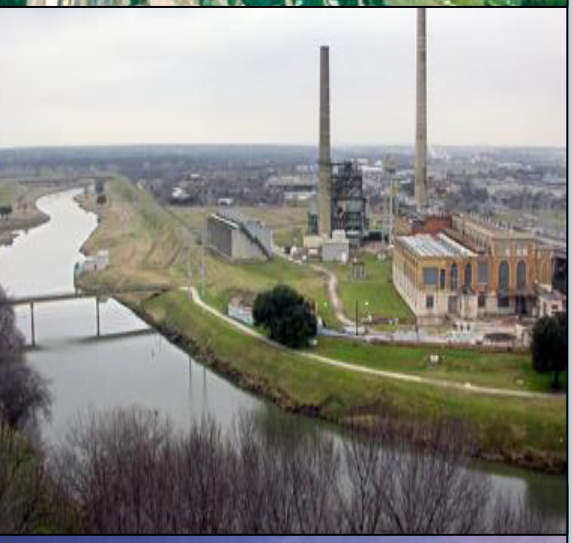

City of Dallas

Annual Report

Texas Pollutant Discharge Elimination System

Permit No. WQ0004396000
Municipal Separate Storm Sewer System

Reporting Period:
Feb. 22, 2007- Feb. 21, 2008

CITY OF DALLAS

May 29, 2008

Ms. Kim Wilson
Texas Commission on Environmental Quality
Wastewater Permitting Section, MC-148
Storm Water and Pretreatment Team
12100 Park 35 Circle, Bldg F-2nd Floor
P.O. Box 13087
Austin, Texas 78711-3087

Re: TPDES Permit No. WQ0004396000
City of Dallas Strom Water Management Program
Annual Report February 22, 2007 – February 21, 2008

Dear Ms. Wilson:

Enclosed is the annual report covering the second year of the City of Dallas Municipal Separate Storm Sewer System permit. For your convenience, both hardcopy and electronic versions are provided.

If you have any question or need additional information, please contact me at 214-948-4235.

Sincerely,

Errick Thompson, P.E., Assistant Director
Public Works and Transportation

Enclosures

CC: TCEQ Office, Region 4
File

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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 gather and evaluate 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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed,

Ramon F. Miguez, P.E.
Assistant City Manager
City of Dallas

5/28/08

Date

SECTION 1

SWMP Implementation Status

In February 2006, the Texas Commission on Environmental Quality (TCEQ) issued to the City of Dallas (City) a Texas Pollution Discharge Elimination System (TPDES) Municipal Separate Storm Sewer System (MS4) permit. This permit requires the City to "*develop, implement, and revise, as necessary, a comprehensive Storm Water Management Program which includes pollution prevention measures, treatment or pollutant removal techniques, storm water monitoring, use of legal authority, and other appropriate means to control the quality of storm water discharged from the MS4 that reach Waters of the United States (U.S.).*" The permit requires that "*each element of the plan must be developed to include measurable goals, when feasible.*" In August 2006, the City submitted a new Storm Water Management Program (SWMP) to meet the TCEQ requirements for the TPDES MS4 permit. The revised SWMP replaces and supersedes any previous SWMP applicable or deemed to be applicable under the TPDES MS4 permit.

In accordance with the City's TPDES Permit No.WQ0004396000 and the SWMP, this section summarizes the Best Management Practices (BMPs) the City utilized during Permit Year Two: February 22, 2007 through February 21, 2008. The eleven elements stated in the City's SWMP are listed below:

SWMP Elements:

Element 1: Structural Controls
Element 2: Areas of New Development and Significant Redevelopment
Element 3: Roadways
Element 4: Flood Control Projects
Element 5: Pesticide, Herbicide, and Fertilizer Application Program
Element 6: Illicit Discharges and Improper Disposal
Element 7: Spill Prevention and Response
Element 8: Industrial and High Risk Runoff
Element 9: Construction Site Runoff
Element 10: Public Education Program
Element 11: Monitoring and Screening Programs

The implementation status of the eleven SWMP elements, related activities, and associated measurable goals are as follows:

Element 1: Structural Controls			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
A. Structural Controls Information Systems			
Review and revise data acquisition procedures	Evaluate field data collection forms and document any changes to field data collection forms or procedures	Permit Year Two	Evaluated two software programs for data collection and evaluated in-house applications and four software programs for asset management to track storm water infrastructure inspections, cleanings and repairs
			The software must have management and update capabilities for additions, deletions, and corrections
B. Storm Drain Cleaning			
Inspect the underground storm drain piping for debris and damaged areas and schedule maintenance for cleaning	Track number of miles of pipe inspected, damaged areas, record volume of debris removed, and scheduled maintenance performed, annually	Permit Year One - Permit Year Five	96.55 Miles of underground storm sewer systems inspected
			39 Damaged areas identified
			101 Cubic yards of debris removed
C. Water Quality Structures			
1. Inspect and maintain nine identified sumps	a. Track number of sump inspections per year	Permit Year One - Permit Year Five	27 Sump inspections
			Sump inspections conducted: as required by the routine maintenance schedule, after rain events, and in conjunction with mowing cycles
	b. Track type of maintenance activities performed and volume of materials removed from each sump per year	Permit Year One - Permit Year Five	2,902 Cubic yards of debris removed
			2,912 Cubic yards of sediment and silts removed
			704.37 Acres of sump areas mowed
			Maintenance activities included: desilting pilot channels, mowing, sump rehabilitation, drift/debris removal, and cleaning trash rack grates

Element 1: Structural Controls			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
C. Water Quality Structures (continued)			
2. Inspect, clean, and repair inlets within jurisdiction, annually	a. Track the number and type of inlets inspected per year	Permit Year One - Permit Year Five	21,185 Curb and grate inlets inspected and/or cleaned
	b. Track the type of cleaning activities performed and volume of materials removed from inlets per year	Permit Year One - Permit Year Five	Cleaning activities included: removing debris, vacuuming, rinsing inlet box, and jet vacuuming
			7,359 cubic yards of debris removed
3. Maintain seven identified detention/ retention ponds	a. Track the number of ponds inspected per year	Permit Year One - Permit Year Five	11 Detention basins/ponds inspected
	b. Track type of cleaning activities performed and the volume of materials removed from each pond per year	Permit Year One - Permit Year Five	121 Cubic yards of debris and sediment removed
			163.84 Acres of detention basin areas mowed
			Cleaning activities included: desilting, debris removal, and mowing
4. Response to complaints of illegal dumping in creeks and drainage channels	Track type of response activities performed and the volume of materials removed from City-owned creeks per year	Permit Year One - Permit Year Five	798 Creek/culvert service request included: 452 creek/culvert maintenance requests 290 blockages 56 water quality reports
			21,046 Cubic yards of debris removed
			6,628 Acres mowed
			Response activities included: mowing, channel clearing, debris removal, and cleaning

Element 1: Structural Controls			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
D. Storm Water Interceptor Program			
Inspect, maintain, and clean interceptors	Track the number of cleaning events and the volume of materials removed from the City-owned in-line storm water interceptors per year	Permit Year One - Permit Year Five	133 Cleaning events
			463 Cubic yards of debris removed
E. System Repair and Maintenance			
Repair and maintain City-owned roadway culverts	Track the number of repairs to City-owned roadway culverts per year	Permit Year One - Permit Year Five	3 Units (pipes) of City-owned roadway culverts replaced

Element 2: Areas of New Development and Significant Redevelopment			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
A. Water Quality Manual for New Development and Redevelopment			
1. Preparation of the integrated Storm Water Management Manual (iSWM)	Participate in preparation of the iSWM Manual	Permit Year One - Permit Year Two	Participated in the North Central Texas Council of Governments (NCTCOG)committee activities and assisted in the continued development of the Integrated Storm Water Management (iSWM) Plan
			Awarded iSWM implementation contract to a consultant, Freese & Nichols, Inc and allotted FY08 funds in support of adopting iSWM as part of the City's Development Code

Element 2: Areas of New Development and Significant Redevelopment			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
A. Water Quality Manual for New Development and Redevelopment (continued)			
2. Reduction of the storm water runoff impacts from new development and redevelopment	a. Track the number, acreage, and land use of new development and redevelopment projects over one acre in size	Permit Year Two	374 New development or redevelopment projects tracked for acreage and land use (see page 1-26 for details)
	b. Track the number and type of private water quality structures installed to comply with new development standards	Permit Year Two - Permit Year Five	53 Private water quality structures installed (see page 1-26 for details) Water quality structures included: detention ponds, headwalls/ outlet structures, erosion control/ rip-rap/ gabion, other/ restrictor plate, and/ or inlet protection (see table page 1-27)
B. Master Planning Process			
Review of master planning process, the Development Code, to include water quality as part of the overall planning effort	Report on updates to the Development Code, annually	Permit Year One - Permit Year Five	No updates to the Development Code related to water quality

Element 3: Roadways			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
A. Street Sweeping			
Sweep the prime network roads, high vehicular use areas, higher pedestrian traffic areas downtown, and City-owned parking lots	Track the number of sweeping activities, total miles swept, and volume of debris collected per year	Permit Year One - Permit Year Five	25,040 Gutter miles of major thoroughfares swept 17,676 Gutter miles of Central Business District Streets swept 3,231 Cubic yards of debris collected Swept major thoroughfares once per month and Central Business District streets five times per week
B. Deicing			
Removal of the sand and deicing materials from the roadway after icing events	Track the number of sweeping activities, total miles swept, and volume of debris collected per year (Note: This volume is included in the volume of materials collected during the street sweeping program presented)	Permit Year One - Permit Year Five	Began sweeping to remove sanding materials within 72 hours of each of the three icing events Collected debris following deicing events and the amount collected is included in volume of debris for Street Sweeping (See 3A)
C. Road and Bridge Maintenance Program			
Reduce or prevent the discharge of pollutants from routine maintenance activities for roads and bridges	Track location and type of control measure used at routine maintenance projects that require BMPs per year	Permit Year Two - Permit Year Five	1,621 Routine maintenance projects used control measures as follows: 1621 projects utilized inlet protection 1241 projects utilized silt fencing 867 projects utilized soil stabilization 421 projects utilized seeding and sodding measures (See Appendix A, page A-5, for additional Information)

Element 4: Flood Control Projects			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year2)**
Evaluation of Flood Control Projects			
Evaluate future projects to determine the feasibility of incorporating structural controls	Track number of projects evaluated and number of projects where storm water quality enhancements were incorporated per year	Permit Year One - Permit Year Five	4 Projects evaluated for water quality enhancements: Turtle Creek, Baker Pump Station, Pavaho Pump Station, and the Elam Creek Channel Improvements - Phase-I
			27 Fire stations retrofit projects
			5 Wetland cell construction projects in the Dallas Floodway Extension Project continued
			The wetland cells are scheduled for completion in Permit Year 3

Element 5: BMPs for Pesticide, Herbicide and Fertilizer Application Program			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
A. Standard Operating Procedure			
1. Review and revise the SOP on a biennial schedule	Document biennial review of SOP	Permit Year One - Permit Year Five	Developed citywide SOP including tracking sheets for application and storage of materials; licenses for City employees; and for types of pesticides/herbicides/fertilizers is in progress
2. Maintain a list of employees who are licensed pesticide applicators and review training and registration, annually	Document review of licenses and training annually	Permit Year One - Permit Year Five	The list of employees licensed and trained was updated
B. City-Wide Integrated Pest Management Plan			
Review and reorganize IPM plan for uniform standards and guidelines regarding the application of pesticides, herbicides, and fertilizers on City-owned property	Document changes to the IPM plan resulting from any evaluations	Permit Year Two - Permit Year Five	Evaluated IPM Plan, no changes were made

Element 6: Illicit Discharges and Improper Disposal				
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**	
A. Non-Storm Water Discharge Controls				
Educate the public on BMP's to reduce non-storm water discharges	The implementation activities for this task are related to the City's Public Education program and are discussed in Element 10 of this section	Permit Year One - Permit Year Five	See Element 10	
B. Overflows and Infiltration				
Minimize the number and effects of sanitary releases to storm drains	1. Track identified sanitary sewer discharges to the storm water system, per year	Permit Year One - Permit Year Five	163	Sanitary sewer overflows
	2. Track follow-up responses to the identification of sanitary sewer discharges to the storm system, per year	Permit Year One - Permit Year Five	1,566.16	Miles of sanitary sewer lines cleaned
			346.84	Miles of sanitary sewer lines televised
			72.10	Miles of root control applied
			4,137	Sanitary sewer pipe repairs
C. Floatables				
Monitor, remove, and inventory floatables	Track amount of floatables collected and disposed per year	Permit Year One - Permit Year Five	222.28	cubic yards of litter removed and properly disposed
			209	inspections/cleanings

Element 6: Illicit Discharges and Improper Disposal			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
D. Household Hazardous Waste and Used Motor Vehicle Fluids			
1. Promote the County's HC3 and assist with one offsite HHW collection event	Track quantities of used motor vehicle fluids and Household Hazardous Waste (HHW) collected from City of Dallas Citizens per year	Permit Year One - Permit Year Five	1,561,473 Pounds of household hazardous waste, paint, and electronic waste collected and properly disposed by the HC3 197,459 Pounds of used oil, antifreeze, auto batteries and oil filters collected and properly disposed by the HC3 Estimated 9,061 or 46.8% of the participants in this Dallas County program were City of Dallas residents in PY2
2. Conduct City's Public Education Program related to pollution prevention efforts in conjunction with Dallas County	The implementation activities for this task are related to the City's Public Education program and are discussed in Element 10 of this section	Permit Year One - Permit Year Five	See Element 10
E. MS4 Screening and Illicit Discharge Inspections			
Inspect, investigate, and detect illicit discharges and/or improper disposals	Track number of illicit discharge investigations or improper disposals per year	Permit Year One - Permit Year Five	2715 Illicit discharge inspections 198 Illegal dumping complaints 51 abandoned substances complaints 1948 outfall inspections 518 chemical spill complaints (See Appendix D, page D-1 and Appendix G, page G -1 for details)

Element 6: Illicit Discharges and Improper Disposal			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
F. Elimination of Illicit Discharges			
1. The City will work to correct the discharge or remove the improperly disposed materials within 30 days or as soon as reasonably possible	Track number of illicit discharges and illegal disposal sources identified, per year	Permit Year One - Permit Year Five	6 Illicit discharges
			See Element 11 for identified sources
2. Review Ordinance No. 24033 regarding storm water drainage system	Document review and evaluation	Permit Year Two	Reviewed City Ordinance 24033, Section 19.118 proposed draft revisions developed (See Appendix B –Proposed Draft Revised Ordinance)
			"New" Construction General Permit requirements were incorporated into the proposed new ordinance
			Proposed changes are scheduled for review by City Council
3. Facilitate public reporting and respond to citizens concerns	Track number of calls received and the issue of the call per year	Permit Year One - Permit Year Five	1,083 Calls from concerned citizens received and issues tracked

Element 6: Illicit Discharges and Improper Disposal			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
G. List of Discharges Directly to the MS4 with NPDES or TPDES Permit			
Maintain list of dischargers with TPDES/ NPDES storm water permits associated with industry and construction activities	Track name, location, and NPDES or TPDES permit number for storm water dischargers to the MS4	Permit Year One - Permit Year Five	Maintained a list of permitted sites including name, location, and permit
			185 Construction sites with ground disturbances over 5 acres in size as part of a common plan of development, or within the escarpment or geologically similar area. These sites represent 392 permitted operators.
			189 Construction sites between 1 and 5 acres. These sites represent 321 operators and/or owners (Since TCEQ does not require a permit for these small sites, this represents the number of operators/owners that submitted notification to the MS4)
			479 Industrial sites with permits or that had applied for permit
			70 Industrial sites identified did not have a permit and had not applied for a permit
			(See Appendix G for details)

Element 7: Spill Prevention and Response			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
A. Spill Response Program			
Respond to and mitigate the effects of spills that enter the City's storm drainage system	Report the number of spill responses where the City was notified and hazardous or non-hazardous substances entered the City's storm drainage system, annually	Permit Year One - Permit Year Five	151 Hazardous Material calls
			2,274 Reports of Hazmat spills received by the City which includes: 1,742 natural gas line cuts 519 fuel spills 319 Carbon Monoxide calls 11 bomb scares
			34 Incidents with hazardous material entering the drainage system
B. Spill Prevention Program			
Maintain a spill prevention program	Document spill prevention training, annually	Permit Year One - Permit Year Five	2,107 Employees of Dallas Fire Rescue
			164 Hours of training per Dallas Fire Rescue employee for HazMat and Spill Prevention
			5 SWM staff attended a 40 hour Hazardous Waste Operations (HazWoper) Training upon employment as SWM Environmental Specialist
			25 SWM staff attended a 8 hour refresher HazWoper training session for SWM Environmental Specialists in PY2
			14 Spill, Response, Reporting and Cleaning classes for City Staff conducted by Office of Environmental Quality
C. Maintain City-Owned Vehicles			
Maintain BMPs to minimize pollutants from City-owned vehicles entering the MS4	Report the number of reported spills from City-owned vehicles that impact the storm drainage system, annually	Permit Year One - Permit Year Five	2 Incidents involving city-owned vehicles

Element 8: Industrial and High Risk Runoff			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
A. Inspections and Control Measures			
The City will inspect permitted industrial facilities, SARA 313 facilities, and municipal landfills	Track number and type of inspections per year	Permit Year One - Permit Year Five	549 Permitted industrial facilities inspected
			72 SARA 313 locations inspected (all locations)
			2 Site reviews and inspections were conducted at municipal landfills
B. Monitoring			
Monitor and screen high risk facilities and/or activities	Monitoring and screening program related to High Risk Monitoring is included in Element 11 and Table 11	Permit Year One - Permit Year Five	See Element 11

Element 9: Construction Site Runoff			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
A. Use And Maintenance of Control Measures			
Require and inspect Storm Water Pollution Prevention Plan (SWP3) for specific building permits and State regulations	Track number of SWP3s presented per year	Permit Year One - Permit Year Five	87 SWP3s received
B. Inspection of Construction Sites And Enforcement of Control Measure Requirement			
Inspect construction sites for compliance with storm water management practices	Track number and location of inspections per year	Permit Year One - Permit Year Five	5,480 Inspections at 185 large construction sites with ground disturbances over 5 acres in size (including common plan development sites), or within the escarpment or geologically similar area conducted
			1,615 Inspections on 189 small construction sites between 1 and 5 acres conducted

Element 9: Construction Site Runoff			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
B. Inspection of Construction Sites And Enforcement of Control Measure Requirement (continued)			
Inspect construction sites for compliance with storm water management practices	Track number and location of inspections per year	Permit Year One - Permit Year Five	126 Inspections as complaint responses on construction sites including: 9 sites one to five acres 7 sites greater than or equal to 5 acres, a part of a common plan of development greater than or equal to 5 acres, or in the escarpment or geologically similar area 110 sites less than one acre in size, not part of a common plan greater than once acre, and not located in the escarpment or geologically similar area
C. Appropriate Education and Training Measures for Construction Site Operators			
Train and educate operators and other individuals affiliated with construction activity on the use of BMPs at construction sites	Document seminars per year - include location of, topics, dates, and number of attendees	Permit Year One - Permit Year Five	6 Training seminars (construction workshops) conducted at Dallas City Hall (see page 1-46)
D. Notification of Applicants of Responsibilities			
Notify permit applicants of their responsibilities under the TDPES permitting regulations	Track revisions to process per year	Permit Year One - Permit Year Five	2 Revisions were processed Informed contractors of their responsibility to provide a copy of the Construction Site Notice or Notice of Intent Required contractors to provide a copy of the certified SWP3 for applicable construction projects

Element 10: Public Education Program				
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**	
A. Education and Outreach Campaign				
Evaluate the existing advertising program for effectiveness	Summarize effectiveness of advertising campaign by number of people reached, Web site activity, and feedback received about the campaign, annually (See Appendix C, pages C-1 thru C-4 and C-6 thruC-13 for details)	Permit Year One - Permit Year Five	42	Participated in Public events with a total of 112,536 attendees
			356	Responses received to surveys distributed for campaign feedback
			24,064	Visits to and 70,551 page views of SWM websites (www.trinity-trudy.org and www.wheredoesitgo.com)
			2,907,416	Online banners about storm water pollution prevention were displayed on 6 websites and generated 2,693 clicks thru to wheredoesitgo.com
			576	Radio commercials aired (on 15 radio stations)
			28,360	Commercials aired on 65 screens in 4 local movie theatres
			331	Television ads aired on 7 local stations
			18	Advertisements in 6 newspapers
			238	Days the traveling exhibit was on display at 10 locations

Element 10: Public Education Program			
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**
B. Volunteer Activities			
1.Facilitate the Texas Watch Volunteer	Track Texas Watch training per year	Permit Year One - Permit Year Five	23 Texas Watch training sessions including: 17 presentations 6 recertifications
2.Water Quality Monitoring Program	Storm drain marking orientation meetings	Permit Year One - Permit Year Five	4 Storm drain marking orientation meetings
			6 Volunteer storm drain marking events
			277 Inlets marked
C. Publications			
Publish print materials and conduct presentations on storm water related topics	Track the number of publications and presentations per year	Permit Year One - Permit Year Five	10 Publications completed: 5 newsletters 2 water bill inserts 1 book cover 1 Cityscape Article (SW101) 1 Advertisement
			33 Public presentations
D. City Employee Education			
1. Provide electronic announcements related to reduction of discharge pollutants	Publish two City electronic announcements about storm water management issues, annually	Permit Year One - Permit Year Five	8 Electronic announcements

Element 10: Public Education Program				
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**	
D. City Employee Education (continued)				
2. Provide and review information about storm water management issues and procedures on internet websites	Track the changes to information on the Storm Water Management website, annually	Permit Year One - Permit Year Five	30	Changes to the websites Updates to Storm Water Management Websites included: 20 updates to www.wheredoesitgo.com 7 updates to Trinity Trudy's Storm Water World for Kids (www.trinity-trudy.org) 3 updates to Storm Water Management Intranet page
3. Educate new employees on storm water pollution prevention practices	Track the number of new employees completing "Storm Water 101"	Permit Year Two - Permit Year Five	514	Employees received SW101 training during new employee orientation
E. Household Hazardous Chemicals				
Promote the Home Chemical Collection Center (HCCC) and household hazardous waste collection days	Promote and participate in one household hazardous waste collection day and include the results in the annual report, annually	Permit Year One - Permit Year Five	97	Dallas Citizens participated in the County household hazardous waste collection day on April 14, 2007 (See Appendix C, page C-5 for details)
F. School District Education				
Present educational information to students in the independent school districts located within the City limits	Track the number of presentations per year	Permit Year One - Permit Year Five	61	Presentations to students in the Dallas Independent School District (DISD)
			1	Presentation to Plano Independent School District Maintenance Personnel

Element 10: Public Education Program				
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**	
G. Industrial Operator Workshops				
Educate industrial operators on TPDES storm water permit requirements and trade organizations about handling and disposing of hazardous materials	Track the number of workshops and presentations, and the number of attendees at each workshop and presentation per year	Permit Year One - Permit Year Five	5	Industrial workshop presentations
			75	Industrial workshop attendees
			3	Presentations to trade organizations
			73	Trade organization presentation attendees

Element 11: Monitoring and Screening Programs				
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**	
A. Dry Weather Screening				
Investigate flows from outfalls during dry weather, sample the discharge, investigate the source, and act to eliminate the discharge	Report the number of outfalls inspected, discharges found, and sources identified per year	Permit Year One - Permit Year Five	1,948	Outfalls inspected in 15 watersheds
			944	Outfalls discharges to water bodies
			6	illicit discharges detected from sewage, leaking hydrant, or fertilizer improperly stored fertilizer subject to stormwater
			Lawn watering was the primary source of dry weather discharges in residential areas identified	
			See Section 3 and Appendix D for additional information	

Element 11: Monitoring and Screening Programs				
Activities	**Measurable Goals**	**Implementation Schedule**	**Implementation Status for Reporting Period (Permit Year 2)**	
B. Wet Weather Screening				
1. Screen, sample (during two rain events), and evaluate data for watersheds	Report Wet Weather Screening for each watershed sampled per year	Permit Year One - Permit Year Five	15	Watersheds screened and sampled
			See Section 3 and Appendix E for additional information	
2. Participate in the Dallas-Fort Worth Regional Wet Weather Characterization Program	Track sampling of the three watersheds, in accordance with the Regional Program	Permit Year Two - Permit Year Four	See Section 3 and Appendix E	
3. Continue Rapid Bioassessment Monitoring	Track sampling during two sampling periods per year	Permit Year One - Permit Year Five	See Section 3 and Appendix F	
C. Industrial and High Risk Runoff Monitoring				
Identify and prioritize the facilities that have the potential to discharge pollutants into the MS4.	Annual review of monitoring data and utilize data to evaluate/monitor BMPs or inspection and monitoring programs	Permit Year One - Permit Year Five	549	Permitted industries inspected of which 181 "No Exposure" facilities inspected
			264	Industries were identified as High Risk. The City requested monitoring data via mail.
			68	Facilities submitted data
			4	City permitted facilities inspected

ELEMENT 1: Structural Controls

Element 1: Structural Controls addresses the City's measures to fulfill the following requirement of the permit: "*structural controls shall be operated in a manner to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP)* [Part III.B.1 of TPDES Permit No. WQ0004396000]." The City operates structural controls in a manner to reduce the discharge of pollutants including the structural control information system, storm drains, water quality structures, sumps, inlets, detention and retention ponds/basins, creeks, drainage channels, storm water interceptors, system repairs, and maintenance.

1.A Structural Controls Information Systems

The City's Structural Controls Information System uses a database that contains a unique identifier for each structural control. The City modifies the GIS system with any changes in the structural controls. In Permit Year 2 (PY2)**,** the SWMP requires the evaluation of field data collection forms and documentation of any changes to field data collection forms or procedures. During PY2, the process and forms relating to asset management did not change. The Street Services and Public Works and Transportation Departments began evaluating asset management software for tracking inspections, cleanings, and repairs of the storm water infrastructure. They assessed GraniteXP and Pipetech software platforms for Closed Circuit Television data collection and evaluated gbaMS, CityWorks, CASS Works, SAP, and in-house development applications for asset management. Both GraniteXP and gbaMS were selected.

The deployment of the new software in Permit Year 3 will allow for management and inspections of storm water assets to be digital. The software will manage and update information providing the City with the capacity to add, delete, and correct information regarding the infrastructure.

1.B Storm Drain Cleaning

The storm drain system needs routine cleaning to reduce the amount of pollutants, trash, and debris and also to prevent and remove clogs that may cause a drain to overflow. The City inspects drainage pipes each year to schedule cleaning and repair, as needed. The City tracks the volume of materials removed from drainage pipes, annually. The City inspected 96.55 miles of underground storm water sewer drainage piping in Permit Year 2. The City identified damaged pipes, debris blockages, and other potential problems by televising the underground

piping. The City identified 39 damaged areas of pipe and removed 101 cubic yards of debris from the underground storm drain piping.

1.C Water Quality Structures

The City currently maintains storm water sumps, detention and retention ponds, creeks, drainage channels, and inlets in the permit area. Routine or scheduled inspections and maintenance of water quality structures will reduce repairs, pests, flooding, and pollutants. Maintenance of water quality structures included routine and scheduled inspections of sump areas, inlets, detention/retention ponds, creeks, and drainage channels. The City removed debris and/or made repairs, as necessary.

1.C.1 Sumps

The SWMP requires the City to maintain nine sump areas by visual inspections, cleaning of trash racks, removing litter, mowing, and managing vegetation. The nine sump areas identified and maintained are: Able, New Baker, Old Baker, Charlie, Delta, New Hampton, Old Hampton, Pavaho, and Rochester.

1.C.1.a Sump Inspections

The City monitors the nine sump locations on a regularly scheduled basis and after each rain event. In Permit Year 2, staff conducted 27 sump inspections through a visual inspection of the sump, pump stations, and trash racks.

1.C.1.b Sump Maintenance Activities and Materials Removed

During the periodic and scheduled inspections, City staff performed various sump cleaning activities including desilting pilot channels, mowing, sump rehabilitation, illegal dumping, drift removal, and cleaning trash rack grates. These cleaning activities removed 2,912 cubic yards of material and 2,902 cubic yards dumping/drift/grate debris from the sump areas. The City mowed 704.37 acres of sump area.

The US Army Corps of Engineers conducted the periodic inspection of levees, floodway, and sumps in December 2007. These inspections occur every five years and the final report should be complete in summer 2008.

Sump	Mowing Cycles/ Inspections	Volume of Material Removed (cubic yards)			
		Desilting Pilot Channels	Grates	Illegal Dumping/ Drift	Total
Able	3	144	348	0	492
Old Baker	3	36	168	4	208
New Baker	3	480	384	0	864
Charlie	3	0	108	0	108
Delta	3	0	144	0	144
Old Hampton	3	1472	180	546	2198
New Hampton	3	780	564	240	1584
Pavaho	3	0	144	0	144
Rochester	3	0	72	0	72
Total	**27**	**2912**	**2112**	**790**	**5814**

1.C.2 Inlets

The SWMP indicates that the City will clean and repair inlets as needed including the removal of materials from the inlet boxes and adjacent pipes.

1.C.2.a Inlet Inspections

The City records the number of inlets inspected each year. In Permit Year 2, the City inspected 21,185 inlets.

1.C.2.b Inlet Cleaning Activities and Debris Removal

Inlet cleaning activities included the removal of debris, vacuuming, rinsing inlet boxes; and if necessary Jet Vacuuming to remove debris from the inlet boxes and adjacent pipes. The City removed 7,359 cubic yards of material from inlet boxes and the adjacent pipes.

1.C.3 Detention or Retention Ponds/Basins

The City maintains the flood control capacity and water quality of seven detention/ retention ponds. The seven ponds identified and maintained are Cherry Brook Detention Basin, Bent Creek Detention Basin, Acres Detention Basin, Whispering Oaks Detention Basin, Hatfield Detention Basin, Lone Star Detention Basin and Municipal/Budd Street Basin.

1.C.3.a Ponds/Basin Inspections

The City monitors the number of pond/basin inspections each year. SWM staff inspected 11 ponds/basins: Cherry Brook Detention Basin, Bent Creek Detention Basin, Acres Detention Basin, Whispering Oaks Detention Basin, Hatfield Detention Basin, Lone Star Detention Basin, Municipal/Budd Street Basin, Boulder Park Basin, Las Villas Basin, Grady Basin, and the Skillman Relief.

