

# 2013 Storm Water Compliance Program Results for the City of Laredo

City's TPDES Mission: To Protect the Water Quality of the 4 Tributary Creek Watersheds, Which Discharge Storm Water to the Rio Grande Watershed, by Applying BMP's which Help Minimize Runoff of Non Point Source Pollution

ENVIRONMENTAL  
SERVICES  
DEPARTMENT



# Municipal Separate Storm Sewer System (MS4) NPDES Program Overview

- **1989** Regulation Mandate by EPA's NPDES
- **1992** SW Prog. Created as Division of the Engineering Dept.
  - City of Laredo & Co-Permittees Tex DOT, TAMIU, & LCC
  - Originally General Fund Only
  - **1995-96** Funded by Landfill Trust & General Funds
- **1996** Ordinance Passed \$0.75 Storm Water Fee for each Residential Water Meter to Partially Fund NPDES Prog.

# Municipal Separate Storm Sewer System (MS4) NPDES Program Overview

- **1998** Ordinance Passed to Impose **Commercial Storm Water Fee** to Fully Fund NPDES Program
- **2001**: City Council Established Env. Svcs. Dept. to Administer NPDES Program
- **2003** & **2005** City Council Increased Storm Water Fee due to Increased Cost of Compliance
- **2011** Renewed Storm Water Permit as **TPDES** with TCEQ

# ENVIRONMENTAL SERVICES DEPARTMENT DIVISIONS

- Administrative Division
- Hazardous Materials Division
- Stormwater Division

# HAZARDOUS MATERIALS

- 566 Warehouses
- Approx. 1,840 Warehouse Inspections / Year



# Hazardous Materials Division

## ILLICIT DISCHARGE DETECTION ENFORCEMENT & ELIMINATION

### • SPILL PREVENTION & RESPONSE

- Hazardous Materials Storage Ordinance
- Issued Approx. 589 Haz Mat Handling Permits
- Conducted 2,202 Warehouse Inspections
- All Warehouses Brought Into Compliance
- Issued 10 Citations
- Fire Dept. Haz Mat Response Unit
  - 1 Response for Haz Mat Spills This Period

# Stormwater Division

## ILLICIT DISCHARGE DETECTION ENFORCEMENT & ELIMINATION

### 1. Illicit & Allowable Discharges:

- **Water Pollution Ordinance** Prohibits & Defines Illicit Discharges
- City has a List of **Allowable Discharges** & Requires Businesses & Individuals to Submit **Non Stormwater Discharge Form** (Fax or Internet) Prior to Discharging
- **Enforcement** Staff Investigates & Cites Offenders

# Stormwater Division

## ILLICIT DISCHARGE DETECTION ENFORCEMENT & ELIMINATION





MANHOLE 3 OT INLET 8  
08/08/08 15:03  
123.8 Ft.





# Stormwater Division

## ILLICIT DISCHARGE DETECTION ENFORCEMENT & ELIMINATION

### 2. DETECTION & ELIMINATION OF ILLICIT DISCHARGES

- **CCTV Camera Van & Pole Camera Inspections**
  - This Year 20,000 ft.of MS4 Insp. by CCTV Camera
  - This Year 2,072 Pole Camera Inspections
  - Several Minor MS4 Structural Faults Found & Fixed
  - No Illicit Connections Identified This Year
  - Partial Sanitary Sewer Inspection & CIP Solution
  - 641,854 Linear Feet of Sanitary Sewer Cleaned

