COUNTY OF BEXAR

PUBLIC WORKS DEPARTMENT
ENVIRONMENTAL SERVICES

233 N. Pecos La Trinidad, Suite 420
San Antonio, Texas 78207-3188
Main 210-335-6700 Fax 210-335-6713

November 5, 2012

Jaya Zyman-Ponebshek, Team Leader
Texas Commission on Environmental Quality
Storm Water and Pretreatment Team (MC-148)
P.O. Box 13087
Austin, Texas 78711-3087

Re: Phase II MS4 Annual Report Transmittal for Bexar County
TPDES Permit Number: TXR040031

Dear Ms. Zyman-Ponebshek:

This letter serves to transmit the Year 5 Annual Report for the Texas Pollutant Discharge Elimination System (TPDES) Small Municipal Separate Storm Sewer System (MS4) General Permit, Authorization Number TXR040031 for Bexar County.

A separate Notice of Change (NOC) is not been submitted based on the fact that this is the last year of this permit. A new permit will be submitted for the next 5 years.

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,

Renee D. Green

Renee D. Green, P.E.
Director of Public Works/County Engineer

Phase II (Small) MS4 Annual Report Form
TPDES General Permit No. TXR040000

A. General Information

1. Permit No. TXR040031 Annual Report Period: 8/13/2011-8/12/2012

   Name of MS4 / Permittee: Bexar County

   Contact Name: Andrew Winter, P.E. Telephone Number: (210) 335-6487

   Mailing Address: 233 N. Pecos, Suite 420, San Antonio, Texas 78207

   E-mail Address: awinter@bexar.org

2. Is the named permittee relying on another entity/ies to satisfy some of its permit obligations? _____ Yes X 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: _____

   Name and Explanation: _____

   Name and Explanation: _____

   Name and Explanation: _____

   Name and Explanation: _____

3. Is the named permittee sharing a SWMP with other entities? _____ Yes ___X___ No

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

Permit Number: _____ Permittee: _____

Permit Number: _____ Permittee: _____

Permit Number: _____ Permittee: _____

Permit Number: _____ Permittee: _____

4. Is this a system-wide annual report including information for all permittees? _____ Yes ___X___ No

Explanation, if any _____

_____

_____

5. Has a copy of this annual report been submitted to the TCEQ Regional Office? ___X___ Yes _____ No

A. SWMP Modifications and Additional Information.

Include a brief explanation if you check "Yes" to any of the following statements.

1. a. 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 ___X___ No

_____

_____

b. If Yes to the above, has the TCEQ already approved the original SWMP? _____ Yes _____ No

N/A

c. If Yes to the above, indicate whether an NOC (or letter) has been submitted to document the changes to the approved SWMP as required by the general permit. (Note that if an NOC is required, it must be submitted to the address shown on the NOC. Do not attach the original NOC form to this report.) _____ Yes ___X___ No

2. The MS4 has annexed lands since obtaining permit coverage. _____ Yes ___X___ No

3. A receiving water body is newly listed as impaired or a TMDL has been established. _____ Yes ___X___ No

4. The MS4 has conducted analytical monitoring of storm water quality. _____ Yes ___X___ No

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.

C. Narrative Provisions.

1. Provide information on the status of complying with 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:

   Has the permittee determined that any of the selected BMPs are not appropriate for reducing the discharge of pollutants in storm water? _____ Yes ___X____ No

   Provide explanation:

   _____

   _____

   _____

   _____

   _____

   _____

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

   See attached Table, Reduction of Discharge Pollutants, Exhibit 1.

4. Provide a general evaluation of the program's progress, including any obstacles or challenges encountered in implementing BMPs, meeting the program's schedule, etc.:

The current Bexar County program was instituted in December 2008 with the final certification in June 2009. With scheduled community events and opportunities for outreach, the public has become and continues to be well-informed of this program and have accepted its implementation. Bexar County is on schedule with implementing all requirements for this program according to the permit. Bexar County has implemented new inspections techniques (such as camera technology for underground sewer pipe inspections) to enhance the quality of our drainage system.

5. Provide the number of construction activities (other than those where the permittee was the operator) that occurred within the regulated area as indicated via notices of intent or site notices:

   Bexar County has participated in 1360 construction site inspections to verify proper SW3P measures.

6. Does the permittee utilize the 7th MCM related to construction? _____ Yes ___X___ No

   If Yes, then provide the following information:

   a. The number of municipal construction activities authorized under this general permit: _____

   b. The total number of acres disturbed for municipal construction projects: _____

   Though the 7th MCM is optional, this must be requested on the NOI or on a NOC and approved by the TCEQ.

7. Requirements for Specific Minimum Controls Measures (MCMs):

   a. For MCM 1 - Public Education and Outreach, provide documentation of activities conducted and materials used to fulfill the requirements of this MCM. See attached table, Storm Water Quality Program Metrics, Exhibit 2.

   b. Also for MCM 1, provide documentation of the amount of resources used to address each group (e.g., visitors, businesses, etc.). See attached PowerPoint presentations, Bexar County Storm Water Pollution Prevention, Bexar County Storm Water Quality Program, Cartegraph, NPDES Phase II Implementation, Site Development Presentation, Storm Water Pollution Prevention for Construction Sites, SWQ VS OSSF Presentation, and TPDES Training.

   c. For MCM 3 – Illicit Discharge Detection and Elimination (IDDE), indicate whether you have developed a list of allowable non-storm water discharges, other than those already listed in the general permit. If you have developed a list and have made any changes to the local controls, conditions and/or programs being established for discharges, include this information below. If you do not have any changes for this permit year, indicate that this item is not applicable.

      Not Applicable

8. Describe any proposed changes to the SWMP in the coming reporting year.

   Bexar County foresees making appropriate changes to the new permit SWMP to comply with new the MS4 requirement.

9. Describe any activities planned for the next permit year / reporting cycle.

   a. Bexar County will plan to have 4 Community Clean-up events.

   b. Bexar County will plan to have 6 public outreach events to include schools, HOAs, and fairs.

   c. Bexar County will add inspection of underground storm sewers to ensure storm water quality.

   d. Bexar County will add industrial site inspections as required by new MS4 permit requirements.

   e. Bexar County will continue to work to develop more efficient and effective methods for illegal dumping and illicit discharge detection and enforcement.

D. Storm Water Management Program Status. Provide the status of every BMP and measurable goal listed in the SWMP, as described in the Instructions. Each MCM, but not necessarily each BMP, must include the measurable goals described in the SWMP. For a shared SWMP, include the name of the responsible MS4 operator(s) in the "BMP" column. *(Though an MS4 is not required to implement BMPs until the initial SWMP is approved by the TCEQ, the MS4's initial annual report should include a description of what has been done to date, even if the SWMP has not yet been approved. The MS4 will receive credit for all BMPs implemented prior to and during the first permit year if they are described in the initial annual report.)*

See attached Table 1, BMP Status, Exhibit 3.

See attached Table 2, Measurable Goals Status, Exhibit 4.

B. 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): Renee D. Green, P.E. Title: Director of Public Works/County Engineer

Signature: Renee D. Green Date: _____

Name (printed): _____ Title: _____

Signature: _____ Date: _____

Name (printed): _____ Title: _____

Signature: _____ Date: _____

Name (printed): _____ Title: _____

Signature: _____ Date: _____

Name (printed): _____ Title: _____

Signature: _____ Date: _____

Exhibit 1

Reduction of Discharge Pollutants

MCM	BMP	Parameter	Quantity	Units	Does BMP Demonstrate a Direct Reduction in Pollutants? (Yes / No / Explain)
3	Identify Common Illicit Discharge Locations	Abatements	9	Number of Events	Yes, the abatements performed removed potential illicit discharge vectors from public waterways and remediate debris from known dumping sites within local subdivisions
3	Identify Common Illicit Discharge Locations	Community Cleanup Events	15	Number of Events	Yes, these community cleanup events remove potential illicit discharge vectors from public waterways and remediate debris from known dumping sites within local subdivisions.
3	Identify Common Illicit Discharge Locations	"Clean Sweep" Program	In Progress Estimated "235"	Tons	Yes, Operation Clean Sweep was established in partnership with Bexar County Sheriff's Office, Bexar County District Attorney, TCEQ, and Senator Van de Puttee. The program seeks to aggressively address the on-going illegal dumping issues in the Windsor Oak, Camelot II, and Glen Townhome areas. The program includes increased inspection and enhanced enforcement of illegal dumping in this area while also working to get legislative changes that will allow the County to enforce mandatory trash pickup within a City's ETJ. The County Manager's office in conjunction with the DA and Environmental Services is working through the Council of Urban Counties to effect the legislative changes.
3	Identify Common Illicit Discharge Locations	Monitor dump sites	Program in place	Pounds or gallons	Yes, Bexar County with the partnership of local government entities have identified trends of illegal dumping and established interagency taskforces to provide monitoring, policing, and clean-up of illegal dump sites.
3	Identify Common Illicit Discharge Locations	Monitor water quality	Availability in place	TCEQ water quality standards	Yes, Bexar County has partnered with the San Antonio River Authority to provide water quality data along local rivers and streams. The San Antonio River Authority is currently performing this function for various state-funded projects. This water testing enhances Bexar County capabilities to sample sites with potential illicit discharges. The San Antonio River Authority's Environmental Sciences Department's (ESD) Laboratory provides a wide range of analyses for drinking water and non-potable water testing. These analyses are available for a small fee to anyone wishing to have their water tested. Municipalities, water purveyors, wastewater treatment plants, consultants, water bottlers, other laboratories and private citizens all use the services of the Laboratory.
4	Inspect construction sites based on permitting	Review sites based upon requests for other departmental permits	120	Inspections	Yes, conducting site visits based on permit requests for other Bexar County services will enhance the reduction of discharges. This will require staff training of water quality standards.
5	Inspect construction sites under development	Review sites based upon TCEQ NOIs or Bexar County site development permits	1360	Inspections	Yes, conducting site visits based on permit requests for construction activities within Bexar County will enhance the reduction of discharges. This will require staff training of water quality standards.

EXHIBIT 2: BEXAR COUNTY STORM WATER QUALITY PROGRAM METRICS (8/13/2010-8/12/2011)										
MCM No.	BMP	Activity	Attendees	Man Hours Involved	Number of complaints	Number of inspections	Number of sites	Hours of Instruction	Tonnage of Material
1	Public Education and Outreach	Operation Clean Sweep	25	150	107	395	100		estimated 235
		Development Process Task Force	30	5				5	
		YOUR GOV web portal	56	127	65	275	65	2	12
		HOA Presentations	52	5				5	
		Totals	**163**	**287**	**172**	**670**	**165**	**12**	**12**
2	Public Participation and Involvement	15 Community Clean-ups	180	62				7	105
		BRWM (Bexar Regional Watershed Meeting)	2	60					
		LID (Low Impact Development)	2	26				10	
		WTC (Watershed Technical Committee)	2	22				4	
		BRWM Water Quality Workgroup (MS4)	2	24				4	
		TEHA	60	5				1	
		School Presentation(s)	30	1				1	
		Basura Bash - Comanche Park	150	600			1	4	2
		Totals	**428**	**800**	**0**	**0**	**1**	**31**	**107**
3	Illicit Discharge Detection and Elimination	Illegal Dumping Task Force	20	52	5	20	5	5	1
		Illegal Dumping Enforcement (all types)		8000	2000	8200	1900	20	150
		OBA (Olmos Basin Alliance)	16	8				2	
		Citizen Complaints (illicit discharges)		199	52	265	50		
		OSHA Safety Training	3	48				48	
		PACP training and certification	5	120				120	
		Trash pickup from County ROW		205	140	140	140		2
		Mowing Drainage and Flood Plains		153	25	25	56		
		Street Sweeping		126	10		41		5
		Dead Animal Removal		185	251	251	251		3
		Bexar County Household Hazardous Waste Pickup	74						0.2
		Totals	**118**	**9096**	**2483**	**8901**	**2443**	**195**	**161**
4	Construction Permitting and Inspection	Citizen Complaints (involving constrtuction site activities)		84	29	58			
		Construction Site Permit Inspections		2224		2965	114		
		SAWS Inspector Training	4	24				6	
		Flood Plain Management	1	8				8	
		Texas Water Conference	2	20				20	
		Camera Truck Inspection		57			9		
		Totals	**7**	**2417**	**29**	**3023**	**123**	**34**	**0**
5	Post Construction Storm Water Mgmt	Citizen Complaints (involving Post construction activities)		25	14	28			
		Storm Water Conference	6	24				24	
		Totals	**6**	**49**	**14**	**28**	**0**	**24**	**0**
6	Pollution Prevention/Good Housekeeping	Annual Spill Response training	160	170				1	
		Storm Water Quality training	7	14				2	
		Repairs to Drainage Structures		112	2	2	28		
		Cleaning of Drainage Ditches		25	7	7	10		0.5
		Cleaning of Drainage Structures		72	5	5	65		1
		Grass Planting (Hydromulching)		8			2		
		Camera Truck Inspection		10	2	2	2		
		Totals	**167**	**411**	**16**	**16**	**107**	**3**	**2**

