

STORMWATER WASTEWATER OPERATIONS COMPLIANCE DIVISON

2012 Annual Report



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City of Aurora



Water Department Wastewater & Stormwater Division Phone: 303-326-8050 Fax: 303-326-8070



The City of Aurora Stormwater Division is responsible for the cleaning and maintenance of the City's curb inlets, storm drains, detention ponds, and storm channels. Some of these activities include: removing sediment and vegetation from channels, easements, forebays, and ponds; revegetation associated with channels and ponds; maintaining fall protection devices near stormwater infrastructure; flood monitoring and management; and snow removal.

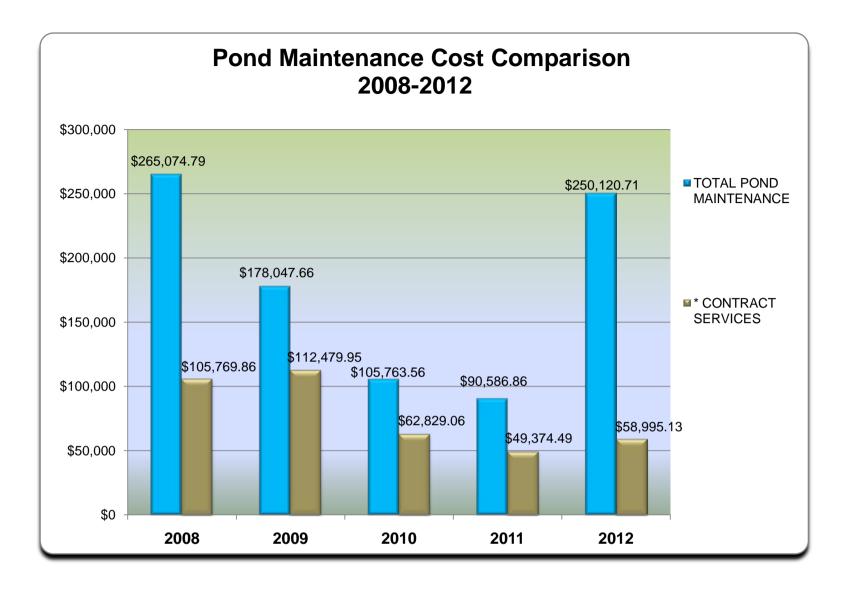
The Stormwater staff exceeded their goals per the Federal Emergency Management Agency (FEMA) and the National Pollutant Discharge Elimination Standards (NPDES) requirements for sediment removal of ponds & channels. All 68 miles of earthen and 8.5 miles of concrete channels were cleaned of debris & trash, 74 ponds & 222 trouble spots were maintained monthly and after each storm event, graffiti was power washed and/or painted, 4,079 inlets were inspected and 115 inlets cleaned.

Stormwater crews cleaned the Binney Water Treatment Plant's forebay, responded proactively to several storm events that impacted Aurora, completed grading and reseeding activities at Rampart Reservoir, removed sediment from Conservatory Pond, removed accumulated sediment from Piney Creek near the intersection of Arapahoe and Liverpool streets, developed and implemented a private water quality pond research program, regraded and reseeded several locations disturbed during the evaluation of the Rampart Waterline's condition, completed several small sediment removal projects, continued to focus on the removal of noxious tree species in channels, provided support for the Highline Canal Cleanup and Household Chemical Roundup, and dedicated significant efforts to the operations required to maintain the stormwater system.

During 2012, members of Stormwater focused considerable energy on enhancing communication and teamwork. Two consultants provided support and members of the team played an active role supporting the communication and teamwork efforts throughout the year. The Stormwater Division's commitment to excellence was verified when the level of planned maintenance exceeded the Division's maintenance goals and staff responded proactively to numerous challenges. The Division remains strong, well organized, and committed to being cooperative, responsive, and efficient when addressing the operational activities associated with stormwater management, responding to customer service inquiries and requests from the public and providing operational support for other Aurora Water divisions and other City of Aurora departments.

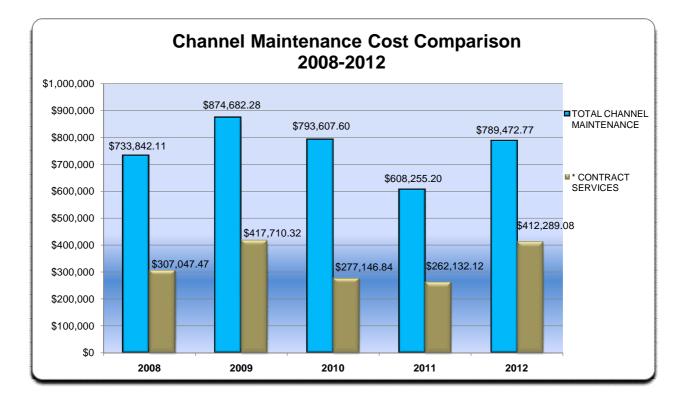
Respectfully,

Joe McCleary Superintendent of Stormwater Operations



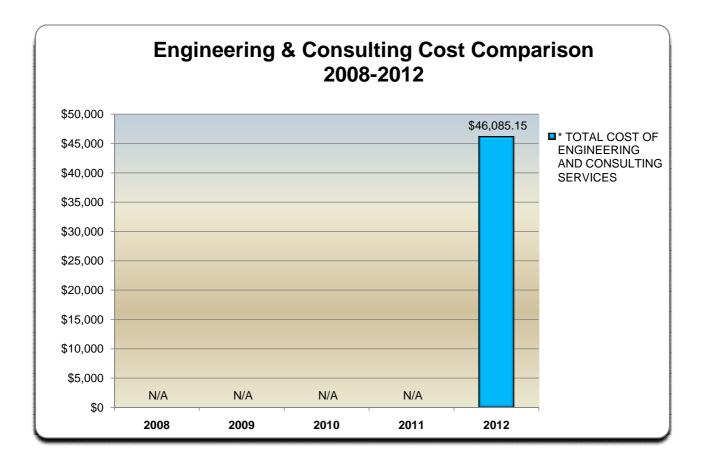
Pond Maintenance	-	2008	2009	2010	 2011	2012
STORM MOSQUITO MANAGEMENT	\$	2,802.00	\$ -	\$ 4,024.40	\$ 1,327.12	\$ 136.32
STORM SIGNS	\$	738.74	\$ 227.62	\$ -	\$ 45.36	\$ 420.05
STORM WEED MAINTENANCE	\$	2,196.60	\$ 2,827.80	\$ 2,285.14	\$ 295.16	\$ 339.13
includes AFTER STORM TROUBLE SPOTS	\$	140,421.27	\$ 53,013.31	\$ 25,536.48	\$ 33,924.77	\$ 62,255.65
STORM TRASH/DEBRIS/SEDIMENT REMOVAL	\$	13,146.32	\$ 9,498.98	\$ 11,088.48	\$ 5,619.96	\$ 93,325.22
STORM - OTHER MISCELLANEOUS		-	-	-	-	\$ 34,649.21
* CONTRACT SERVICES	\$	105,769.86	\$ 112,479.95	\$ 62,829.06	\$ 49,374.49	\$ 58,995.13
TOTAL POND MAINTENANCE	\$	265,074.79	\$ 178,047.66	\$ 105,763.56	\$ 90,586.86	\$ 250,120.71
TOTAL AMOUNT OF PONDS		53	61	61	75	74
MAINTENANCE COST PER POND	\$	5,001.41	\$ 2,918.81	\$ 1,733.83	\$ 1,207.82	\$ 3,380.01

* See Contractor Costs on page 10 for details



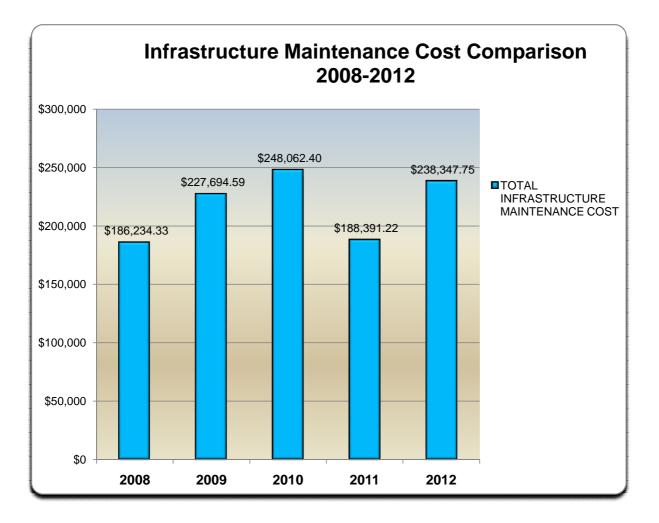
Channel Maintenance	2008	2009	2010	2011	2012
STORM CHANNEL MAINTENANCE	\$ 127,451.51	\$ 188,843.06	\$ 79,130.04	\$ 61,969.78	\$ 58,827.50
STORM CONCRETE EASEMENT	\$ 6,993.50	\$ 416.99	\$ 557.50	\$ -	\$ 2,292.18
STORM CONCRETE REPAIR	\$ 2,466.96	\$ 1,032.31	\$ 13,770.99	\$ 6,212.05	\$ 4,471.76
STORM TRASH/DEBRIS/SEDIMENT					
REMOVAL	\$ 98,501.66	\$ 72,012.72	\$ 142,248.20	\$ 76,355.29	\$ 134,769.17
STORM EROSION CONTROL	\$ 16,401.73	\$ 33,372.91	\$ 44,789.23	\$ 36,302.06	\$ 21,688.07
STORM FALL PROTECTION	\$ 10,379.23	\$ 2,464.34	\$ 17,152.81	\$ 2,919.29	\$ 1,184.65
STORM FENCE CONST/UPGRADE	\$ 1,736.76	\$ 2,358.37	\$ 1,324.25	\$ 18,370.42	\$ 561.20
STORM FENCE REPAIR	\$ 2,555.15	\$ 3,074.97	\$ 10,884.73	\$ 12,280.53	\$ 2,323.18
STORM LOCATES +					
PROJECT PLANNING	\$ 385.61	\$ 651.91	\$ 38,956.09	\$ 44,452.06	\$ 62,173.46
STORM TREE					
MAINTENANCE/WATER/PLANT	\$ 32,636.26	\$ 16,137.61	\$ 38,073.49	\$ 25,776.07	\$ 15,391.13
STORM OVERFLOW TRACT INSP	\$ 14,440.37	\$ 12,690.59	\$ 20,637.93	\$ 7,897.93	\$ 26,682.92
STORM MOSQUITO MGMT	\$ 8,202.08	\$ 9,448.15	\$ 12,899.70	\$ 1,814.45	\$ 485.79
STORM REVEGETATION	\$ 3,889.06	\$ 2,803.74	\$ 1,566.10	\$ 2,290.66	\$ -
STORM SIGNS	\$ 1,245.79	\$ 3,461.51	\$ 5,151.07	\$ 3,869.59	\$ 7,162.50
STORM WEED MAINTENANCE	\$ 98,867.21	\$ 107,008.28	\$ 88,036.57	\$ 44,021.13	\$ 37,316.19
STORM FLAPGATE INSPECTION +					
MAINTENANCE	\$ 641.76	\$ 1,194.50	\$ 1,282.06	\$ 1,591.77	\$ 1,853.99
* CONTRACT SERVICES	\$ 307,047.47	\$ 417,710.32	\$ 277,146.84	\$ 262,132.12	\$ 412,289.08
TOTAL CHANNEL MAINTENANCE	\$ 733,842.11	\$ 874,682.28	\$ 793,607.60	\$ 608,255.20	\$ 789,472.77
TOTAL MILES OF CHANNEL					
MAINTAINED	226.70	267.24	183.23	131.43	97.69
COST PER MILE	\$ 3,237.06	\$ 3,273.02	\$ 4,331.21	\$ 4,627.98	\$ 8,081.41