1.C.3.b Ponds/Basins Maintenance Activities and Materials Removed

The City performed routine maintenance activities for the detention/retention areas including desilting, debris removal, and mowing. Detention/Retention Ponds maintenance activities resulted in the removal of 121 cubic yards of debris and staff mowed 163.84 acres of detention basin areas.

1.C.4 Creeks and Drainage Channels

The SWMP requires the City to respond to complaints concerning the illegal disposal of materials that may degrade the water quality in creeks and channels. During Permit Year 2, the City removed blockages, any type of debris that stopped the flow of water, from earthen creeks, bridges, and cement line channels. The City received 452 creek/culvert maintenance requests; responded to 450 of the creek/culvert maintenance requests; and resolved 442 of the creek/culvert maintenance requests. The City received and responded to 290 creek/culvert blockage requests and resolved 289 of the creek/culvert blockage requests. The City responded to and resolved 56 calls affecting the water quality in creeks and channels. The City removed 21,046 cubic yards of debris and mowed 6,628 acres of Creek/ Culvert areas. See Appendix A for additional information.

1.D Storm Water Interceptor Program

The City inspects and maintains in-line storm water interceptors. Maintenance activities associated with the interceptors include periodic inspections and cleanings. In Permit Year 2, the City completed 133 cleaning events and the removed 463 cubic yards of debris from the interceptors.

See Appendix A for the inventory of in-line storm water interceptors owned and operated by the City. The City completed storm water interceptors at fire stations and added an additional 23 new storm water interceptors including: 2 interceptors at Fire maintenance facilities, 7

interceptors at the Dallas Zoo, and 14 interceptors at Equipment and Building Services (EBS) maintained City service centers.

1.E System Repair and Maintenance

The City repairs and maintains City-owned roadway culverts. The City replaced three units (pipes) of City-owned roadway culverts.

ELEMENT 2: Areas of New Development and Significant Redevelopment

Element 2: Areas of New Development and Significant Redevelopment addresses the City's measures to implement the following requirement of the permit: "*a comprehensive master planning process (or equivalent) to develop, implement, and enforce controls to minimize the discharge of pollutants from*
areas of new development and significant redevelopment after construction is completed. The goals of such controls shall include: a. New development - limiting increases in the discharge of pollutants in storm water as a result of development; and b. Redevelopment - reducing discharges of pollutants in storm water [Part III.B.2 of TPDES Permit No. WQ0004396000]." This Element promotes limiting the discharge of pollutants into storm water by:

1) Continued participation in the North Central Texas Council of Governments (NCTCOG) development of an Integrated Storm Water Management (iSWM) Manual;
2) Tracking the number, acreage, and land use of all new development and redevelopment projects equal to or greater than one disturbed acre;
3) Tracking the number and type of private water quality structures (detention ponds, outlet structures, permanent erosion control structures, retaining walls, etc.) installed to comply with new development standards; and
4) Reporting on any Development Code updates, annually.

2.A Water Quality Manual for New Development and Redevelopment

The City is participating in the preparation of the integrated Storm Water Management (iSWM) Manual, to provide guidance information to developers for meeting the storm water quality requirements as prescribed in City standards and code, in conjunction with the North Central Texas Council of Governments (NCTCOG) and other regional cities. The manual will describe storm water management principles and techniques aimed at achieving water quality goals. The manual will provide specific requirements for reducing the impacts of storm water runoff volumes and pollutant discharges resulting from new development and redevelopment.

2.A.1 iSWM Process Participation

In February 2008, the City awarded a contract to Freese & Nichols, Inc. to guide the City through the iSWM adoption. Freese & Nichols, Inc. will provide a recommendation to the City of Dallas on the adoption of part or all of the iSWM process. The recommendation will include input from City staff, engineers, developers, and the public. The final suggestions are expected during Permit Year 3, at which time City staff will present a recommendation to the City Council for approval. The City's FY08 budget includes an appropriation for the implementation of the iSWM manual that will be adopted by the Dallas City Council.

2.A.2.a New Development and Redevelopment

The City used data collected during the building permit process and SWPPP inspection process to track the acreage and land use of 374 new development or redevelopment projects.

New Development and Redevelopment Projects Land Use - Permit Year 2			
Land Use	**Total Acres**	**Number Of Sites**	**% of Sites**
Roadway/City Property	220.86	29	8%
Airports	5.01	2	1%
Commercial	271.93	43	11%
Dedicated	636.24	24	6%
Government/Education	535.52	39	10%
Industrial	523.05	30	8%
Infrastructure	217	8	2%
Residential	715.9	65	17%
Undeveloped	2349.19	132	35%
Water	17.32	2	1%
Total	5492.02	374	100%

*Numbers developed from 2005 Land Use layer. The City of Dallas plans to have a current GIS Land Use layer by January 2009.

New Development and Redevelopment Projects Size Permit Year 2	
Disturbed Acres	% of Projects
Less that 5 acres	43%
5-10 acres	26%
10 – 49 acres	25%
50-99 acres	5%
100 acres or greater	2%

2.A.2.b Private Water Quality Structures

During Permit Year 2, the 53 private water quality structures installed included:

- 2 detention ponds

- 31 headwall/outlet structures
- 17 erosion control/rip-rap/gabion
- 3 other/restrictor plate, inlet protection

Private Water Quality Structures Permit Year 2

Project Name	Address/Location	Date of Completion	Private Water Quality Structures			
			Detention Ponds (No.)	Headwalls/ Outlet Structures (No.)	Erosion Control/ Rip Rap/Gabion (No.)	Other / Restrictor Plate, Inlet Protection (No.)
Penn Farms	I-20 Between Hampton & Polk	Mar-07		2	1	
Eagle Ford	Corners of Ingersoll St. & Chippewa Dr.	May-07		1	1	
Creeks of Preston Hollow	Inwood & Royal	May-07		2		
Dallas Trade Mart	2100 Stemmons Freeway	Jun-07		1		
Preakness Ranch	Preakness Ln. @ Walton Walker Blvd.	Jun-07		1		
Camp Wisdom Est.	I-20 & Camp Wisdom	Jul-07		1	1	
Sphinx Reese Court	1201 Ewing Court	Aug-07	1	1		2
Sphinx @ Luxmar	3110 Cockrell Hill Rd.	Aug-07		1		
Sandyland Est., Ph. 1	Sandyland Blvd. & I-20	Aug-07		3	1	
Skyline Add., Ph. II	Hardy Rd. & 14th St.	Oct-07		2	1	
Mountain Hollow	Eagle Ford Dr. & Mountain Hollow	Oct-07		4	4	
Encino Hills, Ph. III	Westmoreland Ave. & Groveview St.	Dec-07		2	1	1
Home Depot Dist. Ctr.	Danieldale & Hampton	Dec-07	1	4	1	
Mountain Creek BS. PK.	4851 Mountain Creek Parkway	Jan-08		2	1	
Creekside Addition	Audilia & Shadow Way	Jan-08		1	1	
Hawthorne Townhomes	Hawthorne & Afton	Jan-08		2	4	
Emerald Plaza	2330 Royal Ln.	Jan-08		1		
Total			2	31	17	3

2.B Master Planning Process

No significant updates occurred to the Development Code during the reporting period. Development Services enforces any new adopted policies through the engineering plans review activities.

The staff continues to collaborate with the NCTCOG iSWM Program development and to enforce existing policies during the engineering plans review process.

ELEMENT 3: Roadways

Element 3: Roadways addresses the City's street sweeping, deicing, and road and bridge maintenance activities that fulfill the following requirement of the permit: "*Public streets, roads, and highways shall be operated and maintained in a manner to minimize discharge of pollutants, including those pollutants related to deicing or sanding activities* [Part III.B.3 of TPDES Permit No. WQ0004396000]." This Element promotes efficient and effective maintenance activities related to the management of the City's streets in order to limit pollutants to storm water.

3.A Street Sweeping

The City swept major thoroughfares once per month and the Central Business District streets are swept five nights per week. The City's street sweeping program focuses on high vehicular use areas and high pedestrian traffic areas in downtown Dallas. The City swept 25,040 gutter miles of major thoroughfares and 17,676 gutter miles of Central Business District streets. This prevented 3,231 cubic yards of debris from entering the storm drains.

3.B Deicing

The deicing activities promote efficient and effective maintenance practices by starting the removal of sand and deicing materials within 72 hours of an icing event. The City swept the sanding material within 72 hours of applying the material to icy patches for each of the three icing events. The debris collected from icing events is included in the debris removed reported for Street Sweeping activities.

3.C Road and Bridge Maintenance Program

The Street Services Department used the assigned control measure(s) for regular maintenance activities on 1,621 routine maintenance projects. The control measures included inlet protection, silt fencing, soil stabilization, and seeding and sodding measures. Please see Appendix A for additional information on the City's implementation activities related to the Road and Bridge Maintenance program.

ELEMENT 4: Flood Control Projects

Element 4: Flood Control Projects addresses the City's evaluation of flood control projects that fulfill the following requirement of the permit: "*Impacts on receiving water quality shall be assessed for all flood control projects. Where feasible, new flood control structures must be designed and constructed to provide pollutant removal from storm water. If applicable, the retro-fitting of existing structural*
flood control devices to provide additional pollutant removal from storm water shall be implemented, to the maximum extent practicable [Part III.B.4 of TPDES Permit No. WQ0004396000]*."* This Element promotes flood control projects that reduce the discharge of pollutants to storm water streams. The City evaluates the possibility of structural controls to enhance water quality by a review of site topography, soils, hydrology, groundwater depth, and rainfall.

4.A.1 Flood Control Projects

The City evaluated four flood control projects for storm water quality enhancements: Turtle Creek, Baker Pump Station, Pavaho Pump Station, and the Elam Creek Channel Improvements-Phase I. In compliance with Part III.B.4. of the City's TPDES Permit No. WQ0004396000, the following pollutant removal options were considered in the design and construction of the Baker Pump Station, Pavaho Pump Station, and Elam Creek Channel Improvements-Phase I projects:

- options to remove debris, such as trash racks or screens, were evaluated and rejected due to their potential to increase flooding of homes at each location;
- pollutant removal devices such as StormCeptor and StormTrooper were evaluated and rejected due the large volume of water that must pass through the system during the 100-year flood event; and
- settling basin within the creek bank easement required too much space and created an adverse impact on residential property owners.

After evaluation of the pollutant removal options, Turtle Creek project selected to use Contech in-line storm ceptors (HS48, HS60, and HS72), the design phase of this project should be completed by October 2008.

4.A.2 Fire Station Retrofit Projects

The City of Dallas continued to retrofit 27 fire stations including installation of drains on the approach throughout the City. The second phase of the retrofit projects should be completed in Permit Year 3.

4. A.3 Trinity River Corridor Project

The City of Dallas Trinity River Corridor Project continued construction on five wet land cells. Staff evaluated the incorporation of structural controls to improve water quality for these projects in Permit Year 1. The City continues to monitor the water quality of the cells and expects to complete construction of the five cells in Permit Year 3.

4.A.4 Supplemental Environmental Project – Pavaho Storm Water Wetland

The Pavaho Sump Area includes a wetland area for pretreament prior to discharge into the Trinity River. A wetland design consultant, Alan Plummer & Associates, Inc (APAI) performed a preliminary survey of the proposed wetland area for this project and continues to work on the design of the project.

ELEMENT 5: Pesticide, Herbicide and Fertilizer Application

Element 5: Pesticide, Herbicide, and Fertilizer application addresses the City's evaluation of flood control projects that fulfill the following requirement of the permit: "*The permittee shall develop and implement controls to reduce the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied, by the permittee's employees or contractors, to public right-of-ways, parks, or other municipal property. The permittee with jurisdiction over lands not directly owned by that entity (e.g. incorporated city) shall implement programs to reduce the discharge of pollutants related to the application and distribution of pesticides, herbicides, and fertilizers* [Part III.B.5 of TPDES Permit No. WQ0004396000]*."* This Element reduces the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied by the City's employees or contractors to public rights-of-way, parks, or other municipal property.

5.A Standard Operating Procedure

The City maintains a Standard Operating Procedure (SOP) for the storage and application of pesticide, herbicides, and fertilizers used to control vegetation on City-owned properties.

5.A.1 Review and Revision

The City's Integrated Pest Management (IPM) committee determined that the City needed a general citywide SOP based on current departments' SOPs. The Park and Recreation Department's draft SOP served as the base for the citywide SOP. As part of that citywide SOP, the committee created various tracking spreadsheets for the application and storage of pesticide/herbicide/fertilizer, for the licenses for City employees, and for the types of pesticides/herbicides/fertilizers used at City facilities. In order to obtain information for these spreadsheets, the committee sent pesticide/herbicide/fertilizer questionnaires to all department Environmental Management Representatives.

5.A.2 Licensed pesticide applicators and training

In the process of reviewing the information from the questionnaires, the committee updated the list of facilities applying pesticides/herbicides/fertilizers and contacted a new facility representative for participation on the committee.

5. B City-wide Integrated Pest Management Plan

After evaluation no changes were made to the current IPM Plan.

ELEMENT 6: Illicit Discharges and Improper Disposal

Element 6: Illicit Discharges and Improper Disposal addresses the City's activities: 1) to comply with the permit requirements; 2) to promote effective development and implementation of the City Code; 3) to adhere to policies that will help limit storm water pollutants; and 4) to provide best management practices for municipal sanitary sewer systems and the MS4 in order to limit pollutant sources of storm water. The City participates in the collection of household hazardous materials and used vehicle fluids for recycle, reuse or proper disposal to improve water quality. The City locates and eliminates illicit discharges and improper disposals into the MS4. Furthermore, the City maintains a list of discharges directly to the MS4 with NPDES or TPDES Permits. The activities for this element are summarized below.

6.A Non-Storm Water Discharge Controls

The City's Non-Storm Discharge Controls activity fulfills the permits requirement for the following :

"Illicit non-storm water discharges to the MS4 shall be prohibited. For the purposes of this permit, the following discharges need not be addressed as illicit discharges by the permittee nor prohibited from entering the MS4: (1) Discharges regulated by a separate NPDES or TPDES permit; (2) Discharges

for which an NPDES or TPDES permit application has been submitted; and (3) Other non-storm water discharges, as described in the City's TPDES Permit, that are not prohibited by the permittee. [Part III.B.6.a of TPDES Permit No. WQ0004396000]." The City uses its Storm Water Education

Program to promote effective development and implementation of the City Code and policies that will help limit storm water pollutants.

6.B Overflows and Infiltration

The City's overflows and infiltration activities fulfill the permits requirement *to : "implement controls where necessary and where feasible, to prevent dry weather and wet weather overflows from sanitary sewers into the MS4, and shall limit the infiltration of seepage from municipal sanitary sewers into the MS4* [Part III.B.6.b of TPDES Permit No.WQ0004396000]." This Element promotes municipal sanitary sewer system use of best management practices to limit pollutant sources.

6. B.1 SSO Discharges

The City responded to and resolved 163 sanitary sewer overflows. Response activities varied depending upon the nature of the overflow. The activities included:

- follow up sewer system cleaning,
- follow up sewer system television inspection,
- point repairs to the sewer system,
- pipe replacement,
- pipe rehabilitation,
- barricade and monitor location (wet weather overflows),
- data analysis, and
- illicit discharges & improper disposals investigations (wet weather overflows).

6.B.2 SSO Follow-up Responses

The City's operational progress included cleaning 1,566.16 miles of sanitary sewer pipes, televising 346.84 miles of pipes, applying a root control application to 72.10 miles of pipe, and 4,137 sanitary sewer repairs.

The City had over 400 unauthorized discharges between September 2004 and May 2006 that were primarily due to blockage from grease buildup, as well as inflow and infiltration. As a response to the large number of SSOs the City entered into an agreement with the TCEQ to reduce the number of sanitary sewer overflows by improving the wastewater system and reducing the amount of grease build up, inflow, and infiltration. The City's plan to reduce SSO's includes the following activities:

a. Provide proper grease disposal information and education at public outreach events, to residential customers, industry, and trade organizations
b. Inspect grease generating establishments;
c. Perform sewer main cleaning, conduct CCTV inspection of the wastewater system, inspect manholes, and inspection by creek walking selected sewer basins and areas with exposed sewer mains due to creek/stream erosion
d. Inspect and remotely monitor collection system lift stations
e. Conduct smoke tests and apply root control application
f. Changes to City Ordinance to include specific schedules for the pump out of grease traps located upon the premises of FSEs
g. Complete the Comprehensive Wastewater Collection System Assessment

(ACWWCSA@ or A Master Plan@)

6.C Floatables

The City's Floatables activity fulfills the permits requirement to: *"reduce the discharge of floatables (e.g.: litter and other human generated solid refuse) into the MS4, which shall include source controls and, where necessary, structural controls and other appropriate controls* [Part III.B.6.c of TPDES Permit No. WQ0004396000]."

The City of Dallas Parks and Recreation Department maintains three litter booms at Bachman Lake, Williamson Branch Creek at White Rock Lake, and at Lake Cliff Park. The City routinely inspects, maintains (twice per year at minimum), and cleans the litter booms. The City's Environmental Specialists monitor the litter booms monthly in a joint effort to divert debris from entering the Waters of the U.S. Appendix B provides additional information on the City's floatables control program.

Bachman Lake is located at Webb Chapel Road and Northwest Highway in Dallas, Texas. The litter boom located at 3700 N.W. Highway at Lemmon Avenue measures approximately 100 feet from the outfall of the nearby neighborhoods and about 2.0 miles from the dam. The litter boom diverted 207.41 cubic yards of debris or 1,200 30-gallon trash bags of debris, from entering the dam. The litter boom is approximately 295 feet long (3-85 feet sections) with a skirt measuring approximately 10 inches wide. The boom is set up at an angle from the retaining wall to the shore for the collected debris to be easily removed. Staff inspected and cleaned the boom 40 times during Permit Year 2.

A second litter boom is located at Williamson Creek at White Rock Lake. The two main sources of litter and debris identified for White Rock Lake were rain events and public events held at the Lake. The White Rock public events include holiday picnicking which Park and Recreation Department staff target for cleanup the following day. A deposit charged for public events at the lake promotes proper disposal of trash. The Park and Recreation Department Coordinator targets specific age groups and organizations to promote the reduction of illicit discharges and improper disposal at all parks. In Permit Year 2, the litter boom at Williamson Creek diverted 8.99 cubic yards of debris or 52 30-gallon bags of debris from entering White Rock Lake. The litter boom at Williamson Creek Park and Recreation Department personnel checked and/or cleaned 156 times.

A third litter boom is placed at Lake Cliff Park in Oak Cliff, 300 E. Colorado Blvd. The litter boom is at the NW corner of the Lake and prevented 5.88 cubic yards of debris or 34 30-gallon bags of debris from entering the Trinity River. The litter boom was cleaned and/or maintenanced 13 times during Permit Year 2. Lake Cliff Park faces the same obstacles regarding litter as Bachman Lake and Williamson Creek

These Photos were taken of the Litter Boom at Bachman Lake on January 11, 2008 and February 21, 2008

6.D Household Hazardous Waste and Used Motor Vehicles Fluids

The City's Household Hazardous Waste and Used Motor Vehicle Fluid disposal activities fulfill the permits requirement to "*ensure the implementation of programs to collect used motor vehicle fluids (including, at a minimum, oil and antifreeze) for recycle, reuse, or proper disposal and to collect*

household hazardous waste materials (including paint, solvents, pesticides, herbicides, and other hazardous materials) for recycle, reuse, or proper disposal. Such programs shall be readily available to all private residents and shall be publicized and promoted on a regular basis. Household hazardous waste collection centers which are operated by the permittee as a SWMP element are not considered an industrial activity requiring a separate TPDES authorization for the discharge of storm water [Part III.B.6.d of TPDES Permit No. WQ0004396000]."

6.D.1.a Quantity of used motor vehicle fluids and HHW collected from City of Dallas Citizens

The Dallas County Home Chemical Collection Center (HC3) program collected and properly disposed 1,561,473 pounds of household hazardous waste, hazardous paint, and electronic waste; 133,664 gallons of recycled paint and used cooking oil; 133,424 gallons of used oil and antifreeze; and 64,125 auto batteries and oil filters. Specific quantities collected for the HC3 program included:

- 671,121 pounds of hazardous waste
- 752,500 pounds of hazardous paint
- 120,504 gallons of recycled paint
- 54,125 auto batteries
- 33,264 gallons of antifreeze
- 100,160 gallons of used oil
- 10,000 oil filters
- 137,852 pounds of electronics

The Dallas County HC3 program estimates that 9,061, approximately 46.8% of the total participates were City of Dallas residents.

6.D.1.b Promote County's HC3 and a HHW Collection Event

The City will continue funding for the County's HC3 program and provide staff to assist with an offsite HHW collection event. The program is a voluntary consortium of cities coordinated through Dallas County. The program focuses on decreasing improper disposal of household hazardous chemicals and used oil. It operates a collection center that is open weekdays year-round. Residents of any participating city may use the services at any time, free of charge. In addition, the Network holds a series of one-day collection events on weekends during the spring

and fall at temporary locations in the community. Specific quantities collected for the HC3 program at collection events included:

- 21,610 pounds of hazardous waste
- 10,500 pounds of hazardous paint
- 5,386 gallons of recycled paint
- 140 auto batteries
- 98 gallons of antifreeze
- 650 gallons of used oil
- 200 oil filters

6.E MS4 Screening and Illicit Discharge Inspections

The City's MS4 Screening and Illicit Discharge Inspection activities fulfill the permits requirement to *implement a Dry Weather Screening Program described in Part III.B.11.a (Monitoring and Screening) of this permit, to locate portions of the MS4 with suspected illicit discharges and improper disposals" ; "identify high risk and high priority areas"; "screen these areas throughout the permit term"* and to maintain " *A system for handling and responding to complaints …in a manner which is conducive to locating areas of the MS4 where new illicit discharges and improper disposals may be suspected.* [Part III.B.6.f of TPDES Permit No. WQ0004396000]."

The City has several monitoring and screening programs associated with its TPDES Permit: dry weather screening, wet weather screening, and industrial and high risk runoff monitoring. In addition, staff collects takes water quality samples in response to citizen complaints regarding surface water quality. The dry weather screening program detects the presence of illicit connections and improper discharges to the MS4. Screening is prioritized according to land use with an emphasis on heavy industrial and commercial areas. See Element 11 for additional information on the City's MS4 screening programs.

6.F Elimination of Illicit Discharges

The City's Elimination of Illicit Discharges activities fulfill the permits requirement to "*require the elimination of illicit discharges and improper disposal practices as expeditiously as reasonably possible. Where elimination of an illicit discharge within 30 days is not possible, the permittee shall require an expeditious schedule for removal of the discharge. In the interim, the permittee shall require the operator of the illicit discharge to take all reasonable and prudent measures to*

minimize the discharge of pollutants to the MS4 [Part III.B.6.e of TPDES Permit No. WQ0004396000]." The City performs activities to eliminate illicit discharges by tracking the number of illicit discharges and illegal disposal sources identified, per year.

6.F.1 Discharges and Disposal Sources

The City continues to eliminate illicit discharges and improper disposal sources of non-storm water materials into the MS4 by investigating complaints, issuing citations, and making arrests for illicit discharges. The City Marshals "Illegal Dump Team" has four deputies, one investigator, and one code inspector who patrols the City of Dallas for illegal dumping. The Illegal Dump team has a zero-tolerance policy. The City works to correct the discharge or remove the improperly disposed materials within 30 days, or as expeditiously as reasonably possible. See Element 11 and Appendix G for additional information.

6.F.2 Ordinance

The City reviewed and evaluated the existing City Ordinance No. 24033, Section 19.118 (re: Storm Water Drainage System) and developed proposed revisions. The proposed revisions incorporate changes included in TCEQ's Construction General Permit renewed in March 2008. Proposed revisions to the City Ordinance are scheduled for review by the City Council in April 2008.

6.F.3 Reporting and Response

The City responded to over 1,000 requests or complaints from citizens regarding illegal dumping or improper discharge of non-storm water materials. The City supports the use of the internet-based or telephone (3-1-1) City-wide customer request management system (CRMS) and City's storm water-related educational materials encourage the public to use the 3-1-1 system to report illicit discharges. See Appendix G for additional information on the type and quantity of calls responded to by the City.

6.G List of Discharges Directly to the MS4 with NPDES or TPDES Permit

The City maintains a List of Discharges Directly to the MS4 with NPDES or TPDES Permit Elimination to fulfill the permits requirement to "*maintain, and update as necessary, a list of discharges directly to the MS4 that have been issued an NPDES or a TPDES permit. The list shall include the name, location and permit number of the discharger* [Part IIIB.6.g of TPDES Permit No. WQ0004396000]."

The City maintained a list of sites including name, location, and permit number for 923 sites that required NPDES/TPES permits: 185 large construction sites, 189 small construction sites, 549 industrial sites (including 70 sites without the required permit).

ELEMENT 7: Spill Prevention and Response

The City's Spill Prevention and Response activities fulfill the permits requirement to "*continue and improve as necessary existing programs which prevent, contain, and respond to spills that may discharge into the MS4. The spill response programs may include a combination of spill response actions by the permittee (and/or another public or private entity), and legal requirements for private entities within the jurisdiction of the permittee* [Part III.B.7 of TPDES Permit No. WQ0004396000]."

Activities for Element 7 promote the effective development and implementation of City Codes and policies to limit storm water pollutants from spills. Administrative Directive 3-74 specifies the guidelines for the prevention of spills and the response to spills within the City of Dallas and at City facilities. The City reports the number of spill responses and maintains a spill prevention program that includes the proper handling, storage, and disposal of hazardous and non-hazardous materials. The City provides training activities on the spill prevention program and documents spill prevention training annually. Additionally, the City uses BMPs to minimize entry of pollutants from City-owned vehicles into the MS4.

7.A Spill Response Program

The City uses the 311/911 system for receiving and dispatching notice of hazardous and non-hazardous spills. The City responds to all hazardous substances calls. If a spill of this type enters the City's MS4 system, attempts are made to mitigate the effects and prevent the substances from reaching Waters of the US.

The City responded to 151 hazardous materials calls and received notice of 2,742 Hazmat incidents including: 1,742 natural gas line cuts, 519 fuel spills, 319 Carbon Monoxide calls, and 11 bomb scares. Of these incidents, 34 entered the storm drain, but the contaminants were removed prior to reaching Waters of the U.S.

Dallas Fire Rescue Employees: Charles Cavnor, David Barber, K. Taliaferro, and John Hampton.

This a picture of a response to a Type II spill. A major accident, involving a pesticide release Product was Permethrin "Nibor-D" and Bifenthrin "Talstar" (UN # 1784 / 3082) in liquid concentrated form (20 gallons spilled); the product was Organophosphate (Nerve Agent), an airborne and contact hazard to all forms of life. The area was boomed to prevent runoff. In addition , absorbent was applied and was picked up, with the residual vacuumed up by an environmental cleanup contractor; then absorbent was reapplied to ensure complete cleanup.

7. B Spill Prevention Program

Fire-Rescue

The City has 2,107 Dallas Fire-Rescue employees and 56 fire stations. Dallas Fire-Rescue members received 164 hours of training for Hazardous Material and Spill Prevention:

- Spill Prevention Training (102 hours)
- TX Hazard Communication Act (4 hours)
- SARA Title III (2 hours)
- Chlorine Kits & CL Emergencies with DWU (8 hours)
- Radiological WHIP Shipments (4 hours)
- PortaCount REPSS (4 hours)
- HazMat Operations (40 hours)

Storm Water Management

The City's environmental specialists respond to calls regarding spills and illegal dumping into the lakes, channels, storm drains, streets, and alleys within the MS4. Each call is mitigated to the maximum extent possible. All environmental specialists receive 40 hours of Hazardous Waste Operations (HazWoper) Training upon employment. In PY2, five environmental specialist attended. Annually, each inspector attends an eight-hour refresher HazWoper training session. In PY2, 25 environmental specialist attended this trainging.

Office of Environmental Quality

The City conducted 14 *Spill Response, Reporting and Cleaning* classes. The classes were available to all employees. As part of the Emergency Management System (EMS) each Department identified by job title/description who is required to attend the spill response training.

7.C Maintain City-Owned Vehicles

The City responds to all spills from City vehicles and ensures proper clean up and disposal. All City vehicles are equipped with spill kits, absorbent, and booms. Employees are trained on the proper procedures for containing spills and preventing pollutants from entering the storm drain. There were 203 incidents involving City vehicles and hydraulic oil spills. Of the 203 hydraulic oil spills, two entered the storm drain and reached the Waters of the U.S. In the case of the two

spills that entered the storm drain, the City assisted by responding to and removing the pollutant from the storm drain.

The City strives to improve on the activities to prevent, to contain, and to respond to spills that may discharge into the MS4. The City provides training to employees responsible for responding to hazardous and non-hazardous spills as well as providing training to staff whose work duties have the potential to create a hazardous or non-hazardous spill. The City continues to implement activities aimed at reducing the number and impact of City vehicles involved in spills.

ELEMENT 8: Industrial and High Risk Runoff

The City's Industrial and High Risk Runoff activities fulfill the permit requirement to "*continue and improve as necessary the existing programs to identify and control pollutants in storm water discharges to the MS4 from municipal landfills; other treatment, storage, or disposal facilities for municipal waste (e.g. transfer stations, incinerators, etc.); hazardous waste treatment, storage, disposal and recovery facilities and facilities that are subject to Emergency Planning and Community Right-to-Know Act (EPCRA) Title III, Section 313; and any other industrial or commercial discharge the permittee determines are contributing a substantial pollutant loading to the MS4."*

The City's Industrial Inspection Program identifies and controls pollutants in storm water discharges to the MS4. The City conducts Industrial and High Risk Runoff Inspections at industrial facilities; hazardous waste treatment, storage, and disposal facilities (subject to Title III, Section 313 of the Superfund Amendments and Reauthorization Act (SARA 313); and municipal landfills. In addition, the City has a Dry Weather Screening Program, a Wet Weather Screening Program, and an Industrial and High Risk Runoff Monitoring Program.

8.A Inspections and Control Measures

The City uses the following inspection and control measures:

- Inspects a minimum of 500 permitted industrial facilities known to the City, annually.
- Inspects 600 or all, whichever is less, SARA 313 facilities known to the City, annually.
- Conducts a site review and inspection of each permitted City facilities, which may potentially affect storm water quality, at least once per permit term.