Exhibit 3: Table 1 – BMP Status				
MCM(s)	**BMP**	**Milestones of Permit Year**	**Start Date**	**Status / Completion Date (completed, in progress, not started)**
1	Storm Water Web Page	Update existing website with new information on site development permit, TCEQ requirements, and storm water quality program to inform the public.	May 2009	Completed
1	Storm Water Web Page	Revamping website to include watershed educational materials and enhancing sustainable transparency to the public	Aug. 2012	In Progress
1	Speakers Bureau	Present Storm Water Quality education materials to community groups	May 2009	Continuous
1	Public Education Display	Inform public during community events about Bexar County storm water quality program.	Continuous	Completed
1	Storm Water Quality Flyer	Inform public on Bexar County storm water quality program.	Continuous	Completed
2	Storm Water Hotline	Inform public on Bexar County storm water quality program.	July 2010	Completed
3	Storm Sewer Mapping	Create database of all Bexar County MS4.	May 2009	Completed
3	Illicit Discharge Detection of MS4	Conduct inspections of MS4 areas within Bexar County annually. For identified discharges, notify owner/operator and contact Sheriff's office/TCEQ.	May 2009	Continuous
3	Educate Bexar County Employees	Inform public on Bexar County storm water quality program. (Annually)	May 2009	Completed
3	Educate Businesses and Public	Inform public on Bexar County storm water quality program. (Annually)	May 2009	Completed
3	Spill Response Program	Utilizing Bexar County HHW program and Fire Marshal office, a reduction of discharges of potential hazardous chemical into MS4.	May 2009	Continuous
3	Spill Response Training	Annual training for all Service Centers and Facility Maintenance Centers	Aug. 2010	Continuous
4	Erosion and Sediment Control Ordinance	Conduct inspections of proper SW3P measures within Bexar County from recent developments.	May 2009	Continuous
4	Staff Training	Inform Bexar County staff on state and federal mandates for Phase II of NDPES and proper SW3P measures. (Annually)	May 2009	Continuous
5	Storm Water Detention Basins Inspection	Identify and conduct inspections of sedimentation basins within Bexar County from recent construction.	May 2009	Continuous
5	Maintenance of Regional Basins	Identify and conduct inspections of sedimentation basins maintained by Bexar County.	May 2009	Continuous
5	Post-Construction BMP's	Conduct inspections of proper SW3P measures within Bexar County from recent developments.	May 2009	Continuous
6	Leaf / Brush Pick-up Programs	Conduct community cleanup events for a reduction of discharges of potential trash/debris into MS4.	May 2009	Continuous
6	Fleet Maintenance Program	Inform Bexar County staff on state and federal mandates for Phase II of NDPES and proper SW3P measures.	May 2009	Continuous

Exhibit 4: Table 2 – Measurable Goals Status			
MCM(s)	**Measurable Goal(s)**	**Success**	**Proposed Changes (submit NOC as needed)**
1	Public Education Display at five (5) community events	Met Goal	None
2	Inform public on storm water quality program via email/phone responses from new Bexar County website.	Met Goal	None
3	Create database of 80% of MS4 outfalls to include new developments and Bexar County projects.	Exceeded Goal	None
3	Utilizing Bexar County HHW program, provide an average of 25 site pickups monthly.	Met Goal	None
3	Develop and Implement a Spill Response Program for all municipal operations with annual employee training.	Exceeded Goal	None
4	Send two staff employees to storm water quality training workshops.	Exceeded Goal	None
5	Conduct at least 200 site inspections for proper SW3P measures for new construction.	Exceeded goal	None
6	Conduct five (5) community cleanup events for Bexar County residents.	Exceeded Goal	None

Bexar County
Storm Water Pollution Prevention

Best Management Practices

Background

- Federal Laws:
  - Rivers and Harbors Appropriation Act (1899)
  - Clean Water Act (1972)
  - Clean Water Act (1987)
- Environmental Protection Agency (EPA) – Categories for Stormwater Discharges into MS4s
  - Phase I (1990)- municipalities above population of 100,000.
  - Phase II (1999) - urban areas less than 100,000.
- Texas Commission on Environmental Quality (TCEQ)
  - Issued Phase II general permits for governmental entities on August 13, 2007.
  - Bexar County received general MS4 permits on June 2, 2009.
- Bexar County
  - Commissioner's Court approved the SWMP on October 23,2007
  - Federal storm water fee on September 2,2008.

Municipal Separate Storm Sewer Systems (MS4)

- Conveyance or system of conveyances including:
  - Roads with drainage systems
  - Municipal streets
  - Catch basins
  - Curbs
  - Gutters
  - Ditches
  - Manmade channels
  - Storm Sewers
- Goal is to protect our rivers, lakes, and streams (waters of the state and U.S.)

Measurable Goals Guidance for Phase II Small MS4s

- Six minimum control measures (MCMs)
  - Public Education and Outreach
  - Public Involvement and Participation
  - Illicit Discharge Detection and Elimination
  - Construction Inspection and Permitting
  - Post-construction Storm water Management
  - **Good Housekeeping within Bexar County**

Potential Sources of Pollution

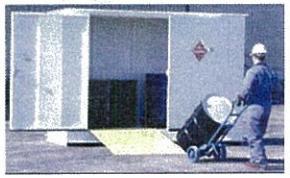
- Materials Storage
- Fueling Island
- Dumpsters
- Vehicle Maintenance/Repair Areas
- Equipment Storage
- Vehicle Washing
- Construction Sites
- Chemical/Battery Storage
- Roof Drains
- Scrap Metal/Auto Parts
- Truck Loading/Unloading

Municipality

Employee

Best Management Practices (BMPs)

- BMP 1: Good Housekeeping
  - Keep your work area neat and orderly.
  - Keep unused containers closed tightly.
  - Use a drip pan temporarily and regularly.
- BMP 2: Outdoor Materials Storage
  - Store materials out of the weather.
  - Cover all materials temporarily
  - Load and unload out of the weather.



Best Management Practices (BMPs)

- BMP 3: Spill Response
  - Never Hose down a spill.
  - Prompt "dry" clean up of spills.
  - Protect storm drains.
  - Dispose of clean-up wastes properly.

- BMP 4: Vehicle and Equipment Fueling and Repair
  - Stay with vehicles while refueling.
  - Move leaking equipment indoors.
  - Use drip pans.

Best Management Practices (BMPs)

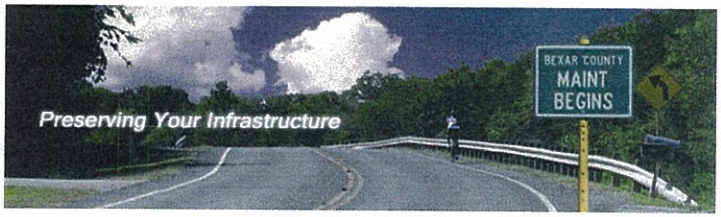
- BMP 5: Outdoor Manufacturing and Maintenance
  - Use a drop cloth.
  - Use secondary containment.
  - Clean-up scraps, drips, and residues

- BMP 6: Waste Management
  - Never use storm drains or ditches for waste disposal.
  - Close the lid or cover waste containers.
  - Do not drain secondary containments without approval.

Contact us

- Bexar County Storm Water Quality Program
  - Website: http://www.co.bexar.tx.us/bcinf/default_Stormwater.asp
  - Email concerns to: swq@bexar.org
  - Staff:
    - Andrew Winter, Environmental Engineer, 335-6487
    - Erin Lowe, Storm Water Quality Engineer Assistant, 335-6663
    - John Jordan, Storm Water Quality Inspector, 335-6741

Bexar County
Storm Water Quality Program



Background

- Clean Water Act (1972) – Governs discharge of point-source pollution to navigable water of the U.S. Established National Pollutant Discharge Elimination System (NPDES) for industrial facilities, government facilities such as military bases, and agricultural facilities such as feedlots.
- Clean Water Act (1987) – Established NPDES permit requirements for non-point sources such as municipal separate storm sewer systems (MS4).
- EPA mandated Phase I for municipalities above population of 100,000.
- EPA mandated Phase II in December 1999 for urban areas less than 100,000.
- TCEQ approved Phase II general permit for governmental entities on August 13, 2007.
- Bexar County Commissioner's Court approved the SWMP on October 23,2007.
- Bexar County Commissioner's Court approved the Federal Storm water fee on September 2,2008.
- Bexar County received notification of ability to issue general MS4 permits under TPDES from TCEQ on June 2, 2009.

Measurable Goals Guidance for Phase II Small MS4s

- Six minimum control measures (MCMs)
  - Public Education and Outreach
  - Public Involvement and Participation
  - Illicit Discharge Detection and Elimination
    - Any direct or indirect non-storm water discharge into MS4. (Ex. Sewage or anti-freeze into storm drain)
  - Construction Inspection and Permitting
    - No state permit prior to start of construction.
  - Post-construction Storm water Management
    - Proper SW3P measures at construction site.
  - Good Housekeeping within Bexar County

Permit Requirements

- TCEQ TPDES General Permit TXR150000
  - Permit is required for construction activities as:
    - Small operator for disturbance greater than 1 acre but less than 5 acres.
    - Large operator for disturbance greater than 5 acres.
  - Exceptions to the permit:
    - If construction is to take place in a particular county during a particular time period when erosion is expected to be minimal, you may be eligible for regulation under the Low Potential for Erosion Requirements .
    - If the potential for soil to wash away during your construction activity is low, you may qualify for the Low Rainfall Erosivity Waiver.
    - Even if you are eligible for coverage under a general permit, you may opt to request coverage under an individual permit.

Permit Requirements

- Steps to Take After Obtaining Permit: (con't)
  - Submit a Notice of Termination (NOT) within 30 days after one or more of the following occurs:
    - final stabilization has occurred
    - another permitted operator has assumed control over all areas of the site that have not been finally stabilized and all silt fences and other temporary erosion control measures have either been removed, scheduled for removal, or transferred to a new operator as described in the Storm Water Pollution Prevention Plan
    - authorization was granted under an individual permit
    - If the operator changes, the new operator must submit a Notice of Intent (NOI) and then the existing operator must submit a Notice of Termination (NOT). The NOT and NOI must be submitted at least 10 days before the change.
  - Operators must forward a copy of general permit to Bexar County Development Services for review

Permit Requirements

- STEERS (State of Texas Environmental Electronic Reporting System):
  - Operators need to file for NOI (Notice of Intent).
  - STEERS became effective 3/15/08
  - Electronic submittals are permitted immediately (within 24-hours)
  - Paper submittals must wait 7 days before starting construction
- Permit fee structure
  - $225 per NOI for electronic submittals
  - $325 per NOI for paper submittals
  - No annual renewal fee
  - No charge per NOC for paper submittals only
  - No charge per NOT for electronic/paper submittals

Permit Requirements

- Steps to Take After Obtaining Permit: (con't)
  - Stabilization requirements within Edwards Aquifer (TAC, Title 30, Chapter 213)
    - After 14 days of cease of construction operations, temporary stabilization needs to be in place.
    - Temporary Stabilization includes:
      - Establish vegetation, mulching, vegetative buffer strips, tree protection, and other appropriate measures.
    - After 21 days of cease of construction operations, final stabilization needs to be in place.
    - Final Stabilizations is required where any of the following conditions are met:
      - (a) All soil disturbing activities at the site have been completed and a uniform (i.e., evenly distributed, without large bare areas) perennial vegetative cover with a density of at least 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.