* See Contractor Costs on page 10 for details



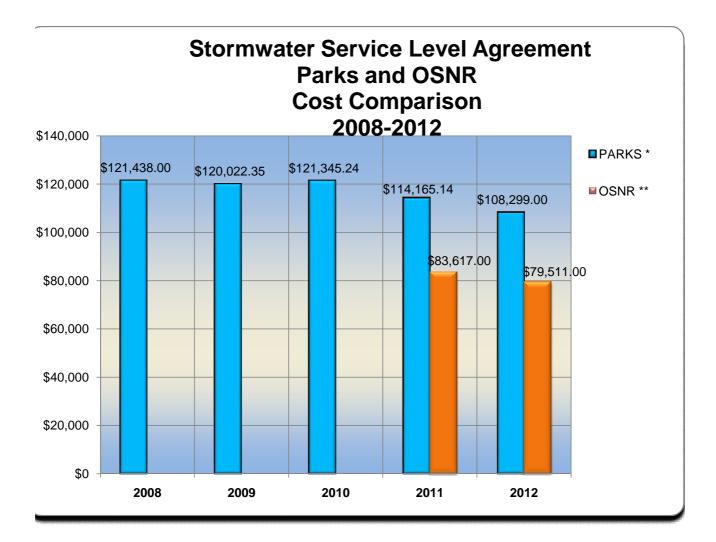
Consulting Firm	Service Provided	2008	2009	2010	2011	2012
ERO RESOURCES	PINEY CREEK - SEDIMENT REMOVAL	N/A	N/A	N/A	N/A	\$4,292.10
COA - PUBLIC WORKS ENGINEERING	VARIOUS PROJECT DESIGN SERVICES	N/A	N/A	N/A	N/A	\$6,407.00
COA - PUBLIC WORKS SURVEYING	VARIOUS PROJECT SURVEYING SERVICES	N/A	N/A	N/A	N/A	\$5,018.00
MULLER ENGINEERING	14200 E COLFAX - FLOOD EVALUATION	N/A	N/A	N/A	N/A	\$17,275.05
SHORT ELLIOT HENDRICKSON INC	HEC-RAS FOR EASTERLY CREEK	N/A	N/A	N/A	N/A	\$13,093.00
* TOTAL COST OF ENGINEERING AND CONSULTING SERVICES		N/A	N/A	N/A	N/A	\$ 46,085.15

* Cost of services not tracked prior to 2012



Infrastructure Maintenance	2008	2009	2010	2011	2012
STORM GRATE INSPECTION	\$ 5,937.99	\$ 912.33	\$ 136.12	\$ 48.59	\$-
STORM GRATE MAINTENANCE	\$ 5,745.80	\$ 1,823.03	\$ 4,106.29	\$ 372.13	\$-
STORM GRATE REPAIR	\$ 2,418.97	\$ 1,861.56	\$ 192.60	\$ 217.67	\$ 225.26
INLET INSPECTIONS - includes					
AFTER STORM TROUBLE SPOTS	\$ 36,673.77	\$ 91,326.71	\$ 97,575.05	\$ 95,471.93	\$ 97,364.56
STORM INLET REPAIR	\$ 202.57	\$ 1,393.86	\$ 1,916.10	\$ 2,831.16	\$ 5,554.56
STORM INLET MAINTENANCE	\$104,503.69	\$ 70,784.22	\$ 50,908.73	\$ 19,178.20	\$ 39,324.17
STORM DEBRIS REMOVAL					
(OUTFALLS)	N/A	\$ 4,946.44	\$ 29,798.74	\$ 7,470.56	\$ 13,653.37
STORM MANHOLE INSPECTION	\$ 1,765.51	\$ 1,039.66	\$ 511.64	\$ 242.95	\$ 1,027.65
STORM MANHOLE REPAIRS	\$ 230.73	\$ 23,957.25	\$ 11,000.64	\$ 16,839.01	\$ 17,358.43
STORM PIPE RPL/RPR	\$ 14,975.77	\$ 14,474.21	\$ 19,736.01	\$ 14,100.61	\$-
SD PRESSURE CLEAN	\$-	\$ 2,776.09	\$ 7,172.48	\$ 8,825.38	\$ 15,337.48
STORM TV INSPECTION	\$-	\$-	\$-	\$-	\$-
STORM MAIN INSPECTIONS	N/A	\$ 183.58	\$-	\$-	\$-
STORM GRAFFITI REMOVAL	\$ 13,779.53	\$ 12,215.65	\$ 25,008.00	\$ 22,793.03	\$ 26,773.39
* CONTRACTOR COSTS	N/A	N/A	N/A	N/A	\$ 21,728.88
TOTAL INFRASTRUCTURE					
MAINTENANCE COST	\$186,234.33	\$ 227,694.59	\$ 248,062.40	\$ 188,391.22	\$ 238,347.75

* See Contractor Costs on page 10 for details



Service Level Agreement	2008	2009	2010	2011	2012
PARKS *	\$ 121,438.00	\$ 120,022.35	\$ 121,345.24	\$ 114,165.14	\$ 108,299.00
TOTAL ACRES	117	117	117	117	117
COST PER ACRE	\$ 1,037.93	\$ 1,025.83	\$ 1,037.14	\$ 975.77	\$ 925.63

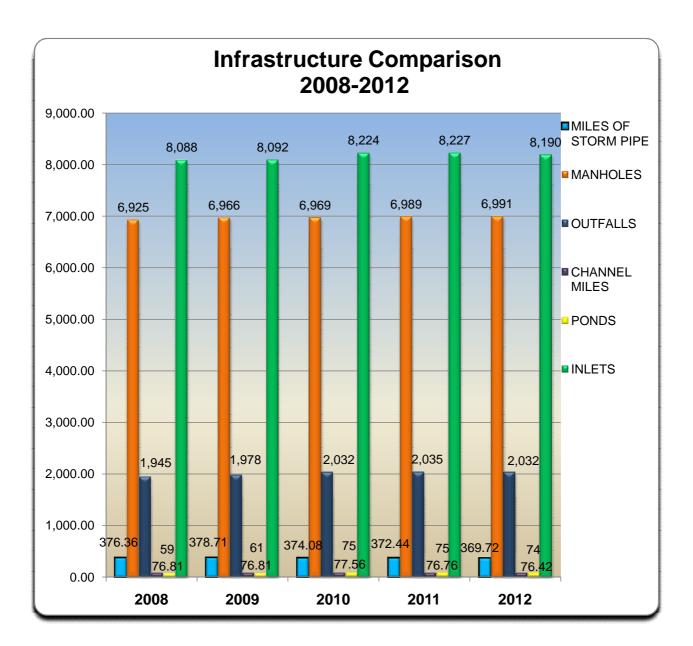
* Turf Management

Service Level	2008	2009	2010	2011	2012
Agreement					
OSNR **	N/A	N/A	N/A	\$ 83,617.00	\$ 79,511.00
TOTAL ACRES	N/A	N/A	N/A	950	950
COST PER ACRE	N/A	N/A	N/A	\$ 88.02	\$ 83.70

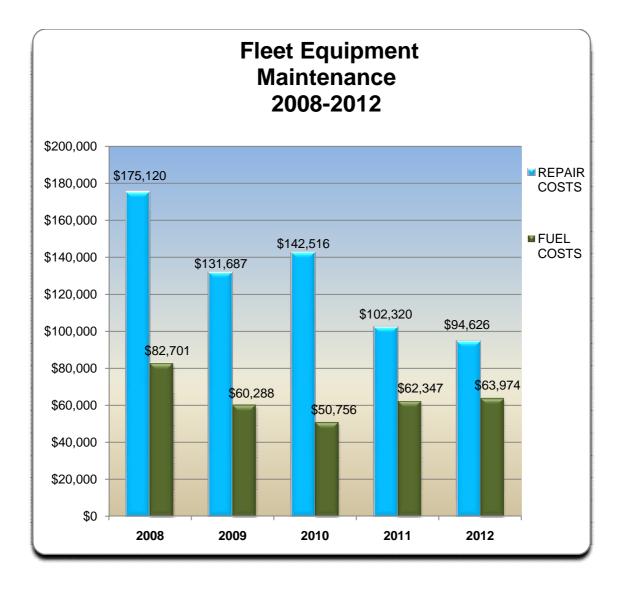
** Noxious Weed Management.

