

STORM WATER PUBLIC EDUCATION AND OUTREACH PLAN

Introduction

Ever since the City of Corpus Christ received its National Pollution Discharge Elimination System (NPDES) Permit in 1995, Storm Water and other departments have performed public education and outreach to improve water quality. The City's original Storm Water Management Plan described some of these activities. On August 11, 2008, the City received its new Texas Pollution Discharge Elimination System (TPDES) Permit. In order to maximize the flexibility of the new Storm Water Management Plan in regards to public education and outreach, staff decided to create a separate document: the "Storm Water Public Education and Outreach Plan". The function of this external document is to delineate a set of outreach programs performed or to be performed by the City without "freezing" those programs within the confines of the Storm Water Management Plan. By doing so, staff hope that it will be a simpler process to drop those outreach programs which have fulfilled their function or amend those which have not. It will be a simpler process, as well, to add new programs. The inherent ability to modify a document external to the Storm Water Management Plan gives the City the ability to respond more quickly to changes in the community and in regulation as well as budgetary considerations.

The "Storm Water Public Education and Outreach Plan" should be considered a "living document." That is, what is presented in Fiscal 2008-2009 captures focus topics that were identified via a telephone survey conducted by Texas A&M – Corpus Christi's Social Science Research Center (SSRC) of the College of Liberal Arts as well as the exigencies of an emerging storm water utility and a new Texas Pollution Discharge Elimination System (TPDES) Permit ("Permit"). Over the course of time, the focus topics in this Plan will change to deal with new areas of concern brought to light from subsequent community surveys as well as changes in Permit requirements or community situations.

This document is a tool to assist in developing the particulars for each targeted outreach effort. It is expected that each focus topic will take a period of time to a) develop the outreach materials and b) implement the outreach effort. This outreach effort should have a specific duration of activity, for example, six months, one year, two years, continuously, etc. At the end of the outreach period, an evaluation via survey or other methodology should take place to determine overall effectiveness of the program. The evaluation will determine whether additional modified efforts should take place or whether new focus topics should be addressed. Over time, the focus topics should become more and more specific to targeted audiences. Ultimately, the "Storm Water Public Education and Outreach Plan" will consist of focus topics directed towards service station operators, car wash owners, or other such very specific audiences and problems or issues related thereto. This will, of course, necessitate the use of surveys, inspections or other data-gathering tools in order to identify the issues.

Plan Organization

The "Storm Water Public Education and Outreach Plan" covers several topics. Each topic begins with a table which summarizes the driving force(s), goals, objectives and methods with which the objectives will be met. As this is a living document, the methods of achieving goals

may not represent everything that is actually done. However, they do provide a baseline of ideas for reaching the desired target audiences. As each focus topic is addressed by the Outreach and Education staff, the message(s) and distribution methods will be more fully fleshed out.

Following each summary table, information is provided which gives more insight both on what is driving the outreach and education Focus topic and how that program is to be implemented.

Finally, a copy of the 2008 Storm Water Survey instrument and survey results is provided. It is anticipated that the City of Corpus Christi Storm Water Survey will be performed approximately every five years. This will allow staff the ability to assess the effectiveness of ongoing outreach and education programs as well as to identify new areas of concern regarding non-point source pollution. It is important that specific questions in the 2008 survey which generate Focus topics be included each time the survey is performed so that trends in response can be determined.

FOCUS: TWO SEPARATE DRAINAGE SYSTEMS
Driving Force: In FY 09-10, the City will start charging a separate storm water utility fee to finance the City's Storm Water Management Program. Initial survey indicates more than half the population does not know that the storm water system is separate from wastewater drainage system or that storm water runoff is not treated.
Goal: Within one year of implementation, increase awareness by more than 75% of the population that there are two separate drainage systems and that storm water runoff is untreated.
Objective: Develop and implement a public education program about the two drainage systems.

Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation
Develop and implement a public education program about the two drainage systems.	Utility Customers	The storm water system is separate from the wastewater system and storm water is not treated.	Tri-fold brochure	Via utility bills	Storm Water Dept.	Post-program survey
	Viewing public		Power Point slide	Bulletin Board message – CCTV		
	Subscribers		1/4 page ad	Caller-Times		
	Public		Tri-fold brochure	City website		

FOCUS: TWO SEPARATE DRAINAGE SYSTEMS

Background

In a statistically valid telephone survey of Corpus Christi residents performed by SSRC in May 2008, 34.2% of the population thought the City's sanitary sewer system and storm water system flowed through the same pipe. Another 20.5% did not know whether or not this condition was true or refused to answer the question (2008 survey question #6). Additionally, nearly 31% of the population believes storm water runoff is treated or do not know if it is or not (2008 survey question #7). Given that potentially 54.7% of the Corpus Christi population does not know that storm water systems are separate from wastewater systems and that storm water runoff is untreated, one of the first steps in the Outreach Plan should be to educate the population on this regard. A person who thinks storm water is treated may behave differently than one who understands the significance of untreated storm water.

Simultaneous to the citizen survey, City Council approved an ordinance creating a storm water utility. Previous to this point, the Storm Water Department was part of the Water Fund. Effective with Fiscal Year 2008-2009, Storm Water had its own fund. Separate charges for storm water are expected to begin in August 2009. The Storm Water Department will be able to take advantage of heightened publicity during the charge development stage to further educate the population on the separate storm sewer system (MS4).