Permit Requirements

- Steps to Take After Obtaining Permit:
  - All ongoing projects should file for a new NOI.
  - If an operator has had a history of issues with prior projects, then an individual permit will be required. This type of permit is more stringent in requirements than a general permit.
  - Notice of Change (NOC) is required to be submitted for making updates, changes, or corrections to an NOI or Waiver as required in the general permit.

Permit Requirements

- Steps to Take After Obtaining Permit: (con't)
  - (2) The temporary erosion control measures are selected, designed, and installed to achieve 70 percent vegetative coverage within three years.
  - Example: 70% requirement
  - 10 Acre Development with home site (2 acres of impervious cover) and asphalt road (1 acre of impervious cover).
  - Impervious Cover = 3 Acre/10 Acre = 30%
  - Pervious Cover = 100%-30% = 70%

Permit Requirements

- Steps to Take After Obtaining Permit: (con't)
  - (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. If temporary stabilization is not feasible, then the homebuilder may fulfill this requirement by retaining perimeter controls or other best management practices, and informing the homeowner of the need for removal of temporary controls and the establishment of final stabilization.

Permit Requirements

- Bexar County Storm Water Quality Program
  - TPDES General Permit TXR040031
    - Required for all County-initiated projects.
    - This permit requires storm water pollution prevention and control measures for discharges into small MS4s, monitoring and reporting, and periodic inspections.
  - Bexar County Storm Water Construction Permit
    - Permit application process will commence on or around January 1, 2010.
    - Submitted directly to Bexar County Environmental Services.
    - Purpose of this new permit is to review SWPPP (SW3P) of all development plans during County review periods to insure proper application and provide periodic inspections of construction sites once construction begins.
    - Application fee is $500.
    - Application and website information is currently being developed.
    - Dual Review of storm water measures by Bexar County and SAWS (via CoSA agreement) in all ETJ areas.

Permit Requirements

- Steps to Take After Obtaining Permit: (con't)
  - (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 surface water and areas that 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

Storm Water Management Plan

- Can be developed cooperatively – but tasks must be clearly defined (living document)
- Shall identify operator with control over plans (Owner)
- Shall identify operator with day-to-day construction activity controls (Contractor) and inspection reports shall be sent to swq@bexar.org (e-mail) or 335-6713 (fax)
- Must be accessible on-site for review
- Must be kept up to date with conditions at the site
- Contents:
  - Site Description
  - BMP List - A list of BMPs to be used on the site and the general sequence for when they will be used
  - Structural Control Practices - Sediment basins are required on sites disturbing greater than 10 acres. Sediment basins ARE different from detention ponds.
  - Permanent Storm Water Controls - Describes control measures placed during construction that will control post construction storm water runoff
  - Other Controls - A list of control measures addressing non-sediment related construction site runoff issues (paints, solvents)

Storm Water Fee

Exhibit A

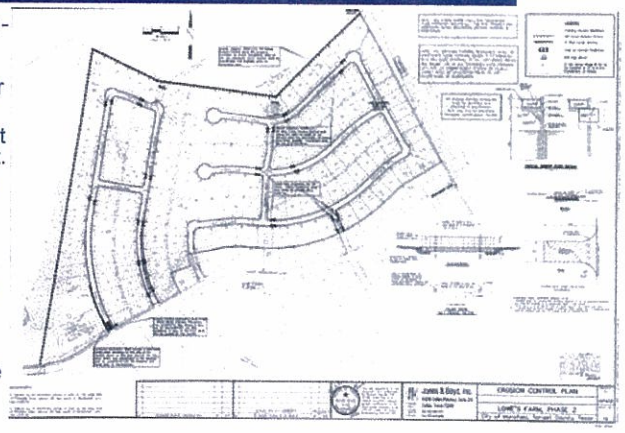
Federal Stormwater Program Cost for Bexar County, Texas				
Unincorporated Area of Bexar County Only		Square Footage Low	Square Footage High	Annual Collection Rate w/ Maintenance Program
Residential				
Tier 1	RT1	0	4,999	$ 9.95
Tier 2	RT2	5,000	-	$ 13.14
Multifamily				
Tier 1	MT1	0	21,999	$ 22.22
Tier 2	MT2	22,000	43,999	$ 69.20
Tier 3	MT3	44,000	131,999	$ 209.85
Tier 4	MT4	132,000	-	$ 998.58
Commercial/General				
Tier 1	CT1	0	21,999	$ 96.92
Tier 2	CT2	22,000	43,999	$ 154.90
Tier 3	CT3	44,000	86,999	$ 277.50
Tier 4	CT4	87,000	131,999	$ 576.00
Tier 5	CT5	132,000	-	$ 1,057.00
Site Development Permit Fee				(One Time Only)
Site Disturbance		Greater than 1 Acre		$ 500.00

Storm Water Management Plan

- Contents: (con't)
  - Federal, State and Local Plans - required to be in compliance with State, Federal and Local erosion and sediment control plans.
  - Maintenance Schedule - All BMPs require maintenance
  - Inspections - Must be performed either a) once every 7 days, regardless of precipitation OR b) once every 14 days AND after every ½" or greater rainfall event
  - Must be performed by a "qualified" individual
  - A report for inspections must be filed with SWPPP
  - Deficiencies noted should be corrected within 7 days
  - Must identify any incidents of noncompliance
  - Once site is stabilized, must be inspected once every month until NOT has been filed

Storm Water Pollution Prevention Plan (SW3P)

- SW3P consists 1-2 sheets with location and design criteria for (BMPs).
- Primarily a permit review document.
- Changes should be made as on the ground conditions change.
- Includes a list of all potential pollutants and measures to reduce discharge of pollutants.



Site Inspections

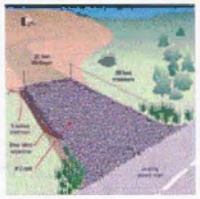
- Temporary rock berms provide screening of sediment along drainage channels.

- Soil stockpiles should be placed away from critical areas where sediment might be transported

Site Inspections

- Preventing erosion by establishing vegetation (temporary/permanent)

- Construction Entrance/Exits prevents soil tracking from construction sites onto our public streets and storm drains.



Failure to Comply

- Notice of Violation (NOV)
  - Based on inspection
  - Issued to operator (contractor) and owner
- Corrective Action
  - If NOV violates Illicit Discharge Detection and Elimination, then owner/operator has 5 days to remedy violation or Stop Work Order will be issued.
  - If NOV violates Construction Permitting and inspection, then owner/operator has 24 hours to remedy violation or Stop Work Order will be issued
  - If NOV violates Post Construction Strom Water Management, then owner/operator has 10 days to remedy violation.
- Civil Enforcement Action
  - District Attorney will take appropriate steps to remedy the violation to include:
    - Filing of suit for civil penalties up to $1,000 per day per violation.
    - Each day is considered a separate violation.

Site Inspections

- Strom Drain Inlet Protection helps screen sediment before runoff enters storm system.

- Silt Fencing limits extent of disturbed construction area and provides temporary sediment control.

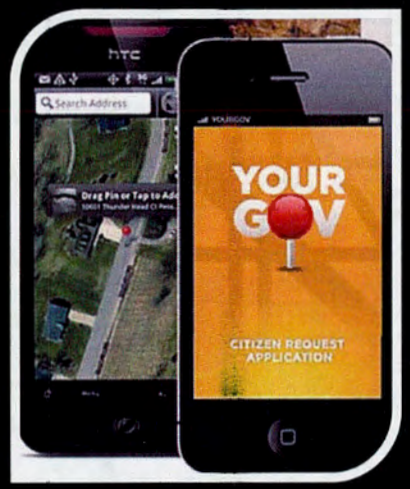
Contact us

- Bexar County Storm Water Quality Program
  - Website: http://www.co.bexar.tx.us/bcinf/default_Stormwater.asp
  - Email concerns to: swq@bexar.org
  - Staff:
    - Andrew Winter, Environmental Engineer, 335-6487
    - Erin Lowe, Storm Water Quality Engineer Assistant, 335-6664
    - John Jordan, Storm Water Quality Inspector

Contact us

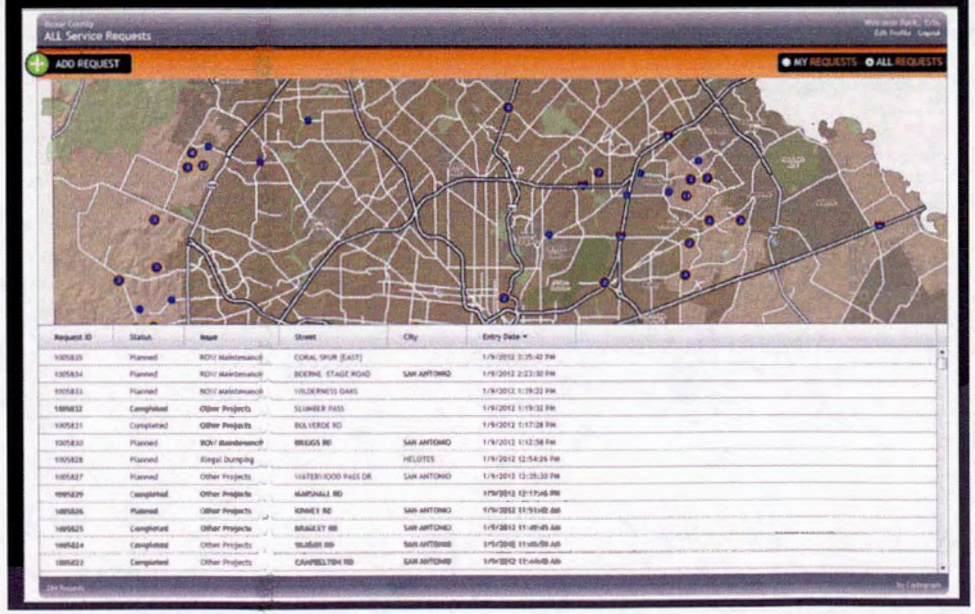
- TCEQ Storm Water Permits for Construction
  - Website: http://www.tceq.state.tx.us/nav/permits/sw_permits.html or http://www.tceq.state.tx.us/permitting/water_quality/stormwater/TXR15whattodo.html
  - Email concerns to: ac@tceq.state.tx.us
  - Phone: 512/239-4671
  - Mailing address:
    Water Quality Division MC-148
    Texas Commission on Environmental Quality
    PO Box 13087
    Austin TX 78711-3087