2012 STORMWATER CONTRACT COSTS												
COMPANY	SHARED EXPENSE	SERVICES PROVIDED	TOTAL COST	PONDS	CHANNELS	INFRASTRUCTURE REPAIR	ENGINEERING & CONSULTING SERVICES	GENERAL OPERATING EXPENSES				
OSNR SLA		Weed Mtce	\$79,511.00	-	\$79,511.00							
PROS SLA	*	Turf Mtce	\$108,299.00	\$21,659.80	\$86,639.20							
ALBERT FREI	*	Aggregate Supplies	\$23,938.31	\$4,787.66	\$19,150.65							
ALSCO		Uniforms	\$1,149.41	. ,	. ,			\$1,149.41				
AMERICAN PEST CONTROL	*	Rodent Removal	\$4,940.00	\$988.00	\$3,952.00							
ARKANSAS VALLEY SEED	*	Native Grass Seed	\$2,598.00	\$519.60	\$2,078.40							
ASPHALT SPECIALTIES		Asphalt Replacement	\$1,025.20	T C C C C	<i>+_,</i>	\$1,025.20						
BOWMAN CONSTRUCTION	*	Erosion Control Supplies	\$5,471.24	\$1,094.25	\$4,376.99	+=,====						
CINTAS		First Aid Supplies	\$1,919.36	. ,	. ,			\$1,919.36				
COLORADO MOSQUITO CONTROL	*	Mosquito Control	\$47,500.00	\$9,500.00	\$38,000.00			1 /				
COMMON GROUND MEDIATION CENTER		Communication Training	\$8,932.00	1-/	1/			\$8,932.00				
DAVEY TREE	*	Large Tree Removal & Trimming	\$14,965.00	\$2,993.00	\$11,972.00			1-7				
DENVER ATHLETIC - T-SHIRTS		T-Shirts	\$1,078.75	, ,	1 /			\$1,078.75				
EDGE CONTRACTING INC		Sediment Removal: Piney Creek	\$143,813.85		\$143,813.85							
ERO RESOURCES		Wetland Consulting: Piney Creek	\$4,292.10		. ,		\$4,292.10					
FASICK CONCRETE		Streets Concrete Replacement	\$9,442.22			\$9,442.22	. ,					
FLASHFILL SERVICES		Flashfill	\$245.00			\$245.00						
INLET STRUCTURES INC		Vault Repair: Alameda & Havana	\$1,380.00			\$1,380.00						
IRON WOMAN CONSTRUCTION		Streets Concrete Replacement	\$583.10			\$583.10						
LIGHTNING MOBILE	*	Graffiti Removal	\$667.50	\$133.50	\$534.00							
MULLER ENGINEERING		Flooding Evaluation for 14200 E Colfax	\$17,275.05				\$17,275.05					
OLD CASTLE PRECAST (WAREHOUSE)		Manhole Supplies	\$4,025.17					\$4,025.17				
QUALITY WATER BIOSYSTEMS		Pond Maintenance	\$6,252.70	\$6,252.70								
REDD FENCE CO	*	Fence Repairs	\$2,003.00	\$400.60	\$1,602.40							
SHORT ELLIOT HENDRICKSON INC		HEC-RAS for Easterly Creek	\$13,093.00		• •		\$13,093.00					
STOCKYARDS RANCH SUPPLY INC	*	Fence posts	\$3,759.80	\$751.96	\$3,007.84		· •					
THOUTT BROTHERS		Streets Concrete Replacement	\$9,053.36			\$9,053.36						
WASTE MANAGEMENT	*	Hauling Trash to Dad's	\$15,220.31	\$3,044.06	\$12,176.25							
WILDLIFE 2000		Beaver Relocation	\$5,474.50		\$5,474.50							
WILLIAMS EQPT		Vaccon Equipment Repair	\$367.85		•			\$367.85				
WORLDWIDE RENTAL SVCS		Pond Maintenance	\$6,870.00	\$6,870.00								
ZEP		Cleaning Supplies	\$141.63					\$141.63				
TOTAL CONTRACTOR COSTS			\$545,287.41	\$58,995.13	\$412,289.08	\$21,728.88	\$34,660.15	\$17,614.17				

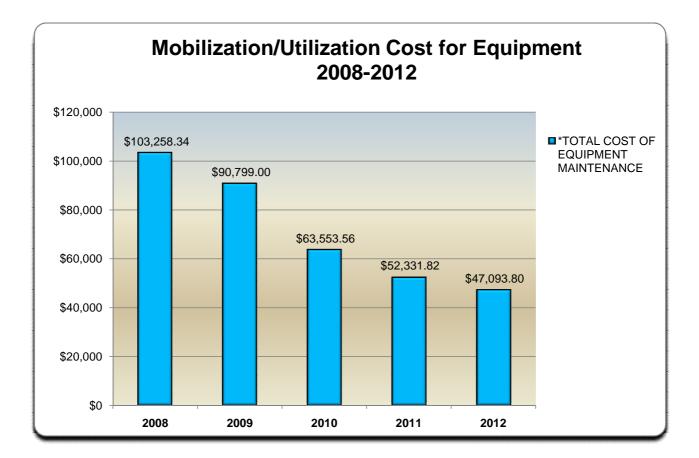
* Expense shared between Ponds (20%) & Channels (80%)



Infrastructure	2008	2009	2010	2011	2012
MANHOLES	6,925	6,966	6,969	6,989	6,991
INLETS	8,088	8,092	8,224	8,227	8,190
OUTFALLS	1,945	1,978	2,032	2,035	2,032
MILES OF STORM PIPE	376.36	378.71	374.08	372.44	369.72
CHANNEL MILES	76.81	76.81	77.56	76.76	76.42
PONDS	59	61	75	75	74

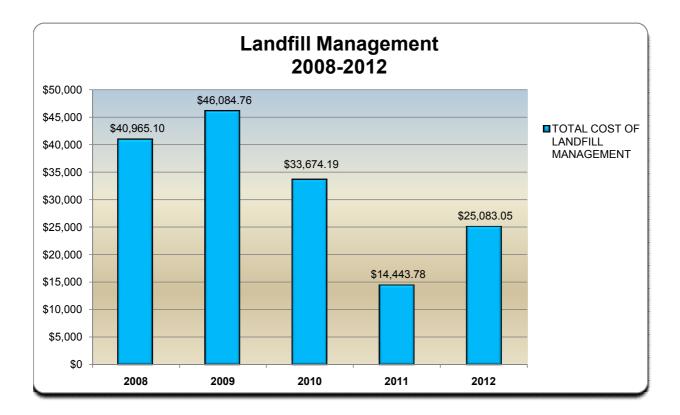


Equipment	2008	2009	2010	2011	2012
REPAIR COSTS	\$ 175,120	\$ 131,687	\$ 142,516	\$ 102,320	\$ 94,626
FUEL COSTS	\$ 82,701	\$ 60,288	\$ 50,756	\$ 62,347	\$ 63,974
DOWNTIME HOURS	11,570.00	15,434.98	13,355.32	8,821.72	10,256.82

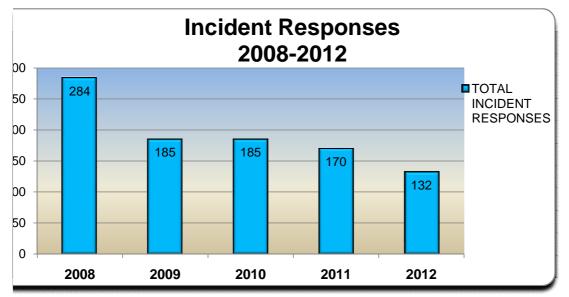


Equipment	2008	2009	2010	2011	2012
EQUIPMENT SERVICING	N/A	\$6,619.14	\$0.00	\$0.00	\$0.00
EQUIPMENT HAULING	\$ 150.56	\$0.00	\$0.00	\$0.00	\$0.00
EQUIPMENT INSPECTION & EQPT MISC	\$ 3,085.10	\$7,605.08	\$2,996.37	\$814.98	\$0.00
EQUIPMENT MAINTENANCE	\$ 98,369.42	\$76,464.56	\$60,557.19	\$51,516.84	\$47,093.80
INVENTORY/PARTS ADMIN	\$ 1,104.39	\$0.00	\$0.00	\$0.00	\$0.00
INVENTORY/PARTS PICKUP	\$ 548.87	\$110.22	\$0.00	\$0.00	\$0.00
*TOTAL COST OF EQUIPMENT					
MAINTENANCE	\$ 103,258.34	\$ 90,799.00	\$ 63,553.56	\$ 52,331.82	\$ 47,093.80

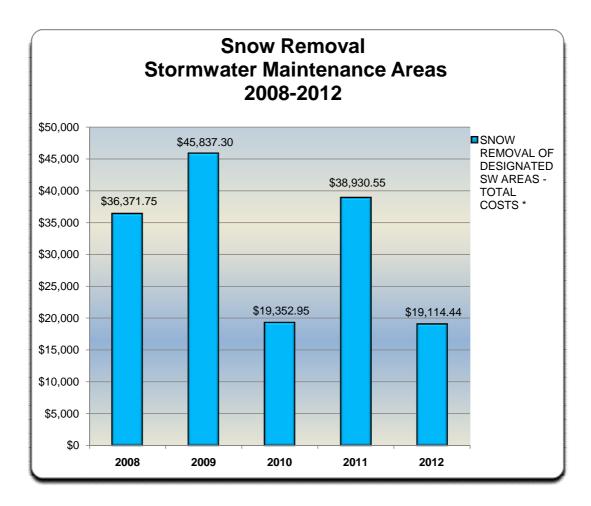
*Inludes trip inspections (pre and post) and any equipment related to maintenance and inspection i.e. fluids/lights etc.



Landfill Management	2008	2009	2010	2011	2012
STORM SOIL CONSOLIDATION	\$ 40,913.76	\$46,084.76	\$33,674.19	\$14,443.78	\$25,083.05
AGGREGATE HAULING	\$ 51.34	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL COST OF LANDFILL	¥		,		
MANAGEMENT	\$ 40,965.10	\$ 46,084.76	\$ 33,674.19	\$ 14,443.78	\$ 25,083.05

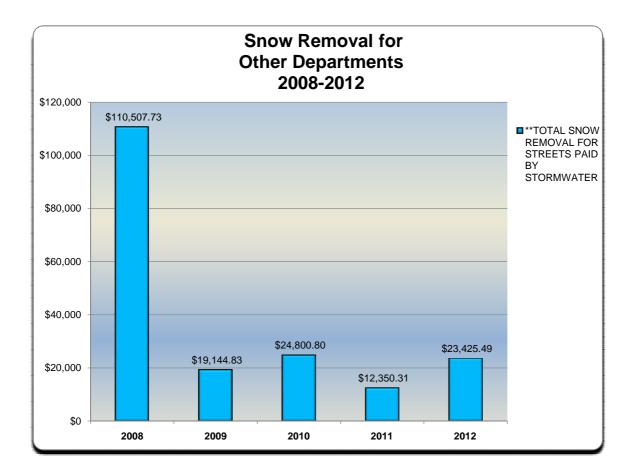


Incident Responses	2008	2009	2010	2011	2012
MANHOLE MISCELLANEOUS	1	0	0	0	0
STORM SIGNS	0	1	0	0	0
SINK HOLE	0	1	0	0	0
ODOR COMPLAINT	1	0	1	0	0
STORM FALL PROTECTION	1	0	0	0	0
STORM GRATE REPAIR	1	0	0	1	0
STORM OVERFLOW TRACT INSP	1	0	1	0	0
STORM POND MAINTENANCE	1	0	0	1	0
INSPECTION MISCELLANEOUS	2	0	0	0	0
OTHER DEPARTMENTS	2	5	0	0	0
STORM CHANNEL INSPECTION	2	3	0	0	0
STORM POND INSPECTION	2	1	0	1	0
OTHER ACTIVITY	3	1	0	0	0
STORM GRATE INSPECTION	3	0	0	0	0
STORM CONCRETE EASEMENT	4	0	1	0	0
STORM FENCE REPAIR	4	0	1	4	1
STORM MANHOLE REPAIRS	4	0	2	0	0
STORM MOSQUITO MANAGEMENT	4	10	9	3	3
STORM MANHOLE INSPECTION	5	0	1	0	0
STORM TREE MAINTENANCE	6	0	1	3	1
CUSTOMER EDUCATION	7	0	0	0	0
STORM CHANNEL MAINTENANCE	7	0	4	2	1
STORM TRASH	8	23	3	1	3
STORM WEED MAINTENANCE	13	25	13	7	4
STORM INLET MAINTENANCE	14	0	10	10	1
STORM DEBRIS REMOVAL/TRASH	18	0	9	6	5
STORM INLET INSPECTION	23	15	3	5	0
STORM FLOOD RESPONSE	N/A	N/A	N/A	N/A	1
STORM GRAFFITI REMOVAL	37	30	28	2	3
STORM INSPECTION MISC	50	70	94	123	109
STORM SPILL RESPONSE	60	N/A	N/A	N/A	N/A
WILDLIFE MANAGEMENT	N/A	N/A	4	1	0
TOTAL INCIDENT RESPONSES	284	185	185	170	132



