Stormwater Management

NPDES Permit Compliance

2010/2011 Annual Report

November 1, 2011

Prepared for the
Oregon Department of Environmental Quality

National Pollutant Discharge Elimination System (NPDES)
Municipal Storm Water System Annual Report

I, the undersigned, hereby submit this National Pollutant Discharge Elimination System (NPDES) Municipal Storm Water System Annual Report in accordance with NPDES Permit Number 101348. 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 is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations.

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Title: Engineering Director
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1.0 Introduction and Permit Background

The Oregon Department of Environmental Quality (DEQ) regulates storm water runoff from the City of Milwaukie through the Municipal Separate Storm Sewer System Discharge Permit No. 101348 (MS4 Permit), issued to Clackamas County and its co-permittees. Clackamas County co-permittees include the City of Milwaukie along with a number of other smaller jurisdictions including the cities of Lake Oswego, Oregon City, West Linn, Gladstone, Wilsonville, Happy Valley, Johnson City, Rivergrove, and the Oak Lodge Sanitary District. Each co-permittee is a relatively small community, most having populations between 15,000 and 25,000 with some (Johnson City, Rivergrove) having populations significantly smaller.

As required under Schedule B(2)(a) of the MS4 Permit, each co-permittee must submit an annual report, summarizing accomplishments and implementation of the Municipal Storm Water Management Plan (SWMP). This annual report is for permit year 16 (or permit year 7 under the renewed permit dated 2004. It documents activities from July 1, 2010 to June 30, 2011 as related to the City of Milwaukie's storm water management efforts under their MS4 Permit and associated SWMP.

With respect to annual reporting requirements, this annual report contains the following items per Schedule B(2)(a) of the MS4 permit:

i) *The status of implementing components of the storm water management program;*

See Section 2.0 for a summary of the performance measures and program monitoring requirements as documented in the City's current SWMP.

ii) *Proposed changes to the SWMP components, including new BMPs identified through implementing adaptive management. A timeline for implementation of new BMPs must also be included in the report;*

See Section 2.0 for a summary of the City's current SWMP, which was approved by DEQ July 31, 2006. This SWMP contains the most current changes to BMPs as a result of adaptive management. Thus, no additional changes are proposed for BMPs at this time.

iii) *A summary of total storm water program expenditures and funding sources over the reporting fiscal year, and those anticipated in the next fiscal year;*

See Section 3.1 for a summary of storm water related expenditures.

iv) *A summary of data, including monitoring data that is accumulated throughout the reporting year;*

See Section 4.0 for a summary of the program monitoring results. See Section 4.2 for a summary of the environmental monitoring data collected.

v) *A summary describing the number and nature of enforcement actions, inspections, and public education programs;*

See Section 4.0 for a summary of the program monitoring activities.

vi) *Identification of water quality improvements or degradation;*

See Section 3.3 for a brief summary of water quality characteristics within the City limits.

vii) *Demonstration of continued legal authority to implement the programs outlined in the SWMP; and*

See Section 3.2 for the letter of continued legal authority.

viii) *An overview, as related to MS4 discharges, of concept planning, land use changes and new development activities that occurred within the Urban Growth Boundary (UGB) expansion areas during the previous year, those forecast for the following year, and an evaluation for consistency with the requirements of Schedule D(2)(c)(i)(2).*

See Section 3.3 for the discussion of development activities.

Each section of this report, as described above, corresponds to the specific permit requirements in Schedule B(2)(a). The report emphasizes efforts and activities associated with individual BMPs from the City's SWMP (summarized in Section 2.0).

Appendix C shows modifications to Sections B-1 & B-2 of the City of Milwaukie's monitoring plan. These modifications were completed after permit year 13 and have been implemented on this permit cycle.

2.0 Implementation of the City of Milwaukie's SWMP

Tables 2-1 through 2-5 summarize the performance measures and program monitoring activities associated with the City of Milwaukie's BMPs, in accordance with each of the required components of a SWMP. The five SWMP components are as follows:

Component #1:	Structural and Source Control BMPs to Reduce Pollutants from Commercial and Residential Areas
Component #2:	A Program to Detect and Remove Illicit Discharges and Improper Disposal Into the Storm Sewer System
Component #3:	A Program to Monitor and Control Pollutants from Industrial Facilities
Component #4:	A Program to Reduce Pollutants in Storm Water Discharges from Construction Sites
Component #5:	Public Education, Coordination, and Public Involvement BMPs

Table 2-1 Structural and Source Control BMPs to Reduce Pollutants from Commercial and Residential Areas

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
NPDES Permit Requirement – *(1) Maintenance activities and a maintenance schedule for structural controls to reduce pollutants (including floatables) in discharges from municipal separate storm sewers.*				
BMP – Conduct Stormwater Conveyance System Cleaning and Maintenance				
BMP Owner: City of Milwaukie Public Works Department **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie inspects their stormwater conveyance system including manholes, storm system pipes, culverts, and ditches as needed. Conveyance system components are inspected for accumulated sediment and debris that may prompt flooding and broken system components in need of repair.	(1) Estimate the volume of debris removed during conveyance system cleaning activities. (2) Track the conveyance system repair efforts conducted.	**2008/2009** (1) The following volumes of debris were removed during conveyance cleaning activities: • 16,946.62 linear feet of storm line was cleaned. No total of measurable amounts of debris could be obtained. • A total of 13 manholes were cleaned for a total debris amount of 9.29 cubic yards of debris removed. • 47 ft of ditch maintenance was completed. No total of measurable amounts of debris could be obtained. • 139 drywells were cleaned and 120.05 cubic yards of debris was removed. • 53 drywells were Gamma Jetted. This consists of clearing debris from the perforations in the drywell. (2) The following maintenance/ repairs were conducted during permit year 14: • 68.95 feet of storm line was repaired. • 1 storm manhole was repaired. • 3 drywells were raised to the surface. • Repaired/replaced 6 storm manhole covers.	**2009/2010** (1) The following volumes of debris were removed during conveyance cleaning activities: • 24,639.54 linear feet of storm line was cleaned. No total of measurable amounts of debris could be obtained. • 40,994.86 linear feet of storm lines were video inspected. • A total of 8 manholes were cleaned for a total debris amount of 7.42 cubic yards of debris removed. • 125 ft of ditch maintenance was completed. No total of measurable amounts of debris could be obtained. (2) The following maintenance/ repairs were conducted during permit year 15: • 39 feet of storm line was repaired. • 1 storm manhole was repaired. • Repaired/replaced 4 storm manhole covers.	**2010/2011** (1) The following volumes of debris were removed during conveyance cleaning activities: • 4,982.61 linear feet of storm line was cleaned. No total of measurable amounts of debris could be obtained. • 18,023.33 linear feet of storm lines were video inspected. • A total of 8 sed-manholes were cleaned for a total debris amount of 23.00 cubic yards of debris removed. • 570.00 ft of ditch maintenance was completed. No total of measurable amounts of debris could be obtained. (2) The following maintenance/ repairs were conducted during permit year 16: • 45 feet of storm line was repaired. • 1 storm manhole was repaired. • Repaired/replaced 1 storm manhole covers.