iPhone & Android App



Cartegraph™

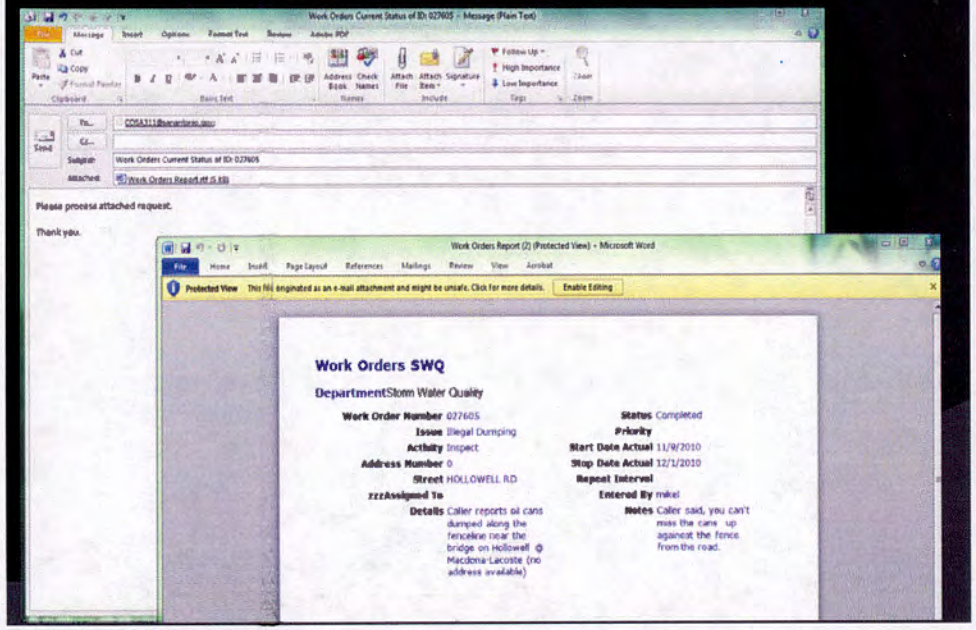
Web Portal



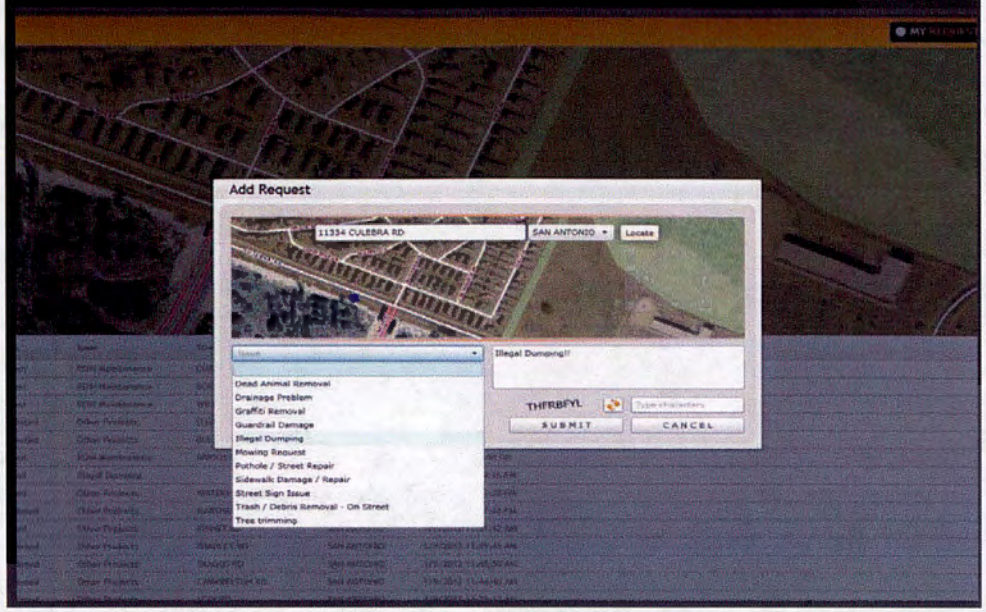
Engaging Citizens

- iPhone/Android App
  - Send requests from anywhere in County
  - Geo coded location
- Web portal
  - http://inf.bexar.org/yourgov/yourgov.aspx
  - Submit requests
  - Keep updated on status of request

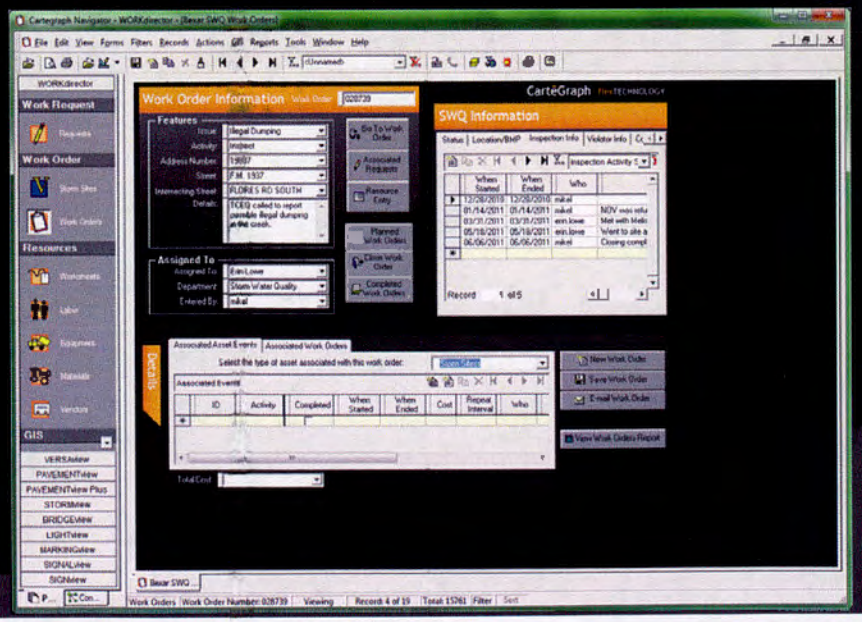
Not in the County, That's ok



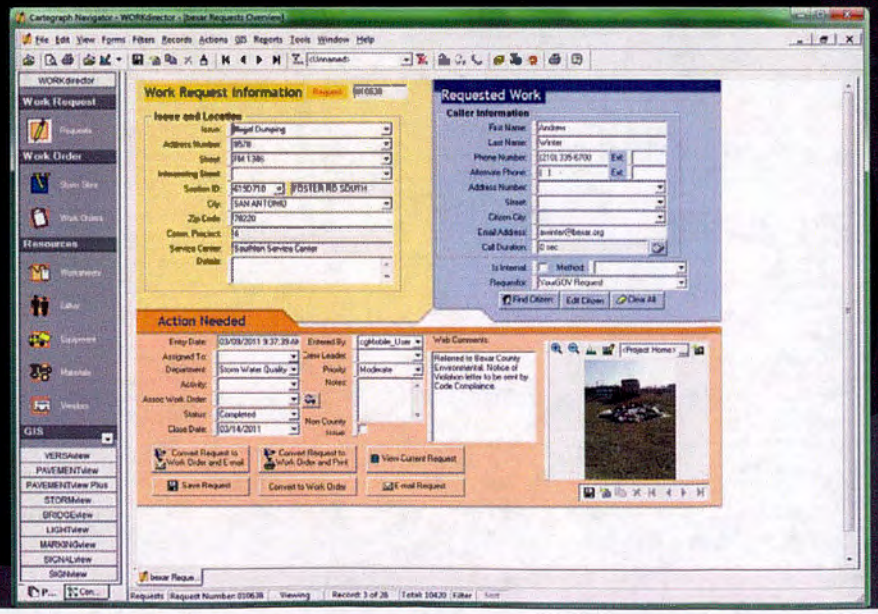
Web Portal



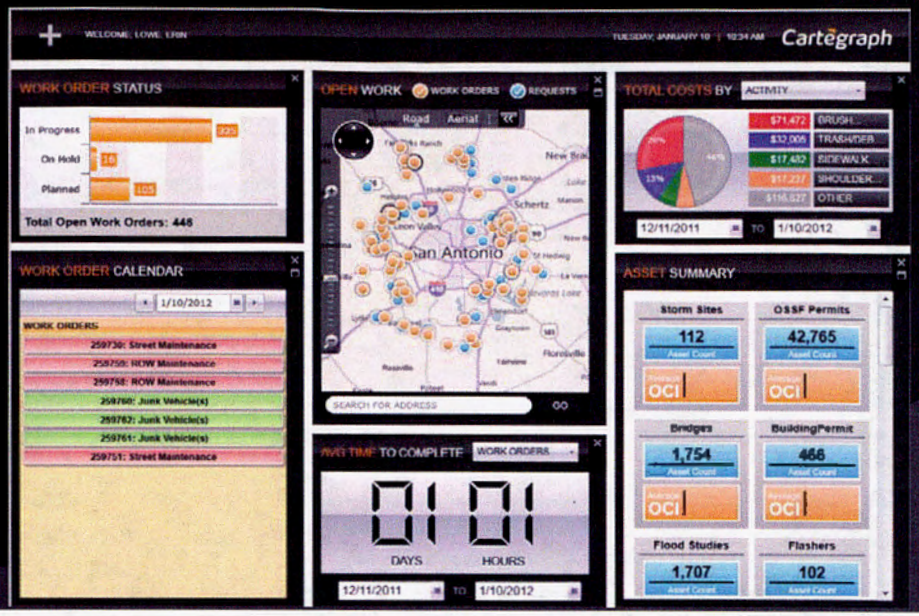
Work Orders



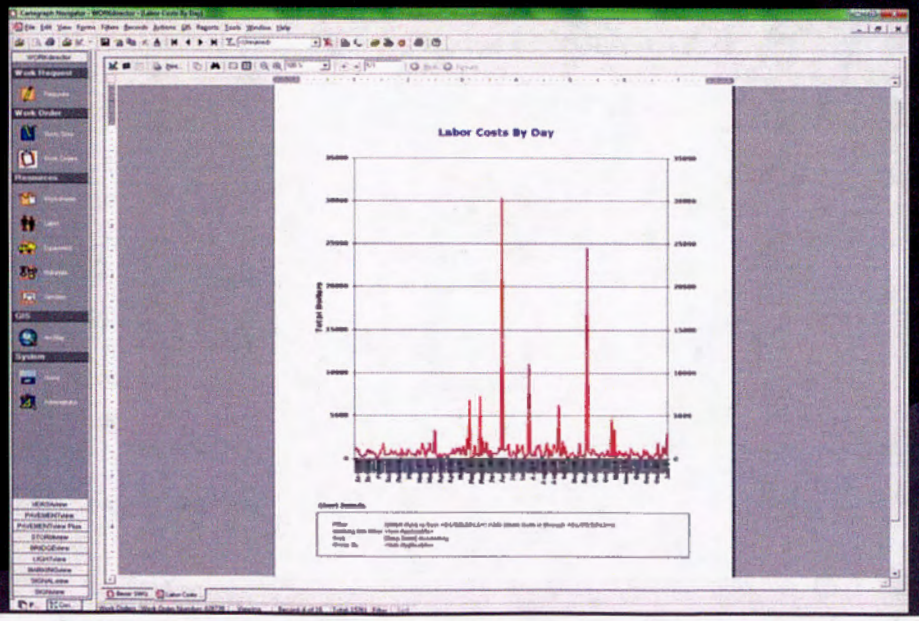
Requests



Work Order Status



Reports



What is Phase II

- Any MS4 not already covered by Phase 1 program
  - Large to medium MS4s: Population > 100,000
- Can include federally-owned systems
  - Military Bases
- Located in "urbanized areas" (UA)
  - Adjacent to densely settled surrounding (urban fringe)
  - Residential population of at least 50,000
  - Overall population density of at least 1,000 people/ sq. mi.

Implementing NPDES Phase II Permit

ERIN LOWE, E.I.T.

