP and inspection form will be evaluated and updated on an as needed basis.</p>



3	Perform construction stormwater management inspections at active construction sites (CS-1)	<p>Exceeded Goal.</p> <p>The SWMP specifies the permittee begin a site inspection program in Year 2. City staff began conducting and documenting site inspections at active construction sites in December 2014.</p> <p>363 stormwater inspections were conducted by CONB staff between December 2014 (CONB MS4 permit acquisition date) and Sept 30, 2015.</p>
3	Provide annual training to applicable City employees (CS-1)	<p>Met Goal.</p> <p>City Watershed Management staff provided a series of construction stormwater management trainings to applicable City staff who routinely deal with construction activities in order to build staff capacity for identifying stormwater issues at construction sites. There were a total of six, 1-hour training sessions held which were each attended by 15 staff members including Building inspectors, engineering inspectors, engineering staff, and streets and drainage field crews. Training attendee sign-in sheets are retained within the City's MS4 filing system.</p> <p>Seven City staff members attended a two-day Certified Inspector of Sediment and Erosion Control (CISEC) certification training. Three City staff received a CISEC certification.</p> <p>City Watershed Management staff attended two SWPPP compliance workshops as well as the annual StormCon stormwater conference.</p>
3	Compile, document, and report construction site inventory. Report number of construction stormwater permits and NOIs (CS-2)	<p>Met Goal.</p> <p>All notice of intents (NOIs) and small construction site notices (CSNs) associated with the TCEQ Construction General Permit (TXR150000) that are received by the City are scanned and filed (electronic and hard-copy file). Records from the City's Building and Engineering departments are also utilized to identify construction sites. Construction sites are also identified during routine field visits. All know construction sites are included and maintained in a comprehensive listing of active construction sites &gt;1 acre.</p> <p>In permit Year 1 (Dec 1, 2014-Sept 30, 2015) the City received 36 NOIs and Small Construction Site notices. At the end of the fiscal year, the City's comprehensive construction site inventory included 94 active construction sites.</p>

3	Develop and document procedures for tracking and documenting construction site inventory (CS-2)	Met Goal.  A Standard Operating Procedure was developed to guide staff in accurately documenting and tracking construction sites. The SOP is retained along with other MS4-specific documents.
3	Develop and adopt construction site waste control ordinance. Post and implement ordinance (CS-3)	The SWMP specifies completion and adoption of a Construction Site Waste Control ordinance in permit Year 2 (FY 2015/16).
3	Develop and adopt construction site runoff control ordinance. Post and implement ordinance (CS-4)	The SWMP specifies completion and adoption of a Construction Site Runoff Control ordinance in permit Year 2 (FY 2015/16).
4	Provide training to applicable staff regarding Post-Construction BMP requirements and inspections.	Met Goal.  The City's Streets and Drainage field crews are trained to identify and maintain stormwater conveyances and BMPs.
4	Review and revise water quality protection measures as part of the City's Drainage Criteria Manual (DCM). Implement revised DCM (PC-2)	Met Goal.  The SWMP specifies completion of the City's Drainage Criteria Manual (DCM) by the end of Year 2. A draft of the DCM has been completed and going through a formal review process. The DCM includes a requirement that water quality treatment be designed and implemented to treat the first one-half inch runoff from new impervious surface areas. The DCM is scheduled to be finalized and submitted to City Council for approval in 2016.
4	Develop and implement program to inspect post-construction control measures/ BMPs (PC-3)	SWMP specifies Year 3 for development and implementation of this program. CONB expects to implement the post-construction BMP inspection program in Year 3.
4	Develop Post-Construction Stormwater Management Ordinance. Adopt, post, and implement ordinance (PC-4)	The SWMP specifies completion and adoption of a Construction Site Waste Control ordinance by the end of permit Year 2.