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
BMP – Conduct Catch Basin Cleaning and Maintenance				
BMP Owner: City of Milwaukie Public Works Department **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie cleans all public catch basins once every two years, more frequently if needed.	(1) Track the number of catch basins maintained. (2) Track the volume of debris removed during cleaning activities.	**2008/2009** (1) During permit year 14, 18 catch basins were repaired. There were 321 catch basins cleaned. (2) The following volume of debris was removed during catch basin cleaning activities: • Catch basins = 18.2 cub. yds.	**2009/2010** (1) During permit year 15, 4 catch basins were repaired. There were 1393 catch basins cleaned. (2) The following volume of debris was removed during catch basin cleaning activities: • Catch basins = 82.6 cub. yds.	**2010/2011** (1) During permit year 16, 7 catch basins were repaired. There were 918 catch basins cleaned. (2) The following volume of debris was removed during catch basin cleaning activities: • Catch basins = 30.37 cub. yds

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
BMP – Conduct Structural Control Facility Cleaning and Maintenance				
BMP Owner: City of Milwaukie Public Works Department **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie inspects public structural water quality facilities annually on average. Facility maintenance is conducted every two years.	(1) Track the number of structural facilities inspected and maintained. (2) Track the volume of debris removed during cleaning activities.	**2008/2009** (1 & 2) The following maintenance/ repairs were conducted during permit year 14: • 21 vaults were cleaned and 6.52 cubic yards of debris removed. • 10,697.49 feet of storm main line was video inspected. • 5 detention ponds were inspected and maintained. • The weir was inspected 251 times. • 766 drywell inspections were completed.	**2009/2010** (1 & 2) The following maintenance/ repairs were conducted during permit year 15: • 18 vaults were cleaned and 6.40 cubic yards of debris removed. • 40,994.86 feet of storm main line was video inspected. • 5 detention ponds were inspected and maintained. • The weir was inspected 248 times. • 733 drywell inspections were completed. • 158 drywells were cleaned and 31 cubic yards of debris removed.	**2010/2011** (1 & 2) The following maintenance/ repairs were conducted during permit year 16: • 9 vaults were cleaned and 2.37 cubic yards of debris removed. • 18,023.33 feet of storm main line was video inspected. • 5 detention ponds were inspected and maintained. • The weir was inspected 140 times. • 854 drywell inspections were completed. • 195 drywells were cleaned and 11.48 cubic yards of debris removed. • 120 hours spent completing Rain Garden and Swale maintenance.

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
NPDES Permit Requirement – *(2) Planning procedures including a comprehensive master plan to develop, implement and enforce controls to reduce the discharge of pollutants from municipal separate storm sewers that receive discharges from areas of new development and significant redevelopment. Such a plan must address controls to reduce pollutants in discharges from municipal separate storm sewers after construction is completed. Controls to reduce pollutants in discharges from municipal separate storm sewers containing construction site runoff are addressed in paragraph Schedule D(2)(c)(iv).*				
BMP – Conduct Master Planning for Stormwater Quality Improvement				
BMP Owner: City of Milwaukie Engineering Department **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie recently conducted Master Planning efforts to identify and prioritize future capital improvement projects for flood control and water quality benefits. The City's current master plan includes 15 CIPs to be implemented over an approximately 25-year period. Six of these CIPs were identified specifically for water quality purposes.	(1) Track master planning activity (new plans or revisions to older plans). (2) Track the number of CIP projects implemented each year and discuss the added benefit (flood control, water quality, habitat restoration, etc) of each. (3) Map the location and drainage area of CIPs.	**2008/2009** (1) No master planning activities were conducted during this permit year. (2) During fiscal year 08-09, the City completed the Logus Rd Improvement Project. The project consisted of adding 200 ft of sidewalk on the south side of Logus, 1,311 sq yards of pervious concrete sidewalks and 4,100 sq feet of rain gardens. The rain gardens were constructed in 3' to 5' width sections between the roadway and sidewalk to allow overflow in several events. (3) The location of this project is currently mapped and all rain gardens and drainage areas have been GPS'd and inventoried.	**2009/2010** (1) No master planning activities were conducted during this permit year. (2) The City has budgeted for an onsite Decant Facility and will be completed FY 2010-11. The project consist of 5 decant and drying bunkers. The City also added a water quality swale to compensate for impervious area from covered bunkers. The City installed catch basin inserts for water quality in 18 catch basins on King Rd. (3) The project will be mapped and inventoried when complete.	**2010/2011** (1) No master planning activities were conducted during this permit year. (2) The City has completed the Decant Facility . The project consist of 5 decant and drying bunkers. The City also added a water quality swale to compensate for impervious area from covered bunkers. The City has maintained 18 catch basin inserts for water quality on King Rd. The City also installed and maintained 417 sq ft of storm swale on the Jackson St project. (3) All projects have been mapped and inventoried.

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
BMP Owner: City of Milwaukie Engineering Department **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie reviews all new and redevelopment plans through the building permit process. The City is currently reviewing various jurisdictions (City of Oregon City, Clackamas County) stormwater design standards in order to add more specific design criteria into the Development Code, as related to stormwater facility design (for both treatment and detention), water quality design storms, and approved facilities for stormwater treatment.	(1) Track the number of development applications reviewed and approved for compliance with the stormwater regulations. (2) Track any code modifications by ordinance.	**2008/2009** (1) Development applications including drainage reports are routinely reviewed for proper compliance with storm water regulations. The following number of applications were reviewed during permit year 14: • Commercial (New) = 4 • Commercial (Additions) = 4 • Residential (New) = 3 • Residential (Additions) = 22 (2) The City of Milwaukie has strengthened its stormwater design standards, including adoption by reference of the City of Portland Storm Water Manual. Revisions will be made on an annual basis or as needed as storm water management is considered to be a continual "work in progress."	**2009/2010** (1) Development applications including drainage reports are routinely reviewed for proper compliance with storm water regulations. The following number of applications were reviewed during permit year 15: • Commercial (New) = 4 • Commercial (Additions) = 4 • Residential (New) = 3 • Residential (Additions) = 15 (2) The City of Milwaukie has strengthened its stormwater design standards, including adoption by reference of the City of Portland Storm Water Manual. Revisions will be made on an annual basis or as needed as storm water management is considered to be a continual "work in progress."	**2010/2011** (1) Development applications including drainage reports are routinely reviewed for proper compliance with storm water regulations. The following number of applications were reviewed during permit year 16: • Commercial (New) = 1 • Commercial (Additions) = 4 • Residential (New) = 2 • Residential (Additions) = 15 (2) The City of Milwaukie has strengthened its stormwater design standards, including adoption by reference of the City of Portland Storm Water Manual. Revisions will be made on an annual basis or as needed as storm water management is considered to be a continual "work in progress."

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		

NPDES Permit Requirement – *(3) Practices for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems, including pollutants discharged as a result of deicing activities.*

BMP – Conduct Street Sweeping and Roadway Repair Activities

BMP Owner: City of Milwaukie Public Works Department

Permit Year: Ongoing

Implementation Activities: The City of Milwaukie conducts road maintenance and repair activities continuously throughout the year to prevent erosion and excessive transport of sediment and organics into the stormwater system.

(1) Track the number of sweeps per year.

(2) Track the number of miles swept per year.