Snow Removal	2008	2009	2010	2011	2012
SNOW REMOVAL OF DESIGNATED SW		\$ 45,837.30	\$ 19,352.95	\$ 38,930.55	\$ 19,114.44
AREAS - TOTAL COSTS *		• • • • • • • •	. ,		

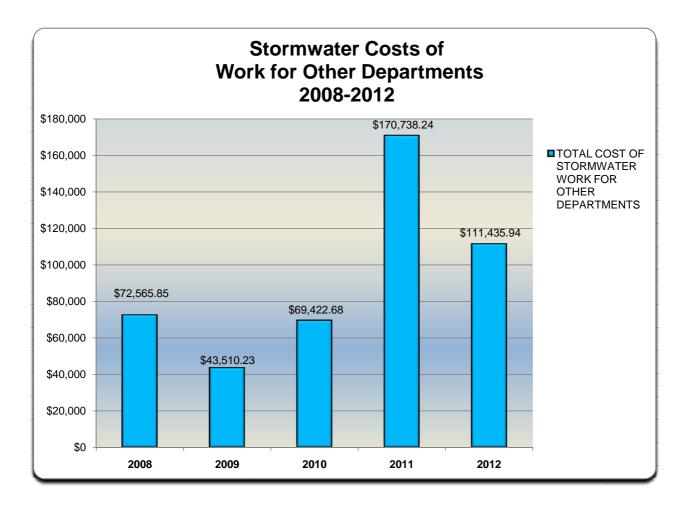
* Total Costs include employee labor and equipment used.



Snow Removal	2008	2009	2010			2011	2012		
*SNOW REMOVAL FOR									
PARKS	\$ 35,429.56	\$ -	\$	-	\$	-	\$	-	
SNOW TRAINING	N/A	N/A		N/A	\$	5,483.49	\$	4,930.97	
SNOW PREP, TRUCKS,									
PLOWS	\$ 1,729.16	\$ 12,668.36	\$	13,919.59	\$	4,279.44	\$	9,401.96	
SNOW REMOVAL FOR									
STREETS PAID BY									
STORMWATER	\$ 73,349.01	\$ 6,476.47	\$	10,881.21	\$	2,587.38	\$	9,092.56	
**TOTAL SNOW REMOVAL									
FOR STREETS PAID BY									
STORMWATER	\$ 110,507.73	\$ 19,144.83	\$	24,800.80	\$	12,350.31	\$	23,425.49	

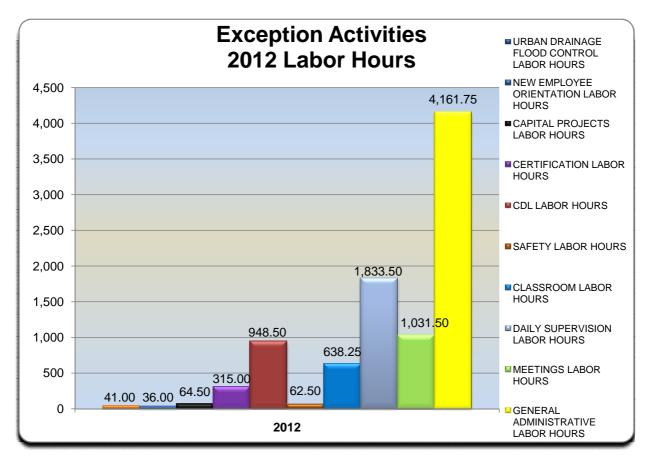
*Parks includes right of ways and bike paths

**This labor cost is paid from <u>Stormwater's</u> funds and includes employee labor and all Stormwater equipment used - does <u>not</u> include overtime paid by Streets.



LABOR & VEHICLE COSTS	2008	2009	2010	2011	2012
WATER CONSERVATION/QUALITY	\$ 147.87	\$ 3,445.52	\$ 1,019.30	\$-	\$ 6,188.06
METER MAINTENANCE	\$-	\$-	\$-	\$-	\$ 1,226.74
PARKS	\$-	\$ 2,611.68	\$ 10,129.73	\$ 5,957.19	\$ 146.04
PUMPING	\$ 27,059.24	\$ 703.94	\$ 1,006.77	\$ 8,020.16	\$-
SOURCE OF SUPPLY	\$ 23,954.68	\$ 12,541.86	\$ 19,190.43	\$ 74,214.68	\$ 68,891.78
STREETS	\$-	\$ 4,021.56	\$ 1,614.04	\$ 1,931.75	\$-
SUPPLY AND TREATMENT	\$-	\$ 2,005.41	\$ 5,804.13	\$ 16,383.04	\$ 11,280.72
TRADES	\$-	\$ 389.82	\$ 182.50	\$-	\$-
RISK MANAGEMENT	\$ 438.62	\$-	\$-	\$-	\$-
PUBLIC IMPROVEMENTS/WORKS	\$ 18.75	\$-	\$ 1,371.59	\$-	\$ 387.91
WASTEWATER COLLECTIONS	\$-	\$-	\$ 2,148.22	\$ 2,093.67	\$ 1,876.65
WASTEWATER CONSTRUCTION	\$ 18,485.57	\$ 7,505.41	\$ 15,133.48	\$ 33,129.88	\$ 8,654.71
WASTEWATER CCTV	\$ 517.73	\$ 887.12	\$ 8,106.91	\$ 18,694.44	\$ 857.61
WATER T&D	\$ 60.63	\$-	\$ 824.46	\$ 1,047.42	\$ 2,537.27
WATER RESOURCES	\$ 1,882.76	\$ 362.32	\$-	\$ 4,064.83	\$ 2,136.30
*OTHER DEPARTMENTS	\$-	\$ 9,035.59	\$ 2,891.12	\$ 5,201.18	\$ 7,252.15
TOTAL COST OF STORMWATER WORK FOR OTHER DEPARTMENTS	\$ 72,565.85	\$ 43,510.23	\$ 69,422.68	\$ 170,738.24	\$ 111,435.94

*Other Departments includes other Divisions within Aurora Water and other departments within the City of Aurora



Exception Activities-Labor	2008	2009	2010	2011	2012
URBAN DRAINAGE FLOOD					
CONTROL LABOR HOURS	4.50	0.00	0.00	10.00	41.00
NEW EMPLOYEE ORIENTATION					
LABOR HOURS	26.00	28.00	8.00	4.00	36.00
CAPITAL PROJECTS LABOR HOURS	44.00	59.00	36.50	39.00	64.50
CERTIFICATION LABOR HOURS	371.50	141.50	96.00	58.00	315.00
CDL LABOR HOURS	434.00	271.50	249.00	795.50	948.50
SAFETY LABOR HOURS	628.00	208.50	104.00	190.00	62.50
CLASSROOM LABOR HOURS	794.00	763.50	385.50	541.00	638.25
INSPECTIONS/WALK-THROUGH	N/A	N/A	N/A	60.00	58.50
DAILY SUPERVISION LABOR HOURS	1,482.75	1,628.50	1,538.00	1,236.00	1,833.50
MEETINGS LABOR HOURS	1,651.25	1,350.50	821.50	717.50	1,031.50
GENERAL ADMINISTRATIVE LABOR					
HOURS	7,705.00	6,287.64	4,626.75	4,494.00	4,161.75
Exception Activities-Labor	2008	2009	2010	2011	2012

Exception Activities-Labor	2008	2009	2010	2011	2012
URBAN DRAINAGE FLOOD					
CONTROL LABOR COST	\$ 175.78	\$ -	\$ -	\$ 505.14	\$ 1,717.99
NEW EMPLOYEE ORIENTATION					
LABOR COST	\$ 456.20	\$ 653.70	\$ 148.96	\$ 79.80	\$ 755.74
CAPITAL PROJECTS LABOR COST	\$ 2,084.86	\$ 2,958.49	\$ 2,101.03	\$ 1,971.97	\$ 3,243.90
CERTIFICATION LABOR COST	\$ 11,608.83	\$ 3,314.83	\$ 2,227.00	\$ 1,247.15	\$ 7,299.81
CDL LABOR COST	\$ 9,775.64	\$ 7,712.70	\$ 7,806.19	\$ 22,768.04	\$ 27,943.03
SAFETY LABOR COST	\$ 14,786.20	\$ 5,659.90	\$ 2,757.10	\$ 4,804.57	\$ 1,515.66
CLASSROOM LABOR COST	\$ 23,240.63	\$ 20,513.81	\$ 11,354.27	\$ 16,133.34	\$ 16,123.42
INSPECTIONS/WALK-THROUGH	N/A	N/A	N/A	\$ 3,030.86	\$ 2,936.55
DAILY SUPERVISON LABOR COST	\$ 59,730.61	\$ 67,874.68	\$ 59,279.58	\$ 48,793.73	\$ 71,374.01
MEETINGS LABOR COST	\$ 59,452.78	\$ 51,483.94	\$ 33,581.60	\$ 28,126.23	\$ 38,564.10
GENERAL ADMINISTRATIVE LABOR					
COST	\$ 231,513.43	\$ 232,623.99	\$ 184,291.72	\$ 159,385.29	\$ 166,763.10

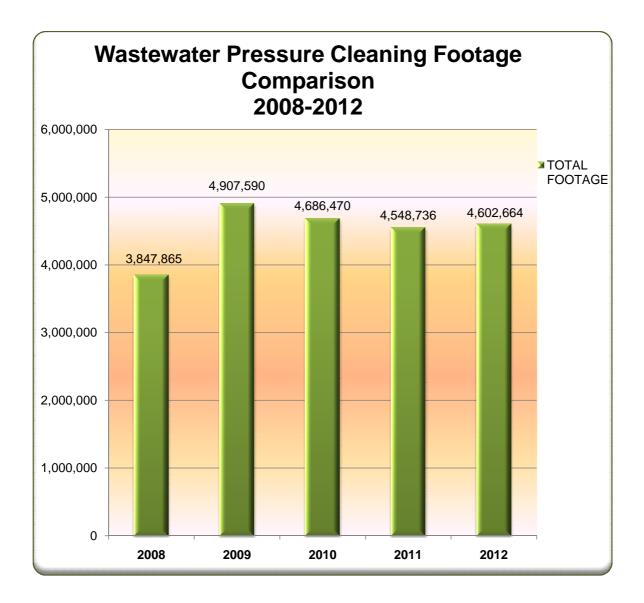




It is with great honor that I bring to you the 2012 Annual Report for the Wastewater Division. In 2012, the division experienced another outstanding year in the amount of work accomplished. The division produced 4.6 million feet of wastewater collection lines that were cleaned, 601,000 feet of wastewater collection lines inspected and 963 repairs were done to the wastewater collection system. All of this work resulted in having **zero** sanitary sewer overflows and only two municipal sewer stoppages in 1,041 miles of wastewater collection lines. This feat is a direct reflection of the dedication and work effort of the entire Wastewater Division.