Goal

The goal of this outreach topic is to educate the population so that more than 75% know that the storm water system and the wastewater system are separate. Additionally, the populace will have a better understanding of the structure of the system and how it operates. General information regarding non-point source pollution and storm water runoff will be provided as well.

Objective

The objective of this Focus topic is to develop a comprehensive public education program regarding the storm water and wastewater systems, focusing on the MS4. The fundamental message is that the storm water system is separate from the wastewater system and that storm water is not treated.

Methodology

The message of this topic is that the storm water system is separate from the wastewater system and that storm water is not treated.

A multi-pronged approach to outreach on this Focus topic will be used. The components will include the following:

- **Target Audience:** Utility customers. Utility customers will receive a brochure with their bills in mid-Fiscal 2008-2009. This brochure will subsequently be available as part of the new-customer information packet at the City's Utility Business Office. This

brochure will also be available at Department presentations and exhibits. Duration: 1 month initial mailout, ongoing thereafter.

- **Target Audience:** Viewing public. A simple bulletin board message on the City's closed circuit TV (Channel 20) will be aired during Fiscal 2008-2009 and 2009-2010. Duration: 1 month, repeated a second year.
- **Target Audience:** Subscribers. An advertisement will be developed and published in the Corpus Christi Caller-Times during the latter half of Fiscal 2008-2009. This ad will be repeated every two years. Duration: published one day.
- **Target Audience:** On-line viewers. The brochure developed for utility customers will be posted on the City's website. Duration: ongoing.

Evaluation

A question regarding the separate systems will be added to the City of Corpus Christi Citizen Satisfaction Survey performed by SSRC. The results of this question will determine whether the outreach program in its entirety or in a modified state needs to be repeated.

FOCUS: STORM WATER UTILITY SERVICES
Driving Force: In FY 09-10, the City will start charging a separate storm water utility fee to finance the City's Storm Water Management Program. Initial survey indicates that half the population does not understand that they benefit every day from services delivered by the Storm Water Department.
Goal: Within one year of implementation, increase awareness by more than 75% of the population of the benefits of storm water services.
Objective: Develop and implement a public education program about the utility.

Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation
Develop and implement a public education program about the utility.	Utility Customers	You benefit every day from the storm water department's services.	Tri-fold brochure	Via utility bills	Storm Water Department	Post-program survey
	Viewing public		Informational short film	CCTV		
	Subscribers		1/4 page ad	Caller-Times		
	Public		Tri-fold brochure	City website		

FOCUS: STORM WATER UTILITY SERVICES

Background

During the May 2008 Storm Water Survey fully 67.3% of the respondents said they had not personally benefited from storm water services (2008 survey question #33). Given that the population drives on City streets daily and that localized flooding rarely occurs, this seems to demonstrate a significant lack of understanding regarding the range of Storm Water Department services. Given the fact that a separate line item for Storm Water Utility charges will be appearing on utility customers' bills effective August 2009, it is important that citizens understand the benefits for which they are paying.

Goal

The goal of this outreach topic is to educate the population so that more than 75% knows that they benefit daily from the services of the Storm Water Department.

Objective

The objective of this Focus topic is to develop a comprehensive public education program regarding the Storm Water Department's services and the use to which collected revenues will be made. In doing so, it is hoped that the populace will understand the value of the storm water utility.

Methodology

The message of this topic is that citizens benefit every day from the Storm Water Department's services.

A multi-pronged approach to outreach on this Focus topic will be used. The components will include the following:

- **Target Audience:** Utility customers. Utility customers will receive a brochure with their December 2008 bills. This brochure will subsequently be available as part of the new-customer information packet at the City's Utility Business Office. This brochure will also be available at Department presentations and exhibits. Duration: 1 time initial mailout, ongoing at UBO.
- **Target Audience:** viewing public. A short informational video will be produced mid-Fiscal 2008-2009 which will be aired several times a week on the City's closed circuit television station (Channel 20) during the spring and summer of 2009. This video will be continued in rotation, but at a less intense level subsequently. Duration: ongoing.
- **Target Audience:** Subscribers. An advertisement will be developed and published in the Corpus Christi Caller-Times during the latter half of Fiscal 2008-2009. This ad will be repeated in Fiscal 2009-2010. Duration: 1 day publishing, repeated a second year.
- **Target Audience:** On-line viewers. The brochure developed for utility customers will be posted on the City's website. Duration: ongoing.

Evaluation

A question asking if a respondent has personally benefitted from Storm Water Department services will be added to the City of Corpus Christi Citizen Satisfaction Survey performed by SSRC. The results of this question will determine whether the outreach program in its entirety or in a modified state needs to be repeated.

FOCUS: POLLUTION PREVENTION TRAINING - OPERATIONS
Driving Force: City forces perform functions during the course of daily operations which can lead to significant non-point source pollution. Although each department has its own BMP's, the City does not have a comprehensive training program targeting storm water pollution prevention.
Goal: Train employees of each department on ways to recognize, and to prevent, non-point source pollution during routine work.
Objective: Develop and implement a department-specific pollution prevention training program City-wide.

Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation
Develop and implement a department-specific pollution prevention training program City-wide.	City Departments	It's our Permit and our responsibility.	Training program	In-house training	Environmental Services Department & Storm Water Department	Pre- and Post-training evaluations
		Know how your day-to-day operations impact the MS4 and how you can perform your job while minimizing pollution.				Periodic audits

FOCUS: POLLUTION PREVENTION TRAINING - OPERATIONS

Background

City forces perform functions during the course of daily operations which can lead to significant non-point source pollution. Although each department has its own BMP's, the City does not have a comprehensive training program targeting storm water pollution prevention.