The City performed 1,081 industrial inspections including 555 inspections at either permitted industrial facilities or industrial facilities that required a permit. The City inspected all 72 industrial locations classified as SARA 313 facilities and conducted a site review and inspection of two permitted City facilities, which potentially affected storm water quality. Element 10 details the educational efforts conducted for industrial facility operators. Element 11 describes the monitoring activities used to detect possible contaminants in storm water runoff from industrial areas.

8.B Monitoring

The industrial and high-risk monitoring program evaluates the water quality of a discharge to the MS4 by a permitted industry that may contribute a substantial pollutant load to the MS4. This program reviews either the data provided by a facility or the "No Exposure" certificate provided by the facility during an inspection. The data is reviewed for compliance with individual facility permit requirements and the TPDES Multi-Sector General Permit.

The City reviewed 292 "No Exposure" certificates and received monitoring data from more than 260 facilities. The City used historical inspection data to select facilities for review. The reviewed data was in compliance with permit requirements. An evaluation of the facility monitoring data; the wet weather monitoring data; dry weather monitoring data; and bioassessment monitoring data determined the impact of an industrial activity on water quality.

ELEMENT 9: Construction Site Runoff

The City's Construction Runoff activities fulfill the permits requirement to "*reduce the discharge of pollutants into the MS4 from constructions sites* [Part III.B.9.a of TPDES Permit No.WQ0004396000]*."* The City implemented four BMPs: Use and Maintenance of Control Measures, Inspection of Construction Sites and Enforcement of Control Measure Requirements, Appropriate Education and Training Measures for Construction Site Operators, and Notification of Applicants of Responsibilities.

9.A Use and Maintenance of Control Measures

For applicants seeking to obtain specific building permits, the City requires storm water pollution prevention plans (SWP3s) that adhere to State regulations and requirements. The City's permitting process requires BMPs for erosion and sediment controls to protect water quality. City's Development Services Department received 87 SWP3s as part of the building permit application process.

9.B Construction Inspection Program

The City's construction site inspection program inspects construction sites for compliance with storm water management requirements and practices. The types of inspected sites are as follows:

- Sites with ground disturbances over 5 acres in size every 2 weeks
- Sites between 1 and 5 acres in size once within the first six weeks of notification of ground disturbance
- Sites with ground disturbances less than one acre in size in response to complaints
- Inspection of sites with ground disturbances less than one acre in size when the site is located in the geologically similar areas of the City every 2 weeks

The City conducted 5,480 inspections at 185 construction sites with ground disturbances over 5 acres in size, sites that are part of a common plan of development over 5 acres in size, or a site within the escarpment or geologically similar area. The City conducted 1,615 inspections on 189 construction sites between 1 and 5 acres.

9.C Appropriate Education and Training Measures for Construction Site Operators

The City developed a training and educational program for designers and engineers, construction site inspectors, and site operators on the use of BMPs at construction sites. The City presented six construction workshops to the public to train designers and construction site managers about planning practices and BMPs. City staff conducted and documented the seminars. The following construction workshops were held at Dallas City Hall:

Date	Topic	# Of Attendees
5/17/2007	TPDES Construction Permit Requirements	40
6/15/2007	Achieving Compliance with TPDES Construction Permit Requirements	26
7/19/2007	TPDES Construction Permit Requirements	44
9/20/2007	TPDES Construction Permit Requirements	39
11/15/2007	TPDES Construction Permit Requirements	31
2/21/2008	Achieving Compliance with TPDES Construction Permit Requirements	5
	Total of 6 presentations	**185**

9.D Notification of Applicants of Responsibilities

The City monitors and revises the building permit procedures to ensure a process that emphasizes notification to building applicants of their responsibilities under the current TDPES permitting regulations. The City continuously evaluates the site planning checklist process that requires the Contractor to provide a copy of the SWP3 for projects, which disturb sites of one acre or more, are part of a larger plan of development, or are located in a geologically similar area. The City informs contractors of their responsibility to provide a copy of the Construction Site Notice (CSN) or Notice of Intent (NOI).

The City notifies all applicants and known builders of the SWP3 requirements by mailing and/or presenting them with brochures that contain information regarding the SWP3 requirements. In addition, the City requires the appropriate staff attend a Construction Inspection Workshop conducted by the Storm Water Management Section. In addition, during Permit Year 2, the Building Inspections permitting process changed to require applicants to obtain SWP3 information from SWM staff before receiving a permit.

ELEMENT 10: Public Education Program

The City's Public Education Program fulfill the permits requirement to "*implement a public education program component with the following:* a. A program element to promote, publicize, and facilitate public reporting of illicit discharges or improper disposal of materials, including floatables, into the MS4; b. A program element to promote, publicize, and facilitate the proper management and disposal of used oil and household hazardous wastes, including pesticides, herbicides, and fertilizers; and c. A program element to promote and publicize the proper use, application, and disposal of pesticides, herbicides, and fertilizers by public, commercial, and private applicators and distributors[Part III.B.10 of TPDES Permit No.WQ0004396000]."

The City educated the public, schoolchildren, the construction industry, other industries, and City employees about storm water, storm water requirements and BMPs. The Public Education Program used The Enviroscape Model, which interactively shows how pollution moves through a watershed, at many of the events and presentations conducted. There were approximately 24,064 visits to a storm water website (www.trinity-trudy.org or www.wheredoesitgo.com). The annual advertising campaign included 576 radio ads, 18 print ads, 331 television ads aired on 7 local television stations, and 2,907,416 online banners on 6 websites. The campaign's online banner campaign contributed 2,693 hits to www.wheredoesitgo.com. The campaign included 28,360 ads shown on 65 movie screens at four local movie theatres.

The program conducted five Industrial Workshops to provide information on Texas Pollutant Discharge Elimination System (TPDES) permitting requirements. Staff conducted Construction workshops at Dallas City Hall on state and local requirements and the use of BMPs. Storm Water 101 expanded to include presentations to field personnel and new hires at employee orientation. A total of 974 City employees received Storm Water Education during new employee orientation: 514 City employees attended Storm Water 101 and 460 City employees attended the new Intro to Storm Water module, which started in October 2007. A total of 1,364 employees completed the Storm Water 101 Module during the permit year: 322 City employees completed the Storm Water 101 Module online via the City's intranet and 1,042 employees completed Storm Water 101 during presentations.

ELEMENT 11: Monitoring and Screening Programs

The City's Monitoring and Screening Programs fulfill the permits requirement to have:

A. A dry weather monitoring program "*to detect the presence of illicit connections and improper discharges to the MS4"*
B. A wet weather monitoring program *"identify, investigate, and address areas within their jurisdiction that may be contributing excessive levels of pollutants to the MS4.*
C. An industrial and high risk monitoring program "*monitoring for pollutants in storm water discharges to the MS4 from municipal landfills; other treatment, storage, or disposal facilities for municipal waste (e.g., transfer stations, incinerators, etc.); hazardous waste treatment, storage, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge the permittee determines are*
contributing a substantial pollutant loading to the MS4."

11.A Dry Weather Screening

The City's monitoring and screening programs associated with its TPDES Permit were the dry weather screening, the wet weather screening and the industrial and high risk runoff monitoring programs. Staff collected water quality samples in response to citizen complaints regarding surface water quality. The dry weather-screening program detects the presence of illicit connections and improper discharges to the MS4. The priority for screening was according to land use with an emphasis on heavy industrial and commercial areas.

11.B Wet Weather Screening

The wet weather-screening program identifies and investigates areas that may contribute excessive levels of pollutants to the MS4. In Permit Year 1 through Permit Year 5, the program screens and City is required to screen and sample two of the 38 watersheds within the City during wet weather conditions each year. The City conducted a wet weather characterization, a representative monitoring program using a cooperative effort of sampling three watersheds, as part of a regional program directed by the North Central Texas Council of Governments (NCTCOG). NCTCOG submitted a report for this program in February 2008. The City's rapid bioassessment program (RBP) collects benthic macroinvertebrates, evaluates water quality samples, and conducts habitat assessments.

11. C Industrial and High Risk Monitoring

The City's industrial and high risk monitoring program evaluates the water quality of discharges to the MS4 by permitted industrial facilities that may contribute substantial pollutant loads to the MS4. The City does not collect samples for this program, but reviews either the data or the "No Exposure" certifications provided by the permitted facilities. Staff reviewed the data for compliance with the individual facility permit requirements and the TPDES Multi-Sector General Permit.

Staff identified facilities eligible for NPDES/TPDES storm water discharge permit coverage and requested the analytical monitoring data collected by the facility (to comply with state or federal permit requirements) be submitted to the City for review. The City identified and contacted 264 facilities, which were required to submit water quality samples or provide Non Exposure Certificates to SWM. Of the facilities contacted, 68 facilities submitted sampling results to SMW and 30 facilities exceeded benchmark reporting limits. The City required facilities that exceeded the benchmark reporting limits in an excessive manner to increase the number of storm water sampling events and to develop action plans on how to reduce the level of parameters found in their facility's storm water runoff. In addition to identifying High Risk Facilities, Section 3 of this report provides additional information on the City's monitoring and screening programs.

SECTION 2

Proposed Changes to Storm Water Management Program

The City of Dallas – Fire-Rescue Department conducted a study in May 2007 to review applicable storm water regulations, evaluate the characteristics of runoff quality during and after controlled burn activities at the Dallas Fire-Rescue Training Center (DFRTC), and to determine Best Management Practices (BMPs) that were feasible to protect Texas' receiving waters from potential impacts of runoff during and after controlled burn activities (i.e. fire fighting training activities).

Study Key Results

The existing Texas Pollutant Discharge Elimination System (TPDES) Municipal Separate Storm Sanitary Sewer System (MS4) Permit (Part III.B.6) and language interpretation by the TCEQ Storm Water Permitting staff authorized the discharge of fire fighting training runoff to the storm sewer system with the implementation of control measures. All controlled burn activities conducted by Dallas Fire-Rescue (DFR) are performed without the use of chemical accelerants, chemical suppression agents, fire retardants, or water additives. Based on analytical results from extensive analysis by the MS4 and compared to data from a nation-wide study, the discharge from controlled burn activities at the Dolphin Road Fire Training Academy have been determined to not be a significant source of pollutants. The quality of runoff from dry- and wet-weather conditions was acceptable for inlet inserts coupled with an in-line dechlorinator.

Study Recommendation

The existing language within the City of Dallas MS4 permit authorizes discharge from "fire fighting" as an exempt non-storm water discharge. For regulatory clarity, the City may either amend its existing permit to clearly define "fire fighting training" activities or describe controls or conditions for runoff from fire fighting training activities in its Storm Water Management Program.

According to the study, there were no pollutants of concern in runoff from the DFRTC during wet-weather events after conducting controlled burn activities. However, this was contingent on maintaining BMPs and diligence in good housekeeping practices. For dry-weather conditions (during controlled burn activities), Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) concentrations were slightly higher with similar data reported for "commercial" land

use sites but not considered significant concentrations to impact water quality. Based on this data, the fire fighting training activities conducted at the facility were not a significant source of pollutants; however, DFR implemented additional BMPs (i.e. prompt removal of burn debris, daily housekeeping focus on burn areas, and installation of control measures).

Implementation of Recommendations from the Study

In September 2007, DFR initiated the installation of curb inlet filters or inlet for the outfalls downstream of the training activities. Upon the installation of the three (3) inlet filters, DFR conducted a controlled burn event. The samples collected from the runoff to the inlet were analyzed for BOD, TSS and metals. No pollutant was identified as a concern - all pollutants were near or below detection levels.

As part of this effort, proposed BMPs were developed associated with the training events. The proposed revisions to Element 6 of the Storm Water Management Plan (SWMP) include the following implementation activities:

- City staff installs curb protectors at nearby outfalls where training activities are conducted;
- City staff inspects the condition of each curb protector on a monthly basis and after significant storm events;
- City staff collects samples for Total Suspended Solids (TSS) and metals during each training event and significant storm events; and
- Based on the results of the sampling events, each curb protector is cleaned or replaced, as necessary.

SECTION 3
MONITORING DATA

As described in Section 1-Element 11, the City collects water quality samples in response to several required permit tasks including the City's Dry Weather Screening Program, Wet Weather Screening Program and the Rapid Bioassessment Program (RBP). The City ensures that the samples are analyzed using EPA approved methods. The analytes include:

total suspended solids (TSS)	total dissolved solids (TDS)
turbidity	total chlorine
pH	specific conductance
temperature	iron
total phosphorous	copper
ammonia	nitrate-nitrite
COD	dissolved oxygen (DO)

The City sends samples collected for enforcement actions to a contract laboratory to provide analytical results defensible in a court of law.

The SWMS collected 297 samples including 220 samples directly associated with the permit programs and 77 samples for special surface water quality projects. The samples were analyzed for the parameters listed above.

Dry Weather Screening Program

The City monitored 1,948 discharge locations in 15 watersheds; identified 96 new outfalls; and observed 944 outfalls that discharged directly into a waterway. The City observed 339 outfalls with flow located in 10 of the 15 watersheds monitored. Of the outfalls with flow, 53% of the outfalls were in the Dallas East Bank watershed, a predominately-residential area where lawn watering may provide dry weather flows. In Permit Year 1, 65% of outfalls with flow were in the White Rock Dam watershed. In Permit Year 2, all flows were natural flows, i.e. groundwater infiltration or irrigation runoff except for six illicit discharges. The six illicit discharges consisted of the following:

1) illicit discharge in Joe's Creek due to improperly stored fertilizer subject to storm water : resolution - citizen was provided education and fertilizer was properly stored;
2) illicit discharge in Prairie Creek attributed to a broken sanitary sewer main: resolution – sewer main was repaired;

3) illicit discharge in White Rock Dam attributed to a broken sanitary sewer main: resolution – sewer main was repaired;
4) illicit discharge in Dallas East Bank due to a leaking hydrant: resolution – fire hydrant was repaired;
5) illicit discharge in Dallas East Bank attributed to a sanitary sewer overflow: resolution – overflow was stopped;
6) illicit discharge in the Dallas East Bank that is still under investigation.

Additional information on the City's Dry Weather Program is provided in Appendix D.

Wet Weather Screening

During the reporting period, the City screened and sampled two outfalls, one in the Main Stem Above Ten Mile Creek watershed and one in the East Fork Trinity watershed. The local wet weather program screened each outfall twice during wet weather conditions. The City screened and sampled five outfalls in the Dallas East Bank watershed as part of the Regional Wet Weather Program. The North Central Texas Council of Governments (NCTCOG) submitted the data for the regional monitoring program in February 2008. This report includes data collected at the Dallas East Bank sites. Additional information on the City's Wet Weather Screening Program is in Appendix E.

Rapid Bioassessment Program

The City of Dallas Storm Water Management Program includes a rapid bioassessement monitoring program in compliance with TPDES Permit No WQ0004396000. The permit requires samples from at least two water bodies that receive storm water discharges from the MS4 plus a reference site. The City has four designated compliance monitoring stations selected for geographical coverage and year round availability.

Watershed	Site	Reference Site
Lower Bachman Creek B	BAB– Bachman Branch site B	SMCA South Mesquite Creek site A
White Rock Dam	DIXA – Dixon Branch site A	SMCA South Mesquite Creek site A
Lower Five Mile Creek	FIVA – Five Mile Creek site A	SMCA South Mesquite Creek site A
Dallas East Bank	KNIA – Knights Branch site A	SMCA South Mesquite Creek site A

The City collected a sample from a reference site sample each time a compliance station was sampled. The City monitored all stations; however, a reference site sample may not have been collected concurrently each time a non-compliance station was monitored.

The bioassessment program monitors and assess overall biological health in streams and watersheds within the City's jurisdiction. The bioassessment sampling program incorporates habitat assessments, water quality sampling, and biological sampling. The City collected samples from 50 streams within 26 watersheds including seven reference sites on three streams within four watersheds. Sampling took place to coincide with TCEQ Established index periods for biological sampling. The spring sampling event, beginning mid-March and ending June 30th, targeted spring conditions with optimal conditions for biological community growth. The second sampling event, July 1st to September 30th, is the critical index period for biological sampling because of typical summer low flows and high water temperatures.

Since Permit Year 1, habitat scores improved for the majority of the sites; although, the site may not have changed in category. In the spring assessments, the following occurred:

- the majority of the sites remained in the same categories,
- categorical improvement occurred for three sites, and
- one site's score showed a negatively impacted habitat.

In the summer habitat assessment the following occurred:

- there were categorical improvements in seven sites,
- categorical degradation at two sites, and
- ten sites remained categorically unchanged although raw habitat scores improved.

There were 19 macroinvertebrate monitoring sites during Permit Year 2 and the following results occurred:

- all compliance sites received an Aquatic Life Use (ALU) score of Intermediate
- 63 % of the sites monitored received an Aquatic Life Use rating of Intermediate
- 26% of the monitored sites received a Limit Aquatic Life Use score, and
- 11% received a High Aquatic Life Use Score.

Additional information on the City's Rapid Bioassessment Program is provided in the Appendix F.

SECTION 4
NOTICES OF INTENT RECEIVED

The City received 892 notices, letters, and building permits in accordance with the TCEQ TPDES TXR150000 General Permit for Construction Activities. The City completed 5,480 inspections for 185 sites greater than or equal to 5 acres, part of a common plan of development greater than or equal to 5 acres, or part of the escarpment or geologically similar area. The City performed 1,615 inspections for 189 sites greater than or equal to 1 acre and less than 5 acres.

The City conducted industrial inspections at 549 facilities requiring No Exposure Certification (NEC) or permit coverage according to the NPDES/TPDES Multi-Sector General Permit for Industrial Activities. The City of Dallas uses a digital system to track industrial applications and permits. The database was completed in April 2007 and the updated information for inspections available and in use by July 2007**.**

SECTION 5
ANNUAL EXPENDITURES FOR REPORTING YEAR AND THE FOLLOWING YEAR

As required by Part IV.C.6. of the permit, this report includes annual expenditures for the reporting period; a breakdown for the major elements of the SWMP; and the estimated budget allocation for the following year.

During the reporting period, the City had an estimated $24,358,555 in expenditures for activities related to the major elements of the SWMP. The following table provides a breakdown of the expenditures by Element (incurred costs):

Estimated Implementation Costs for City of Dallas
Storm Water Management Programs
Permit Year 2 (February 22, 2007 – February 21, 2008)

Element	Program Name	Estimated Costs (2/22/07- 2/21/08
1	Structural Controls and Storm Water Collection System Operation	$1,807,595
2	Areas of New Development and Significant Redevelopment	$46,088
3	Roadways (Including cost of street sweeping)	$7,202,081
4	Flood Control Projects	$10,429,253
5	Pesticide, Herbicide, and Fertilizer Application	$26,440
6	Preventing Illicit Discharges	$791,937
7	Spill Prevention and Response	$119,980
8	Industrial and High Risk Runoff	$1,035,574
9	Construction Site Runoff	$1,035,574
10	Public Education	$828,459
11	Monitoring Program	$1,035,574
Total		**$24,358,555**

During the next reporting period, the City estimates $24,845,726 in expenditures for activities related to the major elements of the SWMP. The following table provides a breakdown of the estimated expenditures by Element (projected costs):

Estimated Implementation Costs for City of Dallas Storm Water Management Programs Permit Year 3 (February 22, 2008 – February 21, 2009)		
Element	**Program Name**	**Estimated Costs (2/22/08- 2/21/09**
1	Structural Controls and Storm Water Collection System Operation	$1,843,747
2	Areas of New Development and Significant Redevelopment	$47,010
3	Roadways (Including cost of street sweeping)	$7,346,122
4	Flood Control Projects	$10,637,838
5	Pesticide, Herbicide, and Fertilizer Application	$26,969
6	Preventing Illicit Discharges	$807,775
7	Spill Prevention and Response	$122,379
8	Industrial and High Risk Runoff	$1,056,286
9	Construction Site Runoff	$1,056,286
10	Public Education	$845,029
11	Monitoring Program	$1,056,286
Total		**$24,845,726**

The values presented in Estimated Implementation Costs for City of Dallas Table (Permit Year 2) are approximate expenses and the values presented in Estimated Implementation Costs for City of Dallas Table (Permit Year 3) are projected costs. The City's fiscal year is October 1st through September 30th. The City Budget to be adopted by September 30, 2008 may include more or less funding for various line items. There is also a lag between when expenditures occur and when they are reflected in financial systems.

In regard to both tables, given the overlap of certain components of the program are shared costs, (i.e. Public Education Program development, project administration, etc.), the allocation of some components of the costs is approximate. The values presented do not include all costs that could be categorized as maintenance, i.e. repairs to wastewater collection system, or routine operations, i.e. existing programs.

SECTION 6
ENFORCEMENT ACTIONS, COMPLIANCE INSPECTIONS, AND PUBLIC EDUCATION PROGRAMS

The City conducted 8,176 inspections consisting of 7,095 construction inspection and 1,081 industrial inspections. The number of industrial inspections includes 555 inspections or follow-up inspections for facilities requiring a permit. The Compliance or Outreach teams perform inspections and issue a Notice of Violations (NOV), if required. If the site does not correct the violations, the teams refer the sites to Enforcement. The Enforcement team conducts an inspection and issues an NOV, if required. Other potential actions include issuing Citations or an Outside Complaint, filed through the City Attorney's Office.

During Permit Year 2, the Storm Water Management Enforcement group conducted 674 construction inspections. No industrial activities required enforcement action. During Permit Year 2, the Enforcement Team issued 12 citations and the City Attorney's Office filed 246 outside complaints associated with construction activities. Information on the City's Public Education programs is provided in Section I and Appendix C.

SECTION 7
WATER QUALITY IMPROVEMENTS, DEGRADATIONS, and PROGRESS

Section I of this report provides information on the City's progress toward measurable goals during Permit Year 2. In Permit Year 2, direct measures of water quality improvements include:

- Since Permit Year 1, habitat scores improved for the majority of the sites; although, the site may not have changed in category. In the spring assessments, the following occurred: the majority of the sites remained in the same categories, categorical improvement occurred for three sites, and one site's score showed a negatively impacted habitat. In the summer habitat assessment the following occurred: there were categorical improvements in seven sites (37%), categorical degradation at two sites (11%), and ten sites remained categorically unchanged although raw habitat scores improved (52%).

- Aquatic Life Use Trend data is available for twenty-five sites for spring monitoring events during the time period of 2005 – 2007.
    - 40% of the sites demonstrated improvement in the ALU – improving from a designation of Limited to a designation of Intermediate,
    - the improvement in ALU resulted in 72% of the monitoring sites having an ALU designation of Intermediate,
    - an ALU designation of Limited remained for 28% of the sites, and
    - none of the sites demonstrated a degradation trend in Aquatic Life Use during the time period.

In Permit Year 2, indirect measures of water quality improvements include:

- Participated in the Dry Weather Inspection Workshop provided by NCTCOG. The workshop provided additional training in how to collect samples and track the source of illicit discharges. Information from the workshop was incorporated into the City of Dallas Illicit Discharge and Detection Program.

- Developed internal benchmark exceedance criteria for industrial storm water monitoring. The City of Dallas compared submitted industrial benchmark and hazardous metals monitoring data to exceedance criteria. Facilities determined to exceed the City of

Dallas criteria were recommended for placement in an increased monitoring program in an effort to facilitate evaluation of BMPs.

- Storm Water Management responded to 1083 citizen requests or complaints during permit year 2 – an increase of 18% from Permit Year 1. The majority (66%) of the citizen requests concerned chemical spills and abandoned substances. The reporting of chemical spills increased 91%. The increase in citizen complaints can be indicative of effective outreach efforts to educate the public about storm water issues.

- Participation in the Dallas County HC3 program which collected and properly disposed 1,561,473 pounds of household waste, paint and recycled paint, and 197,459 pounds of auto batteries, antifreeze, motor oil and used oil filters. The Dallas County HC3 program estimates that 46.8% of the participants in the program were from City of Dallas households.

- Collected 34,367.28 cubic yards of Debris

Cubic Yards of Debris Removed	
Activity	Permit Year 2
Storm Drains	101
Sumps	1,824
Inlets	7,359
Ponds	121
Creeks & Channels	21,046
Interceptor	463
Street Sweeping	3,231
Floatables	222.28
Total	34,367.28

List of Appendices

Operation and Maintenance Activities

Structural Controls

Roadways

APPENDIX A

Element 1: Structural Controls

Overview Element 1:
The following chart summarizes the activities for the tasks of Element 1 of the SWMP including inspections conducted and the quantity of debris removed from the structural controls.

Task		Inspections/ Service Requests	Debris Removed
Conduct Storm Drain Cleaning		96.55 miles of underground storm sewer system	101 cubic yards
Maintain Water Quality Structures		22,021 inspections/cleanings of creeks, drainage channels, ponds, sumps, or Inlets	30,350 cubic yards
Water Quality Structures	Sumps	27 inspections	1,824 cubic yards
	Inlets	21,185 cleanings	7,359 cubic yards
	Detention Ponds	11 inspections	121 cubic yards
	Creeks and Drainage Channels	798 service requests	21,046 cubic yards
Storm Water Interceptor Program		133 cleaning events	463 cubic yards
Total			**30,914 cubic yards**

Element 1.A Structural Controls Information Systems
The implementation activities for structural controls information systems included:

- use of a unique identifier to track activities associated with each structure
- review and revise, as necessary, data acquisition procedures
- evaluate the efficiency of use of the structural control identifier between City departments.

Please see Section I: Element 1 Structural Controls and the Element 1 table for information regarding the implementation activities for Element 1.A Structural Controls Information Systems.

Element 1.B Conduct Storm Drain Cleaning
The implementation activity for storm drain cleaning included:

- inspect 100 miles of the underground storm drain piping with remote cameras, annually
- record the damaged areas and schedule those areas for maintenance
- scheduled for maintenance and repairs

Storm drains are tracked through ArcView software and an internal database used by the Street Service Closed Circuit Television unit (CCTV). In PY2, the Street Services Department inspected 96.55 miles of storm drains.

Element 1.C Maintain Water Quality Structure

The City maintained at least the nine required sump areas: Able, New Baker, Old Baker, Charlie, Delta, New Hampton, Old Hampton, Pavaho and Rochester. These maintenance activities included:

- visual inspection of each of the nine sump areas, including pump stations and trash racks, monthly and after each storm event;
- cleaning of trash racks after rain events, as needed;
- inspections of the nine sump areas at least twice each year; and
- cleaning of the sumps by: removing litter, mowing, and managing vegetation to ensure adequate access to the appropriate structures of the ponds; excavating sediments and periodically removing woody debris buildup that clogs the structures

Please see Section I: Element 1 Structural Controls and the Element 1 table for information regarding the implementation activities for Element 1.C Maintain Water Quality Structures-Sumps.

Implementation Activities for Inlets:

The implementation activity goals and maintenance activities for inlets included:

- conducting 12,000 inlet inspections within its jurisdiction, annually;
- cleaning and repairing inlets;
- removing materials from the inlets; and
- developing a plan for the systematic inspection of the known inlets.

Inlets are tracked through ArcView software and through Flood Controls' daily planner. In PY2, staff inspected 21,185 inlets.

Implementation Activities for Detention/Retention Ponds:

The City maintained, as recommended by staff, the flood control capacity and water quality of at least seven detention/retention ponds: Cherry Brook Detention Basin, Bent Creek Detention Basin, Acres Detention Basin, Whispering Oaks Detention Basin, Hatfield Detention Basin, Lone Star Detention Basin and Municipal/Budd Street Basin.

Name of Detention/ Retention Basin/ Pond	No. of Inspections	Units Mowed	Cubic Yards of Debris Removed
Acres Detention Basin	24	21.7	24
Bent Creek Detention Basin	116	91	1
Cherry Brook Detention Basin	15	5.2	0
Hatfield Detention Basin	10	4.2	36
Lone Star Detention Basin	11	3.2	0
Municipal/Budd Street Basin	6	4.24	0
Whispering Oaks Detention Basin	6	7.6	0
Boulder Park	5	11.2	0
Las Villas	13	5.4	0
Grady	2	0	0
Skillman Relief	2	10.1	60
Areas NOT required by SWMP	22	26.7	60
Required By SWMP	188	137.14	61
Total	**210**	**163.84**	**121**

Implementation Activities for Creeks and Drainage Channels:

The City responded to complaints about illegal disposal of materials that could degrade the water quality in creeks and channels. Please see Section I: Element 1 Structural Controls and the Element 1 table for information regarding the implementation activities for Element 1.C Maintain Water Quality Structures- Creeks and Drainage Channels.

Element 1.D Storm Water Interceptor Program

Staff compiled an inventory of City owned and operated in-line storm water interceptors. The City inspected, maintained, and cleaned the interceptors included in the Interceptor Inventory.

Interceptor Inventory				
Service Center	Address	Quantity		
		Reported Year 1	Corrected Year 1	Year 2
EBS Southeast Service Center	2761 Municipal, 75215	11	7	11
EBS Southwest Service Center	2411 Vallaria , 75211	6	3	7
Police Auto Pound		10	10	10
EBS Northwest Service Center	9809 Harry Hines Blvd, 75220	4	4	6
EBS Central Service Center	3111 Dawson St	0	4	5
EBS Northeast Service Center	Adlora Lane	0	4	6
EBS Salvage Yard at Hensley Field	501 Leatherneck Dr., 75211	1	1	1
EBS Make Ready at Hensley Field	501 Leatherneck Dr., 75211	1	1	1
Fire Department – Fire Maintenance Facility	5000 Dolphin Road, 75223	3	3	5
Park and Recreation – Dallas Zoo	650 R.L. Thornton Freeway, 75206	10	10	17

Interceptor Inventory				
Service Center	Address	Quantity		
		Reported Year 1	Corrected Year 1	Year 2
North Central Service Center	McCallum	0	0	1
Fire Stations	Various Locations	19	19	19
	Total	***65**	***66**	**89**

*Annual report for Permit Year 1 included a total of 65 storm interceptors due to an error in the information reported for the EBS Central and Northeast Service Centers. The information presented above provides accurate location and number of interceptors for Permit Year 1 and Permit Year 2.

E. System Repair and Maintenance Implementation Activities:

The City repaired and maintained City-owned roadway culverts, to the extent practicable. Please see Section I: Element 1 Structural Controls and the Element 1 table for information regarding the implementation activities for Element 1.E System Repair and Maintenance.