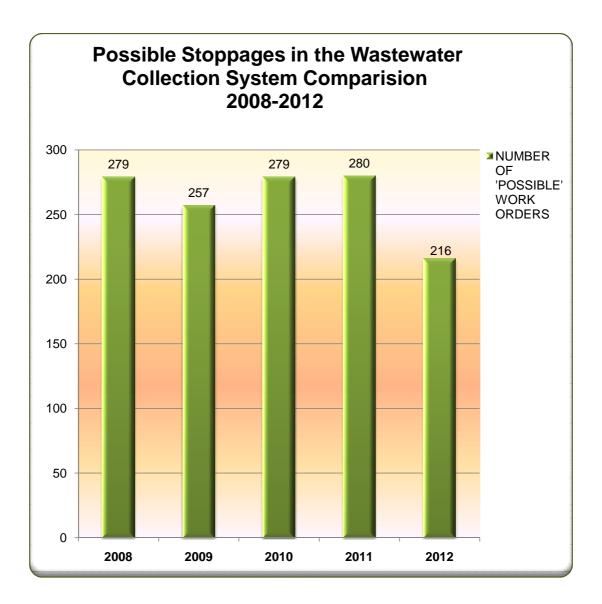
I would like to express my thanks and gratitude to the entire staff of the Wastewater Division for making 2012 a very successful year.

Coby Shurtleff, Wastewater Superintendent

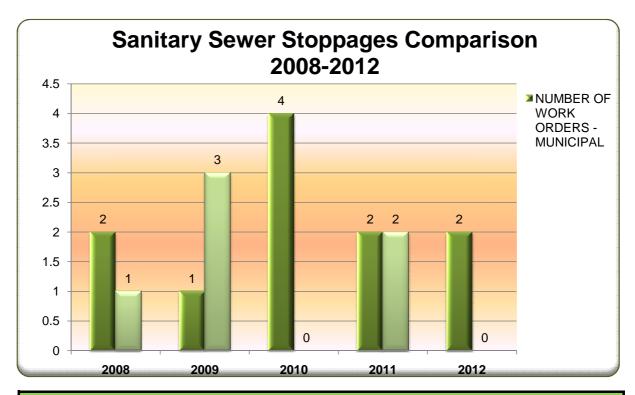


Pressure Cleaning	2008	2009	2010	2011	2012	
TOTAL FOOTAGE	3,847,865	4,907,590	4,686,470	4,548,736	4,602,664	
TOTAL COST	\$413,401.15	\$493,986.35	\$492,859.82	\$458,580.96	\$571,888.83	
COST PER FOOT	\$0.11	\$0.10	\$0.11	\$0.10	\$0.12	
TOTAL LABOR						
HOURS	9,990.00	12,806.75	12,765.00	11,642.00	11,652.15	
# FEET PER						
MANHOUR	385.17	383.20	367.13	390.72	395.01	

Total Cost includes employee labor and equipment used



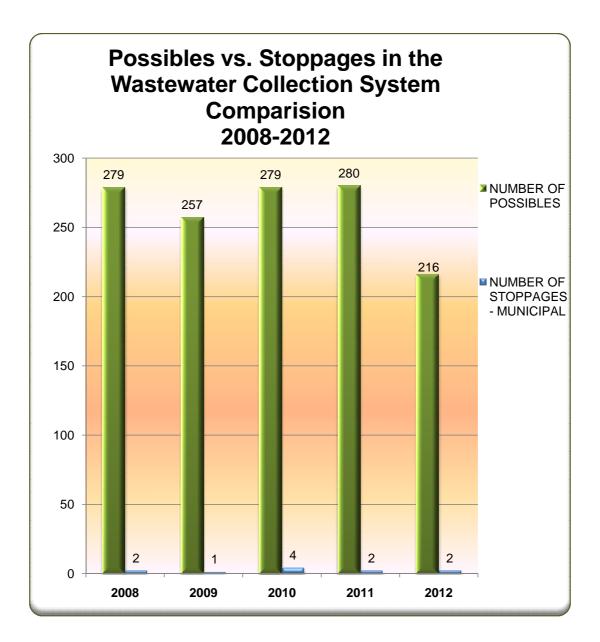
Possibles	2008	2009	2010	2011	2012
NUMBER OF 'POSSIBLE' WORK					
ORDERS	279	257	279	280	216
TOTAL COST	\$15,555.94	\$12,924.80	\$19,025.92	\$27,119.10	\$13,010.27
COST PER 'POSSIBLE' WORK					
ORDER	\$55.76	\$50.29	\$68.19	\$96.85	\$60.23



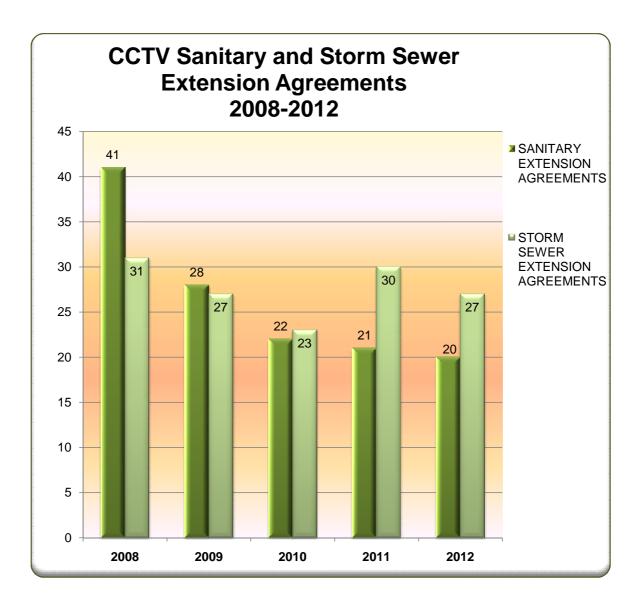
Municipal Stoppages	2008	2009	2010	2011	2012
NUMBER OF WORK ORDERS - MUNICIPAL	2	1	4	2	2
TOTAL COST	\$ 1,595.19	\$ 1,065.37	\$ 2,726.22	\$ 489.15	\$ 1,126.57
TOTAL COST PER WORK ORDER	\$ 797.60	\$ 1,065.37	\$ 681.56	\$ 244.58	\$ 563.29
TOTAL LABOR HOURS	48	26	66	11	18.5
LABOR HOURS PER					
STOPPAGE	24	26	16.5	5.5	9.25
RESTORATION COSTS	\$13,428.00	\$12,000.00	\$272,734.52	\$17,130.30	\$613.28
STOPPAGES PER 100 MILES	0.19	0.10	0.39	0.20	0.19

Non-Municipal Stoppages	2008	2009	2010	2011	2012
NUMBER OF WORK ORDERS - NON-MUNICIPAL	1	3	0	2	0
TOTAL COST	\$ 1,595.19	\$ 1,418.23	\$ -	\$ 512.58	\$ -
TOTAL COST PER WORK ORDER	\$ 1,595.19	\$ 472.74	\$ -	\$ 256.29	\$ -
TOTAL LABOR HOURS	36	38	0	13.5	0
LABOR HOURS PER STOPPAGE	36	12.67	0.00	6.75	0.00

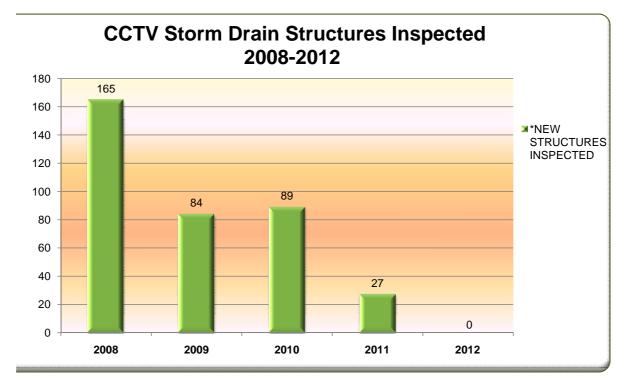
* Total Cost includes employee labor and equipment used

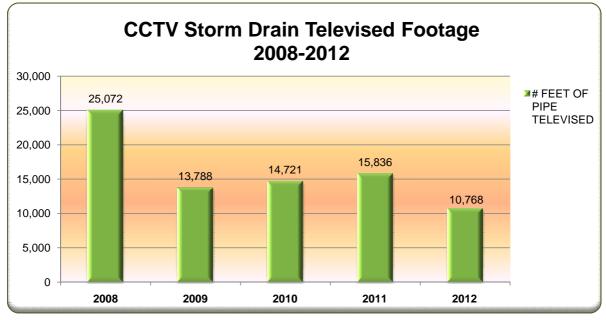


Possibles vs. Stoppages	2008	2009	2010	2011	2012
NUMBER OF POSSIBLES	279	257	279	280	216
NUMBER OF STOPPAGES - MUNICIPAL	2	1	4	2	2