(3) Track the volume of debris removed during sweeping activities.

2008/2009

(1-3) The following street sweeping activities occurred during permit year 14:

Month	Miles	Debris (CY)
Jul '08	491	68
Aug '08	422	45
Sep '08	486	53
Oct '08	497	98
Nov '08	865	173
Dec '08	561	185
Jan '09	513	149
Feb '09	372	57
Mar '09	388	59
Apr '09	352	40
May '09	327	34
Jun '09	289	27
Total	**5563**	**988**

2009/2010

(1-3) The following street sweeping activities occurred during permit year 15:

Month	Miles	Debris (CY)
Jul '09	441	31.1
Aug '09	357	36.9
Sep '09	296	305.
Oct '09	649	194.3
Nov '09	988	454
Dec '09	476	156.4
Jan '10	328	92.
Feb '10	333	90
Mar '10	503	41.7
Apr '10	279	29.7
May '10	399	65.1
Jun '10	206	30.
Total	**5,255**	**1,526.2**

2010/2011

(1-3) The following street sweeping activities occurred during permit year 16:

Month	Miles	Debris (CY)
Jul '10	75	20.
Aug '10	326	115
Sep '10	537	68.3
Oct '10	554	140.5
Nov '10	847	421
Dec '10	715	294
Jan '11	548	100.1
Feb '11	429	31.6
Mar '11	619	66.1
Apr '11	455	32.9
May '11	538	42.3
Jun '11	481	36.45
Total	**6,124**	**1,368.2**

NPDES Permit Requirement – *(4) Procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies and that existing structural flood control devices have been evaluated to determine if retrofitting the device to provide additional pollutant removal from storm water is feasible.*

See **BMP "Conduct Master Planning for Stormwater Quality" under Requirement 2 for applicable BMP and performance measures.**

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
NPDES Permit Requirement – *(5) A program to monitor pollutants in runoff from operating or closed municipal landfills or other treatment, storage or disposal facilities for municipal waste. The description must identify priorities and procedures for inspections and establishing and implementing control measures for such discharges (this program can be coordinated with the program developed under Schedule D (2)(c)(iii)).*				
NA				
There are no open or closed landfills or other municipal waste handling facilities within the City of Milwaukie.	NA	**2008/2009** NA	**2009/2010** NA	**2010/2011** NA
NPDES Permit Requirement – *(6) A program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides and fertilizer that will include, as appropriate, controls such as educational activities, permits, certifications and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities.*				
BMP – Minimize Water Quality Impacts Associated with Landscape Maintenance Practices				
BMP Owner: City of Milwaukie Public Works Department and North Clackamas Parks & Rec **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie conducts a variety of activities to minimize water quality impacts associated with conducting pest management activities on public properties.	(1) Track any policy and/or procedural changes associated with pest management activities within the City.	**2008/2009** (1) There have been no policy or procedural changes regarding pest management activities during permit year 14.	**2009/2010** (1) There have not been any policy or procedural changes regarding pest management activities during permit year 15.	**2010/2011** (1) There have not been any policy or procedural changes regarding pest management activities during permit year 16.

Table 2-2 BMPs to Detect and Remove Illicit Discharges and Improper Disposal Into the Storm Sewer System

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
NPDES Permit Requirement – *(1) A program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal separate storm sewer system; this program description must address all types of illicit discharges, however the following category of non-storm water discharges or flows must be addressed where such discharges are identified by the municipality as sources of pollutants to waters of the United States: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, start up flushing of groundwater wells, aquifer storage and recovery (ASR) wells, potable groundwater monitoring wells, draining and flushing of municipal potable water storage reservoirs, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street wash waters, discharges of treated water from investigation, removal and remedial actions selected or approved by the Department pursuant to Oregon Revised Statute (ORS) Chapter 465, the state's environmental cleanup law; and discharges or flows from emergency fire fighting activities where discharges or flows from fire fighting are identified as not significant sources of pollutants to the waters of the state.* **NPDES Permit Requirement** – *(2) Procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens;* **NPDES Permit Requirement** – *(3) Procedures to be followed to investigate portions of the separate storm sewer system that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-storm water [such procedures may include: sampling procedures for constituents such as e. coli, surfactants (MBAS), residual chlorine, fluorides and potassium; testing with fluorometric dyes; or conducting in storm sewer inspections where safety and other considerations allow.] Such a description must include the location of storm sewers that have been identified for such evaluation.*				
BMP – Implement the Illicit Discharge Elimination Program				
BMP Owner: City of Milwaukie Public Works Department **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie conducts illicit discharge inspections, monitoring, and investigations annually during dry-weather conditions (typically between July and September) on all major outfalls (20) and select minor outfalls (44).	(1) Track any updates and modifications to the inspection procedures. (2) Track the number and location of outfalls inspected annually. (3) Summarize inspection results and indicate outfalls requiring monitoring (sampling) and/or investigations. (4) Indicate the outcome and resolution of any investigation activities conducted.	**2008/2009** (1) There have been no updates or modifications to the illicit discharge inspection procedures during permit year 14. (2-4) All 64 outfalls (35 major & 29 minor) were inspected during the dry weather season. No evidence of anything other than storm water or groundwater was evident. The outfalls are plotted in GIS. The addresses of the outfalls are included in Appendix A.	**2009/2010** (1) There have been no updates or modifications to the illicit discharge inspection procedures during permit year 15. The City enhanced the Illicit Discharge code language in permit year 15. (2-4) All 64 outfalls (35 major & 29 minor) were inspected during the dry weather season. Inspection found one outfall with flow and it was traced back to residential irrigation. The outfalls are plotted in GIS. The addresses of the outfalls are included in Appendix A.	**2010/2011** (1) There have been no updates or modifications to the illicit discharge inspection procedures during permit year 16. The City enhanced the Illicit Discharge code language in permit year 15. (2-4) All 64 outfalls (35 major & 29 minor) were inspected during the dry weather season. Four upstream investigations were launched with no illicit or pollution laden discharges found. The outfalls are plotted in GIS. The addresses of the outfalls are included in Appendix A.

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
BMP – Minimize Water Quality Impacts Related to Water Line Flushing				
BMP Owner: City of Milwaukie Public Works Department **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie conducts occasional water line flushing throughout the City to ensure the quality of the water system. The City of Milwaukie requires all chlorinated water associated with the flushing of new and existing waterlines to be dechlorinated to a maximum allowable residual chlorine concentration of 0.1 mg/l or less, in accordance with DEQ requirements for discharge.	No performance measures were proposed for reporting for this BMP.	**2008/2009** NA	**2009/2010** NA	**2010/2011** The City conducted water line flushing during the month of July 2011,of permit year 16. All water was dechlorinated to a residual chlorine concentration of 0.1 mg/l or less.