Implementation Date / Sequence

Fiscal year 2009-2010

Goal

The goal of this outreach topic is to train employees within specific departments to use nonpolluting practices in their day-to-day operations .

Objective

The objective of this Focus topic is to develop and implement a department-specific training program City-wide.

Methodology

The message of this topic is "It's Our Permit and Our Responsibility." City staff needs to know how their day-to-day operations impact the MS4 and how they can perform their jobs while minimizing pollution.

- **Target Audience:** City Departments. A multi-faceted training program will be implemented by the Environmental Services and Storm Water departments. Although the program is yet to be developed, it will include an array of training methodologies such as classroom presentations (with Power Point) and on-site demonstrations with hands-on practice. The program will be designed such that after initial training, departments may request additional training on an as-needed basis.

Evaluation

Students will receive a "status of knowledge and practices" quiz before training begins. This quiz will be retaken after the training program is completed. Additionally, participating departments will be subject to periodic audits to ensure compliance with best management practices.

FOCUS: POLLUTION PREVENTION TRAINING - CONSTRUCTION SITES
Driving Force: Commercial construction forces perform functions during the course of daily operations which can lead to significant non-point source pollution. Although each company may have its own BMP's, the City does not have a comprehensive training program targeting storm water pollution prevention.
Goal: Train employees of each construction company on ways to recognize, and to prevent, non-point source pollution during routine work.
Objective: Develop and implement a pollution prevention training program for construction site inspectors, contractors and operators.

Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation
Develop and implement a pollution prevention training program for construction site inspectors, contractors and operators.	Commercial sector: contractors and site operators.	How to properly conduct a site inspection and the regulatory expectations of such an inspection.	Training program	Similar to San Antonio Water System's TPDES Inspector Training Workshop	Storm Water Department	Pre- and Post-training evaluations
	City sector: construction inspectors.					Periodic inspections

FOCUS: POLLUTION PREVENTION TRAINING - CONSTRUCTION SITES

Background

Commercial construction forces perform functions during the course of daily operations which can lead to significant non-point source pollution. Although each company has its own BMP's, the City does not have a comprehensive training program targeting storm water pollution prevention. By having inspectors, contractors and operators of construction sites go through the same training, each party will know exactly what the regulations and expectations are and non-compliance should be reduced.

Goal

The goal of this Focus topic is to train construction site inspectors and members of the construction industry in the correct way to perform inspections and the regulatory requirements regarding those inspections.

Objective

The objective of this Focus topic is to develop and implement a pollution prevention training program for construction site inspectors, contractors and operators.

Methodology

The message of this topic is that developers and contractors need to know how their day-to-day operations impact the City's MS4 and how they can perform their jobs while minimizing pollution and meeting regulations.

- **Target Audience:** Commercial contractors and site operators and City construction inspectors. The City of Corpus Christi will implement a training program based on the San Antonio Water System's "TPDES Inspector Training Workshop" program. Duration: ½ day workshops, frequency to be determined.

Evaluation

Students will receive a "status of knowledge and practices" quiz before training begins. This quiz will be retaken after the training program is completed. Additionally, participating departments will be subject to periodic audits to ensure compliance with best management practices.

FOCUS: POLLUTION PREVENTION - BACTERIA
Driving Force: According to initial surveys, 20% of the population is not aware that pet waste contains bacteria and adversely impacts storm water runoff which ultimately flows untreated to receiving waters.
Goal 1: Change population behavior by increasing awareness of the impact of pet waste on storm water runoff and encourage behaviors that minimize bacteria levels in local water bodies.
Goal 2: Increase reporting of wastewater manhole overflows.
Objective 1: Alter the way the public cleans up after their pets, picking up and disposing of pet waste properly.
Objective 2: Make citizens more aware of wastewater manhole overflows and how/when to report them.

Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation
1. Alter the way the public cleans up after their pets, picking up and disposing of pet waste properly.	Pet owners	<p>“Please Pick Up My Poop”</p> <p>Pet waste may be natural, and it may be organic, but that doesn’t mean it should be left on the ground. Pet waste left on the ground ends up in our waterways after a rain storm. That can make our beaches unsafe for swimming. It’s up to the pet owner to properly dispose of pet waste.</p>	Tri-fold brochure	Local pet stores and veterinary offices	Storm Water Department	Post-program survey
				City website		
				Park & Recreation Department (dog park)		
			Power Point slide	Bulletin Board message - CCTV		
			PSA	Cable TV		
				CCTV		
			Billboard (TCEQ)	Crosstown Expressway		

Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation
2. Make citizens more aware of wastewater manhole overflows and how/when to report them.	Ropes and Cole Park neighborhood residents	Report overflows	Flyer	Targeted mailout	Storm Water Department	Reduction in number of unreported overflows

FOCUS: POLLUTION PREVENTION - BACTERIA

Background

In the City's 2008 Storm Water Survey 20% of the participants either did not believe pet waste impacted storm water runoff or did not know/refused to answer the question (2008 survey question #8). Of the 187 participants (43%) that answered the question regarding whether or not they picked up pet waste, 25.7% replied in the "Never / Rarely / Sometimes / Often" ranges (2008 survey question #24). Pet and animal waste, along with illicit discharges of wastewater, is a leading cause of harmful bacteria in receiving bodies of water. Because the City's receiving waters are used for recreational and commercial purposes, it is important to reduce the presence of harmful bacteria and maintain clean water quality.