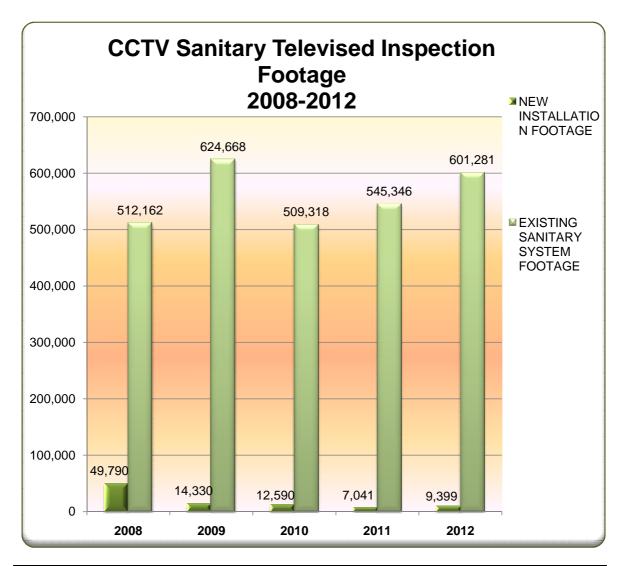
	2008	2009	2010	2011	2012
SANITARY					
EXTENSION					
AGREEMENTS	41	28	22	21	20
STORM SEWER					
EXTENSION					
AGREEMENTS	31	27	23	30	27





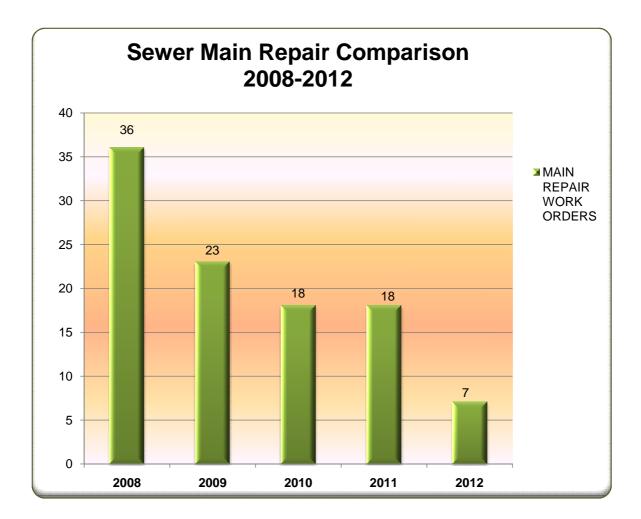
otorm Drains Televised 2008		2009	2010	2011	2012
*NEW STRUCTURES INSPECTED	165	84	89	27	0
# FEET OF PIPE TELEVISED	25,072	13,788	14,721	15,836	10,768
TOTAL COST	\$19,411.16		,	\$8,750.72	
# LABOR HOURS	636.50	289.00	250.50	272.50	133.25
# FEET PER HOUR TELEVISED	39.39	47.71	58.77	58.11	80.81
COST PER FOOT	\$0.77	\$0.69	\$0.56	\$0.55	\$0.58

* New structures inspected include manholes and inlets



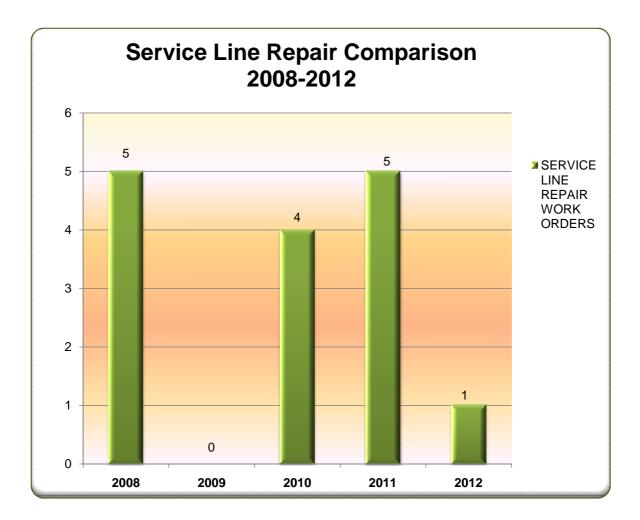
Sanitary TV Inspections	2008	2009	2010	2011	2012
NEW INSTALLATION FOOTAGE	49,790	14,330	12,590	7,041	9,399
EXISTING SANITARY SYSTEM FOOTAGE	512,162	624,668	509,318	545,346	601,281
TOTAL SANITARY FOOTAGE	561,952	638,998	521,908	552,387	610,679
TOTAL COST	\$284,177.13	\$297,897.84	\$278,628.64	\$290,570.40	\$398,106.02
COST PER FOOT	\$0.51	\$0.47	\$0.53	\$0.53	\$0.65
LABOR HOURS	8,888	9,115	8,343	8,765	10,053
FEET PER MANHOUR	63	70	63	63	61

*Total cost includes employee labor and equipment used



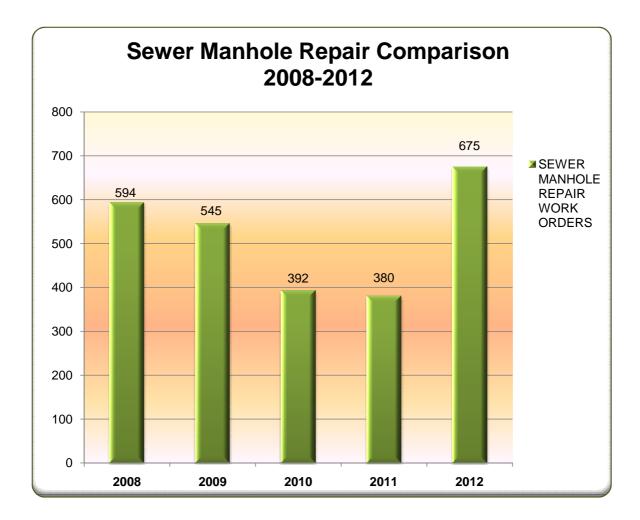
Sewer Main Repairs	2008	2009	2010	2011	2012
MAIN REPAIR					
WORK ORDERS	36	23	18	18	7
* TOTAL COST FOR					
MAIN REPAIRS	\$91,780.50	\$27,095.60	\$16,736.25	\$15,308.38	\$22,809.85
COST PER WORK					
ORDER	\$2,549.46	\$1,178.07	\$929.79	\$850.47	\$3,258.55

* Total Cost includes employee labor, material and equipment used.



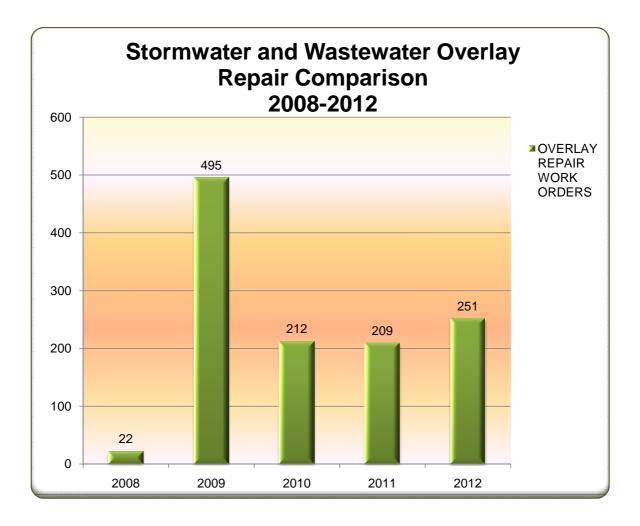
Service Line Repairs	2008	2009	2010	2011	2012
SERVICE LINE					
REPAIR WORK					
ORDERS	5	0	4	5	1
* TOTAL COST FOR					
REPAIRS	\$1,703.50	\$0.00	\$1,576.93	\$2,086.74	\$215.37
COST PER WORK					
ORDER	\$340.70	\$0.00	\$394.23	\$417.35	\$215.37

* Total Cost includes employee labor, material and equipment used.



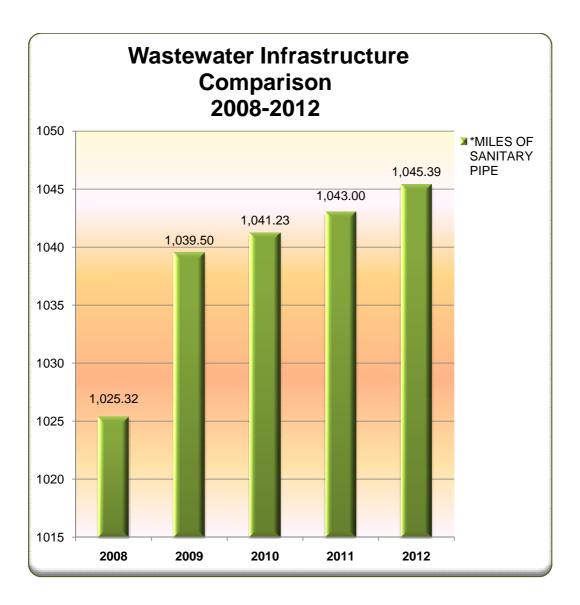
Sewer Manhole Repairs	2008	2009	2010	2011	2012
SEWER MANHOLE REPAIR WORK					
ORDERS	594	545	392	380	675
TOTAL COST FOR REPAIRS	\$62,672.26	\$73,801.05	\$64,663.85	\$58,179.62	\$86,707.09
COST PER WORK ORDER	\$105.51	\$135.41	\$164.96	\$153.10	\$128.45

* Total Cost includes employee labor, material and equipment used.



Overlay	2008	2009	2010	2011	2012
OVERLAY REPAIR WORK ORDERS	22	495	212	209	251
WASTEWATER and STORMWATER INSPECTION COST	N/A	\$12,118.67	\$16,258.88	\$19,008.11	\$17,093.30
WASTEWATER REPAIR COST	N/A	\$59,407.57	\$23,509.80	\$19,282.30	\$44,395.02
STORMWATER REPAIR COST	N/A	\$16,780.06	\$2,996.69	\$8,863.76	\$7,220.45
* OVERLAY TOTAL COST	\$14,451.93	\$88,306.30	\$42,765.37	\$47,154.17	\$68,708.77
COST PER WORK ORDER	\$656.91	\$178.40	\$201.72	\$225.62	\$273.74

*Overlay cost includes inspection and repair; cost includes labor hours, materials, equipment used

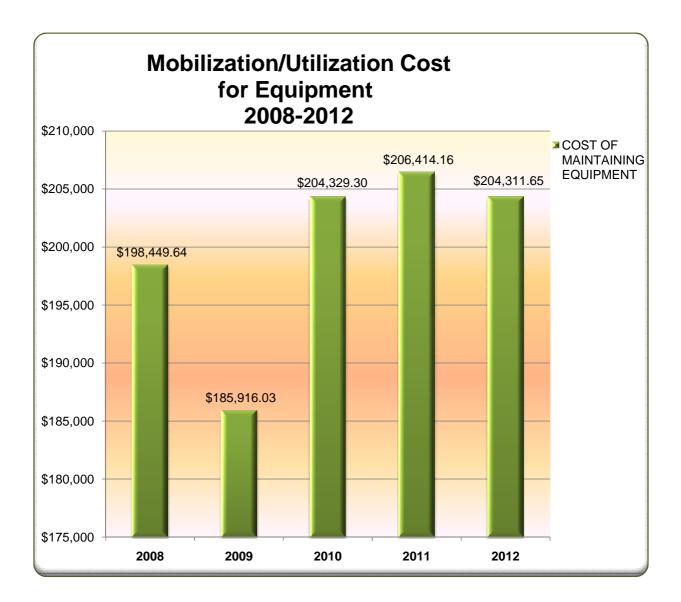


Infrastructure	2008	2009	2010	2011	2012
WASTEWATER MANHOLES	26,820	26,845	26,896	26,937	27,056
*MILES OF SANITARY PIPE	1,025.32	1,039.50	1,041.23	1,043.00	1,045.39