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
NPDES Permit Requirement – *(4) Procedures to prevent, contain, and respond to spills that may discharge into the municipal separate storm sewer.*				
BMP – Implement the Spill Response Program				
BMP Owner: City of Milwaukie Public Works Department and Clackamas County Fire District No. 1 Hazardous Materials Team **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie Public Works Department responds to non-hazardous spills within the City. For non-hazardous materials (oil and grease, paint, sewage), spills are generally reported by citizens or observed by Public Works staff. Clackamas County Fire District No. 1 Hazardous Materials Team responds to chemical and hazardous waste spills within the City.	(1) Indicate the number of spills responded to by the Public Works Department. (2) Indicate sources, causes, and resulting water quality problems resulting from spill activities.	**2008/2009** (1 & 2) The City of Milwaukie responded to 10 small spills and 1 large spill. • **2/4/2009**-City PD reported oil sheen at the intersection of Main St. & Ochoco. A private citizen had drum in the back of his truck that tipped over going around the corner. Approx 10 gallons of cutting oil. No evidence of oil sheen in storm system. City responded and citizen hired River City to clean up. • **2/9/2009**-Resident reported fluid dripping from truck that was towed away. Approx 2-3 gallons. No evidence of oil sheen in storm system. Spill was contained and City responders clean up spill. • **2/23/2009**-City operations reported oil sheen near spoils pile at our facility. Approx 5 gallons diesel fuel from UD truck. No evidence of oil in storm system. Spill was contained and City responders clean up spill with Vac truck. • **2/25/2009**-Resident reported Snug's Pro-wash emptying tanks into storm system. Approx 50 gallons. City responders investigated and turned over to Code enforcement. Snug's say's is was pure water. • **2/26/2009**-City operations reported oil sheen on Stanley Ave. between JCB and King Rd. Approx 2 gallons. No evidence of sheen in storm system. Spill was contained and City responders cleaned up spill. (continued on next page)	**2009/2010** (1 & 2) The City of Milwaukie responded to 8 small spills. • **7/13/2009** -City of Milwaukie (COM) was on site when the hydraulic hose broke on the Vactor. Less than 2 gallons leaked and it did not go into the storm system. The crews used booms and absorbent to clean up the site. • **7/29/2009** -Call received at front desk that Americold had a broken line that leaked 450-500 gallons of ethylene glycol on private property. DEQ was contacted and an on-site inspection was completed. COM assisted with flushing until released by DEQ. Americold reported to OERS incident number 2009-1700. • **7/31/2009** -COM fleet services had a transmission leak on the fire truck. Absorbent booms where placed to protect storm system. Absorbent granular was used once water had evaporated. All material was cleaned up and disposed of properly. • **8/2/2009** -COM VacCon had a motor oil spill of less than 2 gallons. Crews had absorbent materials and pads with them. The reported to the investigator and cleaned up the spill and disposed of the materials properly. • **9/28/2009** -COM crews noticed slurry traveling down curb line and into the storm system. Crews reported to the investigator and found that a resident installed a concrete driveway without a permit. Investigator had COM crews immediately clean up the slurry due to possibly rain. Resident was enforced upon and fined. (continued on next page)	**2010/2011** (1 & 2) The City of Milwaukie responded to 8 small spills during permit year 16. • **6-13-2011** Resident reported 1/2 gallon of oil left for recycling had spilled onto roadway. PW used sweeper and absorbent to clean up the spill. • **3-18-2011** ORES reported to COM large spill at Hwy 224 and 37th Ave. (City happened to be on the phone reporting a different spill when ORES notified us of the larger spill) Garbage truck had a broken hydraulic hose. Responsible party had cleanup equipment on site. Out of COM jurisdiction. • **3-18-2011** Resident called in oil sheen on 32nd Ave. of less than 1 gallon . PD and PW responded and found it to be a random vehicle. PW applied booms and absorbent to protect the storm system. PW crews cleaned basin and main line. This incident was reported to ORES; case #2011-0680. • **3-1-2011** Citizen left a container of oil less than one gallon sitting out in the rain. The container overflowed into the right-of-way. PW responded and made contact with the owner. The owner opted to hire environmental company to clean up the spill. (continued on next page)

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
BMP – Implement the Spill Response Program (continued)				
		2008/2009 (continued) • **3/13/2009**-City operations reported transmission fluid leak at 58th and JCB. Approx 2 gallons. No evidence of oil in storm system. Spill was contained and City responders cleaned up spill. • **4/2/2009**- Motor vehicle accident at 45th & Johnson Creek Blvd. Reported by CCFD#1. Approx 10 gallons gas and oil. No evidence of oil or gas in storm system. Spill was contained and City responders cleaned up spill. • **5/13/2009**-City operations reported roll over car accident at 46th & King Rd. Approx ½ gallon of washer fluid. No evidence of fluid in storm system. Spill was contained and City responders cleaned up. • **5/21/2009**-City PD reported TriMet bus leaking coolant @ 21st & Harrison. Approx 10 gallons. No evidence of coolant in storm system. City responders cleaned up fluid with help of TriMet. • **6/10/2009**-City operations reported hydraulic spill at Stanley Ave. Approx 15-20 gallons. No evidence of fluid in storm system. Spill was contained and City responders cleaned up. • **6-22-2009**-City operations reported spill @ 31st & Washington. Approx ½ pint unknown fluid. No evidence of fluid in storm system. Spill was contained and City responders cleaned up.	**2009/2010 (continued)** • **10/8/2009** - Public Works reported pressure washing a building from private business and washing paint chips into the storm system. Reported to OERS incident number 2009-02291. Storm system affected was private and not inventoried by City. Property owner was asked to install catch basin sack and clean out basins. • **2/5/2010** - CCSD Fire reported small spill of diesel fuel in parking lot of 11086 SE oak St. Spill was less than 1 gallon. Property owner swept up and disposed of material properly. • **4/29/2010** - Public Works crews were mowing on Railroad Ave when they broke a hydraulic line on the mower. Leaked less than 2 gallons. Public Works crews responded with sweeper, spill material and cleaned up spill and disposed of material properly. Fluid did not make it to the storm system. • **5/20/2010** - Resident report that a garbage truck spilled a 1 gallon container of motor oil that was supposed to be picked up. Public Works responded with spill materials and Vactor to clean up the spill and dispose of the material properly.	**2010/2011 (continued)** • **2-15-2011** PW reported oil sheen at 50th and Logus. PW responded and performed clean up. ORES incident # 2011-379. The cause was 6 quarts of motor oil coming from a vehicle. • **2-14-2011** Resident reported oil spill in parking lot of 5505 SE International Way. Resident opted to hire environmental company for cleanup. The spill was caused from a leaking vehicle and estimated at less than 1 gallon that entered the storm system. ORES #2011-0361. • **1-27-2011** PW crews reported sheen coming from UD truck in the PW yard. PW responded with absorbent and booms. • **1-14-2011** Resident reported an oil sheen in their private parking lot of 2001 Jefferson. PW investigated and found 1-2 gallons of oil had leaked oil and entered the storm system. Incident was reported ORES #2011-0085. Private property owned contacted an environmental company for clean. • **1-11-2011** PW reported private apartment complex had a manhole overflowing to Kellogg Crk. PW inspected and reported the incident ORES# 20110069. The estimated amount of discharge was 50 k gallons. PW contacted WES for cleanup.
NPDES Permit Requirement – *(5) A program to promote, publicize, and facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from municipal separate storm sewers*				
A Description of the City's Public Reporting Program including performance measures is included in Component #5, Table 2-5.				
NPDES Permit Requirement – *(6) Educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials.*				
A Description of the City's Public Informational Activities regarding management of hazardous materials including performance measures is included in Component #5, Table 2-5.				