# Stormwater Division

## ILLICIT DISCHARGE DETECTION ENFORCEMENT & ELIMINATION

### WASTE OIL RECYCLING PROGRAM

# UNEXPECTED MAINTENANCE COST EXPENDITURES



# City of Laredo HHWCF



06/07/2008



06/07/2008



05/15/2007



05/25/2007

City Of Laredo  
Household Hazardous  
Waste Collection Facility

City Of Laredo  
Household Hazardous  
Waste  
Collection Facility

WEDNESDAYS 8:00AM - 4:00PM  
THE FIRST SATURDAY OF EVERY MONTH 8:00AM - 4:00PM  
BY APPOINTMENT

FOR MORE INFORMATION CALL ENVIRONMENTAL ENGINEERING  
AT 781-1650  
\* NO COMMERCIAL WASTE WILL BE ACCEPTED \*

City Of Laredo  
Household Hazardous  
Waste Collection Facility

MATERIALS ACCEPTED

- CLEANERS
- POLISHES
- AUTOMOTIVE FLUIDS
- BATTERIES
- PAINTS
- THINNERS
- SOVENERS
- ADHESIVES
- AEROSOLS
- POOL CHEMICALS
- PESTICIDES
- HERBICIDES
- FUNGICIDES
- RODENTICIDES

MATERIALS NOT ACCEPTED

- COMMERCIAL WASTE
- EXPLOSIVES
- RADIOACTIVE WASTE
- MEDICAL WASTE
- AMMUNITION
- COMPRESSED GAS CYLINDERS

City Of Laredo  
Household Hazardous  
Waste  
Collection Facility

HOURS OF OPERATION

WEDNESDAYS 8:00AM - 4:00PM  
THE FIRST SATURDAY OF EVERY MONTH 8:00AM - 4:00PM  
&  
BY APPOINTMENT

FOR MORE INFORMATION CALL ENVIRONMENTAL ENGINEERING  
AT 781-1650  
\* NO COMMERCIAL WASTE WILL BE ACCEPTED \*

# Stormwater Division

## ILLICIT DISCHARGE DETECTION ENFORCEMENT & ELIMINATION

### 3. OVERFLOWS & INFILTRATION

1. 16 Sanitary Sewer Spills or Overflows This Period
2. Repaired 370 Sanitary Lines

### 4. HOUSEHOLD HAZ. WASTE-ELECTRONICS- TIRES & USED MOTOR FLUID COLLECTION

1. 47,250 lbs. of HHW Collected
2. Approx. 54,850 gal. of Used Motor Oil Collected/Recycled
3. 72 Fifty-Five Gallon Drums of Used Motor Oil Filters
4. Inspected 80 Vehicle Maintenance Shops for Compliance

# Stormwater Division

## ILLICIT DISCHARGE DETECTION ENFORCEMENT & ELIMINATION

### 5. MS4 SCREENING & ILLICIT DISCHARGE INSP'S

- 20% of Outfalls Inspected (157 Dry Weather Inspections)
  - 7 Outfalls had Effluent (Tests showed 4 Irrigation & 3 Waste Water)
  - Utilities Department Contacted for Corrections

### 6. MS4 Mapping by GIS Division Staff to Identify & Locate Existing & New Development Storm Drainage System

# Stormwater Division

## ILLICIT DISCHARGE DETECTION ENFORCEMENT & ELIMINATION

### • SPILL PREVENTION & RESPONSE (Cont.)

- Env. Dept. Staff Followed Up & Found No Discharges to Any Water Bodies
- Public Works (City Streets) & TX DOT (State Roads) Respond to Non Haz Mat Spills for Clean Ups

### • REVENUE SOURCES:

- |                                    |                |
|------------------------------------|----------------|
| • Environmental Services Dept.     | \$5,649,130.00 |
| • Utilities Dept.                  |                |
| • Wastewater Treatment             | \$7,452,278.00 |
| • Wastewater Collection            | \$4,965,795.00 |
| • Building Services Dept. GIS Div. | \$233,685.00   |



# Stormwater Division

## MS4 MAINTENANCE ACTIVITIES

### 1. STRUCTURAL CONTROLS

- New Public Improvement Projects & Subdivision Developments Must Follow Plans & Specifications with adopted Stormwater Protection (SW3P) & Flooding Prevention Standards (Proper Drainage Capacity)
- Metal Bar Gates at Guerrero & Bustamante Sampling Stations
  - 2.57 Cubic Yards of Floatables Removed at Bustamante Sta.
  - 10.01 Cubic Yards of Floatables Removed at Guerrero Sta.