*GIS information for end of calendar year

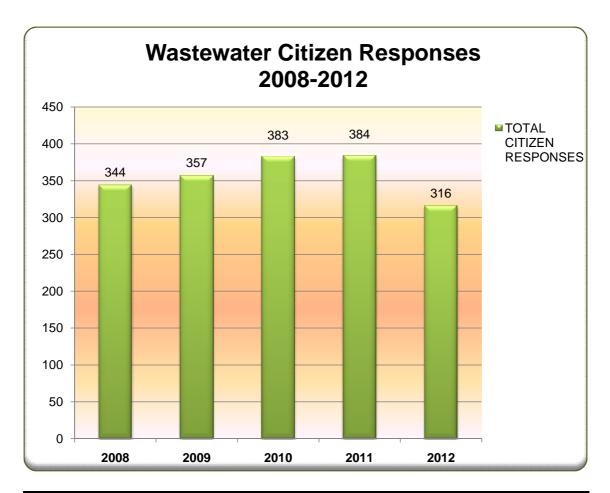


Vehicle & Equipment	2008	2009	2010	2011	2012
REPAIR COSTS	\$ 118,475.00	\$ 100,346.92	\$ 85,109.24	\$ 100,703.65	\$ 97,030.34
FUEL COSTS	\$ 84,249.00	\$ 63,393.79	\$ 57,783.49	\$ 84,192.97	\$ 90,247.37
DOWNTIME HOURS	6,089.56	5,215.45	5,789.88	5,648.24	5,486.28

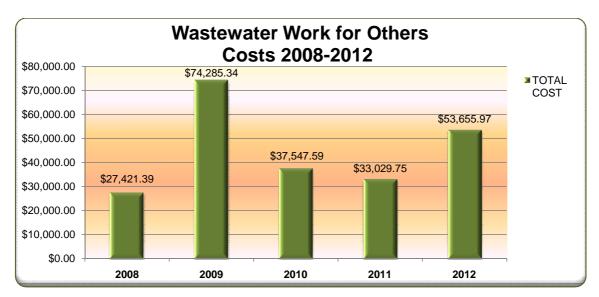


*Equipment Maintenance	2008	2009	2010	2011	2012
COST OF MAINTAINING EQUIPMENT	\$ 198,449.64	\$ 185,916.03	\$ 204,329.30	\$ 206,414.16	\$ 204,311.65

* Includes trip inspections (pre and post) and any equipment related to maintenance and inspection, i.e. fluids/lights etc.



Citizen Responses	2008	2009	2010	2011	2012
INSPECTION MISCELLANEOUS	1	0	4	2	6
CUSTOMER EDUCATION	0	7	4	4	6
SERVICE LINE TV INSPECTION	1	0	0	0	0
WW PRESSURE CLEAN	1	0	3	0	0
MAIN TV INSPECTION	2	1	0	2	2
SEWER SERVICE LINE REPAIR	2	0	0	1	0
STOPPAGE	2	4	4	4	2
OTHER DEPARTMENTS	4	21	20	13	0
SINKHOLE	4	0	5	5	8
OTHER ACTIVITY + ODOR	5	10	4	5	23
SPILL RESPONSE	5	5	6	4	5
MANHOLE MISCELLANEOUS	10	11	18	40	39
SEWER MANHOLE REPAIRS	12	21	17	15	5
SEWER MANHOLE INSPECTION	16	20	19	9	4
POSSIBLE	279	257	279	280	216
TOTAL CITIZEN RESPONSES	344	357	383	384	316



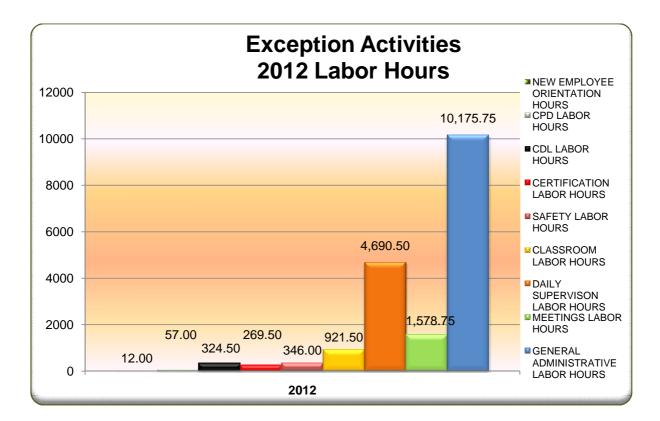


Cost	2008	2009	2010	2011	2012
WORK FOR STORMWATER	\$4,124.69	\$9,198.20	\$2,581.71	\$1,819.64	\$960.61
WORK FOR OTHERS - PARKS	\$162.08	\$972.46	\$794.86	\$1,029.62	\$1,050.68
WW COST OF SNOW REMOVAL FOR					
STREETS DEPT - INCLUDES VEHICLE					
PREPARATION & TRAINING **	\$2,736.29	\$37,821.97	\$8,263.12	\$14,770.84	\$27,046.37
* WORK FOR OTHERS MISC	\$20,398.33	\$26,292.71	\$25,907.90	\$15,409.65	\$24,598.31
TOTAL COST	\$27,421.39	\$74,285.34	\$37,547.59	\$33,029.75	\$53,655.97

Labor Hours	2008	2009	2010	2011	2012
WORK FOR STORMWATER	160.75	306.00	82.00	57.00	34.50
WORK FOR OTHERS - PARKS	6.00	30.00	27.00	30.50	28.50
WW COST OF SNOW REMOVAL FOR					
STREETS DEPT - INCLUDES VEHICLE					
PREPARATION & TRAINING **	140.00	1,753.85	317.00	513.50	809.00
* WORK FOR OTHERS MISC	782.50	218.75	805.50	450.00	578.50
TOTAL LABOR HOURS	1,089.25	2,308.60	1,231.50	1,051.00	1,450.50

* Work for others-misc includes work for various divisions within Aurora Water and other departments within the City of Aurora. Such work includes crane lifts, special cleaning, lift station cleaning, etc.

** Training for Snow Removal was not tracked separately until 2011. Prior years' figures do not include training hours.



Exception Activities - Labor Hours	2008	2009	2010	2011	2012
NEW EMPLOYEE ORIENTATION HOURS	46.50	9.00	16.00	30.50	12.00
CPD LABOR HOURS	47.00	47.00	62.00	45.00	57.00
CDL LABOR HOURS	295.00	27.00	104.00	161.50	324.50
CERTIFICATION LABOR HOURS	314.50	382.00	138.00	41.00	269.50
SAFETY LABOR HOURS	894.75	358.00	246.00	513.50	346.00
CLASSROOM LABOR HOURS	1,491.25	934.50	609.50	708.50	921.50
DAILY SUPERVISON LABOR HOURS	1,930.00	2,704.50	3,741.50	4,540.25	4,690.50
MEETINGS LABOR HOURS	3,708.25	2,998.75	2,205.50	1,582.00	1,578.75
GENERAL ADMINISTRATIVE LABOR HOURS	14,111.75	12,196.29	7,987.00	9,727.25	10,175.75

Exception Activities - Labor Cost	2008	2009	2010	2011	2012
NEW EMPLOYEE ORIENTATION LABOR COST	\$ 911.72	\$ 176.05	\$ 236.74	\$ 516.71	\$ 239.40
CPD LABOR COST	\$ 2,223.88	\$ 2,268.39	\$ 3,053.93	\$ 2,638.20	\$ 2,778.53
CDL LABOR COST	\$ 6,755.80	\$ 673.93	\$ 2,814.25	\$ 4,083.63	\$ 7,449.28
CERTIFICATION LABOR COST	\$ 9,004.56	\$ 10,298.77	\$ 4,483.43	\$ 912.33	\$ 6,788.84
SAFETY LABOR COST	\$ 24,722.19	\$ 10,284.16	\$ 7,407.83	\$ 16,187.11	\$ 10,500.82
CLASSROOM LABOR COST	\$ 43,076.49	\$ 26,810.65	\$ 18,330.09	\$ 20,521.99	\$ 26,354.46
DAILY SUPERVISON LABOR COST	\$ 71,479.23	\$ 102,776.76	\$ 152,191.44	\$ 182,149.88	\$ 187,663.00
MEETINGS LABOR COST	\$ 124,130.67	\$ 105,557.08	\$ 79,183.49	\$ 50,127.88	\$ 50,295.54
GENERAL ADMINSTRATIVE LABOR COST	\$ 453,664.15	\$ 384,289.62	\$ 294,751.81	\$ 342,677.28	\$ 331,157.36

* Hours and costs included for Superintendent and below.

City of Aurora

Water Department Wastewater & Stormwater Division Phone: 303-326-8050 Fax: 303-326-8070



AURORA WATER

The mission of the Operational Compliance Division is to help ensure that stormwater and wastewater discharged from public and private sources throughout the City is of the quality and characteristics that comply with applicable environmental regulations and municipal code, and are protective of public health and the environment. The Operational Compliance staff provides inspections services that support, complement and streamline the work within Aurora Water.