4	Review and revise existing Low Impact Development (LID) stormwater design guidelines. Include LID guidelines as part of the City's Drainage Criteria Manual (PC-5)	<p>Met Goal.</p> <p>The City has developed an LID Design Guideline Manual that will be included in the City's Drainage Criteria Manual. Drafts of the LID and Drainage Criteria Manuals have been completed and are currently going through a formal review process. The DCM, including the LID manual, is scheduled to be finalized and submitted to City Council for approval in 2016.</p>
4	Track number of LID projects (PC-5)	Tracking of LID projects will begin following the completion and implementation of the DCM and LID Design Guideline Manual.
4	Evaluate need for establishment of additional riparian zone establishment in flood zones. Implement policies for establishing riparian zones (PC-6)	<p>Met Goal.</p> <p>The City maintains riparian buffers (no mow-zones) along specific portions of the Comal, Dry Comal Creek, and Guadalupe Rivers on City-owned properties (i.e. City parks and flood properties). CONB will further evaluate the need and potential for additional riparian buffer zones in Year 2. The proposed revision of the City's Drainage Criteria Manual includes Low Impact Development (LID) design guidelines which include recommendations for the establishment of riparian buffers in areas of new development.</p>
5	Review and revise, as needed, existing street sweeping operations and procedures. Investigate opportunities to increase the effectiveness of the program to reduce pollutants (GH-1)	<p>Met Goal.</p> <p>In order to increase the coverage and effectiveness of the street sweeping program, a new TYMCO Model 600 Regenerative Air Sweeper was purchased by the CONB Public Works Department.</p>
5	Develop street sweeper waste disposal program (GH-1)	The CONB currently implements street sweeping efforts and sweeper waste disposal as managed by the CONB Public Works Department. A comprehensive street sweeper waste disposal program is planned to be developed by the end of Permit Year 2 (FY 2015/16) per the SWMP.
5	Develop a map identifying CONB-owned and operated facilities and stormwater controls (GH-2)	<p>Met Goal.</p> <p>An ArcGIS map has been developed to document locations of City properties. The GIS files are stored on an internal GIS server. The map will be updated as needed.</p>

5	Perform surveys of municipal facilities and operations. Report number of surveys. Develop policies and procedures to implement BMPS, as needed, based on findings of surveys (GH-3)	Met goal.  Performed initial surveys of municipal facilities including fire facilities (6 facilities), police facilities (1 facility), Parks facilities (2 facilities), fleet facilities (2 facilities), streets & drainage facilities (1 facility), and solid waste facilities (1 facility).
5	Implement facility inspection program. Identify high priority areas and compile facility inspection documents. Report number of inspections performed and issues identified and corrected (GH-4)	The SWMP specifies the development of inspection procedures in Year 2 (FY 2015/16) and commencement of facility inspections in Year 3 (FY 2016/17). To meet goals specified for Years 2 and 3, CONB staff developed facility inspection forms and met with applicable CONB staff to begin quarterly stormwater inspections in Year 1. CONB will continue to develop and refine inspection procedures and program elements.
5	Compile inventory of outdoor storage locations and materials stored. Document pollution prevention measures utilized. Perform routine inspections of storage facilities (GH-5)	Met Goal.  CONB began to inventory, document, and inspect outdoor storage locations in Year 1. The SWMP specifies completion of inventory and commencement of quarterly inspections by end of Year 3 (FY 2016/17).
5	Compile and report vehicle maintenance locations. Perform and document routine inspections (GH-6)	Met Goal.  CONB performed initial inspection and inventory of vehicle maintenance locations (2) in Year 1. CONB staff also began quarterly inspections at both vehicle maintenance locations.
5	Implement policies and procedures associated with vehicle washing operations to protect WQ (GH-7)	The SWMP specifies the completion of Vehicle washing SOPs by the end of Year 3. The CONB did perform improvements to the existing vehicle wash station in Year 1 that will ultimately minimize the discharge of pollutants associated with vehicle washing operations.



5	Develop SOPs to identify, install, and maintain WQ BMPs associated with landscaping operations. Provide training to applicable staff and training efforts (GH-8)	Met Goal.  The City employs two licensed chemical applicators who are responsible for conducting and/ or overseeing all pesticide, herbicide, and fertilizer application. These employees attend regular annual trainings to maintain CEU's for their licenses. Additional CONB staff who apply chemicals do so only under the supervision of the licensed applicators as permitted by Texas Department of Agriculture regulations.
5	Document chemical usage and application rates (GH-8)	Met Goal.  All chemical applications and inventories are performed according to guidelines and regulations set forth by the Texas Department of Agriculture.
5	Develop inventory of City-owned structural controls (GH-9)	Met Goal.  CONB staff has begun to inventory city-owned structural controls as part of the overall MS4 mapping effort being implemented as part of the Illicit Discharge and Detection, Storm Sewer Mapping initiative (MCM-2).
5	Develop an inspection and maintenance program for structural controls (GH-9)	The SWMP specifies the commencement of and inspection and maintenance program in Year 3.
5	Develop stormwater waste disposal procedures (GH-9)	To be completed by the end of Year 3 (FY 2016/17) per the SWMP.
5	Evaluate spill response procedures (GH-10)	Met Goal  Spill response procedures were developed in January of 2015 and Streets, Drainage and Solid Waste and Fleet personnel were trained.
5	Provide spill response and clean-up training to applicable City employees (GH-10)	Met Goal.  Watershed management staff provided spill response training for the CONB's Streets and Drainage field staff and foremen (14 attendees).
5	Provide spill response kits at applicable City facilities (GH-10)	Met Goal.  CONB purchased approximately 100 spill kits in Year 1. The spill kits were distributed to various City departments for use in City facilities and on City vehicles.