# Stormwater Division

## MS4 MAINTENANCE ACTIVITIES

### 2. FLOATABLE CONTROLS

1. **Trash Pick up** Twice per Day in Downtown Area
2. **Commercial Litter Prevention Ordinance** at Shopping Centers
  - This Year: 1956 Inspections – 109 Citations – 478 Warnings
3. **Inlet & Pipe Cleaning Program** (2 Vac Trucks & CCTV Van)
  - 441.12 Tons of Debris This Year From Storm Drains
4. **Creek Cleaning Project** by Private Contractor for Monthly Zacate & Manadas Creeks
  - 134 Tons Collected This Reporting Period
5. **Keep Laredo Beautiful (KLB)** Cleanup & Beautification Projects
  - 23 Cleanup Events with 2,800 Volunteers
  - Collected Approx. 124,000 lbs of Trash & Litter





# Stormwater Division

## MS4 MAINTENANCE ACTIVITIES

### 3. ROADWAYS

- **Maintenance of City Streets** (Major Thorough Fares)
  - 18 Street Sweepers
  - At Least Once per Week & Downtown Daily
  - City Swept Approx. 41,090 Lane Miles of Streets
  - City Patched Approx. 24,694 Potholes Patch
  - FY 2014 Maintenance Program Budget \$37,900.00

### 4. REVENUE SOURCES:

- Enviromental Services Dept. \$5,649,130.00
- Public Works Dept.
  - Street Maintenance \$1,150,404.00
  - Street Cleaning \$1,609,335.00

## Stormwater Division

# POST-CONSTRUCTION STORM WATER CONTROL MEASURES

### 1. New Development Areas & Significant Redevelopment

1. Stormwater Mgmt. Ord. to Keep Pre & Post Dev. Flows
2. Floodplain Ord. to Minimize Construction on Flood Plain
3. Green Space Ord. to Keep Constr. Distances from Waterways
4. Stormwater Mgmt. Ord. Amended to include areas of development > 1 Acre **(Aug. 6, 2012)**