Goal

The goal of this Focus topic is to increase the population's awareness of the impact of pet waste on storm water runoff and to encourage behaviors that minimize harmful bacteria levels in local water bodies.

Objective

The objective of this Focus topic is to alter the way the public cleans up after their pets such that they pick up and dispose of pet waste properly.

Methodology

The message of this topic is that pet waste may be natural and it may be organic, but it doesn't belong on the ground. Pet waste left on the ground ends up in our waterways after a rain storm. The resulting polluted runoff can make local beaches unsafe for swimming or other recreational activities. It is the pet owner's responsibility to properly dispose of pet waste.

- **Target Audience:** Pet Owners.
- The Storm Water Department will use a multi-faceted approach to address this subject:
 - A brochure directed towards pet owners regarding proper disposal of pet waste will be developed and will be distributed to local pet stores and veterinary offices / hospitals. This brochure will also be given to the City's Park & Recreation Department for use with their dog park program and will be posted on the City's website. This brochure will be continuously available to the public. Duration: ongoing following implementation.
 - A simple Power Point slide will be cycled through the City's bulletin board system on its closed circuit television station (Channel 20). Duration: This message will run continuously.
 - A Public Service Announcement will be created and will be aired on both cable television and the City's closed circuit television station. The PSA will run

continuously on CCTV and will run on a concentrated basis during a two month period every two years. Duration: ongoing following implementation.

- A billboard such as the TCEQ “Please Pick Up My Poop” design, will be displayed on Crosstown Expressway and South Padre Island Drive (East of Crosstown Expressway). These billboards will be displayed for a one-month period each during the two-month period that PSA’s are running on cable television every two years. Duration: two months.

Evaluation

Responses to the City of Corpus Christi Storm Water Survey which will take place approximately every five years will be compared.

FOCUS: LITTER REDUCTION
Driving Force: Regulation prohibits putting anything but rain water into the City's MS4 which goes untreated into receiving water bodies.
Goal: Reduce the amount of floatables in the MS4 and in storm water runoff.
Objective: Promote awareness of the impact of litter on our local receiving water bodies and stopping litter at the source.

Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation	
Promote awareness of the impact of litter on our local receiving water bodies and stopping litter at the source.	Elementary School Children	“Keep it clean!”	Tex & Dot presentations	Elementary school classes	Storm Water Department	Post-presentation oral quiz	
	Middle School Children		Storm Water Curriculum	Area Middle Schools		In-class testing	
	High School Children		Storm Water Curriculum	Area High Schools		In-class testing	
	Public		Billboards	High traffic areas or targeted neighborhoods		Post-program surveys	
			PSA	Cable TV			
				CCTV			
			“Trash Trail”	Caller-Times			
			“After the Storm” video	CCTV			
			Promotionals & literature	Various opportunities			
			Stencils	Stenciling events			
		Elementary School Children	Anti-litter / anti-pollution	Classroom lessons	Schools upon request	Water Department	
			Teachers’ guides	City website			
		Reduce, Reuse & recycle	Classroom lessons	Upon request			
		Elementary School children	Reduce, Reuse & recycle	Information	City website	Solid Waste Services	
Kirby				Classrooms & community events			
Public			Educational Literature	Community events			

FOCUS: LITTER REDUCTION

Background

Federal and State regulations prohibit putting anything but rain into the City's MS4. The City's TPDES Permit specifically requires that the City implement a public education program component with an element to promote and publicize public reporting of illicit discharges or improper disposal of materials, including floatables, into the MS4.

Various departments within the City participate in anti-littering outreach and education efforts. This is a long-term part of Solid Waste's recycling program, Water's water quality program, and the Storm Water Department's polluted runoff prevention program. Other departments participate in anti-littering and non-point source pollution outreach, but not through formal programs. For Water, Storm Water and Solid Waste, this focus is continuous and ongoing and constitutes a significant part of the departments' outreach and education efforts.

Goal

The goal of this Focus topic is to decrease the amount of floatables in the MS4 and in storm water runoff.

Objective

The objective of this Focus topic is to promote awareness of the impact of litter on our local receiving water bodies and alter public behavior to stop litter at the source.

Methodology

The message of this topic is "Keep it clean!" The only thing that should flow into the storm drainage system is clean rain water.

Target Audience: School children (Elementary, Middle and High School) and the Public. Three utility departments use different mechanisms to implement education and outreach for this topic.

- The Storm Water Department uses a multi-faceted approach to the subject:
 - The "Keep it Clean" motto and the department's hot line phone number appear on all promotional items, literature, billboards and public service announcements.
 - The Tex & Dot activity book provided courtesy of the Texas Department of Transportation is used with Elementary School children.
 - A Storm Water Curriculum will be developed and will be used in area schools.
 - Outreach materials created by school-age children as a part of the curriculum will be used in the department's public outreach efforts.
 - Billboards will be placed at strategic locations throughout the City and will be rotated on a routine basis.
 - Public Service Announcements will be aired on cable television and the City's closed circuit television station (Channel 20).
 - The "After the Storm" video regarding non-point source pollution will be aired on the City's closed circuit television station.