What is Phase II

BEXAR COUNTY

MS4 JURISDICTION

- Dark Tan = City of SA
- Light Tan = Municipalities
- Beige = Unincorporated Bexar County

What is a Phase II MS4

Requirements of Phase II

- 6 Minimum Control Measures (MCMs)
  - Public Education and Outreach
  - Public Participation/ Involvement
  - Illicit Discharge Detection and Elimination
  - Construction Site Runoff Control
  - Post-Construction Runoff Control
  - Pubic Prevention/Good Housekeeping

Requirements of Phase II

Implementation of Phase II

Requirements of Phase II

- Reduce the discharge of pollutants to the "maximum extent practicable" (MEP)
- Protect water quality
- Satisfy the appropriate water quality requirements of the Clean Water Act

Implementation of Phase II

- Public Education and Outreach
  - Annual SWQ training of BC employees
  - Presentation at public events
  - SWQ flyer, illegal dumping flyer
    - ISSUES: Dump Your Junk, cooperation, post office
  - Channel 21 educational content
  - Published website with educational content

Implementation of Phase II

FUNDING

- Storm Water Fee
- Only unincorporated area
- Billed through tax bill

ISSUES

- Some residents don't receive a tax bill

Federal Stormwater Program Cost for Bexar County, Texas				
Unincorporated Area of Bexar County Only		Square Footage Lo	Square Footage High	Annual Collection Rate w/ Maintenance Program
Residential				
Tier 1	RT1	0	4,999	$ 9.95
Tier 2	RT2	5,000	+	$ 13.14
Multifamily				
Tier 1	MT1	0	21,999	$ 22.22
Tier 2	MT2	22,000	43,999	$ 69.20
Tier 3	MT3	44,000	131,999	$ 209.85
Tier 4	MT4	132,000	+	$ 998.56
Commercial/General				
Tier 1	CT1	0	21,999	$ 58.62
Tier 2	CT2	22,000	43,999	$ 154.90
Tier 3	CT3	44,000	86,999	$ 277.60
Tier 4	CT4	87,000	131,999	$ 478.46
Tier 5	CT5	132,000	+	$ 1,057.09
Site Development Permit Fee				(One Time Only)
Site Disturbance		Greater than 1 Acre		$ 500.00

Implementation of Phase II

- Public Participation/ Involvement
  - Comply with applicable State, Tribal, and local public notice requirements

Implementation of Phase II

- Public Education and Outreach
  - Implement a public education program to distribute educational materials to the community, or conduct equivalent outreach activities about the impacts of stormwater discharges on local water bodies and the steps that can be taken to reduce stormwater pollution

Implementation of Phase II

- Illicit Discharge Detection and Elimination
  - Hot line (335-6800)
    - ISSUES: Receiving toll free calls (collection agency)
  - OSSF inspections
  - Litter and nuisance abatement
  - Dump Your Junk Program
    - ISSUES: Cooperation, coordination, post office
  - HHW Program
  - Storm sewer maps
  - Inspections of MS4 and monitor water quality
    - ISSUES: Field staff size, equipment

Implementation of Phase II

- Public Participation/ Involvement
  - Annual report to Commissioners' Court
  - Attend illegal dumping task force and various other inter-agency meetings and events
  - Neighborhood cleanup events

Implementation of Phase II

- Construction Site Runoff
  - Have an ordinance or other regulatory mechanism requiring the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites
  - Have procedures for site plan review of construction plans that consider potential water quality impacts
  - Have procedures for site inspection and enforcement of controls measures
  - Have sanctions to ensure compliance
  - Establish procedures for the receipt and consideration of information submitted by the public

Implementation of Phase II

- Illicit Discharge Detection and Elimination
  - A storm sewer system map, showing the location of all outfalls and the names and location of all waters of the U.S. that receive discharges from those outfalls
  - Through an ordinance or other regulatory mechanism, a prohibition (to the extent allowable under State, Tribal, or local law) on non-stormwater discharges into the MS4, and appropriate enforcement procedures and actions
  - A plan to detect and address non-stormwater discharges, including illegal dumping, into the MS4
  - The education of public employees, businesses, and the general public about the hazards associated witb illegal discharges and improper disposal of waste

Implementation of Phase II

- Post-Construction Runoff
  - Maintenance of regional basins
  - Inspection of storm water basins
    - ISSUES: Field staff size
  - Adopt CoSA criteria manual for SWQ in new development
  - Long term operations and maintenance for Permanent BMPs

Implementation of Phase II

- Construction Site Runoff
  - Staff training
  - Driveway and utility site inspections
  - Internet service request forms - Cartegraph (http://inf.bexar.org/yourgov/yourgov.aspx)
    - ISSUES: New software
  - Erosion and sediment and onsite waste control regulation
    - ISSUES: Permit (living document)
  - Plan review and approval procedures
  - Site inspections
    - ISSUES: Field staff size

YOUR GOV
Bexar County

Implementation of Phase II

- Good Housekeeping
  - Develop and implement an operation and maintenance program with the ultimate goal of preventing or reducing pollutant runoff from municipal operations into the storm sewer system
  - Include employee training on how to incorporate pollution prevention/ good housekeeping techniques into municipal operations such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. To minimize duplication of effort and conserve resources, the MS4 operator can use training materials that are available from EPA, their State or Tribe or relevant organizations.

Implementation of Phase II

- Post-Construction Runoff
  - Develop and implement strategies which include a combination of structural and/or non-structural BMPs
  - Have an ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls to the extent allowable under State, Tribal or local law.
  - Ensure adequate long-term operation and maintenance of controls

Contact

Erin M. Lowe, E.I.T.
Bexar County Storm Water Quality Engineering Assistant
233 N. Pecos, Ste. 420
San Antonio, TX 78207
Work: 210-335-6663
Cell: 210-267-7141

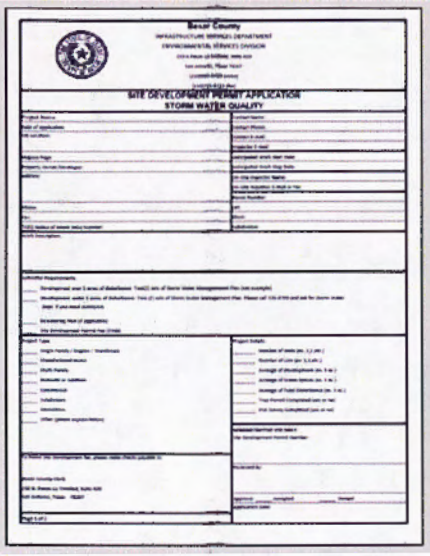
Implementation of Phase II

- Good Housekeeping
  - Pesticide/herbicide management
  - Spill response programs/training/kits
  - Leaf and brush pick-up
  - Fleet maintenance program

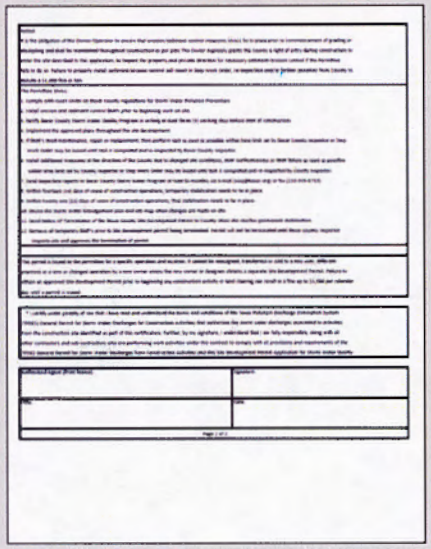
Summary

- MCM Implementation
  - Singular programs which fulfill multiple MCMs
  - Annual programs
- Issues
  - Field Staff Size

APPLICATION


Bexar County
INFRASTRUCTURE SERVICES DEPARTMENT
ENVIRONMENTAL SERVICES DIVISION

SITE DEVELOPMENT PERMIT APPLICATION
STORM WATER QUALITY



BEXAR COUNTY SITE DEVELOPMENT PERMIT

ERIN M. LOWE, E.I.T., CESSWI-IT

APPLICATION

- **Fill out as much as possible**
  - Contact name/ email/ phone
  - Inspector name/ email
  - Work description
- **Sign back page**
- **$500 check**
- **Permittee Responsibilities**
  - Notify BC 3 days before construction.
  - Send NOT when construction is completed.
  - Send inspection reports at least bi-monthly.

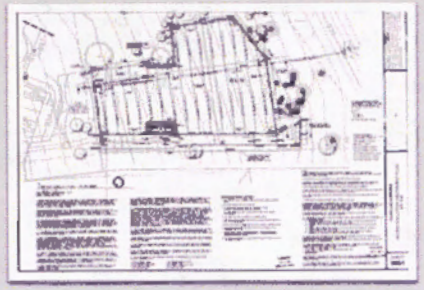
SITE DEVELOPMENT PERMIT

- **When is the permit required?**
  - Disturbances of over 1 acre.
  - Includes common plans of development.
  - Submitted for platting after February 2010; otherwise you are grandfathered in.
- **Does a Building Permit Authorization (BPA) require a Site Development Permit?**
  - Yes; unless you are grandfathered in.

QUESTIONS

SUBMITTALS

- **Copy of SWPPP**
  - Show concrete washout; details show 10 mil lining
  - Have copy of NOI, site notices, etc.
  - Engineers Seal
  - Approximate slopes and flow arrows



CONTACTS

Storm Water Quality Engineering Assistant
Erin Lowe, E.I.T., CESSWI-IT
Erin.lowe@bexar.org
Office: 335-6663
Cell: 267-7141

Chief Storm Water Quality Inspector
John Jordan, CESSWI-IT
John.jordan@bexar.org
Office: 335-6741
Cell: 275-4891

REVIEW PROCESS

- **Review will not begin until all submittals are received.**
  - Application, SWPPP, Check
- **Time line**
  - Initial Review: 7 business days from date received (typical)
  - Second Review: 7 business days from date received
- **Documents**
  - Letter designating permit number and giving approval
  - Permit application signed by P.E. with permit number
    - Posted at site
  - SWPPP checklist outlining review

Erosion Control BMPs

Seeding/Matting

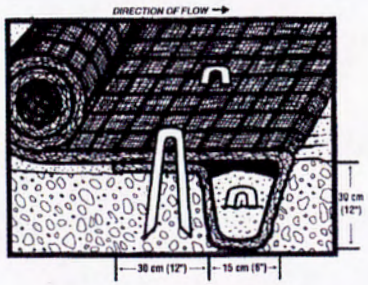
Gabions

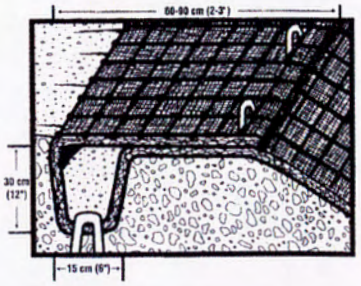
STORM WATER POLLUTION PREVENTION FOR CONSTRUCTION SITES

Erin Lowe, E.I.T.
John Jordan

Erosion Control

- Seeding/Matting
  - Mainly used on steep slopes or in channels
  - Anchoring is extremely important.





Types of BMPs

- **Erosion Control** – The primary goal is to help maintain a stable ground surface and prevent loss of valuable topsoil.
- **Sediment Control** – The primary goal is to contain the sediment transported by runoff by allowing particles to settle out. BMPs act NOT as filters but as "temporary dams".
- **Materials and Waste Management** – The primary goal is to prevent or reduce the discharge of pollutants to the stormwater.

Erosion Control

- Gabion
  - Pre made wire mesh containers which are filled with

    5 inch to 8 inch rock.
  - Can be used as channel linings, soil stabilization, drop structures and weirs, and gravity walls.

Erosion Control

- Seeding/Matting

Erosion Control

- Gabion

Erosion Control

- Seeding/Matting - "What **NOT** to do"

Sediment Control

- Silt Fencing

Sediment Control BMPs

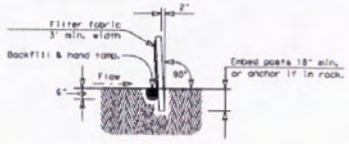
Silt Fencing
Construction Entrance/Exit
Inlet Protection
Rock Berms

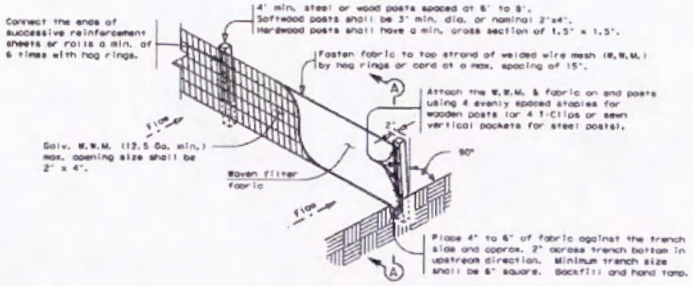
Sediment Control

- Silt Fencing - "What **NOT** to do"

Sediment Control

- Silt Fencing
  - Min. height of 24 in.
  - Min. depth of 6 in.
  - Max post spacing of 6 ft
  - Fabric should be trenched



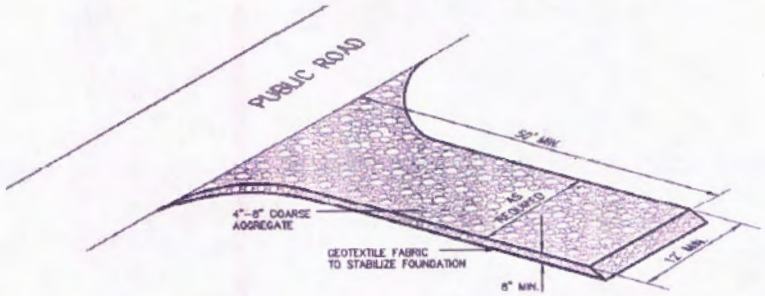


Sediment Control

- Construction Entrance/Exit - "What **NOT** to do"