Element 3: Roadways

The City's Street Services Department manages the road and bridge maintenance activities and associated BMPs. This Department is an ISO 9001-Quality Management System registered organization that practices repeatable and consistent processes to complete all work activities. Street Services has a work process flow that requires the systematic completion of daily activities for each road and bridge maintenance project including completing the BMPs assigned to each projects maintenance activity. The following charts describe the number of projects by maintenance activity and assigned BMPs.

Maintenance Activity	Type of BMP			
	Inlet Protection	Silt Fence	Soil Stabilization	Seeding and Sodding
Concrete Street Repair	254	254	254	
Asphalt Street Repair	251	251	251	
Cracksealing	230			
Concrete Alley Repair	110	110	110	
Asphalt Alley Repair	22	22	22	
Bridge Repair	3	3	3	
Curb and Gutter Repair	249	249		249
Storm Sewer Inlet Repair	47	47	47	47
Storm Sewer Manhole and Main Repair	0	0	0	
Sidewalk Repair	98	98		98
Asphalt Street Overlay	96	96	96	

Maintenance Activity	Type of BMP			
	Inlet Protection	Silt Fence	Soil Stabilization	Seeding and Sodding
Milling	16	16	16	
Barrier Free Ramps	27	27		27
Sawing	150			
Restoration	68	68	68	
Total for all Activities	**1621**	**1241**	**867**	**421**

Maintenance Activity	No. of Projects	BMPs To Reduce Or Prevent the Discharge of Pollutants From Routine Maintenance Activities for Roads and Bridges
Concrete Street Repair	254	Inlet protection; Silt fence; soil stabilization
Asphalt Street Repair	251	Inlet protection; Silt fence; soil stabilization
Cracksealing	230	Inlet protection
Concrete Alley Repair	110	Inlet protection; Silt fence; soil stabilization
Asphalt Alley Repair	22	Inlet protection; Silt fence; soil stabilization
Bridge Repair	3	Inlet protection; Silt fence; soil stabilization
Curb and Gutter Repair	249	Inlet protection; Silt fence; seeding and sodding measures
Storm Sewer Inlet Repair	47	Inlet protection; Silt fence; seeding and sodding measures
Storm Sewer Manhole and Main Repair	0	Inlet protection, Silt fence; soil stabilization
Sidewalk Repair	98	Inlet protection; Silt fence; seeding and sodding measures
Asphalt Street Overlay	96	Inlet protection, Silt fence; soil stabilization
Milling	16	Inlet protection, Silt fence; soil stabilization
Barrier Free Ramps	27	Inlet protection; Silt fence; seeding and sodding measures
Sawing	150	Inlet protection
Restoration	68	Inlet protection; Silt fence; soil stabilization

Floatable Monitoring Summary
and
Proposed Ordinance Changes

Lake Cliff Park

Williamson Branch Creek @ White Rock Lake

Bachman Lake

Draft Proposed Ordinance Changes

APPENDIX B

APPENDIX B

ELEMENT 6 - Floatables Monitoring Summary

The City of Dallas Parks and Recreation Department maintains three litter booms at Bachman Lake, Williamson Branch Creek at White Rock Lake, and at Lake Cliff Park. The litter booms are routinely inspected, maintenanced (twice per year at minimum), and cleaned (twice per week by Parks personnel). The City's Storm Water Management Environmental Specialists monitor the litter booms monthly in a joint effort to ensure the diversion of debris from U.S. bodies of water and the effective operation of litter booms. The table below describes the number of inspections and maintenance activities as well as the amount of floatable debris removed and prevented from entering a U.S. Waters.

Litter Boom Efficiency

Litter Boom	# of times Litter Booms were Cleaned, Maintenances, or monitored	Amount of Debris Removed (Trash, Logs, and Leaves)
Lake Cliff Park	13	5.88 cubic yards
Williamson Branch Creek @ White Rock Lake	156	8.99 cubic yards
Bachman Lake	40	207.41 cubic yards

DRAFT PROPOSED CHANGES TO

ARTICLE IX
STORM WATER DRAINAGE SYSTEM

SEC. 19-118. DEFINITIONS.

In this article:

(1) AGRICULTURAL STORM WATER RUNOFF means any storm water runoff from orchards, cultivated crops, pastures, range lands, and other non-point source agricultural activities, but does not include discharges from:

(A) concentrated animal feeding operations as defined in 40 CFR Section 122.23; or

(B) concentrated aquatic animal production facilities as defined in 40 CFR Section 122.24.

(2) ANIMAL WASTE means:

(A) animal manure, litter, or bedding:

(B) water that has contacted animal manure, litter, or bedding:

(C) water from washing, flushing, or cleaning animal pens; and

(D) liquid or solid waste from pens used at kennels, animal hospitals, poultry processing facilities, dairies, or rendering plants.

(3) BEST MANAGEMENT PRACTICES (BMP) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. Best management practices also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

(4) ~~BOD (~~BIOLOGICAL OXYGEN DEMAND (BOD) means the amount of oxygen required to meet the metabolic needs of aerobic microorganisms in water. A high BOD indicates a high level of organic matter or waste. A BOD test is recorded in ~~mg/l~~mg/L and measures the oxygen consumed over a five-day period.

(5) CFR means the Code of Federal Regulations, as periodically amended.

(6) CITY means the city of Dallas, Texas.

(7) COAL PILE RUNOFF means the rainfall runoff from or through any coal storage pile.

(8) ~~COD (~~CHEMICAL OXYGEN DEMAND (COD) means that term as defined in Section 49-1(18) of this code.

(9) COMMENCEMENT OF CONSTRUCTION means the disturbance of soils associated with clearing, grading, excavating, or other construction activities.

(10) COMMERCIAL USE means any business, trade, industry, or other business activity engaged in for profit.

(12) (11) CONSTRUCTION GENERAL PERMIT means the General NPDES OR TPDES Permit for Storm Water Discharges from Construction Sites issued by the TCEQ or EPA, including any subsequent modifications or amendments to thosee permits, and the associated TCEQ or EPA construction activity regulations. CONSTRUCTION SITE NOTICE (CSN) means a written notice –to be posted near the entrance to construction activity that describes operators /(primary and secondary where applicable). The notice shall include contact /secondary information, project description and the location of Storm Water Pollution Prevention Plan (SWP3) per the TPDES Construction General Permit.

(13) DIRECTOR means the director of the department of pPublic Wworks and Ttransportation department, or the director's duly authorized representative.

(14) DISCHARGE means any addition, introduction, release, or flow of any pollutant, storm water, or other substance, whether separate or mixed, into the storm water drainage system, waters of the United States, or state water. The term includes any spilling, leaking, pumping, pouring, emitting, emptying, escaping, leaching, dumping, disposing, or other type of release or discharge engaged in, caused, or permitted by a discharger.

(15) DISCHARGER means:

(A) any person who causes, allows, permits, or is otherwise responsible for a discharge, including but not limited to any operator of a construction site or industrial facility; or

(B) any the owner or operator of a facility that is the source of a discharge.

(16) DOMESTIC WASTEWATER means the following types of wastewater when free from industrial waste:

(A) water containing human excrement;

(B) gray water from home clothes washing, bathing, showers, dishwashing, and food preparation, and other wastewater from household drains; and

(C) waterborne waste normally discharged from the sanitary conveniences of dwellings (including apartment houses and hotels), office buildings, factories, and institutions.

(17) ENVIRONMENTAL PROTECTION AGENCY (EPA) means:

(A) the United States Environmental Protection Agency;

(B) any federal department, agency, or commission that may succeed to the authority of the EPA; and

(C) any duly authorized official of the EPA or any successor agency.

(18) EXTREMELY HAZARDOUS SUBSTANCE means any substance listed in the appendices to 40 CFR Part 355, Emergency Planning and Notification.

(19) FACILITY means any building, structure, installation, equipment, vehicle, vessel, process, activity, or other property, real or personal, from which there is or may be a discharge of a pollutant.

(20) FERTILIZER means a solid or non-solid substance or compound that contains an essential plant nutrient element in a form available to plants, which substance or compound is used primarily for its essential plant nutrient element content in promoting or

stimulating growth of a plant or improving the quality of a crop. The term includes a mixture of two or more fertilizers. The term does not include the excreta of an animal, plant remains, or a mixture of animal and plant remains, for which no claim of essential plant nutrient elements is made.

(21) FINAL STABILIZATION means the status of the ground when:

(A) all soil disturbing activities at a site have been completed; and

(B) either a uniform perennial vegetative cover with a density of 70 percent of the cover for unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

(22) FIRE DEPARTMENT means Dallas Fire-Rescue~~the fire department of the city~~ Department.

(23) FIRE PROTECTION WATER means water, including any substance or material contained in the water ~~, that is~~ used by a person other than the fire department to control or extinguish a fire.

(24) GARBAGE means that term as defined in Section 18-2(20) of this code.

(25) GOVERNMENTAL ENTITY means a state agency, county, school district, municipality, or other political subdivision of the state.

(26) HARMFUL QUANTITY means the amount of any substance that will cause pollution in the storm water drainage system, waters of the United States, or state water.

(27) HAZARDOUS HOUSEHOLD WASTE means any material generated in a household (including single and multiple residences, hotels and motels, bunk houses, ranger stations, crew quarters, camp grounds, picnic grounds, and day use recreational areas) by a consumer that, except for the exclusion provided in 40 CFR Section 261.4(b)(1), would be classified as a hazardous waste under 40 CFR Part 261.

(28) HAZARDOUS SUBSTANCE means any substance listed in Table 302.4 of 40 CFR Part 302.

(29) HAZARDOUS WASTE means any substance identified or listed as a hazardous waste by the EPA pursuant to 40 CFR Part 261.

(30) HAZARDOUS WASTE TREATMENT, DISPOSAL, AND RECOVERY FACILITY means all contiguous land, structures, and other appurtenances and improvements on land that are used for the treatment, disposal, or recovery of hazardous waste.

(31) HERBICIDE means a substance or mixture of substances used to destroy a plant or to inhibit plant growth.

(32) INDUSTRIAL GENERAL PERMIT means the General ~~NPDES~~NPDES OR TPDES Permit for Storm Water Discharges Associated with Industrial Activity issued by the EPA, including any subsequent modifications or amendments to the permit, and the associated EPA industrial activity regulations.

(33) INDUSTRIAL WASTE means that term as defined in Section 49-1 (~~38~~ 40) of this code.

(34) LANDFILL means an area of land or an excavation owned and operated by the city:

(A) in which municipal solid waste is placed for permanent disposal; and

(B) that is not a land treatment facility, a surface impoundment, an injection well, or a pile, as those terms are defined in regulations promulgated by the Texas Natural Resources Conservation Commission.

(35) MG/L means milligrams per liter.

(36) MOTOR VEHICLE FLUID means any vehicle crankcase oil, antifreeze, transmission fluid, brake fluid, differential lubricant, gasoline, diesel fuel, gasoline/alcohol blend, or other fluid used in a motor vehicle.

(37) MUNICIPAL SOLID WASTE means that term as defined in Section 18-2(28) of this code.

(38) MULT-SECTOR GENERAL PERMIT (MSGP) - A TPDES stormwater permit which authorizes storm water discharges associated with industrial activity

(39) NON-POINT SOURCE means any source of discharge of a pollutant that is not a point source.

(40) NOTICE OF CHANGE (NOC) means a written notification to the Texas Commission Environment Quality (TCEQ) ~~agency~~ from a discharger authorized under the industrial or construction general permit, providing changes to information that was previously provided to the agency in a Notice of Intent (NOI).

(41) NOTICE OF INTENT (NOI) means the notice of intent application form required by EPA regulations or by the terms governing an industrial general permit or construction general permit to obtain ~~NPDES~~NPDES OR TPDES permit coverage.

(42) NOTICE OF TERMINATION (NOT) means the notice of termination required by EPA regulations or by the terms governing an industrial general permit or construction general permit to terminate ~~NPDES~~NPDES OR TPDES permit coverage.

(43) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) ~~OR TPDES~~ PERMIT means a permit issued by the EPA [or by the state under authority delegated pursuant to 33 USC Section 1342(b)] ~~under the National Permit Pollutant Discharge Elimination System~~ that authorizes the discharge of pollutants into waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

(44) OIL means any kind of oil in any form, including, but not limited to:

(A) petroleum, fuel oil, crude oil. or any fraction of those oils that is liquid at standard conditions of temperature and pressure;

(B) sludge;

(C) oil refuse; ~~and~~

(D) oil mixed with other waste~~.~~

(E) fats, oils or greases of animal, fish, or marine mammal origin; or

(F) vegetable oils, including oils from seeds, nuts, fruits, or kernels or; Oil as defined by 40 CFR 112.2.

(~~42~~ 45) OPERATOR means any person who, either individually or jointly with another person, ~~has~~ is:

(A) associated with an industrial activity

(1) operational control over facility specifications, including the ability to make modifications in the specifications;

(2) day-to-day operational control over those activities at a facility necessary to ensure compliance with pollution prevention requirements and any permit conditions; or

(3) actual physical use or operation of, or supervision of the actual physical use or operation of, a facility.

(B) associated with a~~n~~ construction activity

(1) Primary Operator – the person or persons associated with a large or small construction activity that meets either of the following two criteria:

(a) the person or persons have operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or

(b) the person or persons have day-to-day operational control of those activities at a construction site that are necessary to ensure compliance with a storm water pollution prevention plan (SWP3) for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWP3 or comply with other permit conditions).

(2) Secondary Operator – the person whose operational control is limited to the employment of other operators or to the ability to approve or disapprove changes to plans and specifications. A secondary operator is also defined as a primary operator and must comply with the permit requirements for primary operators if there are no other operators at the construction site.

(46) OWNER means any person who owns or has title, in whole or in part, to a facility that is the source of a discharge.

(47) PERSON means an individual; a private, public, or non-profit corporation; a partnership; an association; a limited liability company; a firm; an industry; a governmental entity; or any other legal entity.

(48) PESTICIDE means any substance or mixture of substances intended:

(A) to prevent, destroy, repel, or mitigate any pest; or

(B) for use as a plant regulator, defoliant, or desiccant, as those terms are defined in Section 76.001 of the Texas Agriculture Code, as amended.

(49) PETROLEUM PRODUCT means a petroleum product that is obtained from distilling and processing crude oil and that is capable of being used as a fuel for the propulsion of a motor vehicle or aircraft, including motor gasoline, gasohol and other alcohol-blended fuels, aviation gasoline, kerosene, distillate fuel oil, and Number 1 and Number 2 diesel. The term does not include naphtha-type jet fuel, kerosene-type jet fuel, or a petroleum product destined for use in chemical manufacturing or feedstock of that manufacturing.

(50) PETROLEUM STORAGE TANK means any one, or a combination of, aboveground or underground storage tanks that contain petroleum products, including any connecting underground pipes.

(51) ~~PH~~ pH means that term as defined in Section 49-1(~~58~~ 60) of this code.

(52) POINT SOURCE means any discernable, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure,

container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. The term does not include return flows from irrigated agriculture or agricultural storm water runoff.

(53) POLLUTANT means dredged spoil, dirt, mud, solid waste, incinerator residue, wastewater, garbage, wastewater sludge, munitions, chemical waste, chemical sludge, medical waste, biological materials, radioactive materials, hazardous waste, heat, wrecked or discarded equipment, rock, sand, cellar dirt, yard waste, animal waste, industrial, municipal and agricultural waste discharged into water, and any other similar material or substance characterized by state or federal law or EPA regulation as a pollutant. The term does not include tail water or runoff water from irrigation or rainwater runoff from cultivated or uncultivated range land, pasture land, or farm land ~~.~~, as defined by Texas Administrative Code Chapter 26:

(54) POLLUTION means the alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any waters of the United States or state water that:

(A) renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to the public health, safety, or welfare; or

(B) impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

(55) QUALIFIED PERSONNEL means a person who possesses the appropriate competence, skills, and ability (as demonstrated by sufficient education, training, experience, and, when applicable, required certification or licensing) to perform a specific activity in a timely and complete manner consistent with the applicable regulatory requirements and generally-accepted industry standards for such activity.

(56) REPORTABLE QUANTITY means:

(A) for a hazardous substance, the quantity established and listed in Table 302.4 of 40 CFR Part 302; and

(B) for an extremely hazardous substance, the quantity established in 40 CFR Part 355 and listed in Appendix A thereto, or Section 311 of the Clean Water Act as described in 40 CFR Section 117.3.

(57) RUBBISH means non-putrescible solid waste, excluding ashes that consist of:

(A) combustible waste material, including paper, rags, cartons, wood, excelsior, furniture, rubber, plastic, yard trimmings, leaves, and similar material; and

(B) noncombustible waste material, including glass, crockery, tin cans, aluminum cans, metal furniture, and similar material that does not burn at ordinary incinerator temperatures (1600 to 1800 degrees Fahrenheit).

~~a.~~(58) SECONDARY CONTAINMENT is an effective container and/or diversionary structure, such as a bulk storage container, a mobile or portable container, to prevent a discharge that may be harmful (a discharge as described in 40 CFR Section 112.1 (b))

(A): Containment volume of a secondary containment for a single container (tank) will be at least 110% of the volume of the primary container. Secondary containment

for multiple containers will be at least ~~,~~ 150% of the largest container's volume OR at least 110% of the aggregate volumes of all containers, which is greater. All secondary containment systems open to rainfall must be able to hold 4.5 inches of rainfall in addition to the required secondary containment volume. All secondary containment systems open to fire sprinkler discharge must be able to hold the discharge from all sprinkler heads over the secondary containment system for 20 minutes in addition to the required secondary containment volume

(B) Containment construction must be constructed using materials capable of containing a spill or leak for at least as long as the period between monitoring inspections.

(C) Overfill protection means of providing overfill protection for any primary container may be required. This may be an overfill prevention device and/or an attention getting high level alarm.

(D) Separation of materials that in combination may cause a fire or explosion, or the production of a flammable, toxic, or poisonous gas, or the deterioration of a primary or secondary container shall be separated in both the primary and secondary containment so as to avoid intermixing.

(E) Containment drainage of an uncontrolled drainage from a secondary containment system is not allowed. Accumulated rainwater or sprinkler flow water may only be released from a secondary containment system after it has been determined to be uncontaminated. The drainage system must be kept closed or pumps turned off unless the drainage process is monitored.

(59) SEPTIC TANK WASTE means any domestic wastewater contained in or coming from a holding tank such as a vessel, chemical toilet, camper, trailer, or septic tank.

(60) SERVICE STATION means any retail establishment engaged in the business of selling fuel for motor vehicles by dispensing the fuel from stationary storage tanks.

(61) SITE means the land or water area where any facility is physically located or conducted, including adjacent land used in connection with the facility.

(62) SOLID WASTE means any waste resulting from industrial, municipal, commercial, mining, and agricultural operations or from community and institutional activities, including but not limited to garbage; rubbish; refuse; sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility; or other discarded material including solid, liquid, semi-solid, or contained gaseous material.

(63) STATE means the State of Texas.

(64) STATE WATER means, to the extent the water is located within the city:

(A) the water of the ordinary flow, underflow, and tides of every flowing river, natural stream, and lake and of every bay or arm of the Gulf of Mexico and the storm water, floodwater, and rainwater of every river, natural stream, canyon, ravine, depression, and watershed within, upon, or forming the boundaries of the state; and

(B) water that is imported from any source outside the boundaries of the state for use in the state and that is transported through the beds and banks of any navigable stream within the state or by utilizing any facilities owned or operated by the state.

(65) STORM WATER means storm water runoff, snow or ice melt runoff, and surface and drainage runoff resulting from precipitation that reaches the surface of the earth during a storm event.

(66) STORM WATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY means the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant, which plant is within one of the categories of facilities listed in 40 CFR Section 122.26(b)(14). The term does not include any discharge that is excluded from the EPA's definition of "storm water discharge associated with industrial activity."

(67) STORM WATER DRAINAGE SYSTEM (SWDS) means the system of conveyances and facilities (including roads with drainage systems, city streets, catch basins, curbs, gutters, detention basins,
ditches, man-made channels, natural creeks and channels, lakes, rivers, and storm drains) owned and operated by the city that are designed or used exclusively to collect or convey storm water and that are not designed or used to collect or convey wastewater.

(68) STORM WATER POLLUTION PREVENTION PLAN (SWP3) means a plan required by either a construction general permit or an industrial general permit, which plan describes and ensures the implementation of practices to reduce pollutants in storm water discharges associated with construction or industrial activity at a site or facility.

(69) TEXAS ADMINSTRATIVE CODE (TAC) is a compilation of all state agency rules in Texas. There are 16 titles in the TAC. Each title represents a category and relating agencies are assigned to the appropriate title. Title 30 is assigned to Texas Commission on Environmental Quality (TCEQ).

(70) TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

(70) (TCEQ) is the environmental agency for the state.

(71) TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM (TPDES) General Permit – under provisions of section 402 of Clean Water act and Chapter 26 of Texas Water Code, has federal regulatory authority over discharges of pollutants to Texas surface water, with the exception of discharges associated with oil, gas, and geothermal exploration and development activities.

(72) TSS (TOTAL SUSPENDED SOLIDS) means solids found in water that can be removed from a solution by filtration. Origins of suspended solids can be man-made wastes or natural sources such as silt or sediment.

(73) UNCONTAMINATED means not containing a ~~harmful~~ quantity of any substance, unless otherwise defined by section 19-118.2. (b)~~.~~

(74) USED OIL means any oil that:

(A) has been refined from crude oil or a synthetic oil;

(B) as a result of use, storage, or handling, has become unsuitable for its original purpose because of impurities or the loss of original properties; and

(C) may be suitable for further use and is recyclable in compliance with state and federal law.

(75) WASTEWATER means domestic wastewater, industrial waste, or other water-carried waste that is discharged into the wastewater system and passes through the wastewater system to the city's wastewater treatment plant for treatment.

(76) WASTEWATER SYSTEM means the system of pipes, conduits, and other conveyances owned and operated by the city that carries industrial waste and domestic wastewater, whether treated or untreated, from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions to the city's wastewater treatment plant, and into which system storm water, surface water, and groundwater are not intentionally admitted.

(77) WATER QUALITY STANDARD means the designation of a body or segment of surface water in the State of Texas for desirable uses and the narrative and numerical criteria deemed by the State of Texas to be necessary to protect those uses, as specified in Chapter 307, Title 30~~1~~ of the Texas Administrative Code, as amended.

(78) WATERS OF THE UNITED STATES means, to the extent the waters are within the city:

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

(B) all interstate waters, including interstate wetlands;

(C) all other waters the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce;

(D) all impoundments of waters otherwise defined as waters of the United States under this definition;

(E) all tributaries of waters identified in this definition;

(F) all wetlands adjacent to waters identified in this definition; and

(G) any waters within the federal definition of the term as described in 40 CFR Section 122.2;

but does not include any waste treatment systems, treatment ponds, or lagoons designed to meet the requirements of the federal Clean Water Act.

(79) WETLANDS means an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(80) YARD WASTE means leaves, grass clippings, yard and garden debris, and brush that result from landscaping maintenance and land-clearing operations (Ord. 24033).

SEC. 19-118.1. ENFORCEMENT.

(a) The director, the city environmental health officer, environmental specialist, and any code compliance officer ~~have the powers~~shall ~~to~~ enforce this article.

(b) The municipal court has the authority ~~power~~ to issue administrative search warrants, or other process allowed by law, to a police officer, the director, the city environmental health officer, environmental specialist, or a code compliance officer of the city where necessary to aid in enforcing this article.

(c) A person who violates any provision of this article is guilty of a separate offense for each day or portion of a day during which the violation is continued. Each offense is punishable by a fine not less than $250 per offense, per day and not to exceed $~~495~~ ~~2,000~~ per offense, per day, plus any applicable court costs.

(d) Failure to submit a NOT or completed CSN within 10 working days of final stabilization to both TCEQ and City of Dallas Storm Water Management shall result in the project owner being billed a re-inspection fee for each subsequent inspection as determined annually from previous fiscal year inspection costs and size of project site, based on current labor, materials, and equipment costs by the director.

(e) Unless otherwise stated in this article, a culpable mental state is not required to prove an offense under this article. A person is criminally responsible for a violation of this article if the person:

(1) commits or assists in the commission of the violation or causes or permits another person to commit the violation; or

(2) owns, operates, or manages a site or facility determined to be the cause of the violation.

(f) This article may also be enforced by civil court action as provided by state or federal law.

(g) This article, to the extent applicable to the activity or facility permitted, is incorporated by reference as part of any construction permit, street or sidewalk cut permit, fill permit, or plat approval or other development approval process required by this code. If a person who has received one of the permits or approvals mentioned in this subsection violates an applicable provision of this article, the director may issue a correction order for the site, activity, or facility where the violation occurred. If the violation is not corrected within the time period stipulated in the correction order, the director may either:

(1) revoke or cause the revocation of the permit or approval; or

(2) halt the permitted or approved activity or facility until the violation is abated or corrected. (Ord. 24033)

SEC. 19-118.2. PROHIBITED DISCHARGES.

(a) A person commits an offense if he discharges or causes to be discharged any water that does not consist entirely of storm water into the storm water drainage system, waters of the United States, or state water.

(b) It is a defense to prosecution under Subsection (a) that a discharge of water not composed entirely of storm water resulted or occurred exclusively from one or more of the following sources, activities, or events:

(1) Full compliance with an NPDES OR TPDES permit, other than the NPDES OR TPDES permit granted to the city for discharges from the storm water drainage system.

(2) Fire fighting by the fire department.

(3) Agricultural storm water runoff.

(4) Water line flushing if:~~, excluding a flushing from water line disinfection by superchlorination or other means unless:~~

(A) the total ~~residual~~ chlorine residual has been reduced to ~~less than five~~< 1 mg/~~l~~L; and

(B) the discharge does not contain hazardous chemicals or ~~contains noharmful quantity of chlorine or any other chemical used in line disinfection~~ exceed TAC, Title 30 – Environmental Quality, Part 1 – TCEQ, Chapter 307 – Texas Surface Water Quality Standards.

(C) The discharge does not cause erosion of soil

(5) Lawn watering, landscape irrigation, or other irrigation water.

(6) A diverted stream flow or natural spring.

(7) Uncontaminated pumped groundwater or rising groundwater.

(8) Uncontaminated groundwater infiltration, as that term is defined in **40 CFR Section 35.2005(20)**, into the storm water drainage system.

(9) A foundation drain, crawl space pump, footing drain, or sump pump, if the discharge is uncontaminated.

(10) A potable water source not containing a harmful substance or material from the cleaning or draining of a storage tank or other container.

(11) Air conditioning condensation that is unmixed with water from a cooling tower, emissions scrubber, emissions filter, or other source of pollutant.

(12) Individual residential car washing.

(13) A riparian habitat or wetlands.

(14) Water used in street washing that is not contaminated with any soap, detergent, degreaser, solvent, emulsifier, dispersant, or other harmful cleaning substance.

(15) Storm water runoff from a roof that is not contaminated by any runoff or discharge from an emissions scrubber, emissions filter, or other source of pollutant.

(16) Swimming pool water that:

(A) is not able to be discharged to the sanitary sewer;

(B) has been dechlorinated so that the total of chlorine residual is ~~less than five mg/l~~ <1 mg/L; ~~and~~

(C) is not the result of pool filter backwash;

(D) does not contain ~~contains no harmful~~ a sufficient quantity of muriatic acid to reduce the pH of the water <5 or other chemical used in the treatment or disinfection of swimming pool water or in pool cleaning; and

(E) does not contain algaecides or visible algae.

(17) A temporary car wash sponsored by a civic group, school, or a religious or other nonprofit organization.

(c) No defense to prosecution is available under Subsection (b) if:

(1) the discharge in question has been determined by the director to be the source of a pollutant to the storm water drainage system, waters of the United States, or state water;

(2) written notice of such determination has been provided to the discharger; and

(3) the discharge has occurred more frequently than or beyond the limits permitted by the director on a case by case basis.

(d) In any civil or criminal action, the discharger has the burden of proving that a discharge in violation of Subsection (a) is uncontaminated or falls within a defense to prosecution under Subsection (b). Prima facie proof that a discharge is uncontaminated must be made in the form of an analysis by a certified laboratory, using standard methods or procedures prescribed by EPA regulation. A copy of the laboratory analysis must be sent to the director.

(e) A person commits an offense if he discharges or causes to be discharged into the storm water drainage system, waters of the United States, or state water a pollutant or substance that causes or contributes in causing the city to violate a water quality standard, the city's NPDES OR TPDES permit, or any state-issued discharge permit for discharges from the city's storm water drainage system.

(f) A person commits an offense if he discharges or allows or permits the discharge of any of the following into the storm water drainage system:

(1) Used oil, antifreeze, or any other motor vehicle fluid.

(2) Industrial waste.

(3) Hazardous waste, including hazardous household waste.

(4) Domestic wastewater, septic tank waste, grease trap waste, or grit trap waste.

(A) The portable restrooms that:

(1) must be anchored to prevent accidental spills

(2) must be positioned a minimum of 15 ft from any storm water drainage inlet

(5) Garbage, rubbish, or yard waste.

(6) Wastewater from:

(A) a commercial car wash facility; including vehicle washing services located on or within the premises of any office building not licensed and operated as a car wash and/or located in a parking garage;

(B) any vehicle washing, cleaning, or maintenance at any new or used automobile or other vehicle dealership, rental agency, body shop, repair shop, or maintenance facility;

(C) any washing, cleaning, or maintenance of any business, commercial, or public service vehicle (including a truck, bus, or heavy equipment) by a business or public entity that operates more than two of such vehicles;

(D) the washing, cleaning, de-icing, or other maintenance of aircraft;

(E) a commercial mobile power washer or the washing or other cleaning of a building exterior if the wastewater contains any soap, detergent, degreaser, solvent, or other harmful cleaning substance;

(F) floor, rug, or carpet cleaning;

(G) the washdown or other cleaning of pavement if the wastewater contains any harmful quantity of soap, detergent, solvent, degreaser, emulsifier, dispersant, or other harmful cleaning substance; or

(H) the washdown or other cleaning of any pavement where any spill, leak, or other release of oil, motor fuel, or other petroleum or hazardous substance has occurred, unless all harmful quantities of the released material have been previously removed.

(7) Effluent from a cooling tower, condenser, compressor, emissions scrubber, or emissions filter or the blowdown from a boiler.

(8) Ready-mixed concrete, mortar, ceramic or asphalt base material, or hydromulch material, or wastewater from the cleaning of vehicles or equipment containing or used in transporting or applying such material.

(9) Runoff or washdown water from any animal pen, kennel, or fowl or livestock containment area.