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
NPDES Permit Requirement – *(7) Controls to limit infiltration of seepage from municipal sanitary sewers to municipal separate storm sewer systems where necessary*				
BMP – Control Infiltration and Cross Connections to the Stormwater Conveyance System				
BMP Owner: City of Milwaukie Public Works and Engineering Departments **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie implements an inflow and infiltration (I&I) abatement program for the sanitary sewer system. The City's Engineering Department reviews new and redevelopment plans for possible cross-connections, and if cross connections are discovered, they are eliminated. The City's illicit discharge program also works to control and prevent any cross-connections during their outfall inspections and dry-weather field screening activities.	(1) Indicate whether any cross-connections were discovered during illicit discharge investigations, and describe follow-up activities.	**2008/2009** (1) Per results of the illicit discharge inspections, no cross connections were observed.	**2009/2010** (1) Per results of the illicit discharge inspections, no cross connections were observed.	**2010/2011** (1) Per results of the illicit discharge inspections, no cross connections were observed. A cross connection was discovered during routine sewer TV work at a warehouse located at 9696 SE Omark Dr. A sewer lateral from a restroom had been incorrectly connected to a storm line. The property owner has since made the necessary corrections to their plumbing.

Table 2-3 A Program to Monitor and Control Pollutants from Industrial Facilities

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
NPDES Permit Requirement – *(1) Identify priorities and procedures for inspections and establishing and implementing control measures for such discharges.*				
NPDES Permit Requirement – *(2) Describe a monitoring program for storm water discharges associated with the industrial facilities identified in Schedule D(2)(c)(iii), to be implemented during the term of the permit, including, at a minimum, the submission of quantitative data on the pollutant parameters included in the Department's NPDES 1200-Z industrial general stormwater permit.*				
BMP – Conduct Industrial Inspections and Enforcement				
BMP Owner: City of Milwaukie Public Works Department **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie will update and maintain an inventory of all industrial facilities in the permit area that are covered by a 1200-Z permit. Onsite industrial inspections occur annually at selected facilities discharging directly to the City's municipal stormwater system through the City's Pretreatment Program (via an IGA with Clackamas County Service District No 1), and through the City's illicit discharge program. The City may potentially conduct periodic inspections of other high priority facilities not previously inspected under the other above-mentioned programs if specific concerns arise or are reported through citizen complaints.	(1) Track the number of permitted (1200-Z) industrial facilities within the City. (2) Note any water quality concerns identified during the review of 1200-Z monitoring data. (3) Track the number of industrial inspections conducted. (4) Report status and abatement measures required for any industry found to be inappropriately discharging to the municipal stormwater system.	**2008/2009** (1) The City of Milwaukie queried the active 1200-Z permits within the city limits from DEQ's website. There are currently 6 active 1200-Z permits within the City's MS4 permit boundary. (2) No inspections were completed for permit year 14, due to lack of personnel. (3) During permit year 14, the City conducted 0 inspections of 1200-Z permit holders. (4) Due to the lack of personnel during the last fiscal year, the City of Milwaukie was unable to complete the 1200Z inspections. The City has filled the position and will meet the requirements next fiscal year. The City will perform searches of DEQ's website database to ascertain an accurate list of 1200-Z permit holders at least twice per year.	**2009/2010** (1) The City of Milwaukie queried the active 1200-Z permits within the city limits from DEQ's website. There are currently 8 active 1200-Z permits within the City's MS4 permit boundary. (2) Monitoring data produced by permit holders was reviewed during inspections. Only one permit holder had an exceedance during the last year, and was following an action plan to reduce pollutants. They have since returned to compliance. (3) During permit year 15, the City conducted 8 inspections of 1200-Z permit holders ensuring all were in compliance of 1200-Z storm water permit. (4) The City will perform searches of DEQ's website database to ascertain an accurate list of 1200-Z permit holders at least twice per year.	**2010/2011** (1) The City of Milwaukie queried the active 1200-Z permits within the city limits from DEQ's website. There are currently 6 active 1200-Z permit holders within the City's boundaries discharging to the City's MS4. (2) The City inspected all 6 permit holders and found no visual evidence of water quality concerns during the inspections. (3) During permit year 16, the City conducted 6 inspections of 1200-Z permit holders ensuring all were in compliance of 1200-Z storm water permit. (4) The City will perform searches of DEQ's website database to ascertain an accurate list of 1200-Z permit holders at least twice per year.

Table 2-4 A Program to Reduce Pollutants in Stormwater Discharges from Construction Sites

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
NPDES Permit Requirement – *(1) Procedures for site planning which incorporate consideration of potential water quality impacts.* **NPDES Permit Requirement** – *(2) Requirements for nonstructural and structural best management practices.*				
BMP – Implement Erosion Control for New and Redevelopment				
BMP Owner: City of Milwaukie Public Works and Engineering Departments **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie reviews all site plans for new and redevelopment for compliance with the City's Erosion Control Standards, which define requirements for erosion control plans including the implementation of structural and non-structural BMPs. The City recommends the use of the Clackamas County "*Erosion Prevention and Sediment Control Planning and Design Manual (2000)*" in preparing the erosion control plans.	(1) Report any updates or modifications to the *"Erosion Prevention and Sediment Control Planning and Design Manual (2000)"*. (2) Record the number of erosion control plan reviews completed.	**2008/2009** (1) Water Environment Services completed the updated version of the Erosion and Sediment Control Planning and Design Manual and distributed to co-permittees during this permit year. City operations department created Standard Erosion Prevention Notes to be included on each Erosion Plan submitted to the City based on the updated manual. (2) During permit year 14, there were 21 erosion control plan reviews completed.	**2009/2010** (1) There have been no updates to the "Erosion Prevention and Sediment Control Planning and design manual" during permit year 15. (2) During permit year 15, there were 20 erosion control plan reviews completed.	**2010/2011** (1) There have been no updates to the "Erosion Prevention and Sediment Control Planning and Design Manual" during permit year 16. (2) During permit year 16, there were17 erosion control plan reviews completed.

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
NPDES Permit Requirement – *(3) Procedures for identifying priorities for inspecting sites and enforcing control measures that considers the nature of the construction activity, topography, and the characteristics of soils and receiving water quality.*				
BMP – Conduct Erosion Control Inspections				
BMP Owner: City of Milwaukie Public Works Department **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie's Stormwater Specialist initially inspects all new and redevelopment sites for proper implementation of erosion control measures.	(1) Record the number of erosion control inspections conducted annually. (2) Report the number of notices of non-compliance issued during inspections and the number of stop work orders issued annually.	**2008/2009** (1) There were 163 erosion control inspections conducted during permit year 14. (2) There were 63 non-compliance notices issued during permit year 14.	**2009/2010** (1) There were 196 erosion control inspections conducted during permit year 15. (2) There were 38 non-compliance notices issued and 2 stop work orders during permit year 15.	**2010/2011** (1) There were 220 erosion control inspections conducted during permit year 16. (2) There were 39 non-compliance notices issued and 1 stop work orders during permit year 16.
NPDES Permit Requirement – *(4) Appropriate educational and training measures for construction site operators.*				
BMP – A Description of the City's Educational Program for Construction Site Operators is included in Component #5, Table 2-5				