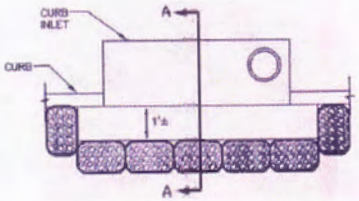
Sediment Control

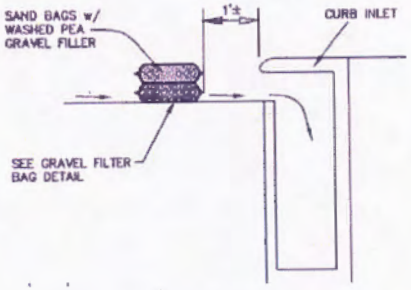
- Construction Entrance/Exit
  - Min. length 50 feet
  - Min. width 14 feet
  - 8 inch min. depth
  - 4 inch to 8 inch coarse aggregate rock



Sediment Control

- Inlet Protection
  - Many types
  - Should be installed according to manufacturer
  - High maintenance



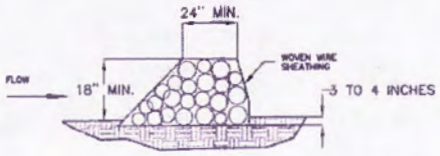


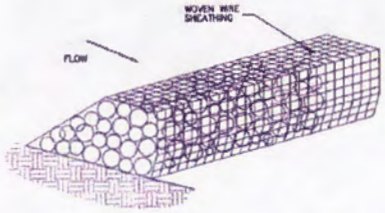
Sediment Control

- Construction Entrance/Exit

Sediment Control

- Rock Berm
  - 20 gauge galvanized woven wire sheathing
  - 3 in. to 5 in. rock (5 in. to 8 in. for high velocities)
  - Min. top width of 2 ft. and min. height of 18 in.
  - Placed 3 in. to 4 in. into the ground





Sediment Control

- Inlet Protection

Sediment Control

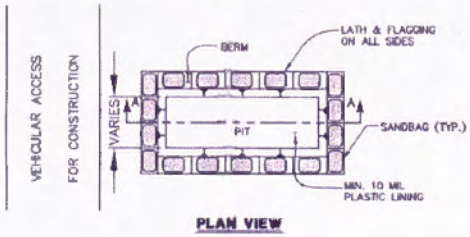
- Rock Berm

Sediment Control

- Inlet Protection - "What **NOT** to do"

Materials and Waste Management

- Concrete Washout Pit
  - Temporary pit at least 50 ft. from sensitive features
  - Pit lining have a min. 10 mil in polyethylene sheeting
  - Should be bermed on 3 sides
  - Stabilized entrance



Sediment Control

- Rock Berm - "What **NOT** to do"

Materials and Waste Management

- Concrete Washout Pit

Materials and Waste Management

Concrete Washout Pit

Contact Info

- **Storm Water Department**
  - Andrew Winter, P.E.
    - 210-335-6487
  - Erin Lowe, E.I.T., CESSWI-IT
    - 210-335-6663
  - John Jordan
    - 210-335-6741

Materials and Waste Management

- Concrete Washout Pit - "What **NOT** to do"

Almost Done…

- All BMPs mentioned are TEMPORARY except for gabions which are PERMANENT
- All BMPs require regular maintenance
- All BMPs require inspection after rain events
- All BMPs are important to keeping our streams, rivers, and lakes clean.

Storm Water Quality

Everything you didn't want to know

Storm Water Quality VS OSSF

Erin M. Lowe, E.I.T.

What is Storm Water?

- Storm Water (construction) – Storm water runoff (rainfall, snow melt, or surface runoff) from a construction activity where soil disturbing activities (including clearing, grading, excavating) are greater than 1 acre.

Contents

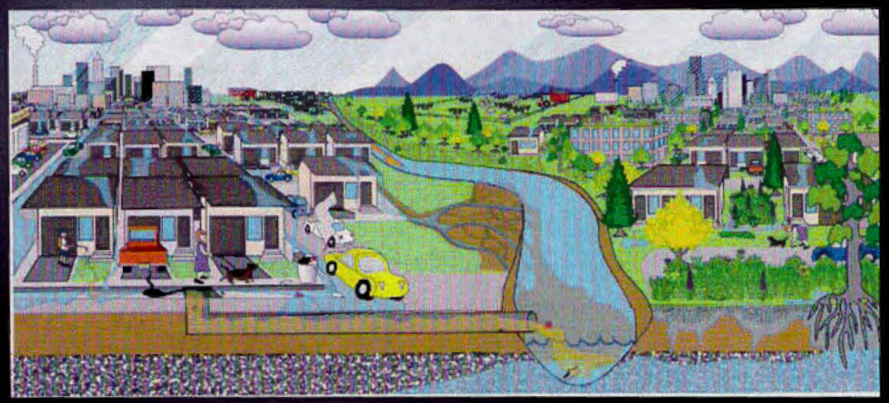
- Storm Water
  - What is storm water
  - Why is it Important?
  - What the EPA has to say…
  - Permitting
  - Common BMPs
  - What happens if you don't follow the rules?
- OSSF
  - Similar Regulations
  - How does it apply
  - Why is it Important?
  - What the EPA has to say…
- Summary
  - Questions

Permitting

- TCEQ
  - TXR150000
  - Construction Site Notices
- Only required if disturbance is greater than 1 acre
  - Large or Small Construction Site Notice (free; post on site)
  - Check if other entities (cities/counties) require permits
- If applicable, permittee must
  - Keep all sediment on site.
  - If it leaves, must clean
  - Keep pollution from entering waters of U.S.
- Even if under an acre, BMPs still required if needed.

Why is it Important?

- Rain water goes untreated into our MS4, Rivers, Lakes, and Streams.



Common BMPs

- Best Management Practices - 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 construction site runoff, spills or leaks, waste disposal, or drainage from raw material storage areas.

What the EPA has to say...

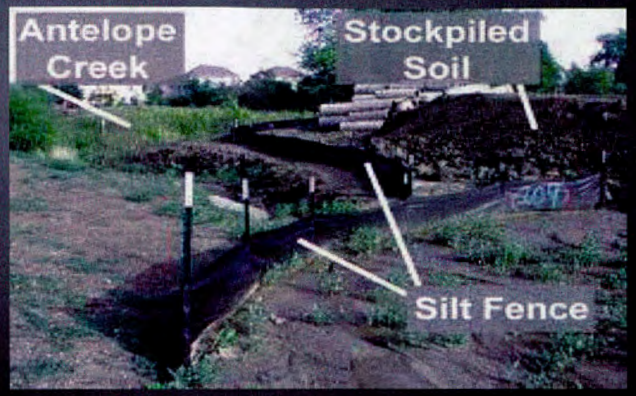
- Clean Water Act (1972) requires all facilities that discharge pollutants from any point source into waters of the US or MS4s to obtain a NPDES permit.
  - TCEQ – TPDES Permit TXR150000 (> 5 acre)
    - Covers construction and non-construction discharges
    - Does NOT cover industrial
    - Does NOT cover sewage
  - Bexar County Site Development Permit (>1acre)

Common BMPs

- Street Sweeping
- Limit tracking off site

Common BMPs

- Material storage
  - Cover with a tarp
  - Surround with silt fencing

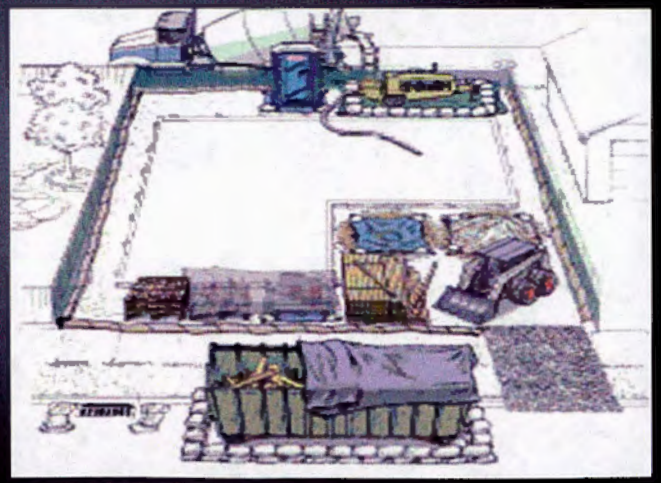


What happens if you don't follow the rules?

- Texas Water Code
  - Sec. 7.145 (Knowingly discharging)
    - Fine $1,000 - $100,000 or 5 yrs.
  - Sec. 7.147 (Unknowingly discharging)
    - Fine $1,000 - $50,000 or 1 yr.
  - Sec. 7.148 (Pollution Control: BMP)
    - Fine $1,000 - $50,000 or 1 yr.
  - Sec. 7.152 (Knowingly Endangering)
    - Fine $1,000 - $250,000 or 10 yrs.
  - Sec. 7.176 (Used Oil)
    - Fine $1,000 - $50,000 or 5 yrs.

Common BMPs

- Vehicle Maintenance and Storage areas



Similar Regulations

OSSF		STORMWATER QUALITY
Allowed in regulated floodways. Special planning required for 100 yr floodplain to prove won't damage or release contaminants during flooding. Also, eliminate tank floating.	FLOODPLAIN	All disturbance requires special planning and permitting, particularly concrete washout pits, BMP locations, and material storage.
Required over disposal areas.	VEGETATION	70% stabilization required at end of construction
Drip Irrigation; Surface Application; Lined Beds; Soil Absorption & Unlined Beds; Tanks; 50 ft Separation Distance. Sewer Pipe 20 ft Seperation Distance	WELLS	Considered a Special Feature. Separation Distance of 50 ft from concrete washout pits, material storage, and chemical storage.
Drainfield not allowed in highly permiable soils; Separation distance of 50 ft for tanks; Separtion distance of 150 ft for soil absorbtion.	AQUIFERS	Special planning and specific BMPs required. Must keep 50 ft separation distance from aquifer features. Some features could stop construction.
Best between 6% and 30%	SLOPES	33% when typical BMPs on site have issues dealing with runoff and erosion.

What happens if you don't follow the rules?

- TCEQ
  - Title 30 TAC Ch. 213
    - Up to $1000/ day/ violation
    - Max $10,000/ day
- Texas Health and Safety Code
  - Ch. 365.012 (Illegal Dumping)
    - Class C to Class A misdemeanor depending on weight or volume
    - Up to $500 or up to $4,000/ or 1 yr.

How does it apply...

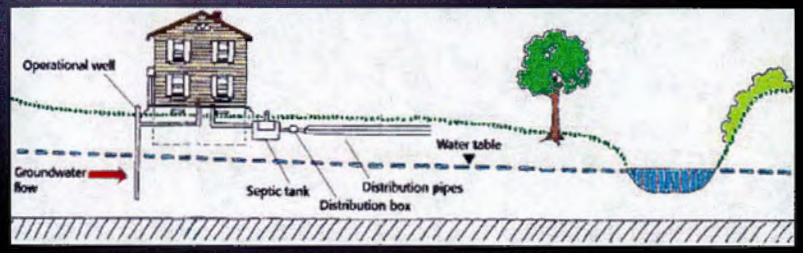
- Most of what is covered under OSSF regulations is covered under storm water regulations
- Mainly needed for
  - Extremely large commercial sites
  - Construction over aquifer
  - Construction in floodplain
- Monitor site near water bodies
- Specific offsets for Edward's Aquifer special features

OSSF

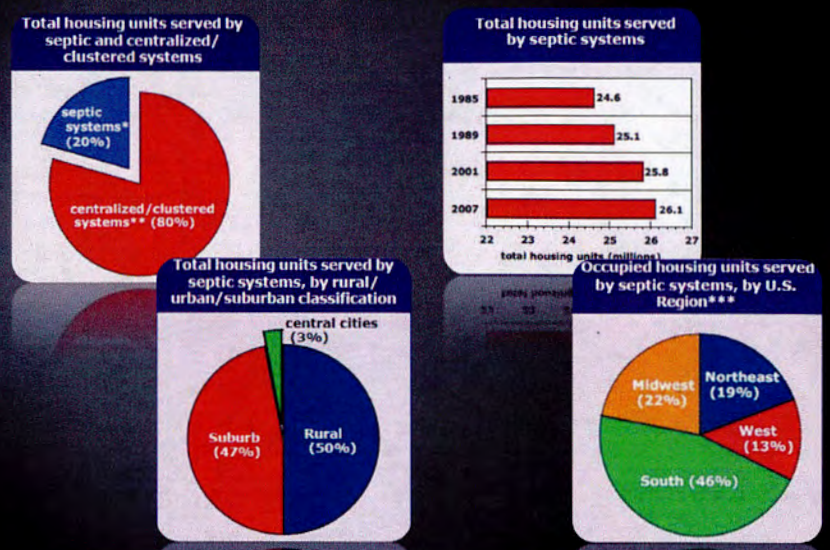
Everything you already knew

What the EPA has to say...