(10) Filter backwash from a swimming pool, fountain, or spa.

(11) Swimming pool water that ~~contains~~:

(A) chlorine of five mg/L or more could have been discharged to the sanitary sewer system; or

(B) contains a total chlorine residual ~~is at five mg/l~~ > 1 mg/L; or

(C) ~~any harmful~~ contains a sufficient quantity of muriatic acid to reduce the pH of the water <5 or other chemical used in the treatment or disinfection of swimming pool water or in pool cleaning; or

(D) does not contain algaecides or visible algae.

(12) Discharge from water line disinfection by superchlorination or other means if:

(A) the total residual chlorine is at ~~five~~ one (1) ~~mg/l~~mg/L or more; or

(B) the discharge contains any harmful quantity of another chemical used in line disinfection.

(13) Fire protection water containing oil or a hazardous substance or material, unless treatment adequate to remove pollutants occurs prior to discharge, except that this prohibition does not apply to discharges or flow from fire fighting by the fire department.

(14) Water from a water curtain in a spray room used for painting vehicles or equipment.

(15) Contaminated runoff from a vehicle wrecking yard.

(16) Any substance or material that will damage, block, or clog the storm water drainage system.

(17) Any discharge from a petroleum storage tank, any leachate or runoff from soil contaminated by a leaking petroleum storage tank, or any discharge of pumped, confined, or treated wastewater from the remediation of a petroleum storage tank release, unless the discharge complies with all state and federal standards and requirements and does not contain a harmful quantity of any pollutant.

(18) Water line flushing if:

(A) the total chlorine residual > 1 mg/L;

(B) the discharge does not contain hazardous chemicals or exceed TAC, Title

30 – Environmental Quality, Part 1 – TCEQ, Chapter 307 – Texas Surface Water Quality Standards; or

(C) the discharge does not cause erosion of soil

(g) A person commits an offense if he fails to minimize any discharges into the storm water drainage system consisting of ~~a harmful quantity of~~ sediment, silt, earth, soil~~.~~ or other material associated with:

(1) clearing, grading, excavating, or other construction activities; or

(2) landfilling or other placement or disposal of soil, rock, or other earth materials in excess of what could be retained on site or captured by employing sediment and erosion control measures to the maximum extent practicable.

(h) A person commits an offense if he connects a line that conveys domestic wastewater or industrial waste to the storm water drainage system or knowingly allows such a connection to continue. (Ord. 24033)

SEC. 19-118.3. REGULATION OF PESTICIDES, HERBICIDES, AND FERTILIZERS.

(a) Any sale, distribution, application, labeling, manufacture, transportation, storage, or disposal of a pesticide, herbicide, or fertilizer within the city must comply fully with all applicable state and federal statutes and regulations, including but not limited to:

(1) the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA);

(2) federal regulations promulgated pursuant to FIFRA; and

(3) applicable provisions of Chapters 63, 75, and 76 of the Texas Agriculture Code, as amended, and state regulations promulgated pursuant to those chapters.

(b) A license, permit, registration, certification, or evidence of financial responsibility required by state or federal law for the sale, distribution, application, manufacture, transportation, storage, or disposal of a pesticide, herbicide, or fertilizer must be presented to the director, the environmental health officer, any city code compliance officer, environmental specialist and any police officer for examination upon request.

(c) No person shall, within the city, use or cause to be used any pesticide or herbicide contrary to any directions for use on any labeling required by state or federal statute or regulation.

(d) No person shall, within the city, use, dispose of, discard, store, or transport a pesticide, herbicide, or fertilizer or a pesticide, herbicide, or fertilizer container in a manner that the person knows or reasonably should know is likely to cause, or does cause, a harmful quantity of the pesticide, herbicide, or fertilizer to enter the storm water drainage system, waters of the United States, or state water. (Ord. 24033)

SEC. 19-118.4. USED OIL REGULATION; HAZARDOUS HOUSEHOLD WASTE.

(a) A person commits an offense if he:

(1) discharges used oil into the storm water drainage system, into a private drainage system that feeds into the storm water drainage system, or into any septic tank, surface water, groundwater, or watercourse within the city;

(2) mixes or commingles used oil with solid waste that is to be disposed of in a landfill, or knowingly and directly disposes of used oil on land or in a landfill; or

(3) applies used oil to a road or land for dust suppression, weed abatement, or other similar use that introduces used oil into the environment.

(b) All businesses that change motor oil for the public, all municipal landfills, and all fire stations are encouraged to serve as public used-oil collection centers as provided for in Section 371.024 of the Texas Health and Safety Code, as amended.

(c) Any retail dealer that annually sells directly to the public more than 500 gallons of oil in containers for use off premises shall post in a prominent place on its premises a sign, provided by the city or by the state, informing the public that improper disposal of used oil is prohibited by law. The sign must prominently display the toll-free telephone number of the state used-oil information center.

(d) Hazardous household waste must be segregated from other household waste and discarded only at certain specified locations, such as at a Dallas County hazardous household waste collection event or at the permanent hazardous household waste collection site. (Ord. 24033)

SEC. 19-118.5. DISCHARGE REPORTING AND CLEANUP.

(a) A discharger of a reportable quantity of a hazardous or extremely hazardous substance into the storm water drainage system, waters of the United States, or state water shall telephone and notify ~~the director and~~ the fire department, TCEQ, and the City of Dallas Storm Water Management – immediately after becoming aware of the discharge ~~. A discharger of a reportable quantity of any of the following substances into the storm water drainage system, waters of the United States, or state water shall telephone and notify the director concerning the incident~~ within 24 hours after its occurrence~~. In addition, a discharger shall notify the state and City of Dallas Storm Water Management concerning the incident within 24 hours:~~:

(1) An amount of oil that either:

(A) violates applicable water quality standards; or

(B) causes a film or sheen upon, or discoloration of, the surface of the water or an adjoining shoreline, or causes a sludge or emulsion to be deposited beneath the surface of the water or upon an adjoining shoreline.

(2) A harmful quantity of any other pollutant that is not a hazardous or extremely hazardous substance.

(b) The notification required by Subsection (a) of this section must include all of the following information:

(1) The identity or chemical name of the substance released and whether the substance is an extremely hazardous substance.

(2) The exact location of the discharge, including any known name of the waters involved or threatened and any other environmental media affected.

(3) The time and duration of the discharge at the moment of notification.

(4) An estimate of the quantity and concentration, if known, of the substance discharged.

(5) The source of the discharge.

(6) Any known or anticipated health risks associated with the discharge and, where appropriate, advice regarding medical attention that may be necessary for exposed individuals.

(7) Precautions that should be taken as a result of the discharge.

(8) Steps that have been taken to contain or clean up the discharged substance and related material and to minimize the impact of the discharge.

(9) The name and telephone number of each person to be contacted for further information.

(c) Within 15 days after a discharge under this section, the discharger shall, unless expressly waived in writing by the director, submit a written report containing each item of information required by Subsection (b), as well as the following additional information:

(1) The ultimate duration, concentration, and quantity of the discharge.

(2) All actions taken to respond to, contain, and clean up the discharged substances, and all precautions taken to minimize the impact of the discharge.

(3) Any known or anticipated acute or chronic health risks associated with the discharge.

(4) Where appropriate, advice regarding medical attention necessary for exposed individuals.

(5) The identity of each governmental entity and private sector representative responding to the discharge.

(6) Measures taken or to be taken by the discharger to prevent similar future occurrences.

(d) The notifications required by Subsections (b) and (c) of this section do not relieve the discharger from any expense, loss, damage, or other liability that may be incurred as a result of the discharge, including any liability for damage to the city, to natural resources, or to any other person or property. The notifications also do not relieve the discharger from any fine, penalty, or other liability that may be imposed under this article or under state or federal law.

(e) A release report required by a state or federal regulatory authority that contains the information described in Subsections (b) and (c) of this section meets the reporting requirements of Subsection (c), upon submittal of the report to the director.

(f) The owner or operator of any facility, vehicle, or other source responsible for a discharge described in Subsection (a) of this section shall:

(1) comply with all state, federal, and local law requiring reporting, cleanup, containment, and any other appropriate remedial action in response to the discharge; and

(2) reimburse the city for any costs incurred by the city in responding to the discharge.

(g) A discharger commits an offense if he:

(1) fails or refuses to report the discharge within the time required by Subsection (a) after becoming aware of the discharge;

(2) knowingly provides false or incorrect information in a notification or report required under this section; or

(3) fails or refuses to take the necessary action to clean up pollution or damage to the storm water drainage system, waters of the United States, or state water, or to other property, that is caused by the discharge. (Ord. 24033)

SEC. 19-118.6. STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES.

(a) An operator of a construction site shall comply with all terms and conditions of a construction general permit or a specific NPDES OR TPDES permit issued. ~~,whichever is obtained from or the site from the EPA~~. An operator of a construction site shall, to the

maximum extent practicable, use best management practices to control and minimize the discharge into the storm water drainage system, waters of the United States, and state water of any sediment, silt, earth, soil, or other material associated with clearing, grading, excavation, land filling, and other construction activities. Erosion control elements meeting the criteria for best management practices must be installed either before any construction site is established or in accordance with an installation schedule as specified in a storm water pollution prevention plan required by the construction general permit or a specific NPDES OR TPDES permit.

(b) An operator must provide all NOIs, CSNs, NOCs and NOTs to the City of Dallas Storm Water Management in accordance with the TPDES Construction General Permit requirements.

(c) The Best Management Practices (BMPs) referred to in Subsection (a) of this section may include, but are not limited to, the following measures:

(1) Ensuring that existing vegetation is preserved where feasible and that disturbed portions of the site are stabilized as soon as practicable in portions of the site where construction activities have temporarily (as described in EPA/TCEQ regulations) or permanently ceased. Stabilization measures may include:

(A) temporary or permanent seeding;
(B) mulching;
(C) geotextiles;
(D) sod stabilization;
(E) vegetative buffer strips;
(F) protection of trees;
(G) preservation of mature vegetation; and
(H) other appropriate measures.

(2) Using structural practices to divert flows from exposed soils, store flows, or otherwise limit runoff and the discharge of pollutants from the site to the maximum extent feasible.

(3) Minimizing the tracking of sediments off site by vehicles, the generation of dust, and the escape of other windblown waste from the site.

(4) Preventing the discharge of building materials, including cement, lime, concrete, concrete washout water, concrete residue and mortar, into the storm water drainage system, waters of the United States, or state water.

(5) Providing general good housekeeping measures to prevent and contain spills of paints, solvents, fuels, septic waste, and other hazardous chemicals and pollutants associated with construction, and to ensure proper cleanup and disposal of any spills in compliance with state, federal, and local requirements;

(6) Implementing ~~proper~~ effective waste disposal and waste management techniques, including secondary containment, covering waste materials and minimizing ground contact with hazardous chemicals and trash.

(7) Providing for the timely maintenance of vegetation, erosion, and sediment control devices, and other best management practices to keep vegetation, erosion, and sediment control devices in good and effective operating condition.

(8) Installing structural measures during the construction process to control pollutants in storm water discharges that will occur after construction operations have been

completed. Structural measures should be placed on upland soils to the degree attainable. Installed structural measures may include, but are not limited to:

(A) stormwater detention structures, including wet ponds;
(B) stormwater retention structures;
(C) flow attenuation by use of open vegetative swales and natural depressions;
(D) other velocity dissipation devices;
(E) infiltration of runoff on site; and
(F) sequential systems that combine several practices.

(d) The operator of a construction site is only responsible for the installation and maintenance of storm water management measures prior to final stabilization of the site and is not responsible for maintenance after storm water discharges associated with construction activity have terminated.

(e) The operator of a construction site shall inspect the site and any facilities on the site in accordance with the requirements of the construction general permit or the NPDES OR TPDES permit, whichever is obtained for the site from the EPA.

(f) The director may require that plans and specifications prepared for the construction of site improvements illustrate and describe what best management practices will be implemented at the construction site.

(g) The city may deny approval of any building permit, street or sidewalk cut permit, plumbing permit, service connection permit, grading permit, subdivision plat, site development plan, or other city approval necessary to commence or continue construction or development, if the management practices described in the plans and specifications, or observed upon a site inspection by the director, are determined not to control and reduce, to the maximum extent practicable, the discharge of sediment, silt, earth, soil, and other materials associated with clearing, grading, excavating, and other construction activities.

(h) An owner of a construction site is jointly and severally responsible with the operator for compliance with the requirements of this section, even if the owner is not an operator of the site.

(i) Any contractor or subcontractor on a construction activity site, who is not an owner or operator of the site but who is responsible under the construction contract or subcontract for implementing a best management practices control measure, is jointly and severally responsible for any intentional, willful, or negligent failure to adequately implement that control measure if such failure causes or contributes to causing the city to violate a water quality standard, the city's NPDES OR TPDES permit, or any other discharge permit issued by a state or federal regulatory authority for discharges from the storm water drainage system.

(j) An owner or operator of a construction site who is required to obtain an NPDES OR TPDES permit for storm water discharges associated with construction activity shall submit a copy of the notice of intent and notice of termination in accordance with the NPDES OR TPDES permit. (Ord. 24033)

SEC. 19-118.7. STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY.

(a) An operator conducting an industrial activity shall comply with all terms and conditions of an industrial general permit or a specific NPDES OR TPDES permit issued ~~whichever is obtained for the activity from the EPA~~ . An operator is required to retain records of all monitoring information collected for a six-year period from the date of sample

collection. An operator shall submit any required monitoring results or a summary of results to the director, upon request, and shall submit copies of discharge monitoring reports to the director.

(b) ~~A discharge composed of coal pile runoff must comply with the following limitations:~~BMPs of this section may include but are not limited to the following:

(1) ~~No discharge may at any time exceed a maximum concentration of 50 mg/l total suspended solids, nor may such runoff be diluted with storm water or other flow in order to meet this limitation.~~Providing general good housekeeping measures to prevent and contain spills of paints, solvent, fuels, septic waste, and other hazardous chemicals and pollutants associated with industrial activities and to ensure proper cleanup and disposal of any spills in compliance with state, federal, and local requirements.

(2) ~~The pH of such a discharge must be within the range of 6.0 to 9.0.~~Implementing proper waste disposal and waste management techniques, including covering waste materials and minimizing ground contact with hazardous chemicals and trash.

(3) Spill prevention and response measures including secondary containment, labeling, cleanup techniques,

(4) Implementing and maintaining structural controls including; oil water separators, sediment ponds, catch basins, grassed swales, berms and other structural controls.

(5) Eliminating or reducing exposure of garbage and refuse materials to precipitation or runoff prior to disposal.

(6) Eliminating or reducing exposure to precipitation or runoff for stored containers or equipment covered or partially covered with oil, grease, rust, or other potentially polluting substances.

(c) An untreated overflow from a facility designed, constructed, and operated to treat the volume of coal pile runoff that is associated with a 10-year, 24-hour rainfall event is not subject to the 50 ~~mg/l~~mg/L limitation for total suspended solids.

(d) If an industrial facility is required by ~~Part VI.B.2 of the~~ an individual permit, ~~industrial~~ general permit and/or multi-sector permit to conduct annual, semi-annual or periodic monitoring, the operator shall submit to the director a signed copy of each ~~semi-annual~~ monitoring report, prepared in compliance with permit.

(e) If an industrial facility is required by an individual permit, ~~Part VI.B.3 of the industrial~~ general permit and/or multi-sector permit to conduct annual, semi-annual or periodic monitoring, the operator shall retain records of the monitoring results at the facility and make them available to the director upon request. When requested by the director, the operator shall prepare a written report of the annual monitoring and submit it to the director. The director may require written reports of any monitoring, whether annual, semi-annual or periodic, to be submitted upon request.

(f) By written notice, the director may require any industrial facility identified as not being in compliance with this section to implement a monitoring program that includes the written submission of quantitative data on the following constituents:

~~(1) Any pollutants limited in effluent guidelines subcategories, where applicable.~~

(1) Any pollutant listed in any existing general ~~NPDES~~NPDES OR TPDES permit and/or ~~-~~TAC, Title 30-Environmental Quality, Part 1-TCEQ, Chapter 307 – Texas Surface Water Quality Standards.~~for the facility.~~

~~(2) Oil and grease, COD, pH, BOD, TSS, total phosphorous, total Kjeldahl nitrogen, and nitrate, nitrite or any other parameter of concern. plus nitrite nitrogen~~

(2) Any information on discharges required under 40 CFR Section 122~~.21(g)(7)(iii) and (iv)~~.

(g) By written notice, the director may require any industrial facility regulated by this section to conduct semi-annual or annual monitoring of storm water discharges, or the director may specify an alternative monitoring frequency or specify additional parameters to be analyzed. The director may require written reports of any additional monitoring to be submitted.

(h) An operator of an industrial facility regulated by this section shall retain the storm water pollution prevention plan, all records of monitoring information, copies of all required reports, and records of all data used to complete the notice of intent for at least three years after submitting a ~~notice of termination~~NOT required by Subsection (~~j~~e) of this section.

(i) No storm water discharge associated with industrial activity may contain any parameter that exceeds the maximum allowable concentrations listed in the general permit, multi-sector permit and/or TAC, Title 30-Environmental Quality, Part 1-TCEQ, Chapter 307 – Texas Surface Water Quality Standards, whichever limit is more stringent, shall notify the City of Dallas Storm Water Management.

~~in a concentration that exceeds either the maximum of the following hazardous metals in a concentration that exceeds either the maximum aallowable concentrations (in mg/l) listed below, for each metal or the maximum concentrations for parameters listed in an individual TPDES permit or general permit, whichever limit is more stringent. Any facility exceeding effluent limitations listed in NPDES or TPDES permit or for the parameters listed below shall notify the City of Dallas Storm Water Managementeach metal allowed under federal law, whichever limit is more stringent:~~

~~**Total Monthly Daily Single**~~
~~**Metal Average Composite Grab**~~
~~**(mg/l) (mg/l) (mg/l)**~~
~~Arsenic 0.1 0.2 0.3~~
~~Barium 1.0 2.0 4.0~~
~~Cadmium 0.05 0.1 0.2~~
~~Chromium 0.5 1.0 5.0~~
~~Copper 0.5 1.0 2.0~~
~~Lead 0.5 1.0 1.5~~
~~Manganese 1.0 2.0 3.0~~
~~Mercury 0.005 0.005 0.01~~
~~Nickel 1.0 0.1 0.2~~
~~Selenium 0.05 0.1 0.2~~
~~Silver 0.05 0.1 0.2~~
~~Zinc 1.0 2.0 6.0~~

~~**Parameter**~~	~~**Maximum limit**~~
~~**TSS**~~	~~**500 mg/Lmg/L**~~

~~pH~~	~~6 – 9~~
~~Total phosphorous~~	~~6 mg/Lmg/L~~

(j) The operator of an industrial facility regulated by this section shall submit a notice of termination to the director, which includes the information required for notices of termination required by the individual permit, ~~under Part IX~~general permit and/or multi-sector permit ~~of the industrial general permit, ~~ , whenever: ~~{verify that this is consistent with paragraphs/sections of the current MSGP}~~

(1) all storm water discharges associated with industrial activity that are authorized by this article and by the NPDES OR TPDES permit are eliminated at the facility; or

(2) the operator of storm water discharges associated with industrial activity at the facility changes.

(k) An owner of a facility with a storm water discharge associated with industrial activity regulated by this section, whether or not the owner is an operator of the facility, is jointly and severally responsible for compliance with:

(1) the best management practices measures required in the storm water pollution prevention plan for the facility; and

(2) the effluent limitations for coal pile runoff and hazardous metals specified in Subsections (b), (c) and (i) of this section.

(l) Upon request by the director, an owner or operator of any industrial facility that experiences a problem complying with the requirements of this section, the industrial general permit, or any applicable individual or group NPDES OR TPDES permit issued for storm water discharges from the facility shall consult with the director in an attempt to achieve compliance as soon as practicable. If compliance is not achieved to the director's satisfaction, the director may report the noncompliance to the EPA or to the state, or the director may commence or request commencement of any enforcement action authorized under Section 19-118.1 of this article. Exercising the option for consultation under this subsection is not a bar against, or prerequisite to, the taking of any other enforcement action against an owner or operator of a facility. (Ord. 24033)

SEC. 19-118.8. COMPLIANCE MONITORING.

(a) The director may enter the premises of any person who is discharging storm water into the storm water drainage system, waters of the United States, or state water to determine if the discharger is complying with all requirements of this article and of any applicable state or federal discharge permit, limitation, or requirement.

(b) A discharger operator /primary/secondary -shall:

(1) allow the director ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and the performance of any additional duties; and

(2) make available ~~within 2 hours of request~~ to the director~~,~~ within 2 hours of request upon request, any SWP3~~storm water pollution prevention plans~~ or modifications to plans, self-inspection reports, monitoring records, compliance evaluations, NOIs ~~notices of intent~~, and other records, reports, and documents required by the state or federal storm water discharge permit.

(3) Shall retain and provide upon request ~~related to compliance with this article and with any state or federal storm water discharge permit. Any reports~~ annual, semi-annual or periodic monitoring reports as stated in the general permit.

(c) If a discharger has security measures in force that require proper identification and clearance before entry into the premises, the discharger shall make necessary arrangements with its security guards so that, upon presentation of suitable identification, the director is permitted to enter without delay for the purpose of performing the director's responsibilities.

(d) The director shall have the right to install on the discharger's property, or to require installation of, such devices as are necessary to conduct sampling or metering of the discharger's operations.

(e) The director may require any discharger that contributes ~~a harmful quantity of~~ a pollutant to the storm water drainage system, waters of the United States, or state water to conduct specified sampling, testing, analysis, and other monitoring of its storm water discharges. The director may specify the frequency and parameters of any required monitoring.

(f) The director may require the discharger to install monitoring equipment as necessary at the discharger's expense. The discharger, at its own expense, shall at all times maintain the facility's sampling and monitoring equipment in a safe and proper operating condition. Each device used to measure storm water flow and quality must be calibrated to ensure accuracy.

(g) Any temporary or permanent obstruction to safe and easy access to a facility that is to be inspected or sampled must be promptly removed by the discharger at the written or verbal request of the director and may not be replaced. The cost of clearing access to the facility must be borne by the discharger.

(h) A person commits an offense if the person:

(1) lawfully consents to the director's entry into a facility that discharges storm water, but then knowingly obstructs or hinders the director in accessing the facility for the lawful purposes of inspection or sampling; or

(2) knowingly obstructs or hinders the director in accessing, for the lawful purposes of inspection or sampling pursuant to a lawfully issued administrative search warrant, a facility that discharges storm water.

(i) Nothing in this section prohibits a person from exercising the constitutional right to require that entry to a site or any other property be made pursuant to a validly issued administrative or other search warrant, except where a search warrant is not required by law. (Ord. 24033)

Public Education Program Activities and Materials

Education Program Activities

- Education and Outreach Campaign
- Volunteer Activities
- Publications
- City Employee Education
- Household Hazardous Chemicals
- School District Education
- Industrial Operator Workshops

Event and Publication Summary Tables

Survey Results

Promotional and Educational Materials

APPENDIX C

APPENDIX C

ELEMENT 10 – PUBLIC EDUCATION PROGRAM

Element 10.A Education and Outreach Campaign:

The City evaluates the effectiveness of the existing advertising campaign program in changing behaviors about improper disposal in storm water by tracking the number of people reached, website activity, and feedback received about the campaign. The following table details the effectiveness of the advertising campaign:

Topic	Activity	Result	
Public Events	Participated in 42 public events- See Events MS4 Permit Year 2007-2008 for a complete listing	112,536	Total event attendees
Surveys	Distributed surveys at 13 events with combined attendance of 57,600 individuals	356	Attendees surveyed
		97%	Of survey participants indicated they would change at least one behavior to prevent storm water pollution (See Survey Results Summary MS4 Permit Year 2007-08 for details)
Website Activity	www.trinity-trudy.org	7,643	Visits and 19,992 page views received
	www.wheredoesitgo.com	16,421	Visits and 50,559 page views received
2007 Storm Water Pollution Prevention Advertising Campaign	2,907,416 online banners about storm water pollution prevention were displayed on 6 websites	2,693	Clicks thru to wheredoesitgo.com. generated
	Placed advertising spots in a variety of media and target audiences	576	Radio spots aired spots with herbicide/ pesticide/ fertilizer, used oil, and soap/ detergent pollution prevention messages on15 local radio stations
		18	Print ads with herbicide/ pesticide/ fertilizer, used oil, and soap/detergent pollution prevention messages in 6 newspapers
		331	Television ads aired on 7 local television stations
		28,360	Spots aired on 65 different screens in 4 local movie theatres
Traveling Exhibit	Displayed at 10 locations within Dallas (See attachment "Traveling Exhibit Locations MS4 Permit Year 2007-08", Page C-8	238	Days of display for the exhibit

Element 10.B Volunteer Activities:

The City continued to facilitate the Texas Watch Volunteer Water Quality Monitoring Program and conducted at least one training session or meeting. The City promoted storm water pollution prevention awareness, including illicit discharges and improper disposal, by conducting at least two storm drain marking program orientation meetings. The following table details the information regarding the activities related to promoting volunteer:

Topic	Activity	Result
Texas Watch Training Sessions	Storm Water Management conducted 23 Texas Watch training sessions	Started new volunteer monitoring groups for the following sites: • Weischel Park (Knights Branch) • 6606 Northaven • Fox Hollow Creek • Fox Hollow Pond • Joe's Creek SWM continued Texas Watch monitoring activities at Kidd Springs The ten Dallas Texas Watch Monitoring groups are: • For the Love of the Lake • Bachman Creek Preserve • Aquatic Alliance • Kleberg-Rylie • City of Dallas SWM • Champions Tributary • Weischel Park (Knights Branch) • Joe's Creek • 6606 Northaven • Fox Hollow 112 Separate monitoring events completed
Storm Drain Marking Orientation Meetings	Storm Water Management conducted 4 Storm Drain Marking Orientation Meetings See "Storm Drain Marking Activities MS4 Permit Year 2007-08" , Page C-8	Conducted orientation meetings resulted in 3 volunteer marking events 3 Marking events participated in

Element 10.C Publications:

The City published newsletters, brochures, and water bill inserts. Staff conducted presentations regarding storm water related topics including: public reporting of illicit discharges or improper disposal of materials into the MS4; proper management and disposal of used oil and household hazardous wastes; and proper use, application, and disposal of pesticides, herbicides, and

fertilizers by the public, the commercial and private applicators, or the distributors. The following table describes the publications:

Topic	Activity	Result
Publications	Storm Water Management completed 10 publications during the permit year See attachment "Publication List MS4 Permit Year 2007-08"	5 Newsletters 2 Water Bill Inserts 1 Book Cover 1 City Scape Article (SW101) 1 Advertisements
Presentations	Storm Water Management conducted 33 presentations to various audiences (homeowners associations, neighborhood associations, garden clubs, and student organizations) on storm water related topics	See attachment "Presentations MS4 Permit Year 2007-08"

Element 10.D City Employee Education:

The City provided information regarding pollution prevention practices to reduce discharge of pollutants into storm water, to City employees through electronic announcements, internet websites, new employee orientation presentations, and storm water education modules. The following table describes the efforts to educate City Employees:

Topic	Activity	Result	
Publications	Released Storm Water related electronic announcements	8	Announcements released during the permit year
	See Electronic Announcements MS4 Permit Year 2007-08" for additional information		
Internet Websites	Tracked a total of thirty updates to the information on the Storm Water Management websites during the reporting period		
Storm Water Management Website, wheredoesitgo.com	Targeted audience: general public	20	Updates were made during the reporting period This website provides program updates, pollution prevention information and tips, and access to publications
Trinity Trudy's Storm Water World for Kids, trinity-trudy.org	Target audience: students	7	Updates were made during the reporting period - This website provides pollution prevention information, tips, and games
Storm Water Management	Target audience: general public		No updates were made during the reporting period - This webpage

Topic	Activity	Result	
Page, dallascityhall.com			contains information concerning the storm water fee, the Storm Water Management's Teams, and publications
Storm Water Management Page, city intranet site	Target audience: City employees	3	updates were made during the reporting period. This intranet page contains links to our other websites, Storm Water 101, and Storm Water 201
New Employee Orientation	Tracked the number of new employees completing "Storm Water 101" A total of 974 City employees were educated during new employee orientation utilizing the Storm Water Module series during the permit year	514	City employees were presented Storm Water 101 during new employee orientation
		460	City employees were presented the new Storm Water Awareness module, which was started in October 2007, at new employee orientation
Storm Water 101 Module	A total of 1364 employees were educated utilizing the Storm Water 101 Module during the permit year	322	City employees took the Storm Water 101 Module online via the City's intranet during the reporting period
		1,042	employees were trained utilizing Storm Water 101 during presentation (for employees without access to the intranet, Storm Water 101 presentations were conducted)
Storm Water 201 Module	In October 2007, the new Storm Water 201: Illicit Discharges Module was launched to further educate employees on storm water pollution prevention A total of 383 employees were educated utilizing the Storm Water 201 Module during the permit year	316	City employees took the Storm Water 201 Module online via the City's intranet during the reporting period
		67	Employees were trained utilizing Storm Water 201 during presentations (for employees without access to the intranet, Storm Water 201 presentations were conducted)
Storm Water Module Series	Storm Water 101, Storm Water 201, and Storm Water Awareness	2,721	Employees were educated using the Storm Water Module Series during the reporting period

Element 10.E Household Hazardous Chemicals:

The City promoted the Dallas County Home Chemical Collection Center (HCCC) and publicized the household hazardous waste collection days. The City participated in and supported a Household Hazardous Waste collection day at Gospel Lighthouse Church on April 14, 2007. The number of Dallas citizens at the event was 97 (53.9% of Dallas County participants). This annual event has similar levels of participation each year.