- A full page advertisement/printing of the trash trail will take place in the Corpus Christi Caller-Times newspaper every five years.
 - The department will give presentations to local schools, teachers' training seminars and other organizations.
 - The department will have booths at local community events.
 - The department will do inlet stenciling events with local organizations.
- The Water Department also uses several resources for water quality outreach and education:
 - Several activity books / curricula are available for use by local schools upon their request. These include Toby Globy, Major Rivers, Water Wise, The Story of Drinking Water, and Splash.
 - Provide literature on clean water quality at community events.
 - The Solid Waste Department uses several resources for promoting reducing, reusing and recycling:
 - Maintain information on City's website.
 - Use the mechanical mascot Kirby at events.
 - Provide literature at community events.

Evaluation

Responses to the City of Corpus Christi Storm Water Survey which will take place approximately every five years will be compared.

FOCUS: HOUSEHOLD HAZARDOUS WASTE MANAGEMENT						
Driving Force: There is a need to promote and publicize the proper management and disposal of used oil and household hazardous wastes.						
Goal: Promote proper management and disposal of used oil and household hazardous waste.						
Objective: Educate the public, commercial and private sectors on the proper management and disposal of used oil and household hazardous waste.						
Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation
Educate the public, commercial and private applicators and distributors on the proper management and disposal of used oil and household hazardous waste.	Public	Dispose of HHW and used oil appropriately.	Information	City website	Solid Waste Services	Amount disposed of
			Educational literature	Presentations, booths, etc.		
			PowerPoint Slide	Bulletin Board message – CCTV		
			PowerPoint Slide	Bulletin Board message – CCTV	Storm Water Department	Post-program survey
			Educational literature	Presentations, booths, etc.		
				City website		

FOCUS: HOUSEHOLD HAZARDOUS WASTE MANAGEMENT

Background

Federal and State regulations prohibit putting anything but rain into the City's MS4. The City's TPDES Permit specifically requires that the City implement a public education program component with an element to promote and publicize the proper management and disposal of used oil and household hazardous wastes.

The City's Solid Waste Services Department holds primary responsibility for management of the collection of household hazardous waste, including residential used motor oil. The Storm Water Department provides financial assistance to this effort as well as providing information to the public.

Goal

The goal of this Focus topic is to promote proper management and disposal of used oil and household hazardous waste.

Objective

The objective of this Focus topic is to alter peoples' behavior by educating the public and private sectors on the proper management and disposal of used oil and of household hazardous waste.

Methodology

The message of this topic is to dispose of chemicals properly. A catchy motto will be developed to reflect this message succinctly.

- **Target Audience:** the Public.
- The Storm Water Department will use a multi-faceted approach to address this subject:
 - Two new brochures will be developed in calendar 2009: one for household hazardous waste and one for disposal of used oil. These brochures will also be posted on the City's website and will be available to the public.
 - Simple Power Point slides will be cycled through the City's bulletin board system on its closed circuit television station (Channel 20). These messages will run continuously.
 - During presentations to the public, or at community events, information will be provided regarding this Focus topic.
 - Information on proper disposal of household hazardous waste and used motor oil will be provided at workshops for residential sector herbicide, pesticide and fertilizer application, etc.

- The Solid Waste Services Department will use a multi-faceted approach to address this subject:
 - Information regarding the J. C. Elliot Transfer Station will be posted on the City's website
 -
 - Educational literature regarding household hazardous waste and used motor oil disposal will be made available at community events.
 - A Power Point slide will be cycled through the City's bulletin board system on its closed circuit television station (Channel 20). The message will run continuously.

Evaluation

Responses to the City of Corpus Christi Storm Water Survey which will take place approximately every five years will be compared. Additionally, information from Solid Waste Services regarding amount of items picked up at the Citizens Transfer Station will be monitored and compared from year to year. If possible, information will be garnered from local used motor oil recycling centers.

FOCUS: FERTILIZERS, PESTICIDES & HERBICIDES MANAGEMENT

Driving Force: Nearly half the population fertilizes their lawns, but of those the vast majority has not had their soil tested to determine if fertilizer is even needed. Herbicides are frequently included in fertilizers so these may be applied inappropriately as well. There is a need to promote and publicize the proper use, application, and disposal of pesticides, herbicides, and fertilizers by public, commercial, and private applicators and distributors to minimize the discharge of the substances into storm water runoff.

Goal: Minimize the application of chemical fertilizers, herbicides and pesticides and promote natural alternatives

Objective: Increase awareness of non-chemical alternatives to herbicides, pesticides and fertilizers and to educate the public, commercial and private applicators and distributors on the proper use, application and disposal of pesticides, herbicides, and fertilizers.

Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation
Increase awareness of non-chemical alternatives to herbicides, pesticides and fertilizers and to educate the public, commercial and private applicators and distributors on the proper use, application and disposal of pesticides, herbicides, and fertilizers.	Homeowners / occupants, homeowners’ associations / and apartment / landscape managers	Don’t weed and feed	Workshops (Residential and Commercial)	Public facility	Storm Water Department	Post-workshop survey
			Free soil testing	Bulletin Board message – CCTV		Number of redeemed coupons
				Newspaper advertisements		
			Educational literature	Presentations, booths, etc.		Post-program survey
		City website				
		Garden Nature’s Way with Xeriscape or Earthkind techniques	Xeriscape Learning Center and Design Garden	Located at Museum	Water Dept. & Museum	
			Educational Literature	Presentations, booths, etc.		
			Workshop	Public facility		
			PowerPoint slide	Bulletin Board message - CCTV		

Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation
Increase awareness of non-chemical alternatives to herbicides, pesticides and fertilizers and to educate the public, commercial and private applicators and distributors on the proper use, application and disposal of pesticides, herbicides, and fertilizers.	Homeowners / occupants.	The right place at the right time. Know the right way to apply, store and dispose of pesticides, herbicides and fertilizers	Workshops - Residential	Public facilities	Storm Water Department	Post-workshop survey
				Bulletin Board message – CCTV		Post-program survey
			Educational literature	Presentations, booths, etc.		
				City website		
	PSA		Cable TV	Post-workshop survey		
			CCTV			
			Workshops - Commercial			Public facilities
	Educational literature					Targeted mailing
			City website			

FOCUS: FERTILIZERS, PESTICIDES & HERBICIDES MANAGEMENT

Background

Federal and State regulations prohibit illicit discharges and improper disposal into the City's MS4. The City's TPDES Permit specifically requires that the City implement a public education program component with an element to promote and publicize the proper use, application, and disposal of pesticides, herbicides, and fertilizers by public, commercial, and private applicators and distributors.

Goal

The goal of this Focus topic is to minimize the application of chemical fertilizers, herbicides and pesticides and to promote natural alternatives.

Objective

The objective of this Focus topic is to increase awareness of non-chemical alternatives to herbicides, pesticides and fertilizers and to educate the public, commercial and private applicators and distributors on the proper use, application and disposal of pesticides, herbicides, and fertilizers.

Methodology

This Focus topic has three messages: 1) do not weed and feed and use non-chemical means where possible; 2) garden the Xeriscape and Earthkind way; and 3) know the right way to apply, store and dispose of pesticides, herbicides and fertilizers.

- **Target Audiences:** home owners or occupants, homeowners' associations, apartment landscape managers, commercial and private applicators and distributors of pesticides, fertilizers and herbicides.
 - The Storm Water Department uses a multi-faceted approach to each of the first and third subjects:
 - Do not fertilize / use non-chemical means where possible:
 - Workshops will be held on a routine basis for both the residential and commercial sectors.
 - A simple Power Point slide will be created and will be cycled through the City's bulletin board system on its closed circuit television station (Channel 20). The message will run continuously.
 - The department will coordinate with the Texas AgriLife Extension Center to sponsor free soil testing for City of Corpus Christi

residents. This will be advertised in the newspaper and in department literature.

- A brochure will be created regarding this subject and will include a coupon for free soil testing. This brochure will be made available at all events where the department has a booth or does a presentation.
- The brochure will be made available on the City's website and a printable coupon for free soil testing will be developed.
- Know the right way to apply, store and dispose of pesticides, herbicides and fertilizers:
 - Workshops will be held on a routine basis for the commercial sectors.
 - A simple Power Point slide will be created and will be cycled through the City's bulletin board system on its closed circuit television station (Channel 20). The message will run continuously.
 - A brochure for the residential sector will be created regarding this subject. This brochure will be made available at all events where the department has a booth or does a presentation and will be posted on the City's website.
 - A Public Service Announcement will be created and will be aired on cable television and on the City's closed circuit television station (Channel 20).
 - A targeted mailing to the commercial sector will be done that will include a brochure specific to this sector.
- The Water Department addresses the Xeriscape gardening message in a multitude of ways:
 - The Xeriscape Learning Center and Design Garden is maintained at the City's Museum of Natural History.
 - Educational literature regarding xeriscape gardening is made available at community events.

- A Power Point slide is cycled through the City's bulletin board system on its closed circuit television station (Channel 20). The message runs continuously.
- A presentation on Xeriscape gardening is given at Storm Water Department-sponsored workshops for the commercial and residential sectors.

Evaluation

Responses to the City of Corpus Christi Storm Water Survey which will take place every five years will be compared to determine the change in behaviors regarding soil testing, fertilizing, and disposal of chemicals. Additionally, the number of coupons for free soil testing redeemed by the public will be recorded.

FOCUS: STORM WATER SAFETY
Driving Force: Although initial surveys indicate that a large majority of the population understands that it is never safe to drive through a flooded street or to play in flood waters, this is a public safety message that must be constantly relayed.
Goal: Maintain awareness about storm water safety.
Objective: Continue the message of storm water safety issues.

Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation
Continue the message of storm water safety issues.	General Public	Play it safe: stay out of storm waters. AND National Weather Service's "Turn Around Don't Drown" campaign	PSA	Cable television	Storm Water Department	Post-program survey
			PSA	CCTV		
	Viewing public		Power Point slide	Bulletin Board message – CCTV		
	Subscribers		1/4 page ad	Newspaper Ad		
	General public		(something)	City website		

FOCUS: STORM WATER SAFETY

Background

Because of the inherent risks of playing in, or driving through, storm water runoff, it is important that the City continuously remind the public about storm water safety.

Goal

The goal of this Focus topic is to maintain public awareness of the dangers of storm water runoff and that it is never safe to play in, or drive through, storm water runoff.

Objective

The objective of this Focus topic is to continue educating the public on storm water safety.

Methodology

There are two messages to this topic: Play it safe, stay out of storm water, and “Turn Around Don’t Drown.”