- TCEQ
  - Licensing for installers
  - Licensing for inspectors
- Bexar County
  - OSSF Permit



Why is it Important?



Summary

- Permits and site notices only needed if greater than 1 acre of disturbance
- Even if under 1 acre, BMPs may still be required
- When doing site assessment:
  - Find best location for stock piles
  - Find best location for vehicle storage
  - Is disturbance over 1 acre?
  - Will BMPs be needed due to location/ vicinity of water body?

What the EPA has to say...

- 1989 - Regulations start
- 1997- Integral component of our nation's wastewater infrastructure and can protect public health and water quality
- 2005 - EPA created a partnership through a Memorandum of Understanding (MOU) with public and private sector organizations to improve decentralized wastewater management in the U.S.

Summary

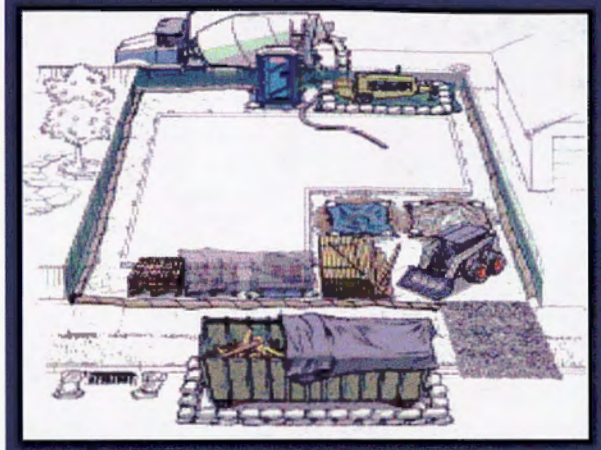
- Follow the Rules = Don't get in trouble

- Don't Follow the Rules = Get in trouble

Questions?

Discharges on Construction Sites

TPDES Regulations Every Inspector Should Know



Texas Pollutant Discharge Elimination System

What Is Considered Construction?

Construction

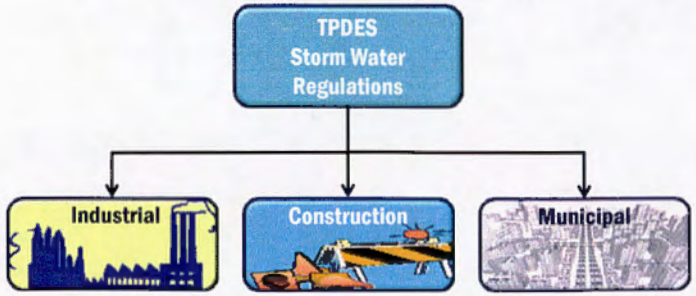
- Clearing
- Grading
- Excavating
- Any land disturbance greater than 1 acre

NOT Construction

- Routine Grading of existing roads
- Asphalt overlays of existing roads
- Routine clearing and maintenance of existing right-of-ways

What is TPDES?

- Regulatory program through TCEQ to control discharges of pallutants to surface waters.
- Texas assumed the National Pollutant Discharge Elimination System from the EPA Sept. 14, 1998



Who Applies for Site Notices?

Operators

- **Primary Operator**
  - Operational control over construction plans and specs
  - Operational control SW3P
- **Secondary Operator**
  - Operational control is limited
  - Can be primary operator if there are NO other operators at site.

What is needed for Construction?

Small Site (< 5 acres*)

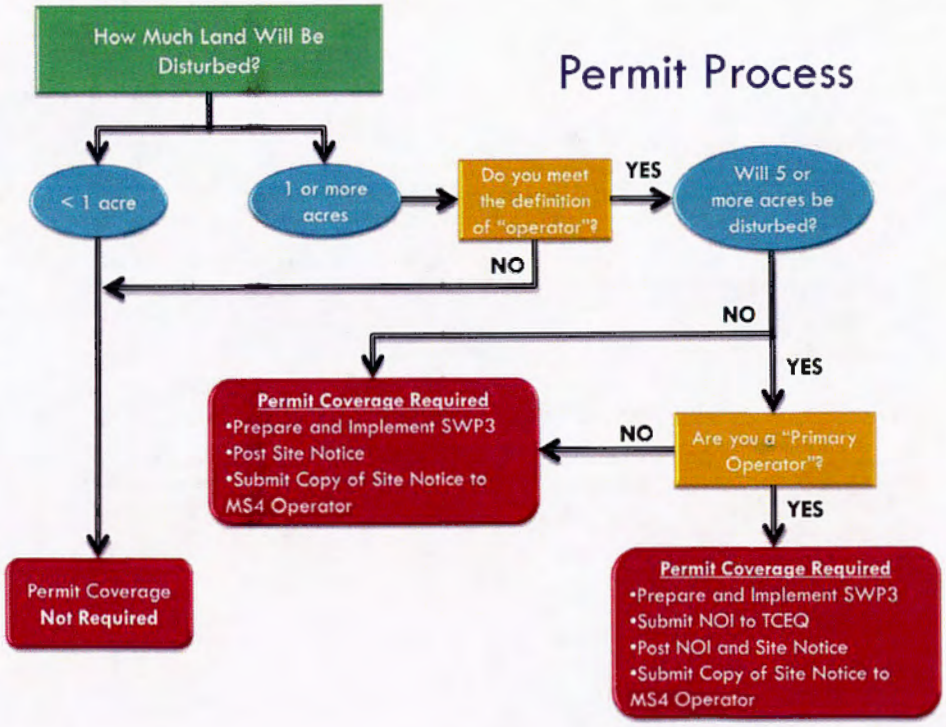
- ☐ Small Construction Site Notice posted at site
- ☐ Site Notice to MS4 Operator
- ☐ SWP3
- ☐ BC Site Development Permit

Large Site (> 5 acres)

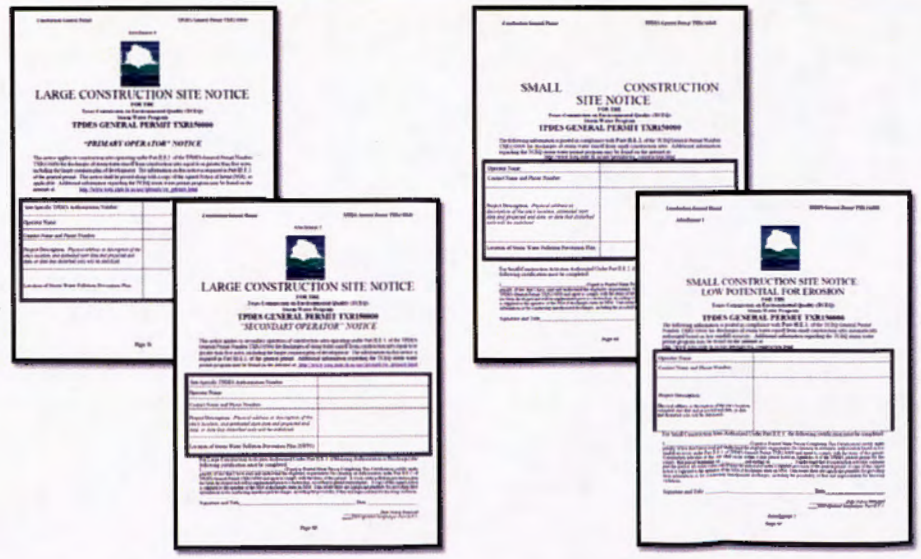
- ☐ Large Construction Site Notice posted at site
- ☐ Site Notice to MS4 Operator
- ☐ SWP3
- ☐ Notice of Intent from TCEQ
- ☐ Post NOI at site
- ☐ BC Site Development Permit

* Site has to be a minimum of **1 acre** for a Small Construction Site Notice to be required

Permit Process



Site Notices



Notice of Termination (NOT)

Final Stabilization

- All soil disturbing activities have completed
- At least **70%** of the native background vegetative cover for all unpaved areas.

Transfer of Operational Control

- Notice of Change (NOC)

Operator obtained alternative authorization

- Individual Permit

Authorized Discharges

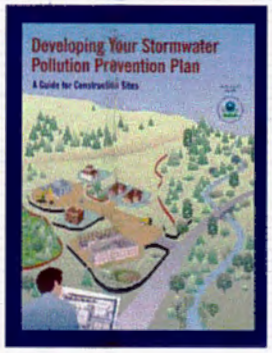
Drainage, release, or disposal of pollutants in storm water and certain non-storm water areas.

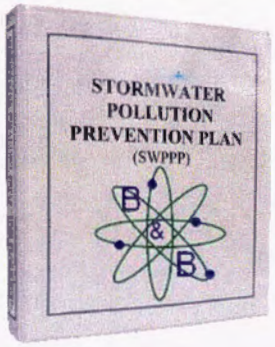
- Storm water from construction site and support activities
- Non-storm water runoff
  - Fire fighting activities
  - Dust control
  - A/C condensate
  - Potable water
  - Routine vehicle cleaning (NO soap)

SWPPP

Storm Water Pollution Prevention Plan

Responsibilities, Implementation & Compliance





Unauthorized Discharges

- Post construction discharges
- Discharges NOT composed entirely of storm water associated with construction activities
- Discharges that do NOT comply with Water Quality Standards
- Discharges into impaired receiving waters
- Discharges to the Edwards Aquifer Recharge Zone

Project Description

- Nature of activity, potential pollutants, construction schedule.
- Total # of acres of property, disturbance
- Data showing soil/quality of discharge
- Name receiving waters
- TPDES, NOI, Site Notice, Site Development Permit
- Detailed Site Map