Dallas County Home Chemical Collection Center Waste Totals March 2007 - February 2008

Date	Location	Hazardous Waste in Pounds	Hazardous Paint in Pounds	Recycled Paint in Gallons	No. of Auto Batteries	Antifreeze in Gallons	Used Motor Oil in Gallons	No. of Oil Filters	No. of Tires	Electronic Waste in Pounds	Cooking Oil in Gallons
Mar.	HC3	79,342	71,400	750	240	200	1000	200	0	10710	100
Apr.	HC3	36,640	49,700	0	280	150	656	200	0	9095	265
May	HC3	55,355	45,500	0	240	225	1049	200	0	10165	130
June	HC3	72,292	81,900	3906	250	245	879	400	0	11235	110
July	HC3	60,355	74,200	0	280	473	2172	200	0	15525	200
Aug.	HC3	59,915	65,100	0	220	118	1314	800	0	13375	120
Sept.	HC3	57,535	81,900	0	125	212	676	400	0	9897	110
Oct.	HC3	50,910	67,900	0	100	150	839	400	0	10100	150
Nov.	HC3	44,695	51,100	0	80	289	779	200	0	12305	150
Dec.	HC3	53,373	57,400	0	75	217	485	200	0	11370	125
Jan.	HC3	37,104	51,100	0	70	250	1068	200	0	14980	75
Feb.	HC3	41,995	44,800	0	65	397	953	200	0	9095	110
Total at HC3		**649,511**	**742,000**	**4,656**	**2,025**	**2,926**	**11,870**	**3,600**	**0**	**137852**	**1,645**

Dallas County Household Hazardous Waste Collection Event Totals March 2007 - February 2008

Date	Location	Hazardous Waste in Pounds	Hazardous Paint in Pounds	Recycled Paint in Gallons	No. of Auto Batteries	Antifreeze in Gallons	Used Motor Oil in Gallons	No. of Oil Filters	No. of Tires	Electronic Waste in Pounds	Cooking Oil in Gallons
4/14/2007	GLC	10,330	4,500	1,386	85	55	305	200	0	0	0
11/10/2007	Irving Mall	11,280	6,000	4,000	55	43	345	200	0	0	0
Total at Events		**21,610**	**10,500**	**5,386**	**140**	**98**	**650**	**400**	**0**	**0**	**0**

Dallas County HC3 and Household Hazardous Waste Collection Event Totals March 2007 - February 2008

Location and Measure	Hazardous Waste in Pounds	Hazardous Paint in Pounds	Recycled Paint in Gallons	No. of Auto Batteries	Antifreeze in Gallons	Used Motor Oil in Gallons	No. of Oil Filters	No. of Tires	Electronic Waste in Pounds	Cooking Oil in Gallons	Total
Events and HC3	671,121	752,500	10,042	2,165	3,024	12,520	4,000	0	137,852	1,645	1,594,869
Total in Pounds	671,121	752,500	120,504	54,125	33,264	100,160	10,000	0	137,852	13,160	1,892,686

Categorical Summary of Amounts Collected	
Hazardous Waste, Hazardous Paint & Electronic Waste (lbs)	**1,561,473**
Recycled Paint & Cooking Oil (gallons)	**133,664**
Used oil & antifreeze (gallons)	**133,424**
Total number of auto batteries & and oil filters	**64,125**

Element 10.F School District Education:

The City presented educational information to students in the independent school districts located within the City limits in at least five school presentations or assemblies. Staff conducted sixty-one presentations to students in the Dallas Independent School District and private schools within Dallas. Storm Water Management presented one presentation to maintenance personnel at Plano Independent School District focused on storm water pollution prevention and BMPs related to the district's maintenance operations.

Element 10.G Industrial Operator Workshops:

The City educated industrial operators on TPDES storm water permit requirements at five industrial workshops with a total of 75 attendees. The City educated trade organizations about handling and disposing of used oil, toxic materials, herbicides, pesticides, and fertilizers at three presentations with a total of 73 attendees (See attachment “Industrial Workshops & Trade Organization Presentations MS4 Permit Year 2007-08”).

Events MS4 Permit Year 2007-08

DATE	SUBJECT	PLACE	ATTENDANCE
2/27/2007	Storm Water 101 Continuing Outreach and Promotional Giveaway Event	City Hall, L1FN	N/A
3/2/2007	Dallas Home and Garden Show	Dallas Market Hall	10,000
3/3/2007	Dallas Home and Garden Show	Dallas Market Hall	10,000
3/4/2007	Dallas Home and Garden Show	Dallas Market Hall	10,000
3/22/2007	Earth Day Celebration	Mountain View College	500

DATE	SUBJECT	PLACE	ATTENDANCE
3/27/2007	AAGD Trade Show	Dallas Market Hall	2,800
4/14/2007	West Dallas Wellness Expo	West Dallas Multipurpose Center	appx. 150
4/14/2007	Gospel Lighthouse Household Hazardous Waste Collection Event	Gospel Lighthouse Church	appx. 150 cars
4/19/2007	EPA Outdoor Classroom Celebration	Victory Plaza	appx. 200
4/20/2007	EPA EarthFest	ATT Plaza Downtown	15000
4/21/2007	Earth Day at DISD	Dallas Environmental Center	appx. 300
4/22/2007	Oak Cliff Earth Day	Lake Cliff Park	appx. 2500
4/30/2007	Storm Water 101 Continuing Outreach and Promotional Giveaway Event	City Hall, L1FN	N/A
5/1/2007	BoyScouts of America Camp	Camp Wisdom	200
5/2/2007	BoyScouts of America Camp	Camp Wisdom	600
5/3/2007	EBS Environmental Fair (SW101)	Dallas City Hall - Main Lobby	400
5/5/2007	City Resources Fair / Cinco De Mayo	Pike Park	1200
5/6/2007	PetSMart Dog Bowl	Cotton Bowl	4000
5/23/2007	Family Science Night	Riley Elementary	100
6/2/2007	Farm & Flower Festival	Dallas Farmers Market	300
6/2/2007	Xeriscape Tour	Various Locations	not provided
6/5/2007	Safety & Health Fair, SW101	NW Service Center	9
6/13/2007	Safety & Health Fair, SW101	SW Service Center	not provided
6/14/2007	Safety & Health Fair, SW101	City Hall, Main Lobby	57
6/20/2007	Safety & Health Fair, SW101	OCMC	350
6/25/2007	Storm Water 101 Continuing Outreach Promotional Giveaway Event	City Hall, L1FN	NA
7/21/2007	Discovery Fest 2007	Fair Park, Planetarium	150
8/2/2007	Mayor's "Back to School" Fair	Fair Park, Centennial Building	35000
8/7/2007	National Night Out - Northlake/Hillcrest Crime Watch Association	6606 Northaven Road	est 100
8/18/2007	End of Summer Reading Party	City Hall Plaza	1500
9/15/2007	Trinity River Cleanup (Keep Dallas Beautiful)	NW Highway and I-35	150
9/15/2007	City Resources Fair / Mexican Independence Day	Pike Park	2000
9/16/2007	City Resources Fair / Mexican Independence Day	Pike Park	2000
9/22/2007	E&D Town Hall Meeting	Dallas Zoo	500
9/29/2007	Science Day at the Zoo - 2007	Dallas Zoo	3600
10/20/2007	Animal Shelter Grand Opening	1818 North Westmoreland Road	100 +
10/20/2007	Boo at the Dallas Zoo	Dallas Zoo	3957
11/10/2007	Chili Cops & Kids Fall Festival	Mountain View College	appx. 4,000
11/15/2007	Texas Recycles Day	Dallas Convention Center	428
12/8/2007	Councilman Caraway's Teen Summit	City Hall Council Chambers	approx. 100
1/9/2008	Launch of GreenDallas.Net	City Hall, Flag Room	appx. 75
1/26/2008	Councilman Caraway's Teen Summit	City Hall Council Chambers	60
Total of 42 Public Events		Approx. total Attendees	112,536

- denotes events where surveys were distributed.

Traveling Exhibit Locations MS4 Permit Year 2007-08

DATE	SUBJECT	PLACE
3/12/2007	Traveling Exhibit at Hampton-Illinois Branch Library (March 12 - 31, 2007)	Hampton-Illinois Branch Library
4/9/2007	Traveling Exhibit at Pleasant Grove Branch Library (April 9 - 27, 2007)	Pleasant Grove Branch Library
5/1/2007	Traveling Exhibit at Museum of Nature & Science (May 1 - 31, 2007)	3535 Grand Avenue & 1318 South 2nd Avenue
7/2/2007	Traveling Exhibit at Oak Cliff Municipal Center (July 2 - July 31, 2007)	320 East Jefferson Boulevard, Front Lobby
8/13/2007	Traveling Exhibit at Fretz Park Branch Library (August 13 - 31, 2007)	Fretz Park Branch Library
9/10/2007	Traveling Exhibit at Central Library (September 10 - 21, 2007)	Central Library
10/2/2007	Traveling Exhibit at Half Price Books (October 2 - 31, 2007)	5803 East Northwest Highway
11/2/2007	Traveling Exhibit at Timberglen Branch Library (November 2 - 30, 2007)	18505 Midway Road
1/2/2008	Traveling Exhibit at Grauwyler Park Branch Library (January 2 - 31, 2008)	2146 Gilford Street
2/5/2008	Traveling Exhibit at El Centro College (Feb 4 - 29, 2008)	801 Main Street

Storm Drain Marking Activities MS4 Permit Year 2007-08

SUBJECT		PLACE
Storm Drain Marking Event (SWM)	59 Inlets marked	EPA Building
Storm Drain Marking Event	30 Inlets marked	Mapsco 24 (Along Cox, Rosser, and Alta Vista)
Storm Drain Marking Event (SWM)	1 Inlet marked	520 E. 5th Street
Storm Drain Marking Event	139 Inlets marked	Area bounded by Forest, Inwood, Royal, and Midway
Storm Drain Marking Event	40 Inlets marked	Cedar Springs; Throckmorton
Storm Drain Marking Event (SWM)	8 Inlets marked	7843 Caruth Ct
	Total of 277 Inlets marked	Total of 6 Storm Drain Marking Events
Storm Drain Marking Orientation, P. Civello		1318 N. Peak Street, Dallas 75204
Storm Drain Marking Orientation, Jesuit College Preparatory School		12345 Inwood Road, Dallas 75244
Storm Drain Marking Orientation, Stonewall Democrats		2701 Reagan St
Storm Drain Marking Orientation		Greenhill School, 4141 Spring Valley Rd., Addison
		Total of 4 Orientation Marking Events

Publications MS4 Permit Year 2007-08

DATE	SUBJECT
Water Bill Inserts	
3/1/2007	Water Bill Insert (Earthkind)
7/2/2007	Water Bill Insert (Don't Dump It Dallas)
Newsletters	
4/2/2007	FY06-07 SWM Quarterly Newsletter - Spring Edition
7/2/2007	FY06-07 SWM Quarterly Newsletter - Summer Edition
10/1/2007	FY07-08 SWM Quarterly Newsletter - October Special Edition
11/6/2007	FY07-08 SWM Quarterly Newsletter - November-January Edition
2/1/2008	FY07-08 SWM Quarterly Newsletter: February-April Edition
Advertisement	
5/10/2007	Mercedes Benz Club - May Newsletter featuring "Oil, Oil, Everywhere" bill insert
Book Covers	
7/26/2007	Book Covers - Public Elementary Schools in Dallas
CityScape Article	
9/11/2007	City Scape Article: SW101

Electronic Announcements MS4 Permit Year 2007-08

DATE	SUBJECT
3/14/2007	E-nnouncement (Spring Cleaning)
8/20/2007	E-nnouncement (Newsletter Masthead Voting)
8/23/2007	E-nnouncement (SW101)
8/31/2007	E-nnouncement (Project Managers Workshop)
9/26/2007	E-nnouncement (SW101 prize drawing reminder)
9/28/2007	E-nnouncement (Project Managers Workshop)
11/7/2007	City E-nnouncement "SW101 Grand Prize Winners"
1/28/2008	City E-nnouncement "SW201 is Online"

Industrial & Trade Workshops MS4 Permit Year 2007-08

DATE	SUBJECT	PLACE	ATTENDANCE
5/15/2007	Dallas Irrigation Association	El Fenix Restaurant - 9090 Skillman Street	38
6/12/2007	Texas Nursery & Landscape Association - Region IV	John P. Thompson Center, 3921 MLK Blvd, Fair Park	30
6/21/2007	Industrial Workshop	City Hall, L1FN	29
8/16/2007	Industrial Workshop	City Hall, L1FN	5
9/11/2007	Greater Dallas Restaurant Association Seminar	City Place	5
10/18/2007	Industrial Workshop	City Hall, L1FN	15
1/17/2008	Industrial Workshop	City Hall, L1FN	4
2/12/2008	Achieving Compliance with TPDES Industrial Permit Requirements	City Hall, L1FN	22

Texas Watch Presentations/Training Sessions MS4 Permit Year 2007-08

Month	No. of Events	SUBJECT
	1	Texas Watch Phase I Training
	1	Texas Watch Phase II Training
February-07	4	Texas Watch Monitoring Event
	1	Texas Watch Phase I
	13	Texas Watch Monitoring Event
	1	Texas Watch Phase II
March-07	1	Texas Watch Phase III
	1	Texas Watch QA/QC Recertification
April-07	12	Texas Watch Monitoring Event
May-07	8	Texas Watch Monitoring Event
	2	Texas Watch Phase I Training
	2	Texas Watch Phase II Training
June-07	7	Texas Watch Monitoring Event
	1	Texas Watch Phase III Training
July-07	10	Texas Watch Monitoring Event
	1	Texas Watch Phase III Training
	1	QC Recertification
August-07	9	Texas Watch Monitoring Event
	1	Texas Watch Phase III Training
	1	QC Recertification
September-07	12	Texas Watch Monitoring Event
October-07	12	Texas Watch Monitoring Event
November-07	11	Texas Watch Monitoring Event
December-07	7	Texas Watch Monitoring Event
	2	Texas Watch QC Recertification
	2	Texas Watch Phase III
January-08	6	Texas Watch Monitoring Event
	1	Texas Watch Phase I
	1	Texas Watch Phase II
	1	Texas Watch Monitoring Event
	1	Texas Watch QC Recertification
February-08	1	Texas Watch Phase III
	135	Total Events
	112	Monitoring Events
	17	Training Events
	6	Recertifications

Website Updates MS4 Permit Year 2007-08

WEBSITE	DATE	UPDATE DETAILS
wheredoesitgo.com	3/23/2007	Updated "Home" to include links to: download spring 2007 newsletter, link the newsletter archives, solution to newsletter Just for Kids Puzzle; highlighted deadline for coloring contest and essay contest; Updated "News/Special Events" section: changed listing order of the links to download newsletters (most current to oldest)
trinity-trudy.org	3/23/2007	Update "Home" page with link to spring 2007 newsletter and solution to Just for Kids Puzzle (from newsletter) (links to wheredoesitgo.com
wheredoesitgo.com	3/26/2007	Updated wording on link to newsletter just for kids puzzle, reads "Solution to spring newsletter Just for Kids Puzzle
trinity-trudy.org	3/26/2007	Updated wording on link to newsletter just for kids puzzle, reads "Solution to spring newsletter Just for Kids Puzzle
wheredoesitgo.com	3/27/2007	Revise grammatical error, changed "Just for Kid's Puzzle" to "Just for Kids Puzzle"
wheredoesitgo.com	4/3/2007	Replace spring newsletter with a revised spring newsletter
wheredoesitgo.com	4/6/2007	Extend coloring contest deadline to May 31 - Updated announcement on the home page (under "Kid's Activities" and in the "Coloring & Essay Contest" section; Update calendar of events in the "News/Special Event" section
trinity-trudy.org	4/12/2007	Webgroup fixed the "Trinity Trashers" game, (it was not working).
trinity-trudy.org	5/31/2007	Updated "Links" page - Added City of Dallas Environmental links, reorganized the links, and deleted links that were no longer working
wheredoesitgo.com	6/28/2007	Added the summer 2007 newsletter to the "News/Special Event" page; update link on "Home" with the spring 2007 newsletter Changed text on the "Home Page" for the coloring & essay contest to say that the "Deadline for entry has passed." Changed text on the Just for Kids/Coloring & Essay Contest page to say "Deadline for the completing and mailing of forms has passed. Visit us again in September for the School Year 07-08 coloring & essay contest"
wheredoesitgo.com	7/10/2007	Updated the calendar of events on the "News/Special Events" page
wheredoesitgo.com	7/31/2007	In the "Storm Water Pollution Prevention Tips" section the "Who Wants Toxic Waste? We Do" bill insert was replaced with a flyer for the Dallas County HC3; flyer is in English and Spanish
wheredoesitgo.com	8/16/2007	Add a new page "Newsletter Voting" to get the public to vote on the new masthead for our quarterly newsletter. Also modified the home page by removing the contest information and replacing it with information about the newsletter voting (also provided a link)
wheredoesitgo.com	8/29/2007	Add two new pages to the section "The Campaign." The "Online Banners" page talks about our online advertising and shows English and Spanish examples The "Television" page talks about our TV commercial and lets people view the commercial in English and Spanish.
wheredoesitgo.com	8/31/2007	Revise the "Newsletter Voting" page so that people can no longer vote, but can still sign up to receive the newsletter via a link that we email them
wheredoesitgo.com	10/1/2007	Add October Special Edition of Newsletter to "Home" and "News/Special Events" pages; Revise the "Newsletter Voting" page so it announces the masthead design that won. People can still sign up to receive the newsletter via email
wheredoesitgo.com	10/2/2007	Updated the calendar of events on the "News/Special Events" page
City intranet	10/2/2007	Removed the wording in the SW101 description about receiving a prize if you score a 90% or higher from the homepage of our intranet page and the SW101 page. Added a blurb stating that SW201 was "coming soon" on the homepage of our intranet page
trinity-trudy.org	10/8/2007	Updated "Home" page by removing spring 07 newsletter link and solution to Just for Kids Puzzle, and replacing it with a link to view the "Storm Water Management Newsletter - *Inside the Inlet,* October 2007 Special Edition"
City intranet	10/8/2007	Added the Storm Water 201 module & quiz to the intranet
City intranet	10/17/2007	Added the photos, names, and prize awarded to the SW101 grand prize recipients Added text to explain the photos

Website Updates MS4 Permit Year 2007-08

WEBSITE	DATE	UPDATE DETAILS
wheredoesitgo.com	11/2/2007	Add the revised version of the pet waste commercial (fixed the spelling error)
wheredoesitgo.com	11/2/2007	Add the Nov-Jan newsletter to "Home" page and "News/Special Events" pages; Update the calendar of event on the "News/Special Events" page as well
wheredoesitgo.com	11/14/2007	Updated the coloring contest and activity contest 07-08 information; added the updated packets. Changed the homepage to include a link to the new contest information
wheredoesitgo.com	11/19/2007	Updated the "Survey" page by changing the questions to better reflect our media campaign
trinity-trudy.org	12/4/2007	Updated "Home" page by removing October 2007 newsletter link, and replacing it with the November 2007 - January 2008 newsletter link
wheredoesitgo.com	1/8/2008	Updated the construction and industrial pages in the "For Business" section to include downloadable flyers for the workshops in 2008
wheredoesitgo.com	1/28/2008	Revised the "Home" page by changing the text for the HPF, UOTM, and ID sentences/links; Add a "Traveling Exhibit" page to "The Campaign" section
wheredoesitgo.com	2/5/2008	Add the Feb-April newsletter to "Home" page and "News/Special Events" page; Update the calendar of events on the "News/Special Events" page as well
trinity-trudy.org	2/5/2008	Update "Home" page by removing Nov-Jan newsletter link, and replacing it with the Feb-April newsletter link

Additional Publications Distributed
MS4 Permit Year 2007-08

- "Attention Dallas Area Teachers" – flyer
- EarthKind – brochure
- "Oil and Water Don't Mix" – brochure
- "Nonpoint Source Pollution" – brochure
- "Oil, Oil Everywhere!" – bill insert
- "Something Bugging You?" – brochure
- "How Green Is Your Green Thumb?" – brochure
- "Where Does It Go?" – bill insert
- "Storm Drains Are Not Trashcans" – bill insert
- "Detergents Clean Out Creeks!" – bill insert
- "Hazardous Waste At Home" – brochure
- "Here's What To Do With Your Grass Clippings" – bill insert
- Texas Watch – brochure
- Storm Drain Marking – flyer
- "Storm Water Pollution Prevention: Herbicides, Pesticides, Fertilizers" – flyer
- "It Goes With The Flow" – activity booklet
- "What's the Big Fuss About SW101?" – half-sheet flyer
- "Dallas County Home Chemical Collection Center" – flyer

<u>Survey Results Summary MS4 Permit Year 2007-2008</u>

Storm Water Management (SWM) had 356 surveys completed at 10 public events during Permit Year 2. The survey results demonstrate the effectiveness of the education program on storm

water pollution at public events. Every year, hundreds of individuals learn how their actions impact storm water quality and how to change their behaviors to decrease water pollution in the City of Dallas. The general findings were:

- Gender of those surveyed - 52% female, 27% male, and 21% no answer.
- Age of those surveyed - 58% between 31-60 years old, 15% between 18-30 years old, 7% were 61+ years old, and approximately 20% no answer.

On average, the results of the survey questions were:

#	Response	%
1.	Knew that they lived in a watershed	61%
2.	Believed that water pollution was a problem in the community	83%
3.	Admitted to washing cars in the driveway of street at least some of the time	35%
4.	Admitted to applying lawn chemicals right before a rainstorm at least some of the time	26%
5.	Aware that pollutants dumped into storm drains were carried directly to creeks, lakes, and rivers before they visited the booth	67%
6.	Indicated that they knew what storm water was prior to visiting the booth	60%
7.	Rated themselves AWARE or EXTREMELY AWARE of storm water issues after visiting the booth	83%
8.	Had not visited www.wheredoesitgo.com, SWM's website	91%
9.	Indicated that they would change at least one behavior in order to help prevent storm water pollution	97%

Dry Weather Screening Summary

Materials and Methods

Results and Conclusions

APPENDIX D

APPENDIX D

ELEMENT 11 Dry Weather Screening Program Summary

The City of Dallas MS4 permit requires a Dry Weather Screening Program to detect the presence of illicit discharges and connections to the MS4 and waters of the State. The primary goal for the Dallas Storm Water Management Section (SWMS) Dry Weather Screening Program is to identify and eliminate as many illicit discharges and connections as possible from entering the MS4. The SWMP requires the City to inspect a minimum of 500 outfalls annually.

Materials and Methods

The team used a variety of equipment in the field including: a hand-held Global Positioning System (GPS) unit, a palm pilot, a Hach Storm Water Test Kit, a Hydrolab Quanta, and a Hach DR-890 Colorimeter. Staff reviewed the current maps of outfall locations prior to field investigations. The team located and verified the existing outfalls and discovered new or unidentified outfalls. The Survey Team scheduled a geo-location for new outfalls. Staff recorded any outfall without flow and visually examined and tested any outfall with flow for the following parameters:

- Dissolved Oxygen
- pH
- Turbidity
- Temperature
- Specific Conductivity
- Nitrite/Nitrate
- Total Chlorine
- Total Copper
- Total Iron
- Ammonia
- Detergents
- Total Coliform
- E. coli

Staff noted visual characteristics (color, viscosity, miscibility, and general appearance) of the flow. The team investigated the source of the flow based on the analytical data and then followed the flow upstream to the source. Staff employed a closed-circuit television system if the flow could not be tracked to the source because it discharged from an underground piping system. The City notified the owner/operator of the source of the improper discharge and required them to correct the problem. Staff re-inspected the discharge outfall to verify the flow stopped.

Results and Conclusions

The City monitored 1,948 discharge locations in fourteen watersheds and found 944 outfalls that discharged directly into a waterway. Staff observed outfalls with flow in 10 of the 15 monitored watersheds.

Watershed	# Outfalls Inspected	# Outfalls with Flow	# Illicit Discharges
Main Stem Above Ten Mile Creek	41	0	0
Dallas East Bank	691	181	3
Elam Creek	85	3	0
Farmers Branch	1	0	0
Lower Five Mile Creek	2	0	0
Lower White Rock Creek	23	5	0
Lower Mountain Creek	10	8	0
Mountain Creek Lake Dam	390	82	0
Parsons Slough	14	2	0
Prairie Creek	577	51	1
South Dallas	6	0	0
Upper Five Mile Creek	101	3	0
Upper Ten Mile Creek	2	0	0
White Rock Dam	2	2	1
Joe's Creek	3	2	1
Total	**1948**	**339**	**6**

Staff identified 96 new outfalls and observed 339 outfalls with flow. Fifty-three percent of the outfalls with flow were in the Dallas East Bank. With the exception of illicit discharges, the observed flows were natural flows, i.e. groundwater infiltration or irrigation runoff. The six illicit discharges included :

1) illicit discharge in Joe's Creek due to improperly stored fertilizer subject to storm water : resolution - citizen was provided education and fertilizer was properly stored;

2) illicit discharge in Prairie Creek attributed to a broken sanitary sewer main: resolution – sewer main was repaired;

3) illicit discharge in White Rock Dam attributed to a broken sanitary sewer main: resolution – sewer main was repaired;

4) illicit discharge in Dallas East Bank due to a leaking hydrant: resolution – fire hydrant was repaired;

5) illicit discharge in Dallas East Bank attributed to a sanitary sewer overflow: resolution – overflow was stopped;

6) illicit discharge in the Dallas East Bank that is still under investigation.

Wet Weather Screening Summary

Data Analysis

Above 10-Mile (ATEN1) Summary

East Fork Trinity (EFTR1) Summary

APPENDIX E

APPENDIX E

ELEMENT 11 Wet Weather Screening Program Summary

This section provides information on the watersheds screened, screening dates, and screening data summaries. Staff collected samples in the Main Stem Above Ten Mile Creek and East Fork Trinity Watersheds. Staff collected samples from Dallas East Bank (DAEB) watershed for the Regional Wet Weather Characterization Program. The North Central Texas Council of Governments (NCTCOG) used this data in the Regional Report.

*ID	Watershed	Site	Date Sampled
ATEN1	Main Stem Above Ten Mile Creek	12700 Foothill Drive	5/24/07, 10/3/07
DAEB1	Dallas East Bank	2200 Irving Blvd	3/27/07, 4/14/07, 8/31/07, 11/25/07
DAEB2	Dallas East Bank	1200 Conveyor Lane	3/27/07, 4/14/07, 8/31/07, 12/2/07
DAEB3	Dallas East Bank	1600 Regal Road	3/27/07, 05/01/07, 8/31/07, 11/25/07
DAEB4	Dallas East Bank	4700 Cedar Springs Road	3/27/07, 4/14/07, 8/31/07, 11/25/07
DAEB5	Dallas East Bank	2800 Cedar Springs Road	5/8/07, 8/31/07, 12/10/07
EFTR1	East Fork Trinity	15000 Interstate 20	5/24/07, 10/3/07

*Staff screened the DAEB sites for the NCTCOG regional Wet Weather Characterization program.

Precipitation Data

Sample Event Data			Previous Event Data	
Sample Date	Precipitation (in)	Time Since Last Event (days)	Date of Last Event	Precipitation (in)
3/27/07	0.31	52	2/1/07	0.13
4/14/07	0.32	14	3/30/07	1.03
5/1/07	0.25	6	4/24/07	0.59
5/8/07	0.14	6	5/2/08	0.34
5/24/07	0.61	3	5/21/07	0.10
8/31/07	0.19	14	8/17/07	0.12
10/3/07	0.65	23	9/10/07	1.37
11/25/07	0.35	3	11/22/07	0.15
12/2/07	0.20	7	11/25/07	0.35
12/10/07	1.20	8	12/2/07	0.20

Data Analysis

Staff collected samples from the Main Stem Above Ten Mile Creek (ATEN) and East Fork Trinity (EFTR) Watersheds on May 24, 2007 and October 3, 2007. The precipitation totals were similar for each event. Pollutant loads are consistent with land uses in each watershed. The fall sampling events detected higher nitrogen and ammonia levels consistent with fertilizer runoff in each watershed. The higher COD values encountered in EFTR were consistent with industrial land use near the sampling site; however, the remaining land use for EFTR is primarily

cropland. Higher sediment loads from agriculture runoff occurred in EFTR in comparison to ATEN.