- **Target Audience:** the Public. The Storm Water Department will use a multi-faceted approach to address this subject:
 - A Public Service Announcement will be developed regarding storm water safety. This PSA will be aired on cable television and on the City’s closed circuit television station (Channel 20). Duration: 1 month each year.
 - A simple Power Point slide will be cycled through the City’s bulletin board system on its closed circuit television station (Channel 20). This message will run continuously.
 - A ¼ page advertisement will be developed and will be printed in the Corpus Christi Caller-Times. Duration: 1 day per year.
 - The City will implement aspects of the National Weather Service’s “Turn Around Don’t Drown” program.

Evaluation

Responses to the City of Corpus Christi Storm Water Survey which will take place approximately every five years will be compared.

FOCUS: MINIMIZING OVERGROWTH & SEDIMENT ACCUMULATION
Driving Force: The City's curbs and gutters are part of the MS4. City ordinance requires property owners or occupants to keep their abutting curbs, gutters and sidewalks clear of debris, overgrowth and sediment.
Goal: Citizens will keep their curbs, gutters and sidewalks clear of overgrowth and sediment.
Objective 1: Educate property owners and occupants about the need to keep their curbs & gutters free and clear.
Objective 2: Reduce the number of Code Enforcement citations and warnings

Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation
Educate property owners, tenants and occupants on why they need to keep their sidewalks, curbs and gutters clear of debris, overgrowth and sediment.	Property owners, occupants or tenants	Keep it clean. Keep it clear.	Informational short film	CCTV	Storm Water Department	Post-program survey
			PowerPoint Slide	Bulletin Board Message - CCTV		
		By keeping your sidewalks, curbs and gutters clean and clear, you allow storm water to keep flowing.	Brochures	Exhibits and presentations		
		That reduces the chance of flooding and pooling of water.	Ordinance (and its meaning)	City website		
Code Enforcement citations / warnings for overgrowth, etc. go down in number.			Brochure	Locations receiving citations or warnings from Code Enforcement	Neighborhood Services	Number of citations / warnings should go down.

FOCUS: MINIMIZING OVERGROWTH & SEDIMENT ACCUMULATION

Background

The City's curbs and gutters are part of the MS4. City ordinance requires property owners or occupants to keep their abutting curbs, gutters and sidewalks clear of debris, overgrowth and sediment.

Goal

The goal of this Focus topic is to have citizens keep their curbs, gutters and sidewalks clear of overgrowth and sediment.

Objective

There are two objectives to this topic. The first is to educate property owners and change their behaviors so that they keep their curbs, gutters and sidewalks clear of overgrowth and sediment. The second objective is to reduce the number of citations and warnings given by Neighborhood Services Code Enforcement officers for this type of ordinance violation.

Methodology

The message of this topic is to "Keep it Clean, Keep it Clear." By keeping sidewalks, curbs and gutters clean and clear, property owners allow storm water to keep flowing. Free-flowing runoff reduces the chance of localized flooding and pooling of storm water.

- **Target Audience:** property owners, tenants and occupants. The Storm Water Department will use a multi-faceted approach to address this subject:
 - An informational short film will be developed regarding the ordinance and its importance to the MS4. This film will be aired on the City's closed circuit television station (Channel 20).
 - A simple Power Point slide will be cycled through the City's bulletin board system on its closed circuit television station (Channel 20). This message will run continuously.
 - A brochure will be developed which describes the ordinance, what is required and why. This brochure will be available in the Neighborhood Services department and will be available at all department exhibits.
 - A webpage regarding the ordinance will be created and will be posted on the City's website.
 - Neighborhood Services Code Enforcement officers will be given a supply of these brochures so that they may leave them at the locations where ordinance violations are cited or warned against.

Evaluation

Responses to the City of Corpus Christi Storm Water Survey which will take place approximately every five years will be compared. Additionally, the number of warnings or citations for violation of the ordinance will be compared from year to year.

FOCUS: BRUSH MANAGEMENT
Driving Force: Property owners, tenants, and occupants continue to put their brush and bulky trash in the street or overhanging the curb / gutter. This can block storm water runoff, preventing it from freely flowing in the MS4, and thus potentially causing localized flooding.
Goal: Property owners, tenants, and occupants will properly place brush and bulky trash in the street / curb / gutter area in accordance with City ordinance.
Objective 1: Educate property owners, tenants, and occupants on proper placement of brush and bulky trash in the street / curb /gutter.
Objective 2: Reduce the number of Code Enforcement citations and warnings

Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation
Educate property owners, tenants, and occupants of improper placement of brush and bulky trash in the street / curb /gutter.	Property owners, occupants or tenants	Keep it clean. Keep it clear. By keeping the streets, curbs and gutters clean and clear, you allow storm water to keep flowing. That reduces the chance of flooding and pooling of water.	Informational short film	CCTV	Storm Water Department	Post-program survey
			Brochures	Exhibits and presentations		
			Ordinance (and its meaning)	City website		
			Information	City website	Solid Waste Services	
			Brush pick-up schedule	Utility Bills		
Code Enforcement citations / warnings for brush, etc. in street go down in number.			Brochure	Locations receiving citations or warnings from Code Enforcement	Neighborhood Services	Number of citations / warnings should go down.

FOCUS: BRUSH MANAGEMENT

Background

Property owners, tenants, and occupants continue to put their brush and bulky trash in the street or overhanging the curb / gutter. Not only does this allow more leaves and trash to flow into the MS4, but it can block storm water runoff, preventing it from flowing freely in the MS4, and thus potentially causing localized flooding. City Ordinance requires that brush not be placed in the curb or in roadside ditches unless authorized by the Storm Water Director.