5	Provide and document MS4-related training to City staff (GH-11)	Met Goal.  All City departments were informed of the new City MS4 requirements and Storm Water Management Plan in order to increase staff awareness of stormwater pollution management.
5	Record and report the amount of green waste recycled (GH-12)	Met Goal.  There was approximately 2,718 tons of green waste diverted from the landfill and sent to Comal County Recycling center to be mulched.
5	Develop methods to promote green waste recycling and mgmt (GH-12)	Met Goal.  Green waste recycling is promoted via the City's website and in the "Making the Most of Our Resources" guide which is distributed quarterly as an insert in the local Herald-Zeitung newspaper. The City's green waste webpage includes information on the residential green waste recycling program such as collection requirements, acceptable and prohibited items, and composting information.

### **C. Stormwater Monitoring Data (Part IV Section B.2.(b))**

1. The MS4 has conducted monitoring of stormwater quality and submitted in the annual report (i.e. analytical and visual observations).

\_\_\_\_ Yes ☒ No

- a. Explain below or attach a summary to submit along with any monitoring data used to evaluate the success of the SWMP at reducing pollutants to the maximum extent practicable. Be sure to include a discussion of results:

Not Applicable



## **D. Impaired Waterbodies (Part IV Section B.2.(c))**

1. If applicable, explain below or attach a summary of any activities taken to address the discharge to impaired waterbodies, including any sampling results and a summary of the small MS4's BMPs used to address the pollutant of concern:

-The CONB utilized public education to inform residents of proper pet waste management, on-site sewer facility (OSSF) management, and negative impacts of wildlife feeding. Public education efforts associated with reducing bacteria loading consisted of printed brochures, oral presentations, and newspaper inserts.

-Per and existing Sanitary Sewer Overflow (SSO) agreement between New Braunfels Utilities (NBU) and the TCEQ, NBU addressed potential bacteria loading by implementing several programs to prevent and eliminate bacteria contributions from the sanitary sewer system. These initiatives include: 1) inspections and preventative maintenance for lift stations; 2) annual inspections of high-risk sewer infrastructure; 3) implementation of a Fat, Oil, and Grease (FOG) program; 4) rehabilitation of any defective sewer pipes; 5) increased sewer line inspections.

-CONB has also initiated conversations with Texas Parks and Wildlife staff to discuss overall wildlife management (deer and avian wildlife) in New Braunfels as it relates to bacteria contributions. CONB staff has also attended wildlife management workshops tailored to management white-tailed deer and feral hogs in urban areas.

-The CONB Environmental Services Division, as the authorized agent of Texas Commission on Environmental Quality (TCEQ), currently provides and administers a comprehensive regulatory program for the management of on-site sewage facilities (OSSFs), as prescribed by the Texas Health and Safety Code, Chapter 366. This chapter establishes minimum standards for planning materials, construction, installation, alteration, repair, extension, operation, maintenance, permitting, and inspection of OSSFs.

It is the public policy of the City of New Braunfels and purpose thereof to eliminate and prevent OSSF health hazards by regulating and properly confirming the site and soil conditions, design, construction, installation, operation, and maintenance of OSSF's through permitting of all such systems, technical evaluation of the OSSF's hydraulic characteristic, system testing, and documentation of all aspects of the operational system to ensure compliance with Statute.

As the TCEQ's authorized agent, the City investigates all complaints regarding OSSF's, and takes appropriate and timely action on all documented violations; including reporting such activity to the State on a monthly basis. Appropriate response actions include immediate correction of the identified hazard, in addition to possible criminal or civil enforcement action as necessary, under the authority of ordinance, the Texas Water Code, Chapters 7 and 26, and or the Texas Health and Safety Code, Chapters 341 and 366.