Table 2-5 Public Education, Coordination, and Public Involvement

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
NPDES Permit Requirement, Component 1 – *(1) A program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides and fertilizer that will include, as appropriate, controls such as educational activities, permits, certifications and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities.* **NPDES Permit Requirement, Component 2** – *(2) A program to promote, publicize, and facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from municipal separate storm sewers.* **NPDES Permit Requirement, Component 3** – *(3) Educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials.*				
BMP – Provide Public Education and Outreach Materials regarding Storm water Management				
BMP Owner: City of Milwaukie Public Works Department **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie continues to implement a number of public education and public awareness activities aimed at reducing the discharge of pollutants associated with a variety of activities including but not limited to: • The application of pesticides, herbicides and fertilizers by citizens. • Illicit discharges and dumping of waste materials into the storm drainage system. • Disposal of waste oil and toxic materials.	(1) Track the number, types, and topics of public educational materials dispersed to the public. (continued on next page)	**2008/2009** (1) Public awareness programs that are currently in place are: "Leaf Drop Program" and "Milwaukie Clean-Up Days." These programs promote healthy streams by keeping leaves out of the drains and garbage from being dumped illegally. The City has also updated our web site to provide residents with information on the programs we have in place. (continued on next page)	**2009/2010** (1) Public awareness programs that are currently in place are: "Leaf Drop Program" and "Milwaukie Clean-Up Days." These programs promote healthy streams by keeping leaves out of the drains and garbage from being dumped illegally. The City has been working with other ACWA members to create a tri-fold insert on Stormwater Education to be placed with utility bills. (continued on next page)	**2010/2011** (1) Public awareness programs that are currently in place are: "Leaf Drop Program" and "Milwaukie Clean-Up Days." These programs promote healthy streams by keeping leaves out of the drains and garbage from being dumped illegally. The City is still working with the ACWA group to create a Underground Injection Control flyer to be placed in all utility bills as an insert. In March of 2011, the City sent out a Media Advisory to educate the public how to store hazardous materials to prevent a costly cleanup and possible fines to the public. The City included a Fats, Oils and Grease (FOG) flyer in all utility bills with specific information on keeping the dumpster and storage area covered to keep FOG out of the storm drain. (continued on next page)

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
–Provide Public Education and Outreach Materials regarding Storm water Management (continued)				
	(2) Indicate any large-scale public educational campaigns. (3) Track coordinated public outreach activities with local co-permittees. (4) Record the number of catch basins stenciled in a given year. (5) Record the number of storm manhole lids that have been retrofit annually.	**2008/2009 (continued)** (2 & 3) The City of Milwaukie is actively partnered with a number of other jurisdictions to form the Regional Coalition for Clean Rivers and Streams, in order to develop regional advertising campaigns to promote healthy streams. In addition, during permit year 14, the City of Milwaukie, conducted its 5th annual "Leaf Drop Program". This program allows residents to dispose of their leaves at our facility, 5 Saturdays per year, during heavy leaf season, at no charge to the resident. (4) 1628 catch basins were stenciled "Dump no waste drains to stream" or "Protect our groundwater" with a bright blue background with white lettering. (5) During permit year 14, 36 storm lids have been retrofit with "Dump no Waste, Drains to Streams" lids on our conveyance system manholes.	**2009/2010 (continued)** (2 & 3) The City of Milwaukie is actively partnered with a number of other jurisdictions to form the Regional Coalition for Clean Rivers and Streams, in order to develop regional advertising campaigns to promote healthy streams. In addition, during permit year 15, the City of Milwaukie, conducted its 6th annual "Leaf Drop Program". This program allows residents to dispose of their leaves at our facility, 5 Saturdays per year, during heavy leaf season, at no charge to the resident. (4) 1308 catch basins were stenciled "Dump no waste drains to stream" or "Protect our groundwater" with a bright blue background with white lettering. (5) During permit year 15, 32 storm lids have been retrofit with "Dump no Waste, Drains to Streams" lids on our conveyance system manholes.	**2010/2011 (continued)** (2&3) The City of Milwaukie is actively partnered with a number of other jurisdictions to form the Regional Coalition for Clean Rivers and Streams, in order to develop regional advertising campaigns to promote healthy streams. Part of this participation included a "Stormwater Survey" that was on the City website during the months of March and April 2011. In addition, during permit year 16, the City of Milwaukie, conducted its 7th annual "Leaf Drop Program". This program allows residents to dispose of their leaves at our facility, 5 Saturdays per year, during heavy leaf season, at no charge to the resident. (4) 931 non curbed catch basins were stenciled "Dump no waste, drains to stream" or "Protect our groundwater" with a bright blue background with white lettering. The City placed 701 storm medallions on curbed catch basins that say "Dump no Waste" (etc). The medallions will last approximately 5 years longer than the painted stencil. (5) During permit year 16, 0 storm lids have been retrofit with "Dump no Waste, Drains to Streams" lids on our conveyance system manholes.

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
BMP – Conduct Staff Training in Spill Response				
BMP Owner: City of Milwaukie Public Works Department **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie provides training to City staff that initially responds to non-hazardous spills. Training is generally conducted at least once per year, in combination with City safety meetings, and new employees are trained at hire. Employees are educated on proper spill reporting and documentation, clean-up procedures and devices, and additional spill response contacts.	(1) Indicate the number of spill response training opportunities offered annually.	**2008/2009** (1) The City updated the Spill Response Procedure form this year and created a flow chart and placed all documents in each vehicle for responders to follow during an incident. All City Public Works employees (including administrative assistance) are required to attend annual training of the new procedures, which include: how to document the incident, who to call in the event of a spill, when to report and what materials to use to protect catch basins. All operations vehicles are equipped with spill response kits and select vehicle were equipped with spill absorbent.	**2009/2010** (1) The City updated the Spill Response Procedure form and created a flow chart and placed all documents in each vehicle for responders to follow during an incident. All City Public Works employees (including administrative assistance) are required to attend annual training of the new procedures, which include: how to document the incident, who to call in the event of a spill, when to report and what materials to use to protect catch basins. All operations vehicles are equipped with spill response kits and select vehicles were equipped with spill absorbent.	**2010/2011** (1) The City continues to participate in the Spill Response Program. All Public Works vehicles have flow charts and narratives on board, with specific instructions on how to deal with a spill or discharge. All City Public Works employees (including administrative assistance) are required to attend annual training of the procedures, which include: how to document the incident, who to call in the event of a spill, when to report and what materials to use to protect catch basins. All operations vehicles are equipped with spill response kits and select vehicles were equipped with spill absorbent.