# Stormwater Division

## POST-CONSTRUCTION STORM WATER CONTROL MEASURES

### 1. Flood Control Projects – Minimize Flooding

1. This Year: 8 Flood Control Projects
2. These Add Up to \$3,000,000.00
3. Main Project Canal Street Drainage, Phase 2

### 2. Revenue Sources:

1. Environmental Services Dept. \$5,649,130.00
2. Engineering Dept. Constr. Insp. \$567,135.00



# Erosion Control Measures





Creek Erosion Control



07/11/2008

# CORRECTING CONTRACTUAL MISTAKES

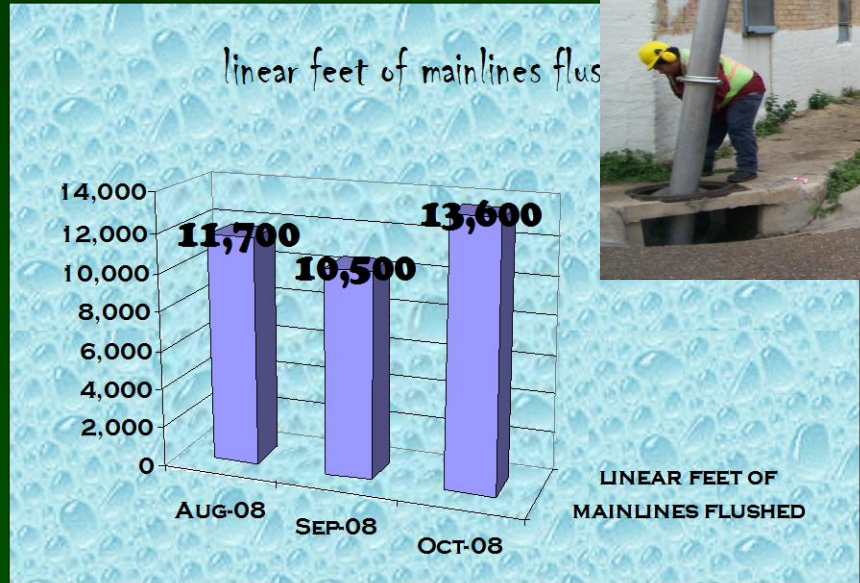


# **POLLUTION PREVENTION**

## **GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

### **1. Good House Keeping for Municipal Operations**

- **Full Time Crews** for Each of the 2 **Vacuum Trucks** for Cleaning Storm Inlets and the Rest of the MS4 Main & Laterals
- **Cleaning Schedule** of all City Areas & **Multiple Cleanings** of Heavy Used Areas Like The Downtown Area
- **Cleaned Approx. 2,832 Inlets, 124,926 linear ft. of MS4**
- **Collected 441.12 Tons of Debris** (Disposed at the Landfill)
- **18 Street Sweepers Maintain Main Through Fares**
  - Mayor Streets Cleaned at Least Once per Week (41,090 Lane Miles)
  - Problem Areas (Downtown) Cleaned on a Daily Basis
  - Sweepers Utilize a TCEQ Approv. Sand Trap to Discharge Wastewater



# POLLUTION PREVENTION

## GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

### 2. STRUCTURAL CONTROL MAINTENANCE

- PW's Creek Maintenance Division Responsible for Cleaning all City Creeks & Drainage Channels
- Approx. **155 Acres of Creeks** Have Been Cleaned & Maintained This Period

### 3. WASTE HANDLING

- All Maintenance Waste Disposed at City Permitted Landfill
  - Receipts from Landfill Verified with Hired Zacate & Manadas Creek **Cleaning Contractors** Collected **65.35 Tons** This Period

# CONTRACTED CREEK CLEANING / MAINTENACE PROGRAMS

- 65.35 Tons removed From Zacate and Manadas Creeks





**Illegal Dumping Prog. (2 TDH Certified Code Enf. Officers)  
Investigated 2,193 Complaints, Issued 134 Citations, & 301 Warnings  
Code Enf. Div. Issued 234 Citations & 2,819 Warnings for Nuisances**



**Surveillance Technology & Special Investigations  
An Avg. Of Over 200 Investigations**



# **POLLUTION PREVENTION**

## **GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

### **4. Pesticide, Herbicide, and Fertilizer Application**

- City Has Licensed Commercial Applicators & Partnered with State Agricultural Extension Services for **Pesticide Trainings**
- Parks & Recreation Dept's **Distributed Info. to Employees** & Looking to Subcontract Pest Control Services to Private Comp.
- **Alternatives to Pesticides & Herbicides**
  - Lady Bugs & Other **Beneficial Insects Released** for Pest Control
  - Tire Round Up Events & Minnow Releases for Mosquito Control

### **5. Permitted Municipal Facilities In Compliance (Landfill & Wastewater Treatment Plants)**

### **6. Revenue Source: ESD \$5,649,130.00**

- **PW's Street Maintenance \$ 1,150,404.00 PW's Street Cleaning \$1,609,335.00**

# Stormwater Division

## INDUSTRIAL HIGH RISK RUNOFF

### 1. Priorities & Procedures for Inspections & Implementing Control Measures

- **Industrial Stormwater** Pollution Prevention Ordinance
  - 26 Facilities Have Current Stormwater Permits with the TCEQ
  - All 26 Facilities Inspected Every Year for Permit
  - SW3P Reviewed at all 26 Facilities for Application Compliance
  - 1 Citation & 3 Warnings Issued This Period

### 2. Industrial & High Risk Monitoring Program

- Base on Inspections & Compliance City has Waived Monitoring Requirements with TPDES Multi-Sector Permittees

### 3. Revenue Source: **ESD** \$5,649,130.00

# Stormwater Division

## CONSTRUCTION SITE STORMWATER RUNOFF

- 1. Constrn. Site Stormwater Runoff Controls Requirements**
  - All Requirements for Structural & Non-Structural BMP's
    - Stormwater Management Ordinance & Stormwater Guidance Manual
- 2. Constrn. Site Inspections & Enforcement Requirements**
  - All requirements for Constr. Site Operators
    - Stormwater Management Ordinance & Illegal Dumping Ordinance
  - This Period 4 Citations, 15 Warnings, & 2 Stop Orders to Construction Site Operators for BMP Issues.
- 3. Education & Training for Construction Site Operators**
  - Site Specific Training During Constr. Approval Process
  - Site Specific Training Follow Up During Initial Site Inspection
  - Proper BMP Installation & Proper Functioning Trng. At Any After Rain Event Monitoring &/or Modification Sessions