Permit Year 2 - Wet Weather Screening Summaries

ID	SAMPLE DATE	SAMPLE ALIQUOT	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO (mg/L)	pH	TDS (g/L)	TURBIDITY (NTU)	TSS (mg/L)	CHLORINE (mg/L)	HARDNESS (mg/L)	COD (mg/L)	PHOSPHOROUS (mg/L as P)	IRON (mg/L)	COPPER (mg/L)	AMMONIA (mg/L)	NITRATE-NITRITE (mg/L)
ATEN1	24-May-07	Background	19.5	0.932	4.1	7.50	0.4	4	6	0.04	200	ND	0.06	1.47	ND	0.59	ND
ATEN1	24-May-07	First Flush	21.3	0.815	3.5	7.51	0.5	22	21	0.20	200	16.3	0.12	1.25	ND	0.53	ND
ATEN1	24-May-07	Zero Time	21.4	0.810	3.3	7.54	0.5	23	26	0.20	200	---	---	---	---	---	---
ATEN1	24-May-07	Fifteen Time	21.4	0.809	3.8	7.54	0.5	24	22	0.81	200	---	---	---	---	---	---
ATEN1	24-May-07	Thirty Time	21.6	0.854	4.4	7.51	0.6	27	29	0.20	200	---	---	---	---	---	---
ATEN1	24-May-07	45 Time	21.5	0.843	3.5	7.53	0.5	26	28	0.20	200	---	---	---	---	---	---
ATEN1	24-May-07	60 Time	21.5	0.843	3.1	7.52	0.5	29	31	0.20	200	---	---	---	---	---	---
ATEN1	24-May-07	Composite	---	---	---	---	---	---	---	---	---	ND	0.09	1.36	ND	0.41	0.00
ATEN1	03-Oct-07	Background	24.9	0.780	1.2	7.29	0.5	11	6	0.50	200	ND	0.24	0.37	ND	1.84	0.19
ATEN1	03-Oct-07	First Flush	23.2	0.777	1.6	7.38	0.5	11	5	0.02	200	ND	0.26	0.33	ND	1.69	0.27
ATEN1	03-Oct-07	Zero Time	23.2	0.777	3.6	7.44	0.5	16	17	ND	250	---	---	---	---	---	---
ATEN1	03-Oct-07	Fifteen Time	23.7	0.776	3.3	7.47	0.5	12	8	ND	200	---	---	---	---	---	---
ATEN1	03-Oct-07	Thirty Time	23.1	0.776	1.8	7.41	0.5	12	10	ND	225	---	---	---	---	---	---
ATEN1	03-Oct-07	45 Time	23.1	0.776	3.2	7.45	0.5	17	9	ND	250	---	---	---	---	---	---
ATEN1	03-Oct-07	60 Time	23.2	0.779	2.4	7.41	0.5	9	7	ND	225	---	---	---	---	---	---
ATEN1	03-Oct-07	Composite	---	---	---	---	---	---	---	---	---	ND	0.29	0.30	ND	1.50	ND

ND = Non-Detect

--- = No Analysis

Permit Year 2 - Wet Weather Screening Summaries

ID	SAMPLE DATE	SAMPLE ALIQUOT	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO (mg/L)	pH	TDS (g/L)	TURBIDITY (NTU)	TSS (mg/L)	CHLORINE (mg/L)	HARDNESS (mg/L)	COD (mg/L)	PHOSPHOROUS (mg/L as P)	IRON (mg/L)	COPPER (mg/L)	AMMONIA (mg/L)	NITRATE-NITRITE (mg/L)
EFTR1	24-May-07	Background	22.7	0.289	5.1	8.29	0.2	21	24	0.04	120	ND	0.06	2.17	ND	ND	ND
EFTR1	24-May-07	First Flush	21.0	0.086	6.6	8.13	0.1	328	367	ND	120	57.0	0.22	3.79	ND	0.21	0.44
EFTR1	24-May-07	Zero Time	21.0	0.092	5.9	8.26	0.1	336	384	ND	75	---	---	---	---	---	---
EFTR1	24-May-07	Fifteen Time	20.8	0.106	5.8	8.21	0.1	258	275	ND	110	---	---	---	---	---	---
EFTR1	24-May-07	Thirty Time	20.7	0.105	5.3	8.21	0.1	250	255	ND	110	---	---	---	---	---	---
EFTR1	24-May-07	45 Time	20.6	0.118	5.6	8.12	0.1	238	250	ND	120	---	---	---	---	---	---
EFTR1	24-May-07	60 Time	20.4	0.129	6.1	8.13	0.1	240	253	ND	110	---	---	---	---	---	---
EFTR1	24-May-07	Composite	---	---	---	---	---	---	---	---	---	54.0	0.37	2.94	ND	0.27	0.33
EFTR1	03-Oct-07	Background	22.8	0.147	6.1	7.50	0.1	3	3	ND	100	ND	0.69	7.39	ND	0.26	0.40
EFTR1	03-Oct-07	First Flush	22.0	0.200	6.8	7.65	0.2	38	40	ND	120	40.0	0.47	2.46	ND	0.19	0.30
EFTR1	03-Oct-07	Zero Time	21.8	0.200	7.2	7.35	0.2	65	67	ND	120	---	---	---	---	---	---
EFTR1	03-Oct-07	Fifteen Time	21.7	0.020	7.1	7.31	0.2	72	69	ND	120	---	---	---	---	---	---
EFTR1	03-Oct-07	Thirty Time	21.5	0.200	7.7	7.33	0.21	72	70	ND	120	---	---	---	---	---	---
EFTR1	03-Oct-07	45 Time	21.6	0.200	7.0	7.31	0.19	70	69	ND	120	---	---	---	---	---	---
EFTR1	03-Oct-07	60 Time	21.4	0.200	7.0	7.32	0.18	67	68	ND	120	---	---	---	---	---	---
EFTR1	03-Oct-07	Composite	---	---	---	---	---	---	---	---	---	ND	0.21	0.19	ND	0.11	0.20

ND = Non-Detect

--- = No Analysis

Rapid Bioassessment Monitoring Summary

Results and Discussion

Habitat Assessment

Aquatic Life Use

Water Quality Data for Compliant Sites

Water Quality Data for Non-Compliant Sites

APPENDIX F

APPENDIX F

Element 11 - Rapid Bioassessment Program

The City of Dallas SWMP includes a rapid bioassessment monitoring program in compliance with TPDES Permit No. WQ0004396000. The permit requires sample collection from at least two water bodies that receive MS4 discharges plus a reference site. The City selected four designated compliance monitoring stations based on geographical coverage, historical data, similar habitat, and perennial flow.

Watershed	Site	Reference Site
Lower Bachman Creek B	BABB– Bachman Branch site B	SMCA South Mesquite Creek site A
White Rock Dam	DIXA – Dixon Branch site A	SMCA South Mesquite Creek site A
Lower Five Mile Creek	FIVA – Five Mile Creek site A	SMCA South Mesquite Creek site A
Dallas East Bank	KNIA – Knights Branch site A	SMCA South Mesquite Creek site A

Staff collected samples from a reference site within two days of the samples collected from compliance stations. The City monitored all stations; however, a reference site may not have been collected concurrently with a non-compliant station.

The bioassessment program monitors and assesses overall biological health in streams and watersheds within the City's jurisdiction. The bioassessment sampling program incorporates habitat assessments, water quality sampling, and biological sampling. The program collected samples from 50 streams within 26 watersheds including samples from seven reference sites on three streams within four watersheds. There were two sampling events to coincide with index periods established by TCEQ for biological sampling. One sampling event occurred in the Spring, beginning mid-March and ending on June 30th. This first sampling event targeted Spring's optimal conditions for biological community growth. The second sampling event, from July 1st to September 3rd, was the critical index period for biological sampling because of typical summer low flows and high water temperatures. This appendix includes the water quality sampling and habitat assessments results.

Weather Conditions

During Permit Year 2, the Dallas area experienced frequent rain events. By June 2007, the area received the average rainfall for an entire year. Frequent rainfall limited the amount of biological sampling and habitat assessments completed in the spring. Biological samples and

habitat assessments should be collected during normal flow conditions or as near the lowest average discharge over a period of one week with a recurrence interval of 2 years (7Q2), as possible. Spring and summer sampling events collected water quality samples at all locations and collected habitat and biological samples at the compliance sites. Some of the habitat and biological samples, from two monitoring sites associated with the SMC-A reference site, were not collected within two days of the reference site due to rain events. In the Spring, staff collected samples from an additional reference site and associated monitoring site; however, they did not collect samples from two monitoring sites that lacked samples collected from the associated reference site due to high water flow.

HABITAT ASSESSMENT

Methodology

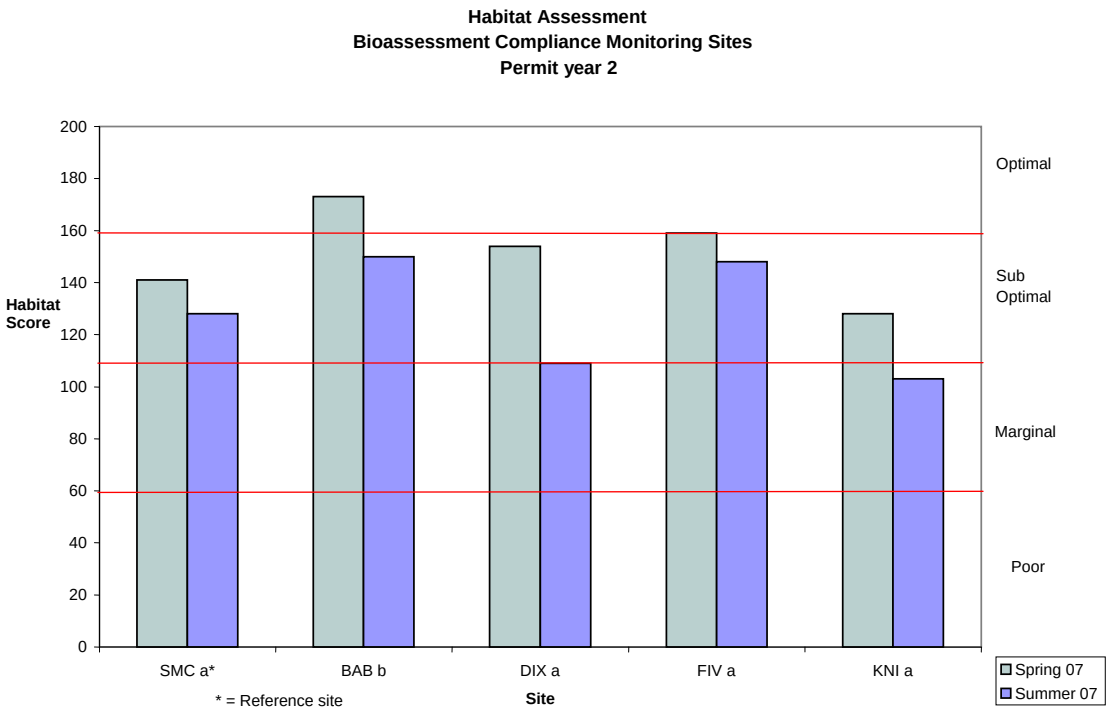
Habitat assessments determine if the physical factors of the aquatic environment are suitable for aquatic life through key physical characteristics of the water body and surrounding land. In cases where the physical habitat quality at a test site was similar to a reference sites, any detected impacts may be attributed to water quality factors (i.e., chemical contamination) or other stressors. Habitat types vary over the length of the streams ranging from limestone bedrock channels close at the head of the streams to mud/muck or sand/gravel/cobble closer at the mouth of the streams. Staff performed habitat assessments at monitoring stations where biological samples were collected. The monitoring stations habitat measurements assist in the interpretation of biological results.

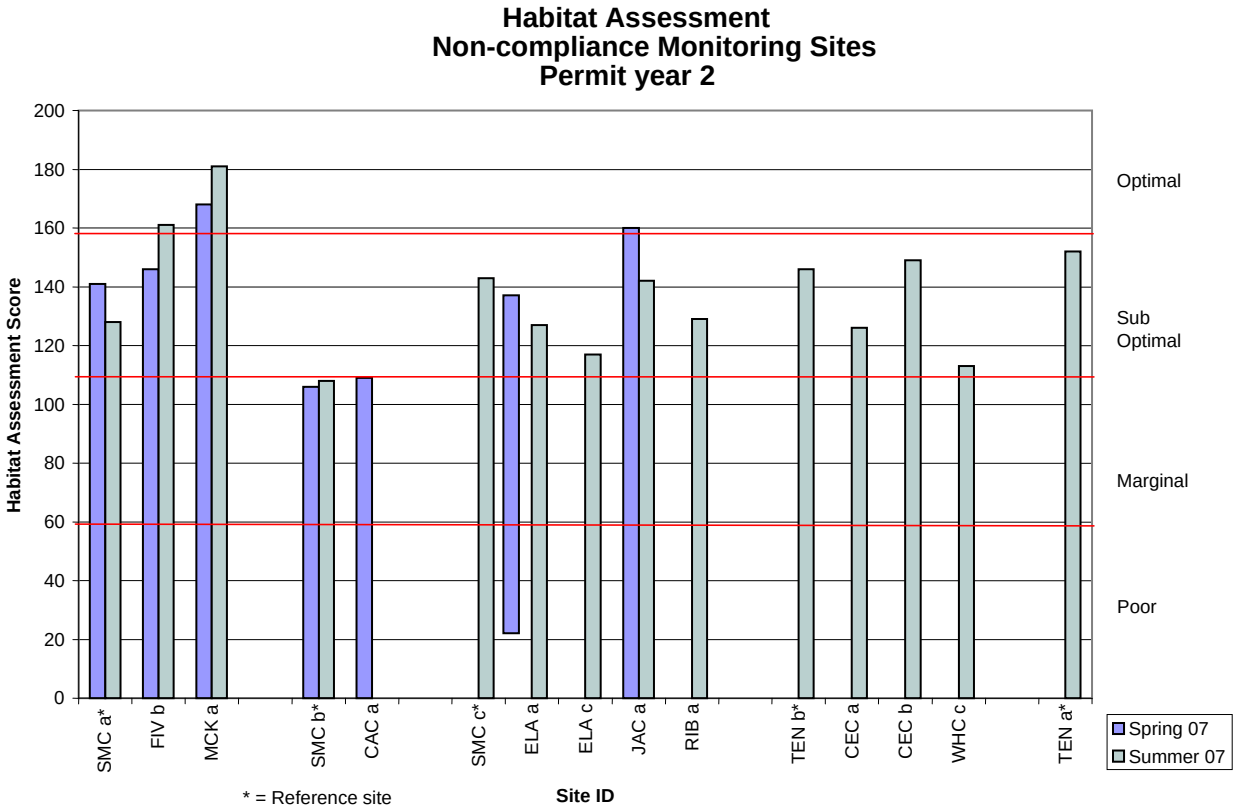
Permit Year 2

Between spring and summer sampling events the following occurred:

- seven sites remained in the same habitat assessment category during both sampling periods,
- one site's habitat ratings increased between spring sampling and summer sampling; and
- three sites' habitat category ratings decreased between sampling events.

The decrease in habitat category ratings between spring and summer sampling conditions may be due to the region's increasingly dry conditions found during late summer. The following charts illustrate the habitat scores for Permit Year 2.


Habitat Assessment
Bioassessment Compliance Monitoring Sites
Permit year 2
Habitat Score
200
180
160
140
120
100
80
60
40
20
0
Optimal
Sub Optimal
Marginal
Poor
SMC a*
BAB b
DIX a
FIV a
KNI a
* = Reference site
Site
Spring 07
Summer 07


Habitat Assessment
Non-compliance Monitoring Sites
Permit year 2
Habitat Assessment Score
200
180
160
140
120
100
80
60
40
20
0
Optimal
Sub Optimal
Marginal
Poor
SMC a*
FIV b
MCK a
SMC b*
CAC a
SMC c*
ELA a
ELA c
JAC a
RIB a
TEN b*
CEC a
CEC b
WHC c
TEN a*
* = Reference site
Site ID
Spring 07
Summer 07

Current Trend (Permit Year 1 – Permit Year 2)

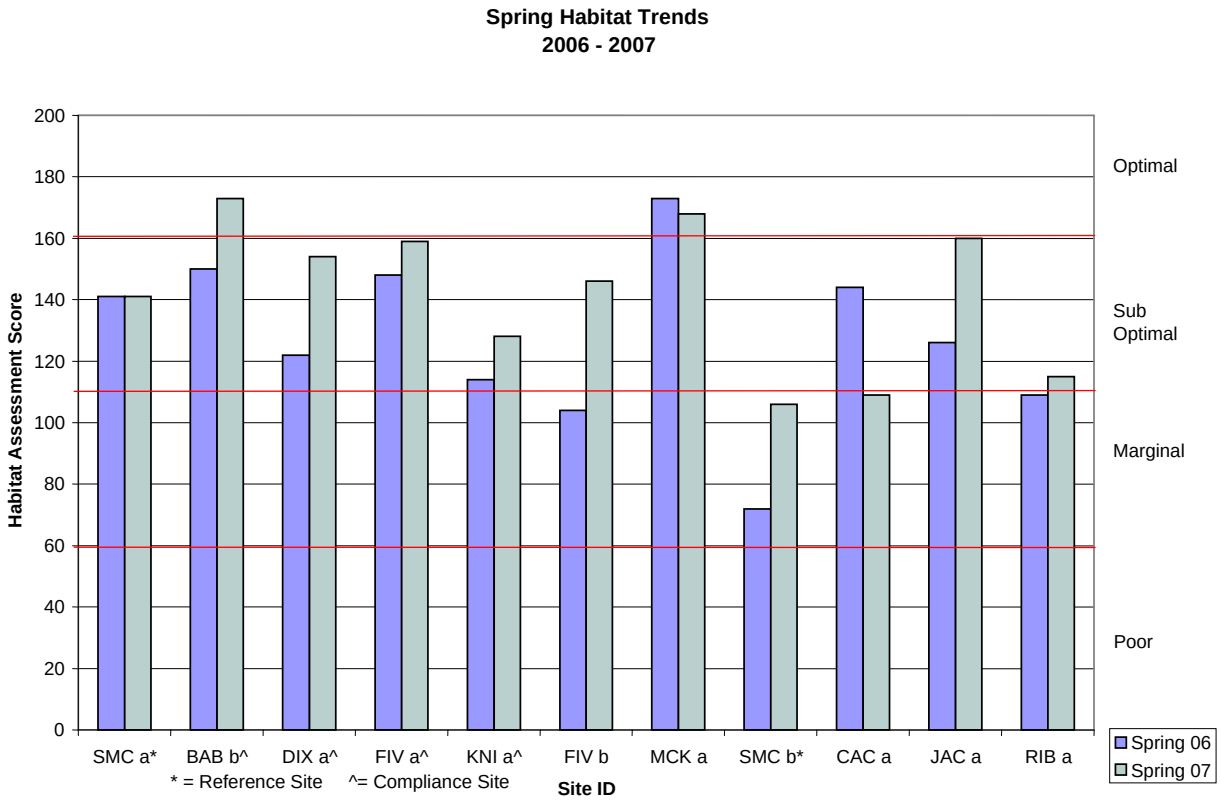
Since Permit Year 1, habitat scores improved for the majority of the sites; although, the site may not have changed in category. In the spring assessments, the following occurred:

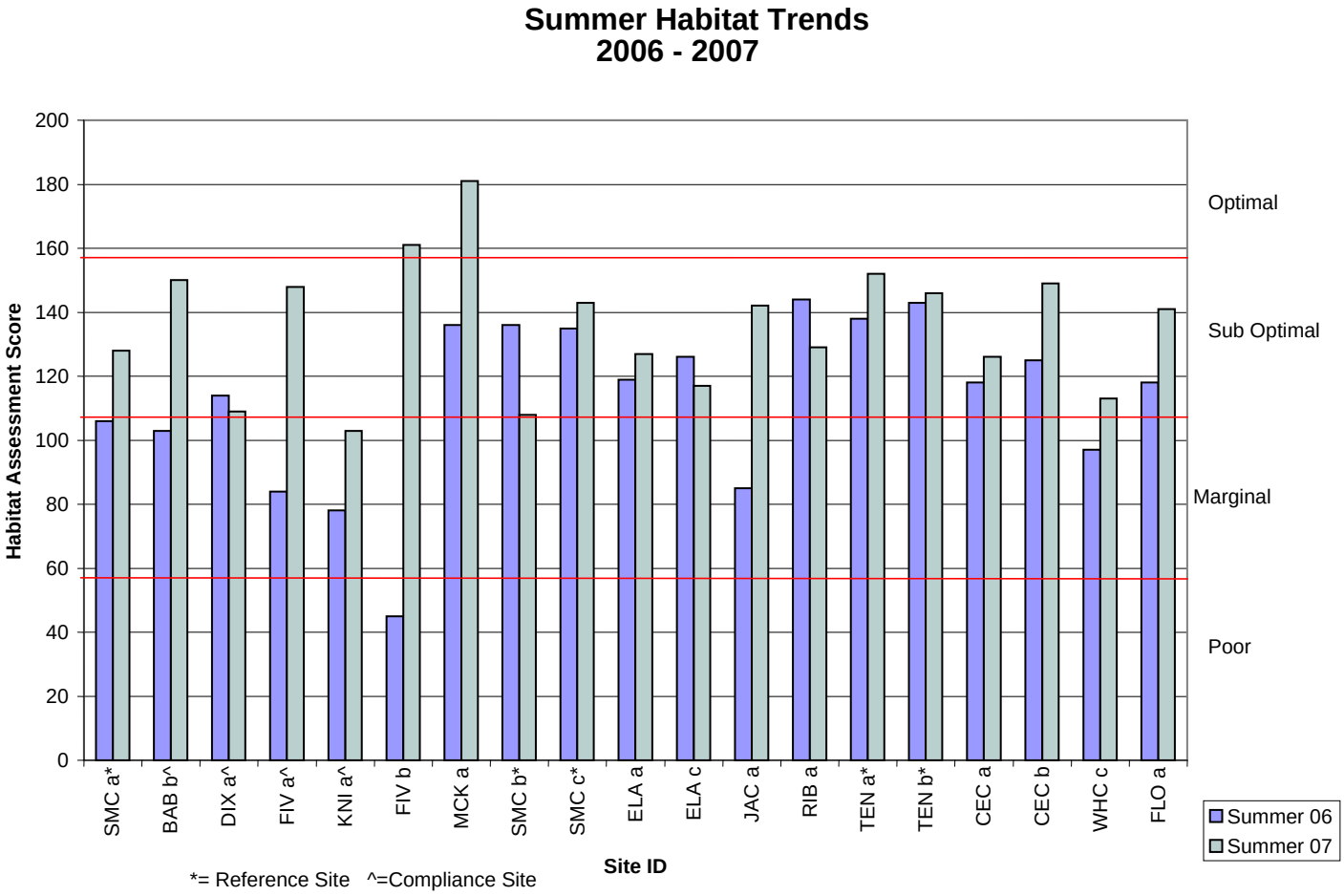
- the majority of the sites remained in the same categories,
- categorical improvement occurred for three sites, and
- one site's score showed a negatively impacted habitat.

In the summer habitat assessment the following occurred:

- there were categorical improvements in seven sites (37%),
- categorical degradation at two sites (11%), and
- ten sites remained categorically unchanged although raw habitat scores improved (52%).

The following charts illustrate the change in habitat assessment scores between Permit Year 1 and Permit Year 2.





AQUATIC LIFE USE

Methodology

A sample of each monitoring sites macroinvertebrate community determines the sites Aquatic Life Use. The macroinvertebrate community is extremely diverse with pollution tolerance levels that range from very high (10), indicating the organism has a capacity to withstand considerable pollution levels, to very low (1), indicating the organism is highly intolerant of pollution. Since 2005, the City of Dallas has used the Benthic Macroinvertebrate Index of Biotic Integrity (IBI) to test Aquatic Life Use. A sample from the monitoring site is tested according to the Benthic Macroinvertebrate Index of Biotic Integrity (IBI). Staff calculates twelve biological metrics from the insect identifications for each station. These twelve biometrics are interim calculations, which are assigned a score based on the associated value for each biometric. The values are tabulated for a total score, independent of the reference site that indicates the aquatic life use.

Past Trends (2005-2007)

Trend data is available for twenty-five sites for spring monitoring events. During the time period of 2005 – 2007, the following trends occurred:

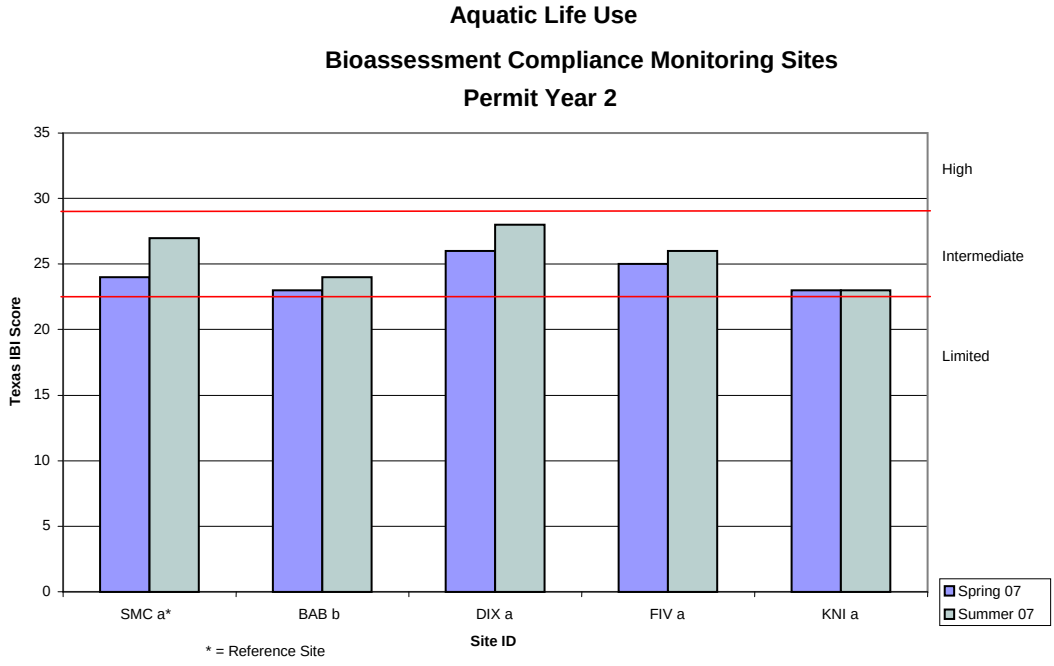
- 40% of the sites demonstrated improvement in the ALU – improving from a designation of Limited to a designation of Intermediate,
- the improvement in ALU resulted in 72% of the monitoring sites having an ALU designation of Intermediate,
- an ALU designation of Limited remained for 28% of the sites, and
- none of the sites demonstrated a degradation trend in Aquatic Life Use during the time period.

Permit Year 2

There were 19 monitoring sites during Permit Year 2 and the following results occurred:

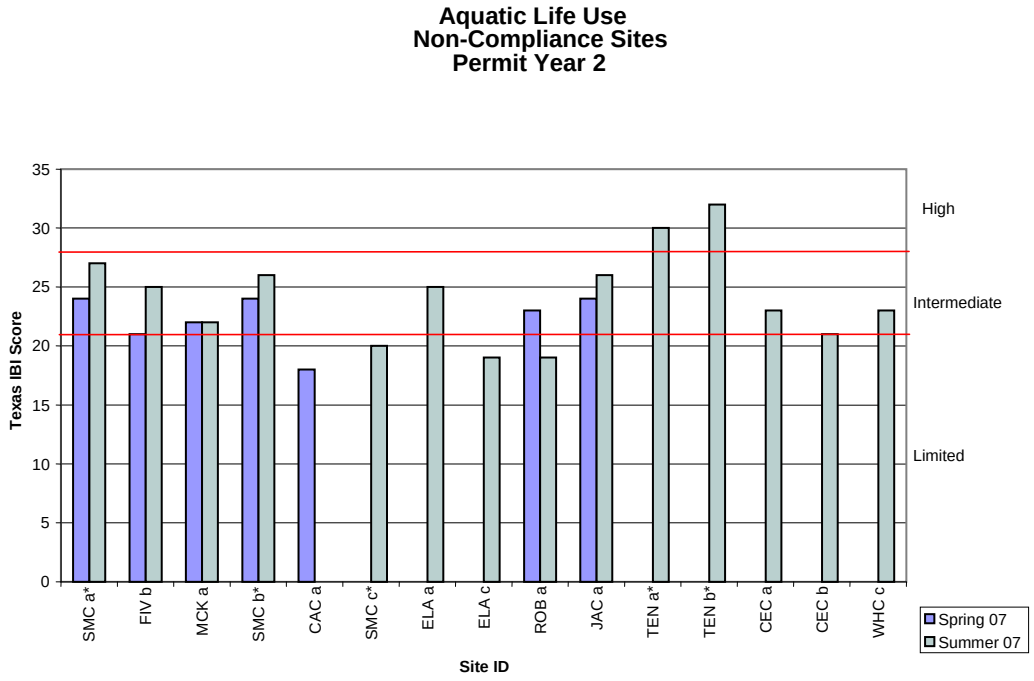
- all compliance sites received an Aquatic Life Use (ALU) score of Intermediate
- 63 % of the sites monitored received an Aquatic Life Use rating of Intermediate
- 26% of the monitored sites received a Limit Aquatic Life Use score, and
- 11% received a High Aquatic Life Use Score.

Compliance Site Aquatic Life Use

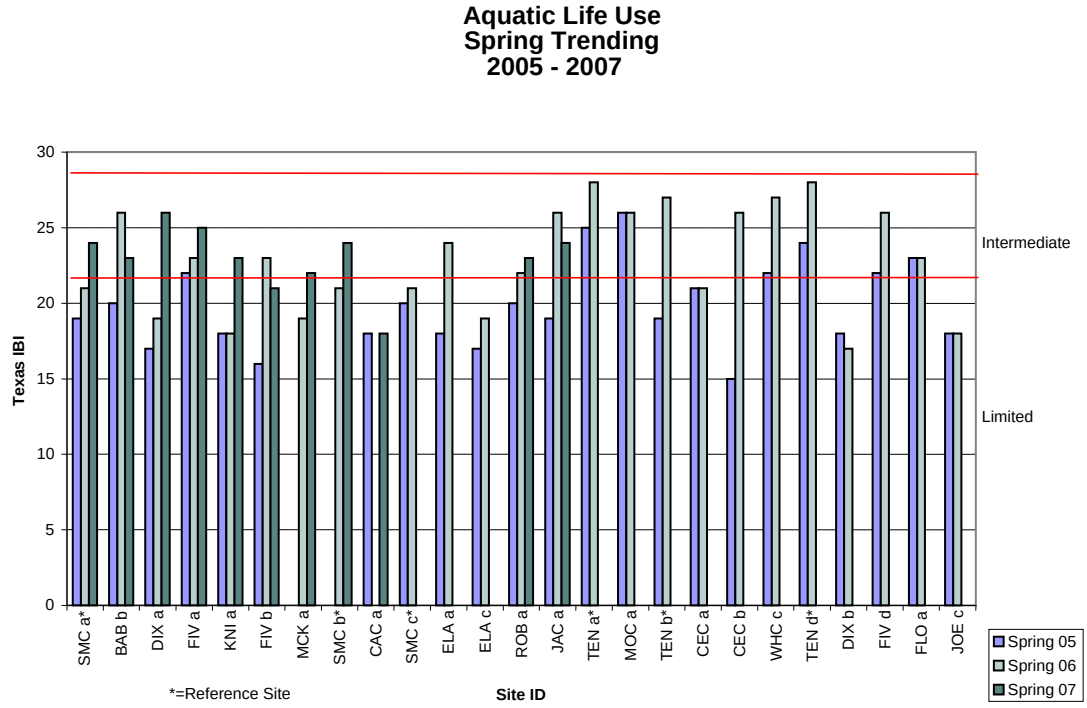


Except for site RIB-A, there was general improvement in the ALU score between the spring and summer sampling events. This same phenomenon was encountered last year. The summer

sampling occurs during the biota's highest stress time period which usually results in lower ALU scores compared to spring.



ALU Trends for Spring Monitoring, 2005 – 2007



<u>Water Quality Data</u>

Monitoring data for Permit Year 2 are included in Table F1 and Table F2. Seasonal fluctuations in pH and Dissolved Oxygen due to algae occurred at several sites.