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
NPDES Permit Requirement, Component 4 – *(4) Appropriate educational and training measures for construction site operators.*				
BMP – Provide Educational Information to Construction Site Operators				
BMP Owner: City of Milwaukie Public Works Department **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie makes available their technical guidance manual, the *Clackamas County Erosion Prevention and Sediment Control Planning and Design Manual* (revised Dec. 2000) to engineers, contractors, and the general public. The City of Milwaukie continues to partner with Clackamas County Water Environment Services (WES), the City of Oregon City, and the Homebuilders Association of Portland to provide the Erosion Control Certification program, which includes a four-hour course in erosion control fundamentals and biannual refresher courses for contractors.	(1) Track the number of contractors receiving a discount on erosion control permit fees.	**2008/2009** (1) During permit year 14, no contractors applied for this discount. Currently the City of Milwaukie and other jurisdictions are involved in revamping the Regional Erosion Prevention Awards Program (REPA), this program includes erosion control training, as well as incentives to practice proper erosion control at the job site. No updates from last fiscal year.	**2009/2010** (1) During permit year 15, no contractors applied for this discount. Currently the City of Milwaukie and other jurisdictions are involved in revamping the Regional Erosion Prevention Awards Program (REPA), this program includes erosion control training, as well as incentives to practice proper erosion control at the job site. No updates from last fiscal year.	**2010/2011** (1) During permit year 16, no contractors applied for this discount.

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
Additional Coordination Efforts				
BMP – Participate in Intergovernmental Coordination Efforts				
BMP Owner: City of Milwaukie Public Works Department **Permit Year:** Ongoing **Implementation Activities:** The City of Milwaukie will continue to meet periodically to coordinate with other Clackamas County co-permittees regarding regional water quality efforts. Areas for coordination include monitoring, public education, and BMP effectiveness studies. The City of Milwaukie also participates with a variety of federal, state, and local agencies and groups involved with a broad range of water quality issues including stormwater.	(1) Indicate groups, committees, and organizations with which the City is currently participating.	**2008/2009** (1) The City of Milwaukie is currently involved with the following groups and organizations: • Clackamas County NPDES MS4 Co-permittees • Johnson Creek Watershed Council • Oregon Association of Clean Water Agencies • Johnson Creek Interjurisdictional Committee • American Public Works Association • ACWA Storm Water Spill Committee • Regional Erosion Prevention Awards • ACWA Water Pollution Control Facility Permit Committee.	**2009/2010** (1) The City of Milwaukie is currently involved with the following groups and organizations: • Clackamas County NPDES MS4 Co-permittees • Johnson Creek Watershed Council • Oregon Association of Clean Water Agencies • Johnson Creek Interjurisdictional Committee • American Public Works Association • ACWA Storm Water Spill Committee • Regional Erosion Prevention Awards • ACWA Water Pollution Control Facility Permit Committee.	**2010/2011** (1) The City of Milwaukie is currently involved with the following groups and organizations: • Clackamas County NPDES MS4 Co-permittees • Johnson Creek Watershed Council • Oregon Association of Clean Water Agencies • Johnson Creek Interjurisdictional Committee • American Public Works Association • ACWA Storm Water Spill Committee • Regional Erosion Prevention Awards • ACWA Water Pollution Control Facility Permit Committee.

3.0 Additional Annual Report Requirements

3.1 Summary of Expenditures

The following summary outlines total storm water expenditures for permit year 15 (2009-2010) and projected expenditures for permit year 16 (2010-2011).

2009/2010

Personnel Services / 5.25 FTEs	*394,000
Materials and Services	*317,000
Capital Outlay	10,000
Transfers	701,000
Total	***$1,422,000**

2010/2011

Personnel Services / 5.25 FTEs	*368,000
Materials and Services	*228,000
Capital Outlay	340,000
Transfers	837,000
Total	***$1,773,000**

* These numbers are estimated, not audited

3.2 Demonstration of Continued Legal Authority

The City of Milwaukie maintains authority over stormwater per the City of Milwaukie Municipal Code (MMC). Below is an excerpt from the MMC:

> **Chapter 13.14 STORMWATER MANAGEMENT**
>
> **13.14.010 Purpose**
>
> The city finds and declares that absent effective maintenance, operation, regulation and control, existing storm water drainage conditions in all drainage basins and subbasins within the city constitute a potential hazard to the health, safety and general welfare of the city. The city council further finds that natural and man-made storm water facilities and conveyances together constitute a storm water system and that the effective regulation and control of storm water can best be accomplished through formation, by the city, of a storm water utility. (Ord. 1755 § 6 (part), 1994)

The City of Milwaukie has updated the Storm Water and Erosion Control Standards to provide better guidance to staff and developers concerning BMPs for storm water management.

3.3 Overview of planning, land use changes and development activities within the UGB

The City of Milwaukie has adopted Water Quality Resource Areas, as identified by Metro and the National Wetlands Inventory, including wetlands and wetland buffers, for consideration when development is proposed. The maps are updated as more detailed delineations are conducted on a site-by-site basis.

The City of Milwaukie is revitalizing its downtown area to include higher density, mixed use development. Capital and Public Improvement Projects are reviewed by Planning and Engineering staff to ensure that BMPs are employed to ensure post-development runoff is treated on-site to the maximum extent practicable through the use of natural infiltration, detention, and drywells for residential roof runoff. Erosion control permits are issued and enforced for projects where the potential for erosion exists.

Current development activities mainly involve in-fill and redevelopment of existing properties ranging from single-family homes to larger commercial developments. The next large development , Milwaukie Mini Storage, involves the redevelopment of two existing single family tax lots into a mini storage facility. The Milwaukie Mini Storage design team has been directed to incorporate storm water management early in the process instead of as an afterthought. Water quality swales and detention pipes are being planned to attenuate and treat storm water runoff

Smaller redevelopment projects hold promise for greener, on-site storm water management. Rain gardens are becoming a preferred alternative to new pipe systems, and a means to pre-treat runoff that flows to existing catch basins. The City's Storm Water Engineer is involved in weekly development review meetings to provide guidance. The City has adopted by reference rain garden and green street standards of the City of Portland Bureau of Environmental Services.

The City of Milwaukie lies entirely within the UGB and any City expansion will not encroach upon the UGB due to the City being surrounded by other jurisdictions within the UGB. Any annexations will include properties already within the UGB. Recent annexation efforts have focused on properties that lie within or near the Johnson Creek floodplain, especially those properties that have on-site sewage disposal systems. City code requires hookup to public sewer upon annexation.

An audit of City utility records in 2006 identified fifteen properties not connected to the City sanitary sewer, a violation of the Milwaukie Municipal Code. As of report year 2009/2010 all properties have been connected to City sewers. A routine audit was performed in 2011. Eight additional properties were

identified as not connected to the City sanitary sewer. As of report year 2010/2011, two of the eight properties connected to City sewers. The remaining six properties were given a deadline to connect by December 31, 2011.

3.4 Willamette River TMDL Implementation Items:

The NPDES MS4 Permit and attendant SWMP shall serve as the City's TMDL Implementation Plan for reductions of point source bacteria and mercury (and as related to suspended solids removal, DDT, and Dieldrin) as stated in the approved TMDL Implementation Plan. Sampling to determine the effectiveness of the City's efforts in meeting TMDL allocations and water quality standards is described in the water quality monitoring plan adopted as part of the NPDES MS4 Permit. Please refer to Table 3-1 for BMPs related to the Willamette River TMDL Implementation Plan.