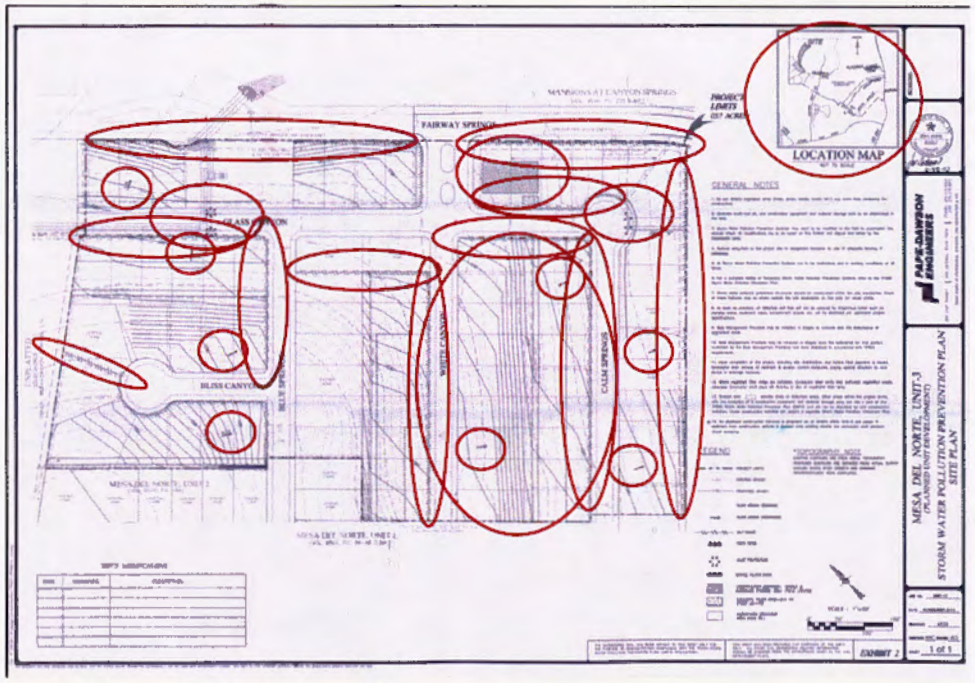
Responsibilities of Operator

Plan Review and Making Plans Available

- SWP3 must be on site
- SWP3 must be readily available for inspector and public

Revisions and Updates

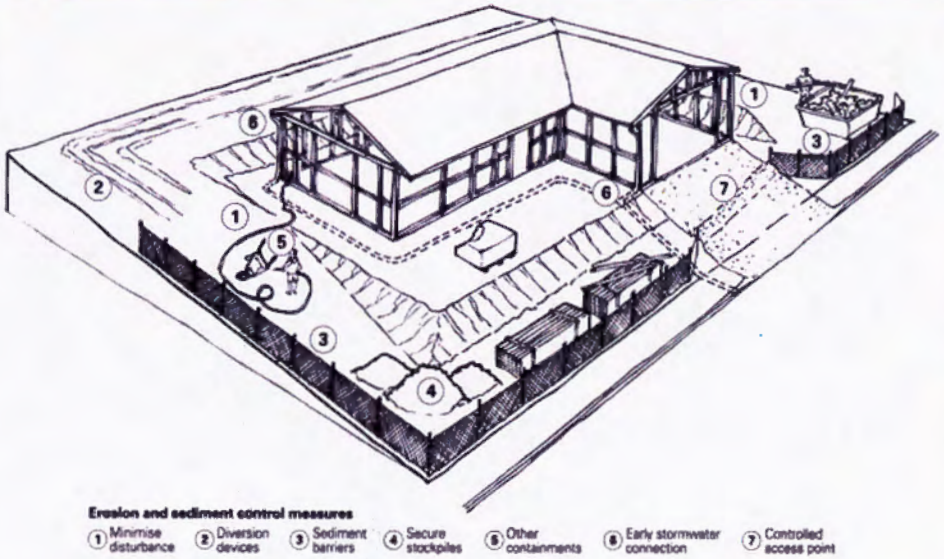
- Change in design, construction, operation
- Changing site conditions based on updates
- Results of inspections which indicate ineffectiveness



SWP3 Contents

- Project Description
- Description of Best Management Practices (BMPs)
- Description of Permanent Storm Water Controls
- Other Required Controls and BMPs
- Documentation of Compliance
- Maintenance and Inspections

Best Management Practices



Best Management Practices

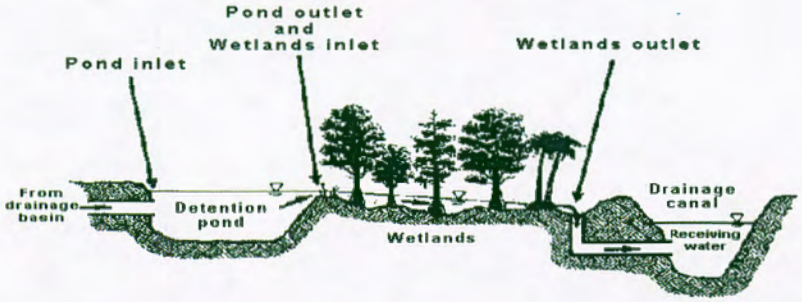
General Requirements
- Retain sediment on site
- Properly selected, installed, maintained
- Minimize offsite transport of litter, construction debris

Erosion Control and Stabilization
- Vegetation, mulch, buffer strips, dissipation devices
- Dates of major construction activities
- Initiated ASAP where activities have ceased

Sediment Control
- Sediment basin for drainage area >10 acres
- Perimeter controls at minimum: silt fencing, buffer strip
- Sediment traps for drainage area <10 acres

Permanent Storm Water Controls

- Description of any measures that will be installed to control pollutants in discharge for after construction MUST be included in SW3P
- Permittees are only responsible for the installation and maintenance prior to final stabilization



Best Management Practices

Maintenance

- Maintained in effective operating condition
- Replace or modify control if used incorrectly, performing inadequately, or damaged
- Sediment removed after control is at 50% capacity
- Sediment accumulations that escape site should be removed ASAP and before the next rain event

Other Required Controls and BMPs

- Minimize off site vehicle tracking of sediments and generation of dust
- List of construction waste materials expected to be stored on site and controls to be used to minimize discharges
- Velocity dissipation devices at outfalls discharge locations
- List potential pollutant sources and control measures to minimize discharges

Maintenance

Silt Fence Too Low

Sediment Captured Behind Fiber Roll

Nick Point and Sediment

Sediment Exceeding Silt Fence Limit

Documentation of Compliance

- SW3P is consistent with requirements by federal, state, local agencies
- SW3P updated as needed
- Prepare a Water Pollution Abatement Plan or Contributing Zone Plan if needed and have at site.

Concrete Washout Requirements

- Authorization is limited to the LAND disposal of wash out WATER
- Discharge to surface water is PROHIBITED
- Discharge shall not cause/contribute to groundwater contamination
- SWP3 shall include washout areas on a map
- Washout areas shall have structural controls to prevent direct discharge to surface waters
- In Recharge Zone, MUST have lining.

Inspection

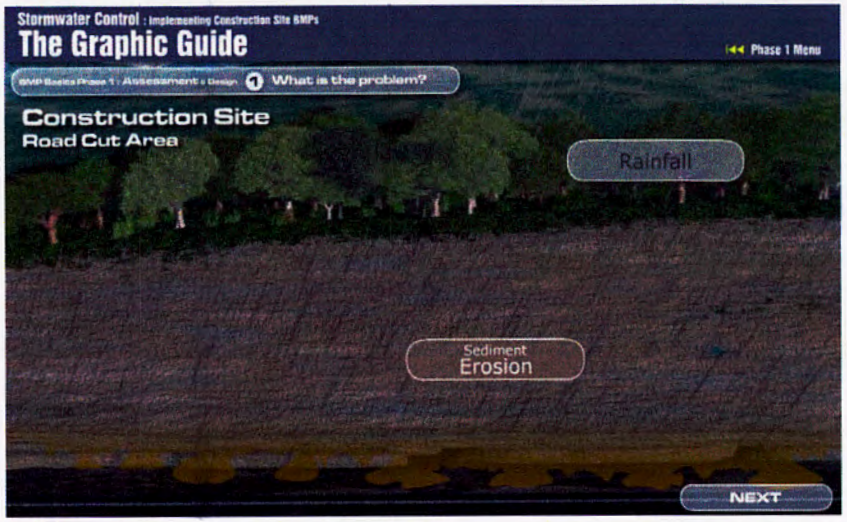
- Inspections MUST be conducted at least once every 14 calendar days and within 24 hrs of the end of a storm event of .05 inches or greater or;
- Inspections MUST occur at least once every 7 days on a specifically defined day, regardless of whether or not there has been rainfall

Concrete Washout

Inspection

- SW3P MUST be modified based on results of inspections
- A report summarizing the scope of inspection, dates of inspections, and major observations relating to the implementation of the SW3P MUST be made and retained.
- Actions taken as a result of inspections must be described within, and retained as a part of the SW3P

Rain Event



Summary

Permits

- NOI, Large Site Notice, Small Site Notice

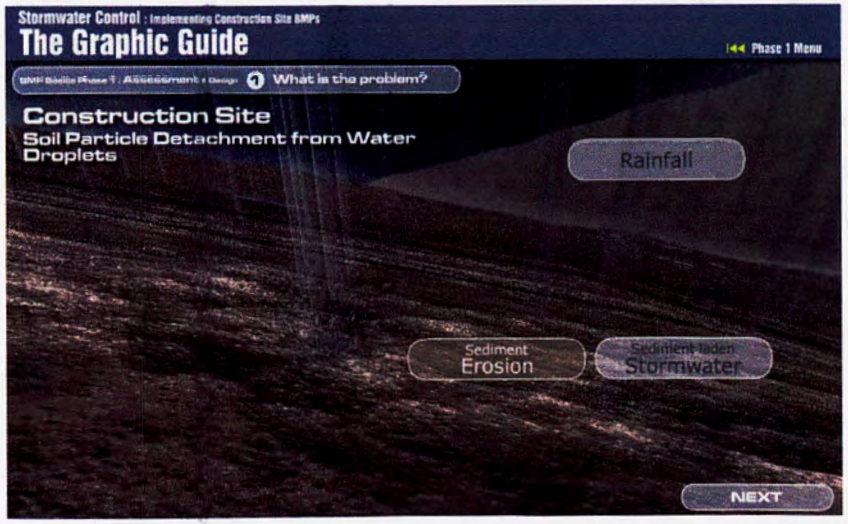
Discharges

- Authorized Discharges
- Unauthorized Discharges

SWPPP

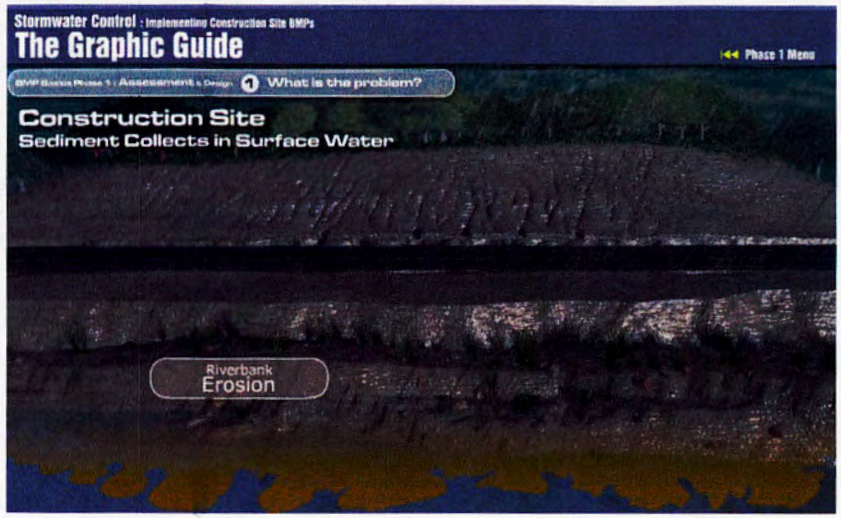
- Detailed Site Map
- BMP Installation, Maintenance, Inspection
- Concrete Washout Requirements

Storm Water Run-off



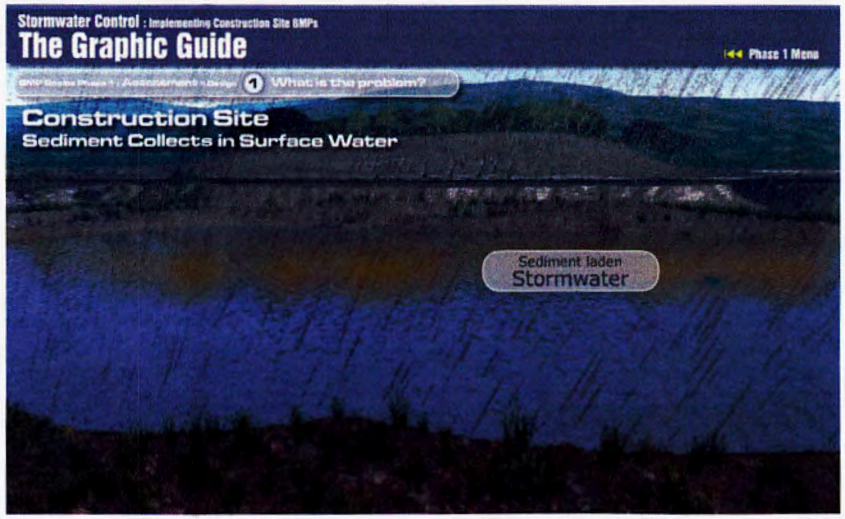
Initial Site

Erosion



Erosion

Discharge



Contaminated Storm Water

Contact Information

- Andrew Winter, P.E., 210-335-6700
- Erin Lowe, E.I.T., CESSWI-IT 210-335-6663
- John Jordan 210-335-6741
- Maricruz Perez 210-335-6651