Table F1. 2007 Water Quality Data for Compliance Sites

ID	SAMPLE DATE	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO (mg/L)	pH	TDS (g/L)	TURBIDITY (NTU)	TSS (mg/L)	CHLORINE (mg/L)	HARDNESS (mg/L)	COD (mg/L)	PHOSPHOROUS (mg/L as P)	IRON (mg/L)	COPPER (mg/L)	AMMONIA (mg/L)	NITRATE-NITRITE (mg/L)	ORP	E. COLI (MPN/100 ml)
BAB b	12-Apr-07	17.2	0.600	11.0	8.36	0.4	10	11	0.12	250	ND	ND	0.03	ND	0.17	0.93	---	249
BAB b	17-May-07	23.9	0.681	11.0	8.41	0.4	1	7	0.02	150	ND	1.56	0.06	ND	0.21	0.39	416	361
BAB b	17-Sep-07	24.1	0.711	8.4	7.77	0.5	14	19	2.20	200	ND	0.14	0.11	ND	0.16	0.84	383	14
DIX a	11-Apr-07	14.4	0.802	8.4	7.88	0.5	14	14	ND	250	11	ND	0.11	ND	ND	2.69	404	249
DIX a	16-May-07	20.1	0.688	6.3	8.01	0.4	3	< 1	0.02	200	ND	0.06	0.07	ND	0.17	0.63	424	397
DIX a	09-Aug-07	27.7	0.594	6.0	7.54	0.4	5	17	0.02	185	ND	0.05	0.05	ND	0.17	0.53	418	250
DIX a (field replicate)	09-Aug-07	27.7	0.594	6.0	7.55	0.4	6	17	0.02	185	ND	0.05	0.07	ND	ND	0.53	419	260
DIX a	17-Sep-07	23.6	0.586	5.9	7.58	0.4	10	5	ND	185	ND	0.40	0.05	ND	ND	1.00	150	122
FIV a	07-May-07	25.9	0.494	6.2	8.41	0.3	12	12	ND	150	ND	0.08	0.10	ND	0.15	0.42	396	34
FIV a	17-May-07	23.0	0.510	7.6	8.46	0.3	5	8	0.10	150	11	0.06	0.07	ND	0.19	0.19	478	77
FIV a	17-Sep-07	27.4	0.496	8.7	8.00	0.3	2	< 1	0.05	185	ND	0.05	0.03	ND	ND	0.45	104	3
KNI a (field replicate)	30-Apr-07	23.3	0.704	9.7	8.66	0.5	15	28	0.03	200	ND	ND	0.17	ND	0.11	4.05	400	199
KNI a	30-Apr-07	23.3	0.704	9.7	8.66	0.5	15	28	0.03	200	10	0.16	0.20	ND	ND	4.06	400	228
KNI a	18-May-07	22.0	0.692	10.9	8.74	0.4	6	12	0.10	200	51	0.11	0.40	ND	---	ND	482	792
KNI a	18-Sep-07	25.4	0.363	8.0	7.74	0.2	10	6	0.30	120	ND	0.06	0.24	ND	0.55	0.50	337	7
SMC a (ref. site)	05-Apr-07	17.3	7.890	7.7	8.05	0.5	1	< 1	0.12	150	31	0.15	0.20	ND	0.17	0.53	401	131
SMC a (ref. site)	16-May-07	23.7	0.478	7.3	8.21	0.3	18	18	0.16	150	14	0.11	0.19	ND	0.41	ND	474	47
SMC a (ref. site)	17-Sep-07	24.6	0.675	6.5	7.76	0.4	< 1	8	0.11	185	ND	0.16	0.21	ND	0.16	0.26	134	90

ND = Non-Detect --- = No Analysis

Table F2. 2007 Water Quality Data for Non-Compliance Sites

ID	SAMPLE DATE	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO (mg/L)	pH	TDS (g/L)	TURBIDITY (NTU)	TSS (mg/L)	CHLORINE (mg/L)	HARDNESS (mg/L)	COD (mg/L)	PHOSPHOROUS (mg/L as P)	IRON (mg/L)	COPPER (mg/L)	AMMONIA (mg/L)	NITRATE-NITRITE (mg/L)	ORP	E. COLI (MPN/100 ml)
ART a	30-Apr-07	20.7	0.867	5.6	8.31	0.6	14	16	ND	185	12	ND	0.34	ND	0.13	ND	433	67
ART a	21-Sep-07	25.9	0.855	8.4	8.12	0.6	49	33	0.03	150	ND	0.37	0.58	ND	0.1	ND	355	3
ASH a	12-Apr-07	16.2	0.72	9	7.9	0.5	11	22	0.1	250	ND	ND	0.07	ND	ND	1.45	409	210
ASH a (field replicate)	12-Apr-07	16.2	0.72	9	7.9	0.5	11	22	0.1	250	ND	ND	0.07	ND	0.12	1.58	409	206
ASH a	17-Sep-07	27	0.549	7	7.64	0.4	6	< 1	0.09	150	ND	0.13	0.11	ND	0.19	0.82	155	12
ASH a	17-Sep-07	27	0.548	6.9	7.65	0.4	5	< 1	0.1	150	ND	0.12	0.1	ND	0.21	0.75	152	13
BIT a	4-Apr-07	16.9	0.544	5.4	7.45	0.4	22	14	0.12	120	21	0.68	0.69	ND	0.25	0.68	382	870
BIT a	14-Sep-07	23.4	0.257	3.6	7.51	0.4	21	28	ND	120	ND	0.67	0.36	ND	0.22	0.26	329	629
CAC a	10-Apr-07	13.2	1.005	8.3	8.12	0.6	16	18	0.02	150	30	0.33	0.57	ND	0.5	0.49	382	21
CAC a (field replicate)	10-Apr-07	13.2	1.005	8.3	8.12	0.6	16	18	0.02	150	99	0.31	0.57	ND	0.47	0.48	382	21
CAC a	12-Jun-07	28	0.821	1.8	7.56	0.5	42	50	0.14	200	42	0.12	1.08	ND	0.41	ND	298	58
CAC a	23-Sep-07	27.6	1.108	7.8	7.72	0.7	44	53	0.15	185	98	1.06	0.58	ND	2.94	0.25	345	---
CEB a	23-Apr-07	20.7	0.862	10.1	8.29	0.6	6	13	0.03	180	11	0.22	0.17	ND	0.13	1.34	392	166
CEB a	18-Sep-07	26.3	0.81	10.9	7.76	0.5	1	1	0.19	200	ND	0.11	0.05	ND	0.15	1.25	291	107
CEC a	14-May-07	25.6	0.416	4.8	8.05	0.3	10	14	ND	120	ND	0.23	0.15	ND	0.2	0.63	427	549
CEC a	24-Sep-07	24.4	0.487	5.4	7.56	0.3	8	16	0.02	150	ND	0.48	0.09	ND	0.73	1.03	313	1010

Table F2. 2007 Water Quality Data for Non-Compliance Sites

ID	SAMPLE DATE	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO (mg/L)	pH	TDS (g/L)	TURBIDITY (NTU)	TSS (mg/L)	CHLORINE (mg/L)	HARDNESS (mg/L)	COD (mg/L)	PHOSPHOROUS (mg/L as P)	IRON (mg/L)	COPPER (mg/L)	AMMONIA (mg/L)	NITRATE-NITRITE (mg/L)	ORP	E. COLI (MPN/100 ml)
CEC b	14-May-07	25.8	0.463	6.9	8.58	0.3	13	24	ND	150	ND	0.25	0.11	ND	0.21	0.6	424	722
CEC b	24-Sep-07	25.2	0.447	10.1	8.28	0.3	11	9	0.07	120	ND	0.22	ND	ND	ND	0.81	330	197
COO a	14-May-07	24.7	0.476	7.2	8.3	0.3	18	18	ND	120	14	0.15	0.13	ND	0.17	0.89	501	602
COO a	21-Sep-07	25.9	0.466	11.5	7.7	0.5	11	22	ND	200	ND	0.52	0.05	ND	0.11	1.03	364	249
COT a	9-Apr-07	11	0.894	10	7.99	0.6	< 1	5	0.02	175	ND	0.09	0.07	ND	0.15	2.35	461	313
COT a	6-Aug-07	30.3	0.658	5.9	8.02	0.4	4	3	0.07	185	ND	0.09	0.08	ND	0.18	0.9	472	93
COT c	9-Apr-07	9.9	1.063	11.8	7.9	0.7	2	4	0.08	250	ND	0.05	0.05	ND	0.23	2.85	512	416
COT c	6-Aug-07	28.1	0.715	8.4	7.95	0.5	1	< 1	0.02	150	ND	0.04	ND	ND	0.21	1.03	485	228
CRO a	7-May-07	23.2	0.539	6	8.49	0.3	10	9	ND	150	ND	0.06	0.03	ND	0.11	0.49	441	549
DAN a	10-Apr-07	16.2	0.473	10.3	8.39	0.3	86	93	1.86	100	ND	0.32	4.65	ND	1.02	0.91	440	32
DAN a	19-Sep-07	28.2	0.294	8	7.46	0.2	43	34	1.24	120	ND	0.11	1.42	ND	0.83	0.7	446	10
DIX b	11-Apr-07	13.8	0.306	9.7	8.2	0.2	11	19	ND	150	11	ND	0.06	ND	ND	2.43	409	313
DIX b	9-Aug-07	30.6	0.48	5.3	8	0.3	9	23	ND	185	ND	0.09	0.08	ND	0.38	0.64	425	214
EFC a	23-Apr-07	21.3	0.859	10.4	8.2	0.6	17	23	0.03	250	19	0.16	0.47	ND	0.18	1.14	429	344
EFC a	18-Sep-07	24.1	0.88	7.1	7.3	0.6	11	9	0.13	200	ND	0.15	0.32	ND	0.2	1	282	238
EFC a (field replicate)	18-Sep-07	24.1	0.88	7.1	7.3	0.6	11	9	0.13	200	ND	0.1	0.33	ND	0.2	1.16	282	120
EFC a	3-Apr-07	18.9	0.547	7.6	7.63	---	42	51	0.22	150	21	0.65	3.24	ND	1.24	0.12	299	194

Table F2. 2007 Water Quality Data for Non-Compliance Sites

ID	SAMPLE DATE	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO (mg/L)	pH	TDS (g/L)	TURBIDITY (NTU)	TSS (mg/L)	CHLORINE (mg/L)	HARDNESS (mg/L)	COD (mg/L)	PHOSPHOROUS (mg/L as P)	IRON (mg/L)	COPPER (mg/L)	AMMONIA (mg/L)	NITRATE-NITRITE (mg/L)	ORP	E. COLI (MPN/100 ml)
EFT a	21-Sep-07	27.2	0.304	6.3	7.65	0.2	15	17	0.05	120	ND	0.17	0.38	ND	0.21	0.15	347	24
ELA a	4-Apr-07	17.8	0.791	5.4	7.57	0.5	1	6	0.03	150	ND	0.19	0.45	ND	0.19	0.78	377	479
ELA a	20-Sep-07	23.1	0.761	4.7	7.31	0.5	2	< 1	0.02	185	ND	0.08	0.17	ND	ND	0.56	363	549
ELA c	4-Apr-07	14.5	0.792	9.2	8.22	0.5	2	< 1	0.13	150	ND	0.13	0.07	ND	0.2	3.66	388	830
ELA c	20-Sep-07	24.9	0.577	7.8	8.12	0.4	16	< 1	0.15	120	ND	0.14	0.03	ND	0.18	0.22	340	756
FAR aa	3-Apr-07	20.9	0.638	6.6	7.77	---	7	4	0.21	200	11	0.15	0.21	ND	0.35	0.8	499	201
FAR aa	21-Sep-07	26.5	0.609	6.8	7.61	0.4	12	5	0.06	150	ND	0.04	0.08	ND	0.1	0.93	349	88
FIL a	23-Apr-07	22.2	0.755	5.8	8.27	0.5	20	20	0.03	200	21	0.19	0.34	ND	0.19	ND	516	30
FIL a	21-Sep-07	26.4	0.489	19.2	7.64	0.3	27	9	0.05	120	ND	0.46	0.34	ND	0.11	ND	364	16
FIV b	7-May-07	25.4	0.502	8.2	8.32	0.3	10	9	ND	150	ND	0.05	0.07	ND	ND	0.48	419	161
FIVY b (field replicate)	7-May-07	25.4	0.502	8.2	8.32	0.3	10	9	ND		150	ND	0.08	0.07	ND	0.52	419	75
FIV b	7-Jun-07	24.6	0.596	7.7	8.52	0.4	9	15	ND	200	ND	0.06	0.06	ND	1.87	1.48	518	228
FIV b	18-Sep-07	23.9	0.54	9.6	7.83	0.4	15	4	ND	120	ND	ND	ND	ND	ND	0.85	349	121
FIV d	7-May-07	23.1	0.552	6.1	8.08	0.4	10	14	ND	200	ND	0.04	0.03	ND	0.23	0.46	509	201
FLO a	9-Apr-07	14.3	1.104	10.1	8.63	0.7	< 1	2	ND	150	22	2.69	0.08	ND	0.31	6.47	394	416
FLO a	6-Aug-07	30.7	0.765	9	8.58	0.5	3	< 1	ND	150	37	2.79	0.05	ND	0.27	5.78	466	210
FUR a	3-Apr-07	21.6	0.836	7.3	8.05	---	25	30	0.12	150	13	0.14	1.06	ND	0.17	0.78	450	192
FUR a	21-Sep-07	28	0.766	6.1	7.8	0.5	8	6	0.06	185	ND	0.11	0.28	ND	0.16	0.11	352	79

Table F2. 2007 Water Quality Data for Non-Compliance Sites

ID	SAMPLE DATE	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO (mg/L)	pH	TDS (g/L)	TURBIDITY (NTU)	TSS (mg/L)	CHLORINE (mg/L)	HARDNESS (mg/L)	COD (mg/L)	PHOSPHOROUS (mg/L as P)	IRON (mg/L)	COPPER (mg/L)	AMMONIA (mg/L)	NITRATE-NITRITE (mg/L)	ORP	E. COLI (MPN/100 ml)
HIC b	5-Apr-07	15.4	0.757	7.9	7.96	0.1	6	9	0.04	150	ND	0.19	0.29	ND	0.13	0.17	425	185
HIC b	14-Sep-07	25.8	1.213	3.8	7.59	0.8	51	64	ND	250	---	0.42	0.75	ND	0.8	0.57	334	659
HON a	15-May-07	21.7	0.624	7.1	8.33	0.4	19	6	ND	250	19	0.39	0.1	ND	0.32	0.59	489	575
HON a	19-Sep-07	22.3	0.582	2.1	7.03	0.4	16	8	ND	150	52	ND	ND	ND	ND	0.81	341	210
HUT a	3-Apr-07	22.6	0.585	7.2	8	---	17	20	0.06	200	11	0.13	0.48	ND	0.2	0.52	471	125
HUT a	23-Sep-07	27	0.488	4.7	7.64	0.3	26	36	0.07	150	ND	0.25	0.52	ND	0.16	ND	325	---
JAC a	9-Apr-07	11.7	0.785	10.3	7.87	0.5	4	7	ND	200	ND	0.07	0.12	ND	0.16	2.58	388	299
JAC a	20-Jun-07	26.1	0.636	6.4	7.7	0.4	18	20	ND	150	ND	0.05	0.11	0.02	ND	1.23	267	397
JAC a	9-Aug-07	27.8	0.609	7.3	7.56	0.4	7	23	1	185	ND	0.08	0.08	ND	0.43	0.54	432	240
JAC a	21-Sep-07	23.8	0.642	5.6	7.56	0.4	2	4	0.07	185	ND	0.04	0.17	ND	0.12	1.41	341	829
JEN a	9-Apr-07	12.3	0.58	10	7.93	0.4	6	10	0.11	150	14	0.13	0.17	ND	0.22	1.86	385	154
JEN a	9-Aug-07	28.1	0.438	5.8	7.67	0.3	5	16	ND	120	23	0.16	0.06	ND	0.17	0.64	440	792
JOE a	10-Apr-07	13.5	0.975	8.6	8.03	0.6	5	5	ND	180	ND	0.07	0.11	ND	ND	2.34	382	378
JOE a	19-Sep-07	26.3	0.463	7.2	7.98	0.3	35	28	0.02	120	ND	0.26	0.4	ND	0.17	0.12	351	78
JOE c	10-Apr-07	14.2	0.972	8	8.15	0.6	1	8	0.04	185	ND	0.08	ND	ND	0.12	4.36	441	830
LAC a	14-May-07	30.1	0.197	11.5	9.92	0.1	15	24	ND	100	22	0.14	0.17	ND	0.27	ND	434	8
LAC a	20-Sep-07	29.4	0.183	10.9	8.84	0.1	8	5	0.05	100	25	0.24	0.38	ND	0.19	0.18	349	4

Table F2. 2007 Water Quality Data for Non-Compliance Sites

ID	SAMPLE DATE	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO (mg/L)	pH	TDS (g/L)	TURBIDITY (NTU)	TSS (mg/L)	CHLORINE (mg/L)	HARDNESS (mg/L)	COD (mg/L)	PHOSPHOROUS (mg/L as P)	IRON (mg/L)	COPPER (mg/L)	AMMONIA (mg/L)	NITRATE-NITRITE (mg/L)	ORP	E. COLI (MPN/100 ml)
LAC a (field replicate)	20-Sep-07	28.5	0.185	11.4	8.83	0.1	6	7	0.05	100	ND	0.19	0.33	ND	0.2	0.17	347	9
LAK a	4-Apr-07	17	0.669	5.6	7.66	0.4	27	24	0.6	150	18	0.88	1.84	ND	0.3	0.68	383	575
LAK a	14-Sep-07	24	0.492	4.2	7.75	0.3	20	36	0.36	150	ND	0.2	0.24	ND	0.31	0.17	331	219
LIT a	14-May-07	22.9	0.476	6.7	8.02	0.3	10	16	0.08	150	ND	0.15	0.21	ND	0.17	0.47	423	436
LIT a	20-Sep-07	26.1	0.43	7.9	7.72	0.3	1	< 1	0.21	150	ND	0.08	0.04	ND	ND	0.84	343	162
LON a	11-Apr-07	16.1	0.455	11	8.45	0.3	24	21	0.17	150	99	0.05	0.11	ND	0.2	0.63	430	210
LON a	19-Sep-07	26.4	0.246	9.7	8.67	0.2	21	12	ND	120	ND	0.12	0.05	ND	0.12	ND	332	9
MCC a	11-Apr-07	15.4	0.574	7.4	7.67	0.4	10	7	ND	150	27	0.07	0.26	ND	0.15	0.71	395	210
MCC a	18-Sep-07	25.6	0.388	6.9	7.51	0.3	24	15	ND	150	ND	0.21	0.65	ND	ND	0.47	358	102
MCK a	3-Apr-07	21.2	0.828	8.3	7.91	---	4	3	0.05	200	ND	0.09	0.07	ND	0.16	3.73	467	436
MCK a	6-Jun-07	23.9	0.741	5.1	8.41	0.5	6	11	0.16	250	ND	0.49	0.05	ND	ND	2.05	523	361
MCK a	6-Aug-07	25.7	0.633	7.8	8.01	0.4	2	< 1	0.06	185	ND	0.04	ND	ND	0.15	1.67	525	228
MCK a	18-Sep-07	25.3	0.633	10.4	7.92	0.4	17	9	0.03	185	ND	ND	ND	ND	0.16	1.02	357	172
MCK a (field replicate)	18-Sep-07	25.2	0.635	10.4	7.92	0.4	18	4	ND	185	ND	0.04	ND	ND	0.11	0.97	353	214
MOC a	30-Apr-07	25.3	0.553	6.9	8.59	0.4	43	44	ND	150	20	ND	1.3	ND	ND	ND	405	3
MOC a	24-Sep-07	27	0.419	7.7	8.23	0.3	77	85	ND	---	ND	0.35	2.06	ND	0.11	0.17	384	6
MOC b	30-Apr-07	18.5	0.492	6.2	8.24	0.3	45	43	0.04	200	18	0.17	1.49	ND	0.12	1.29	503	5

Table F2. 2007 Water Quality Data for Non-Compliance Sites

ID	SAMPLE DATE	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO (mg/L)	pH	TDS (g/L)	TURBIDITY (NTU)	TSS (mg/L)	CHLORINE (mg/L)	HARDNESS (mg/L)	COD (mg/L)	PHOSPHOROUS (mg/L as P)	IRON (mg/L)	COPPER (mg/L)	AMMONIA (mg/L)	NITRATE-NITRITE (mg/L)	ORP	E. COLI (MPN/100 ml)
MOC b	24-Sep-07	26.1	0.424	7.8	7.98	0.3	30	25	ND	120	ND	0.17	0.58	ND	ND	ND	385	7
MOC b (field replicate)	24-Sep-07	26.1	0.424	7.8	7.98	0.3	30	25	ND	120	ND	0.19	0.63	ND	0.1	ND	385	6
NEW a	7-May-07	23.3	0.571	6.5	7.92	0.4	7	7	ND	250	ND	0.09	0.11	ND	0.4	1.05	65	140
NEW a	14-Sep-07	26	0.484	6.6	8.02	0.3	7	12	0.02	150	ND	0.1	0.07	ND	0.28	0.78	330	260
OGU a	30-Apr-07	21	0.76	7	8.4	0.5	17	19	ND	200	10	ND	0.26	ND	ND	5.15	423	549
OGU a	21-Sep-07	25.4	0.734	8.9	7.61	0.5	1	26	ND	250	ND	0.04	0.06	ND	0.1	0.68	362	68
PAR a	5-Apr-07	16.2	0.322	6.8	7.51	0.2	28	21	0.02	100	36	0.36	1.25	ND	0.33	0	479	129
PAR a	14-Sep-07	26.8	0.398	4.9	7.76	0.3	20	21	0.02	120	ND	0.62	0.57	ND	0.26	ND	332	179
PRA a	4-Apr-07	17.1	0.606	6.9	7.76	0.4	1	1	0.04	150	ND	0.27	0.36	ND	0.2	0.24	371	249
PRA a (field replicate)	4-Apr-07	17.1	0.606	6.9	7.76	0.4	1	1	0.04	150	18	0.28	0.38	ND	0.19	0.43	371	272
PRA a	14-Sep-07	24	0.388	5.7	7.56	0.3	8	16	0.05	120	ND	0.23	0.2	ND	0.25	0.23	331	60
RAW a	3-Apr-07	23.2	0.283	8.4	7.91	---	16	12	0.28	120	16	0.61	0.56	ND	0.49	0.68	442	228
RAW a	21-Sep-07	27.9	0.347	5.6	7.77	0.2	11	6	0.1	100	ND	0.26	0.17	0.01	0.19	ND	348	25
RIB a	10-Apr-07	13.7	1.23	5.3	7.85	0.8	9	10	ND	180	ND	0.11	0.39	ND	0.16	ND	383	186
RIB a	20-Jun-07	22.6	1.94	2.9	6.9	1.2	19	18	0.25	150	ND	0.17	0.32	ND	ND	ND	198	113

Table F2. 2007 Water Quality Data for Non-Compliance Sites

ID	SAMPLE DATE	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO (mg/L)	pH	TDS (g/L)	TURBIDITY (NTU)	TSS (mg/L)	CHLORINE (mg/L)	HARDNESS (mg/L)	COD (mg/L)	PHOSPHOROUS (mg/L as P)	IRON (mg/L)	COPPER (mg/L)	AMMONIA (mg/L)	NITRATE-NITRITE (mg/L)	ORP	E. COLI (MPN/100 ml)
RIB a	21-Sep-07	24.5	1.78	1.9	6.77	1.1	15	21	ND	200	ND	0.15	0.45	ND	0.14	ND	362	148
RIC b	7-May-07	24.2	0.594	6.8	8.55	0.4	10	10	0.06	250	ND	0.1	0.04	ND	0.13	0.45	425	117
SMC b	5-Apr-07	18.9	0.784	6.6	7.91	0.5	8	13	ND	150	ND	0.1	0.18	ND	0.15	0.54	376	249
SMC b (field replicate)	5-Apr-07	18.9	0.784	6.6	7.91	0.5	8	13	ND	150	ND	0.16	0.33	ND	0.13	0.5	376	285
SMC b	12-Jun-07	27.3	0.703	5.2	7.93	0.5	12	19	ND	150	ND	0.63	0.1	ND	0.26	ND	259	64
SMC b	23-Sep-07	25.5	0.837	8.3	8.14	0.5	9	4	ND	200	ND	0.16	0.06	ND	0.12	ND	351	---
SMC c	5-Apr-07	20	0.539	9.1	8.47	0.3	12	15	ND	120	24	0.2	0.18	ND	0.22	0.35	382	870
SMC c	20-Sep-07	25.2	0.652	5.4	7.8	0.4	12	27	ND	150	ND	0.03	0.09	ND	0.11	0.1	346	75
TEN a	7-May-07	24.1	0.5	5.9	8.05	0.3	39	37	ND	250	ND	0.14	0.96	ND	0.11	0.69	54	179
TEN a	24-Sep-07	23.3	0.532	7.2	7.92	0.3	46	48	ND	150	ND	0.1	0.36	ND	ND	0.61	372	45
TEN b	7-May-07	24.5	0.545	6	8.1	0.4	8	4	0.03	250	ND	0.05	0.12	ND	0.3	0.82	30	155
TEN b	24-Sep-07	23.6	0.529	7.3	7.77	0.3	11	6	0.06	185	ND	0.33	0.03	ND	ND	0.5	341	49
TEN d	7-May-07	23.1	0.596	6.3	7.96	0.4	1	11	0.03	250	ND	0.14	0.07	ND	0.28	0.93	21	161
TUR a	23-Apr-07	20.6	0.894	5.8	8.1	0.6	14	5	0.04	200	14	0.15	0.14	ND	0.21	2.2	411	525
TUR a (field replicate)	23-Apr-07	20.6	0.894	5.8	8.1	0.6	14	5	0.04	200	14	0.17	0.23	ND	0.22	2.24	411	397

Table F2. 2007 Water Quality Data for Non-Compliance Sites

ID	SAMPLE DATE	TEMPERATURE (°C)	CONDUCTIVITY (mS/cm)	DO (mg/L)	pH	TDS (g/L)	TURBIDITY (NTU)	TSS (mg/L)	CHLORINE (mg/L)	HARDNESS (mg/L)	COD (mg/L)	PHOSPHOROUS (mg/L as P)	IRON (mg/L)	COPPER (mg/L)	AMMONIA (mg/L)	NITRATE-NITRITE (mg/L)	ORP	E. COLI (MPN/100 ml)
TUR a	18-Sep-07	25.2	0.756	5.5	7.4	0.5	5	< 1	0.14	200	ND	0.1	0.15	ND	0.36	1.09	298	69
WHC a	12-Apr-07	16.7	0.451	8.6	8.01	0.3	26	24	0.03	200	13	0.08	0.4	ND	0.28	0.68	447	48
WHC a	17-Sep-07	28.7	0.312	7.4	8.24	0.2	27	28	0.1	120	ND	0.3	0.51	ND	0.23	0.15	116	178
WHC c	9-Apr-07	12.7	0.979	9.7	8.32	0.6	4	1	0.12	200	19	1.7	0.1	ND	0.24	4.28	399	219
WHC c	6-Aug-07	32.5	0.518	10.6	8.33	0.3	8	3	0.09	150	ND	0.75	0.06	ND	0.19	1.35	468	96
WHC c	24-Sep-07	28.2	0.632	10.5	8.01	0.4	10	2	0.1	150	ND	0.94	0.05	ND	0.11	1.23	351	65
WHI a	7-May-07	22.6	5.46	5.7	7.67	0.4	4	9	ND	250	ND	0.03	0.1	ND	0.2	2.96	56	299
WHI a	14-Sep-07	23.4	0.417	8.6	7.82	0.3	5	17	ND	120	ND	0.03	ND	ND	0.15	1.84	334	50
WIL a	11-Apr-07	15.3	0.794	6.8	7.66	0.5	19	29	ND	180	17	ND	0.45	ND	0.13	1.49	389	457
WIL a	18-Sep-07	27.2	0.372	3.9	7.29	0.2	28	27	ND	120	ND	0.14	0.51	ND	0.14	0.19	357	4
WJO a	10-Apr-07	13.7	0.983	9.5	7.85	0.6	16	20	0.02	120	ND	0.15	0.84	ND	0.69	1.18	386	238
WJO a	19-Sep-07	26.9	0.97	4.4	7.56	0.6	48	45	ND	150	ND	0.19	1.27	ND	0.48	0.26	357	479
WOO a	7-May-07	23.7	0.482	8.5	8.1	0.3	10	14	0.05	200	ND	0.07	0.06	ND	0.3	0.6	427	192

Illicit Discharges Investigations, Enforcement Actions and Inspections

City Marshall/ Illegal Dump Team

Public Works and Transportation – Storm Water Management

APPENDIX G

APPENDIX G

Illicit Discharges and Improper Disposal

Elimination of Illicit Discharges

The City Marshal's office investigates complaints, issues citations, and makes arrests for illicit discharges. These activities continue to eliminate illicit discharges and improper disposal sources of non-storm water materials into the MS4. The table below summarizes the sources, quantities, and actions taken by the City Marshal's office.

Summary of City Marshal/ Illegal Dump Team Activities

Activity/Type	Number for Permit Year 2
Citations Issued: By Marshal's	575
Unsecured Loads/Citations	508
Scrap Tires Citations	87
Scrap Tires Vehicles Towed	1
Illegal Dump Citations	44
Citations Issued: By Code Inspectors	28
Persons Arrested/Illegal Dumping	68
# Illegal Dump Sites Monitored Daily	2,119
# Illegal Fill Sites Monitored	89
# Illegal Dumping Location(s) Staked out	1,912
Notice of Violations Issued	3
City Court: Hrs.	106
County Court: Hrs.	29
# Illegal Dumping Cases Filed	125
Cases Investigated	1,437
Call Sheets Turn– In	1,030
Solid Waste Debris Removed lbs.	729,358
Tires Removed	2,138
Persons Arrested/Other	65
Loc - Referred for Cleaning	588

The City of Dallas uses an internet-based/ telephone (3-1-1) Citywide customer request management system (CRMS) to track responses to citizen's requests or complaints including those regarding illegal dumping or improper discharge of non-storm water materials. The City's storm water-related educational materials encourage the public to use the 3-1-1 system to report illicit discharges. During permit year 2007-2008, Storm Water Management responded to

1,083 requests or complaints from citizens – an increase of 18% from the previous permit year. The following table describes the type of and quantity of calls responded to by staff.

Public Works & Transportation Storm Water Management

Type of Service Request	Number of Requests
Abandoned Substance Routine	43
Abandoned Substance Urgent	8
Chemical Spill Routine	211
Chemical Spill Urgent	307
Illegal Dumping Routine	118
Illegal Dumping Urgent	80
Private Property Water Leak	58
Private Sewage Leak	24
Storm Water Construction Site/ Erosion Control	126
Swimming Pool Discharge	52
Water Pollution Routine - Creek Lake, River	54
Water Pollution Urgent - Creek, Lake, River	2
Total Number of Storm Water Related Service Requests	**1,083**