-The City of New Braunfels is currently in the process of developing a Watershed Protection Plan (WPP) to address bacteria impairments in Dry Comal Creek (Segment 1811). Phase I of the WPP includes a holistic effort to characterize and identify bacteria sources within the entirety of the Dry Comal Creek watershed, both within and outside of the City of New Braunfels' city limits and MS4. Specific contractual guidelines are in place to ensure adequate separation between required MS4 activities and WPP planning activities. A characterization of the watershed and the development of pollutant loading models will form activities scheduled for Phase II of the WPP of which approval is pending.

2. Describe the implementation of targeted controls if the small MS4 discharges to an impaired water body with an approved TMDL (*Part II Section D.4.(a)*):

Not applicable

3. Report the benchmark identified by the MS4 and assessment activities (*Part II Section D.4.(a)(6)*):

Not applicable

4. Provide an analysis of how the selected BMPs will be effective in contributing to achieving the benchmark (*Part II Section D.4.(a)(4)*):

Not applicable



5. If applicable, report on focused BMPs to address impairment (*Part II Section D.4.(a)(5)*):

<b>Pollutant to Address</b> ( <i>Ex: Bacteria</i> )	<b>Description of Focused BMP</b>	<b>Comments/Discussion</b>
Bacteria	Make improvements to reduce sanitary sewer overflows: Inspect high risk sanitary sewer infrastructure	New Braunfels Utilities (NBU) has developed an inspection program for high-risk sewer infrastructure such as aerial crossings and inverted siphons. Recurring inspection work orders have been created using a computerized maintenance management system (CMMS).
Bacteria	Make improvements to reduce sanitary sewer overflows: Rehabilitation of defective sanitary sewer piping.	NBU rehabilitated 11,506 feet of pipe and 77 manholes in FY 2015.
Bacteria	Make improvements to reduce sanitary sewer overflows: Inspection of collection system outside of the traditional Edwards Aquifer region.	NBU inspected a total of 366,460 feet of sewer piping using a combination of CCTV and Sewer Line Rapid Assessment Tool.
Bacteria	Address Lift Station Inadequacies	NBU routinely inspects 24 lift stations multiple times each year.
Bacteria	Fats, Oil, and Grease (FOG) program	NBU requires that all Food Service Establishments (FSEs) have their grease interceptors pumped and cleaned every 90 days. NBU inspects approximately 50% of all FSEs (225) annually during routine sampling and inspection.
Bacteria	On-Site Sewage Facilities and Inspections	CONB investigates all complaints regarding OSSF's, and takes appropriate and timely action on all documented violations and reports such activity to the State on a monthly basis. Appropriate response actions include immediate correction of the identified hazard, in addition to possible criminal or civil enforcement action as necessary.

Bacteria	Animal Sources	CONB has initiated conversations with Texas Parks and Wildlife Urban Wildlife staff to discuss overall wildlife management planning in New Braunfels as it relates to bacteria contributions. CONB staff has attended wildlife management workshops tailored to the management of wildlife in urban areas.
Bacteria	Bacteria Management Education	CONB utilized public education to inform residents of proper pet waste management, on-site sewer facility management, and negative impacts of wildlife feeding. Public education efforts associated with reducing bacteria loading consisted of printed brochures, oral presentations, and newspaper inserts. Bacteria management education initiatives are included with Public Education and Outreach measures in MCM-1.
Bacteria	Fats, Oils, and Grease (FOG) Education Program	NBU has developed and distributes education and outreach materials to educate residents on the negative effects of dumping FOGs into drains and the sanitary sewer system. Education and outreach efforts include pamphlets, billing inserts, website messages, "Grease Goblin" campaign, and news/ public service announcements.
Bacteria	Pet Waste Management Education	CONB distributed information regarding pet waste management utilizing brochures, presentations, and newspaper releases. In addition, pet waste collection stations, which include a message regarding proper pet waste disposal, are installed at City parks.

6. Describe progress in achieving the benchmark (*Part II.D.4.(a)(6)*):

Not applicable



## E. Stormwater Activities (Part IV Section B.2.(d))

Describe any stormwater activities the MS4 operator has planned for the next reporting year. Use the table or attach a summary, as appropriate:

In Permit Year Two (FY 2015/16), the City of New Braunfels will continue to develop and implement all activities specified in the City's Storm Water Management Plan and in accordance with established Minimum Control Measures (MCMs) to meet established goals. Stormwater management in permit year two (FY 2015/16) will emphasize the activities presented below:

<b>MCM</b>	<b>BMP</b>	<b>Stormwater Activity</b>	<b>Description/ Comments</b>
1	Stormwater Educational Materials and Strategies	City Website	CONB will continue to revise and update the City's watershed mgmt and MS4 stormwater website in Permit Year 2.
1	Initiate Public Participation and Involvement Program	Texas Stream Team Monitoring	City staff will work with the Meadows Center for the Environment's Stream Team staff to develop a citizen monitoring program in New Braunfels.
1	Initiate Public Participation and Involvement Program	Volunteer Stream Cleanup Event	City staff will continue to seek opportunities for volunteer clean-up events.
1	Partnerships with Other Institutions and Organizations	Participation in the Edwards Aquifer Habitat Conservation Plan (EAHCP)/ Collaboration with watershed-based organizations	City staff will continue participate in the EAHCP which includes water quality monitoring and water quality protection initiative. CONB will also continue to work with the Alligator/ Geronimo Creek Watershed Partnership and the Guadalupe Blanco River Authority to develop and seek public outreach opportunities.
1	Presentation to Local Elementary Schools	Presentations to local schools	CONB will continue to reach out to all local schools to perform stormwater education presentations for all ages of students. In addition, CONB staff will present on stormwater education to interested local civic organizations.
2	Storm Sewer Mapping	MS4 mapping to complete a comprehensive MS4 map.	CONB will continue the MS4 mapping effort. MS4 mapping is expected to be completed for all areas within the City limits. The mapping effort will result in a comprehensive GIS-based map to include stormwater outfalls, drainage inlets, retention basins, and channel for all areas within the City limits.

2	Detection and Elimination Program	IDDE Program Development	CONB will continue the development of the IDDE program that will include procedures for detecting and eliminating illicit discharges to the MS4.
2	IDDE Field Staff Training	IDDE Training for Field Staff	CONB will continue to train applicable field staff on the identification and elimination of illicit discharges. CONB will increase the overall number of staff trained.
2	Illicit Discharge Ordinance	The CONB is planning to develop and implement an illicit discharge ordinance.	The CONB will research ordinances implemented by other MS4 operators, draft an illicit discharge ordinance, and present to City Council for consideration and adoption. The effort will also include public education regarding the details of the ordinance.
2	River Cleanup	River Cleanup Activities	CONB will continue to utilize a contractor to perform river and riparian litter cleanup activities in City parks and within/ along the Comal and Guadalupe Rivers within the City limits.
3	Construction Site Inspection Program	Conduct Inspections of Active Construction Sites	CONB will continue to routinely inspect active construction sites >1 acre. CNOB staff will continue to document all inspections conducted.
3	Construction Site Inventory	Continue documentation of active construction sites	CONB will continue to track all received construction Notice of Intents (NOIs) and will collaborate with the Engineering and Building Departments to ensure a comprehensive listing of active construction sites. The comprehensive inventory will be used to guide routine inspections.
3	Construction Site Inspection Program	Construction Stormwater Training for CONB staff	The CONB watershed management staff will continue to hold trainings for city staff involved in construction that includes engineering, building, and construction inspectors.



3	Construction Site Waste Control Ordinance	The CONB is planning to develop and implement an ordinance for addressing construction site waste management.	The CONB will research ordinances implemented by other MS4 operators, draft construction site waste control ordinance based on the TCEQ TXR150000 permit, and present to City Council for consideration and adoption. The effort will also include public education to construction contractors and developers regarding the details of the ordinance.
3	Construction Site Runoff Control Ordinance	The CONB is planning to develop and implement an ordinance for addressing construction site runoff management.	The CONB will research ordinances implemented by other MS4 operators, draft construction site runoff control ordinance based on the TCEQ TXR150000 permit, and present to City Council for consideration and adoption. The effort will also include public education to construction contractors and developers regarding the details of the ordinance.
4	Post-Construction Stormwater Managment	Finalize and adopt the Drainage Criteria Manual	CONB will continue the public review process for the Drainage Criteria Manual (DCM) which includes water quality treatment requirements. The City will finalize the DCM which will ultimately require new developments to implement post-construction water quality controls.
4	Post Constuction Stormwater Management Ordinance	Develop an ordinance to address post-construction stormwater runoff.	CONB will begin to develop adequate measures to address stormwater runoff from new development. Developed water quality protection measures will be vetted through a public education and review process. Associated ordinances will be developed and presented to Citty Council for consideration and adoption.
4	Encouragement of Low-Impact Development	Finalize and adopt the LID Design Guidelines as part of the Drainage Criteria Manual	The City will finalize and adopt the Drainage Criteria Manual which will include the LID Design Guidelines.
4	Establishment of Riparian Zones and Vegetative Buffers	Evaluate existing riparian buffer zones on City properties. Increase riparian buffers.	CONB will continue to assess the potential to increase riparian buffers within City-owned properties. CONB will develop procedures for the establishment, maintenance, and preservation of delineated riparian areas.
5	Street Sweeping Program	Continue and Evaluate Street Sweeping Program	CONB will continue the street sweeping program. The program will be further evaluated to seek opportunities for maximizing sweeping efforts in streets proximal to rivers and waterways. CONB will increase tracking of street sweeping efforts.