The following are outstanding accomplishments for the Operational Compliance team for 2012:

- Inspected 1039 grease and sand interceptors
- Inspected 90 City owned stormwater ponds
- Inspected 62.20 miles of stormwater creeks and channels
- Responded to 132 citizen-reported incidents
- Responded to over 91 spills, sewer overflows (SSO) and illicit discharges (in some cases these did adversely impact the stormwater conveyance system)
- Inspected 14 PPBMPs (Private Permanent Best Management Practices)
- Performed 13 inspections of municipal maintenance facilities in order to assist with the compliance of the City's MS4 permit.
- Provided stormwater awareness training to over 380 City employees from multiple departments

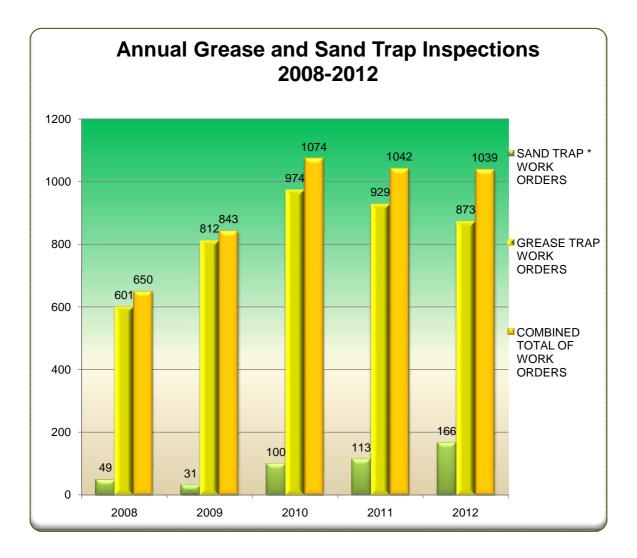
This 2012 Annual report is respectfully submitted by:

Sell fg

Geoff Rabinowitz, MS, CPESC Environmental Compliance Coordinator

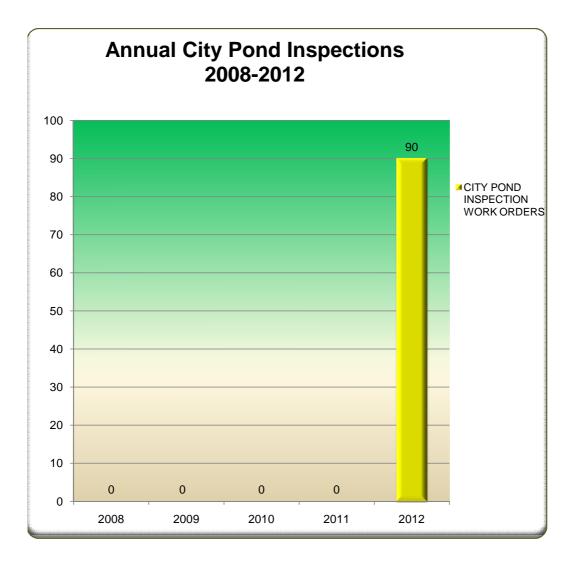


Inspections	2008	2009	2010	2011	2012
MAJOR INSPECTIONS	4	4	4	4	4
MINOR INSPECTIONS	8	9	9	9	9
TOTAL INSPECTIONS	12	13	13	13	13
TOTAL WORK ORDER COST	N/A	\$5,787.94	\$7,905.30	\$4,797.96	\$5,700.72
COST PER INSPECTION	N/A	\$445.23	\$608.10	\$369.07	\$438.52



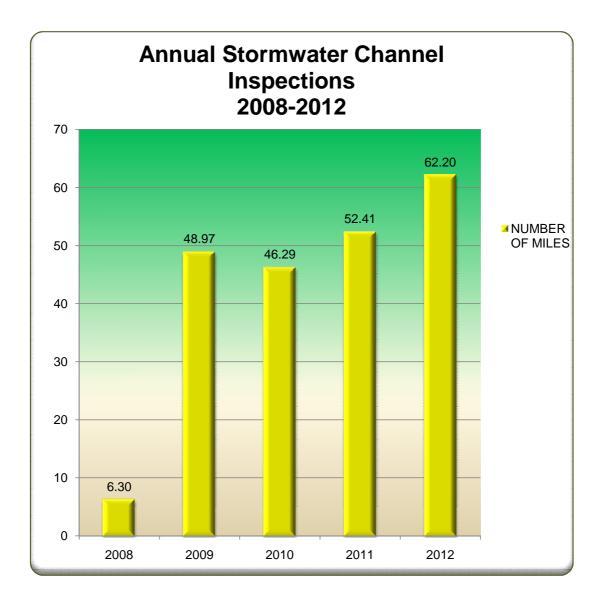
Inspections	2008	2009	2010	2011	2012	
COMBINED TOTAL OF WORK ORDERS	650	843	1074	1042	1039	
GREASE TRAP WORK ORDERS	601	812	974	929	873	
SAND TRAP * WORK ORDERS	49	31	100	113	166	
TOTAL WORK ORDER COST	\$5,087.00	\$12,492.92	\$20,528.93	\$21,208.16	\$18,815.50	
COST PER WORK ORDER	\$7.83	\$14.82	\$19.11	\$20.35	\$18.11	

* In 2012, the number of sand traps includes Industrial Sites that have traps.

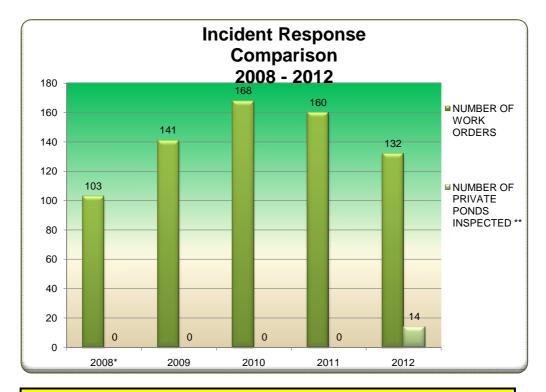


Inspections	2008	2009	2010	2011	2012	
CITY POND INSPECTION WORK ORDERS	N/A	N/A	N/A	N/A	90	
NUMBER OF CITY PONDS	59	61	75	75	74	
TOTAL WORK ORDER COST	N/A	N/A	N/A	N/A	\$8,501.19	
COST PER WORK ORDER	N/A	N/A	N/A	N/A	\$94.46	

* Program started in 2012



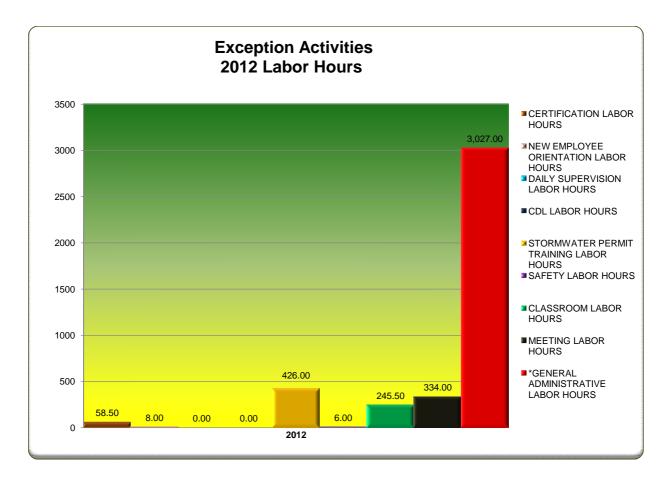
Stormwater Channel Inspections	2008	2009	2010	2011	2012
NUMBER OF MILES	6.30	48.97	46.29	52.41	62.20
TOTAL WORK ORDER COST	\$5,226.92	\$21,284.71	\$24,766.06	\$19,901.08	\$22,662.07
COST PER MILE	\$829.67	\$434.65	\$535.02	\$379.72	\$364.34



Incident Response	2008*	2009	2010	2011	2012	
NUMBER OF WORK ORDERS	103	141	168	160	132	
SPILL	N/A	49	38	30	43	
SANITARY SEWER OVERFLOW (SSO)	N/A	14	9	12	7	
ILLICIT DISCHARGE	N/A	69	48	51	41	
OTHER	N/A	9	73	67	41	
NUMBER REPORTABLE BY LAW	N/A	8	14	6	0	
TOTAL WORK ORDER COST (EXCLUDES PRIVATE PONDS) **	\$9,618.99	\$21,132.95	\$25,214.12	\$31,005.23	\$19,138.75	
COST PER RESPONSE (EXCLUDES PRIVATE PONDS) **	\$93.39	\$149.88	\$150.08	\$193.78	\$144.99	
NUMBER OF PRIVATE PONDS INSPECTED **	N/A *	N/A *	N/A *	N/A *	14	
COST OF PRIVATE POND INSPECTIONS **	N/A *	N/A *	N/A *	N/A *	\$11,097.84	
COST PER RESPONSE FOR PRIVATE POND INSPECTIONS **	N/A *	N/A *	N/A *	N/A *	\$792.70	
		Definition				
				npact to MS4)		
	-		(no impact to I	,		
Other- other incident res	sponses (i.e. a	bandoned haz	```		complaint	

* Tracking not itemized

** Private pond inspection program started in 2012



Exception Activities-Labor Hours	2008	2009	2010	2011	2012
CERTIFICATION LABOR HOURS	2.00	61.00	14.00	0.00	58.50
NEW EMPLOYEE ORIENTATION LABOR HOURS	4.00	0.00	9.00	0.00	8.00
DAILY SUPERVISION LABOR HOURS	6.00	0.00	0.00	0.00	0.00
CDL LABOR HOURS	7.00	0.00	0.00	0.00	0.00
STORMWATER PERMIT TRAINING LABOR HOURS	25.50	153.00	337.00	332.25	426.00
SAFETY LABOR HOURS	34.25	16.50	0.00	12.50	6.00
CLASSROOM LABOR HOURS	204.25	588.50	270.50	44.00	245.50
MEETING LABOR HOURS	534.25	648.50	340.00	258.25	334.00
*GENERAL ADMINISTRATIVE LABOR HOURS	1,568.50	2,491.50	1,424.75	1,469.50	3,027.00

Exception Activities-Labor Cost	2008	2009	2012	2011	2012
CERTIFICATION LABOR COST	\$ 59.55	\$ 2,072.36	\$ 254.84	\$ -	\$ 1,492.41
NEW EMPLOYEE ORIENTATION LABOR COST	\$191.52	\$ -	\$ 241.46	\$ -	\$ 213.06
DAILY SUPERVISON LABOR COST	\$ 287.28	\$ -	\$ -	\$ -	\$ -
CDL LABOR COST	\$ 91.00	\$ -	\$ -	\$ -	\$ -
STORMWATER PERMIT TRAINING LABOR COST	\$ 331.50	\$ 4,422.70	\$ 9,237.59	\$ 9,462.33	\$ 12,911.25
SAFETY LABOR COST	\$ 999.52	\$ 503.55	\$ -	\$ 344.04	\$ 156.97
CLASSROOM LABOR COST	\$ 6,890.49	\$ 14,465.56	\$ 5,754.55	\$ 1,342.87	\$ 6,576.27
MEETINGS LABOR COST	\$ 16,087.38	\$ 22,859.93	\$ 7,884.29	\$ 7,146.29	\$ 9,112.05
*GENERAL ADMINISTRATIVE LABOR COST	\$ 49,272.08	\$ 84,393.57	\$ 33,130.67	\$ 40,011.38	\$ 77,221.68

* General Administrative Labor includes inspection-related paperwork and tracking, incident follow-up,

development and writing of plans and specs, special assignments (BI driven activities, ETC.), telephone calls.