Goal

The goal of this Focus topic is to have property owners, tenants, and occupants properly place brush and bulky trash out for pick up in accordance with City ordinance.

Objective

There are two objectives to this topic. The first is to educate property owners, etc. and change their behaviors so that they set out their brush and bulky trash in accordance with City ordinance. The second objective is to reduce the number of citations and warnings given by Neighborhood Services Code Enforcement officers for this type of ordinance violation.

Methodology

The message of this topic is to “Keep it Clean, Keep it Clear.” By keeping sidewalks, curbs and gutters clean and clear, property owners keep leaves and debris out of the MS4 and allow storm water to keep flowing. Clear curbs and gutters help to ensure non-polluted storm water runoff and free-flowing runoff reduces the chance of localized pooling and flooding of storm water.

- **Target Audience:** property owners, tenants and occupants. The Storm Water Department will use a multi-faceted approach to address this subject:
 - An informational short film will be developed regarding the ordinance and its importance to the MS4. This film will be aired on the City’s closed circuit television station (Channel 20).
 - A simple Power Point slide will be cycled through the City’s bulletin board system on its closed circuit television station (Channel 20). This message will run continuously.
 - A brochure will be developed which describes the ordinance, what is required and why. This brochure will be available in the Neighborhood Services department and will be available at all department exhibits.
 - A webpage regarding the ordinance will be created and will be posted on the City’s website.

- Neighborhood Services Code Enforcement officers will be given a supply of these brochures so that they may leave them at the locations where ordinance violations are cited or warned against.
- Solid Waste Services maintains information on the City website regarding proper setout of brush/bulky trash as well as the brush pick-up schedule.

Evaluation

Responses to the City of Corpus Christi Storm Water Survey which will take place approximately every five years will be compared. Additionally, the number of warnings or citations for violation of the ordinance will be compared from year to year.

FOCUS: GRASS CLIPPINGS MANAGEMENT
Driving Force: Residential and commercial mowers continue to blow grass into the street and inlets.
Goal: Property owners, tenants, and occupants will properly dispose of grass clippings in accordance with City ordinance.
Objective 1: Educate property owners, tenants, and occupants on proper disposal of grass clippings.
Objective 2: Reduce the number of Code Enforcement citations and warnings

Objective	Target Audience	Message	Format	Distribution	Responsible Party	Evaluation
Educate property owners, tenants, and occupants on proper disposal of grass clippings	Property owners, occupants or tenants and commercial lawn care services	In the grass or in the trash!	Informational short film	CCTV	Storm Water Department	Post-program survey
			Brochures	Exhibits and presentations		
			Ordinance (and its meaning)	City website		
Code Enforcement citations / warnings for brush, etc. in street go down in number.		By keeping grass clippings off of the street and out of the inlets, you allow storm water to keep flowing. That reduces the chance of flooding and helps keep water nutrient-free.	Brochure	Locations receiving citations or warnings from Code Enforcement	Neighborhood Services	Number of citations / warnings should go down.

FOCUS: GRASS CLIPPINGS MANAGEMENT

Background

Only 16 out of 345 respondents in the 2008 Storm Water Survey did not indicate that they disposed of grass clippings in an appropriate manner. Anecdotally and observationally, however, improper disposal continues to be a problem. Grass clippings blown into the street or into inlets can clog the storm drainage system, potentially leading to localized flooding. Grass clippings that make it to receiving water bodies can decompose and increase the nutrient level, thus choking fish and water plants. It is important that the public correct their behavior in this regard.

Goal

The goal of this Focus topic is to have property owners, tenants, and occupants and commercial lawn care services properly dispose of grass clippings in accordance with City ordinance.

Objective

There are two objectives to this topic. The first is to educate property owners, etc. and change their behaviors so that they dispose of their grass clippings appropriately in accordance with City ordinance. Part of this objective includes publicizing more effectively how the public can report inappropriate grass blowing. The second objective is to reduce the number of citations and warnings given by Neighborhood Services Code Enforcement officers for this type of ordinance violation.

Methodology

The message of this topic is to “Keep it Clean, Keep it Clear.” By keeping grass clippings out of storm drains, runoff can flow freely and there is less degradation of receiving water bodies.

- **Target Audience:** property owners, tenants and occupants and commercial lawn care services. The Storm Water Department will use a multi-faceted approach to address this subject:
 - An informational short film will be developed regarding the ordinance and its importance to the MS4. This film will be aired on the City’s closed circuit television station (Channel 20).
 - A simple Power Point slide will be cycled through the City’s bulletin board system on its closed circuit television station (Channel 20). This message will run continuously.
 - A brochure will be developed which describes the ordinance, what is required and why. This brochure will be available in the Neighborhood Services department and will be available at all department exhibits.
 - A webpage regarding the ordinance will be created and will be posted on the City’s website.

- A billboard will be developed and will be placed at strategic locations throughout the City.
- Neighborhood Services Code Enforcement officers will be given a supply of these brochures so that they may leave them at the locations where ordinance violations are cited or warned against.

Evaluation

Responses to the City of Corpus Christi Storm Water Survey which will take place approximately every five years will be compared. Additionally, the number of warnings or citations for violation of the ordinance will be compared from year to year.