5	Municipal Operations	Facility Surveys and Inspections	CONB will continue to assess all City facilities in order to look for opportunities to implement BMPs that will improve the quality of stormwater runoff. CONB will continue a quarterly facility inspection program to document site conditions and look for potential water quality issues.
5	Good Housekeeping Operations	Outdoor Storage	CONB will continue to document outdoor storage locations utilized for City operations. CONB will continue to assess storage yards to examine methods for improving stormwater quality through the development and implementation of BMPs.
5	Good Housekeeping Operations	Fleet and Equipment Maintenance Area Inspections	CONB will continue to perform quarterly inspections of fleet and equipment maintenance areas. CONB will continue to evaluate the need for additional stormwater BMPs based on inspection findings.
5	Good Housekeeping Operations	Landscaping	CONB will continue to retain and recruit TDA-licensed applications. CONB will also continue to conduct chemical applications only by licensed applicators or by employees under the direct supervision of the licensed applicators. CONB will continue to refine procedures for landscaping operations and chemical applications. CONB will also continue to retain chemical application records according to Texas Department of Agriculture regulations.
5	Structural Control Maintenance	Inspection and Maintenance of Stormwater Controls	CONB will continue to develop an inspection and maintenance program to ensure functionality and continued operation of stormwater controls.
5	Spill Prevention and Response	Provide Spill Response Kits and Training to City Employees	CONB will ensure all applicable field staff has access to spill kits and are trained in spill clean-up and response.
5	Employee Training Program	Employee Training Program	City employees will continue to be educated on stormwater management and MS4 requirements. CONB will evaluate training methods and identify additional training opportunities to increase staff awareness.
5	Green Waste Management	Green Waste Recycling Program/ Green Waste Management Education	CONB will continue a green waste recycling program and continue to educate residents on proper green waste management and recycling opportunities.



## F. SWMP Modifications (Part IV Section B.2.(e))

1. Changes have been made or are proposed to the SWMP since the NOI or the last annual report, including changes in response to TCEQ's review.

\_\_\_\_ Yes ☒ No

If 'Yes', report on changes made to measurable goals and BMPs:

MCM(s)	Measurable Goal(s) or BMP(s)	Implemented or Proposed Changes (Submit NOC as needed)
Not applicable		

## H. Additional Information (Part IV Section B.2.(g))

1. Is the permittee relying on another entity/ies to satisfy some of its permit obligations?

☒ Yes ☐ No

If 'Yes,' provide the name(s) of other entity/ies and an explanation of their responsibilities (add more spaces or pages if needed):

Name and Explanation: New Braunfels Utilities (NBU) has been identified in the SWMP to perform tasks associated with addressing bacteria impairments on the Dry Comal Creek. NBU is responsible for performing inspections, preventative maintenance, and rehabilitation of the sanitary sewer collection system to prevent discharges and overflows. Specific activities conducted by NBU are included in Section D (D: *Impaired Waterbodies*) of this report.

- 2.a. Is the named permittee sharing a SWMP with other entities?

☐ Yes ☒ No

- 2.b. If 'yes,' is this a system-wide annual report including information for all permittees?

☐ Yes ☐ No

If 'Yes,' list all associated permit numbers and permittee names (add additional spaces or pages if needed):


Authorization Number:	_____	Permittee:	_____
Authorization Number:	_____	Permittee:	_____
Authorization Number:	_____	Permittee:	_____



## J. Certification

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

Name (printed): Robert Camareno Title: City Manager

Signature:  Date: 12/21/15

Name (printed): Title:

Signature: Date:

Name (printed): Title:

Signature: Date:

Name (printed): Title:

Signature: Date:

Name (printed): Title:

Signature: Date:

**Note:** If this is this a system-wide annual report including information for all permittees, each permittee shall sign and certify the annual report in accordance with 30 TAC §305.128 (relating to Signatories to Reports).