# CONSTRUCTION SITE STORMWATER RUNOFF



## INSPECTION INVESTIGATION & REMEDIATION ACTIVITIES



# Stormwater Division

## CONSTRUCTION SITE STORMWATER RUNOFF

### 4. Req. Notification to Construction Site Operators

- Notified During Initial Plan & Site Review
- Also Through Follow Up Inspections & Meetings

### 5. Developing & Maintaining a List of Large & Small Construction Sites

### 6. Complying With New State Requirements

- Stormwater Management Ordinance Amended Aug. 6, 2012 to Include 1 Acre Constr. Sites

### 7. Revenue Source:

- Environmental Services Dept. \$ 5,649,130.00
- Building Services Dept. Develop. Review \$580,222.00

# Stormwater Division

## PUBLIC EDUCATION-OUTREACH- INVOLVEMENT & PARTICIPATION

### 1. Public Education & Outreach

- **Multimedia Education Campaign**
  - TV – Radio – Newspaper – Billboard Adds
  - Promote HHW, Used Oil, & Tire Collection Events
  - Awareness of Illicit Discharges, Illegal Dumping, & Other Violation Effects on Environment, Enforcement & Penalties
  - Energy & Hazardous Chem. Alternatives & Substitutes Tips
  - Promoting & Informing of New Ordinance Requirements & Application
- **School Visits in Both School Districts**
  - Reached Approx. **950 Students** This Period (Issued Promotional Items)
  - Students Learn About Stormwater Pollution, Recycling, Water Conservation, Pollution, Litter Prevention, & Enviro. Stewardship

# Stormwater Division PUBLIC EDUCATION-OUTREACH-INVOLVEMENT & PARTICIPATION



# Stormwater Division

## PUBLIC EDUCATION-OUTREACH- INVOLVEMENT & PARTICIPATION

### 2. Public Involvement & Participation

- **Keep Laredo Beautiful (KLB)**
  - 23 Cleanups & Tree Planting Events
  - 2,800 Volunteers Helped Clean Up & Plant Trees at Public Sites
  - Educational Advertisement on TV, Radio, Newspaper & Billboards
  - Promoted Stewardship & Personal Responsibility

### 3. Revenue Sources:

- **ESD** \$5,649,130.00                      **KLB** \$137,000.00





**KLB NEIGHBORHOOD CLEANING AND BEAUTIFICATION SUPPORT**



**SANTA RITA PARK  
CLEAN UP**

## Stormwater Division

# MONITORING, EVALUATION, REPORTING

## 1. Dry Weather Screening Program

- 20% of All City Outfalls (166) Inspected This Period
- 7 of the 166 Outfalls had Effluent
- Analysis Showed 5 Irrigation Water & 2 Waste Water
- Utilities Department Worked on The 2 Waste Water Issues

## 2. Wet Weather Screening Program

- 5 Stationary Sample Stations: Canal, Enterprise, Guerrero, Bustamante, & Jefferson Stations
- Station Location Based On Watershed & Land Use Basis

# STORMWATER WET WEATHER MONITORING PROGRAM



# Stormwater Division

## MONITORING, EVALUATION, REPORTING

### 2. Wet Weather Screening Program (Cont.)

- **Grab & Composite Samples** Grabbed From Each Station Once Every 4 Months During Significant Storm Events
- **10 Rainfall Measuring Stations** Installed Throughout City
  - Staff & Citizens May View **Rainfall Data in Real Time** by Internet

### 3. Industrial & High Risk Runoff Monitoring Program

- Based on **Inspections & Compliance** Monitoring Requirements Have Been Waived

### 4. Floatables Monitoring

- Estimate System Based on Height of Debris Stuck on Bar Gates

**5. Revenue Source:** ESD \$5,649,130.00

# QUESTIONS