Table 3-1 Willamette River TMDL Implementation Plan

BMP Implementation Summary	Annual Performance Measures	TMDL Implementation Plan		
Private Sanitary Waste Systems				
BMP – Onsite Survey				
BMP Owner: City of Milwaukie Engineering Department **Permit Year:** Ongoing **Implementation Activities:** Determine locations of onsite systems within City boundaries as of 2008	(1) Map all properties currently using onsite systems.	**2008/2009** NA	**2009/2010** (1) This task was completed during this fiscal year.	**2010/2011** (1) Eight additional properties were identified with onsite systems that could connect to public system. Two of the eight were connected and private systems decommissioned. The six that have not connected have been given a deadline to connect by Dec 31, 2011.
BMP – Require Private Systems to Connect to Public System				
BMP Owner: City of Milwaukie Engineering Department **Permit Year:** Ongoing **Implementation Activities:** Ensure that onsite systems are replaced by connection to City system, where City system is available.	(1) 16 properties identified with onsite systems that could connect to public system. All 16 were connected and private systems decommissioned.	**2008/2009** NA	**2009/2010** (1) This task was completed during the fiscal year.	**2010/2011** (1) Eight additional properties were identified with onsite systems that could connect to public system. Two of the eight were connected and private systems decommissioned. The six that have not connected have been given a deadline to connect by Dec 31, 2011.

BMP Implementation Summary	Annual Performance Measures	TMDL Implementation Plan		
Private Sanitary Waste Systems (continued)				
BMP – Extend Public Collection System to Unincorporated Areas NE of City				
BMP Owner: City of Milwaukie Engineering Department **Permit Year:** 2010-11 **Implementation Activities:** Provide public system to areas that don't currently have access that are at high risk of failure, and are unlikely to redevelop.	(1) Approx 230 properties are being addressed and are being designed to have sewer extended to their property.	**2008/2009** NA	**2009/2010** (1) A public collection system was constructed to serve each of the approximate 230 properties during the 2009-10 fiscal year. A sanitary lift station is being constructed in the 2010-2011 fiscal year to allow the collection system to be utilized. The current schedule for the lift station has a completion at the end of the 2010 calendar year.	**2010/2011** (1) A public collection system was constructed to serve each of the approximate 230 properties during the 2009-10 fiscal year. A sanitary lift station at 55th and Johnson Creek was constructed in the 2010-2011 fiscal year to allow the collection system to be utilized. 6 properties connected to the system this fiscal year.

BMP Implementation Summary	Annual Performance Measures	TMDL Implementation Plan		
Temperature				
BMP – Kellogg Creek Dam Removal				
BMP Owner: City of Milwaukie Community Development Department **Permit Year:** Ongoing **Implementation Activities:** To remove Kellogg Creek Dam, return Kellogg Lake to a creek, and revegetate the affected area.	(1) The City has approved the project and is addressing the funding needs.	**2008/2009** NA	**2009/2010** (1) The City applied for but did not receive any grant money for the project in this fiscal year. The City will continue to apply for grant money in the upcoming fiscal years for this project.	**2010/2011** (1) The City applied for and received a grant from American Rivers/NOAA. The City used the grant to fund survey work and flow monitoring of the creek.
BMP – Future Grant Program				
BMP Owner: City of Milwaukie Community Development Department **Permit Year:** Ongoing **Implementation Activities:** The City will apply for grants for future projects.	(1) The ability to obtain funding.	**2008/2009** NA	**2009/2010** (1) The City applied for grants for future projects. The City will continue to seek grant funding for future projects.	**2010/2011** (1) The City applied for and received a grant from American Rivers/NOAA. The City used the grant to fund survey work and flow monitoring of the creek.

BMP Implementation Summary	Annual Performance Measures	TMDL Implementation Plan		
Bacteria / Mercury				
BMP – Kellogg Creek Dam Removal				
BMP Owner: City of Milwaukie Community Development Department **Permit Year:** Ongoing **Implementation Activities:** To remove Kellogg Creek Dam, return Kellogg Lake to a creek, and revegetate the affected area.	(1) The City has approved the project and is addressing the funding needs.	**2008/2009** NA	**2009/2010** (1) The City applied for but did not receive any grant money for the project in this fiscal year. The City will continue to apply for grant money in the upcoming fiscal years for this project.	**2010/2011** (1) The City applied for and received a grant from American Rivers/NOAA. The City used the grant to fund survey work and flow monitoring of the creek.

4.0 Environmental Monitoring

4.1 Summary of Comprehensive Clackamas County Monitoring Plan

As part of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit requirement, the City of Milwaukie, along with Clackamas County and its other co-permittees, are required to develop and implement a stormwater monitoring program. Specific stormwater monitoring requirements and objectives are defined in Schedule B of the Clackamas County NPDES MS4 permit (number 101348).

The NPDES stormwater monitoring program requires two components. The first component is program monitoring, which involves the tracking and assessment of programmatic activities, as described in the individual permittees Stormwater Management Plans (SWMP), through the use of performance indicators or metrics (see Section 2.0 of the City of Milwaukie's annual report). The second component is environmental monitoring which includes the actual collection and analysis of samples.

Given the magnitude of effort associated with implementing an effective environmental monitoring program that adequately meets all permit requirements and objectives, Clackamas County (i.e., CCSD#1 and Surface Water Management Agency of Clackamas County (SWMACC) and six of its co-permittees including the City of Milwaukie agreed to consolidate efforts and prepare one comprehensive stormwater monitoring plan.

4.2 Summary of Environmental Monitoring Data Collected

Until implementation of the Comprehensive Clackamas County Stormwater Monitoring Plan, the City of Milwaukie continued to conduct independent environmental monitoring activities consistent with previous year's efforts. The City of Milwaukie currently monitors two locations: one instream location at Minthorn Springs Creek at Harmony Road, prior to discharge in Kellogg Creek, and one outfall location at the end of Roswell St., prior to discharge in Johnson Creek. Samples are collected based on rain events that meet predetermined criteria. Results of the monitoring effort are summarized in Tables 4-1 and 4-2..

4.3 Overview of planning, land use changes, and development activities within the UGB

The City of Milwaukie has identified and mapped Water Quality Resource Areas, including wetlands and wetland buffers, for consideration when development is proposed.
The City of Milwaukie is revitalizing its downtown area to include higher density, mixed use development. Capital and Public Improvement Projects are reviewed by Planning and Engineering staff to ensure that post-development runoff is treated on-site to the maximum extent practicable through the use of natural infiltration, detention, and drywells for residential roof runoff. Erosion control permits are issued and enforced for projects where the potential for erosion exists.

Current development activities mainly involve in-fill and redevelopment of existing properties ranging from single-family homes to larger commercial developments. Anticipated development in the downtown area involves the redevelopment of full downtown City blocks. The designs will incorporate storm water management early in the process instead of as an afterthought. Elements such as Eco roofs and rain gardens are being planned to attenuate and treat storm water. Sidewalk planter strips will be designed as rain gardens to treat street runoff wherever practicable, using the existing piped system to handle overflow.

Smaller redevelopment projects hold promise for greener, on-site storm water management. Rain gardens are a preferred alternative to new pipe systems, and a means to pre-treat runoff that flows to existing catch basins. The City has adopted by reference rain garden and green street standards of the City of Portland Bureau of Environmental Services.

Capital Improvement Projects are being designed with green storm water practices in mind. The majority of the City's projects are replacing utility pipes. All of those projects are done with erosion prevention measures with regular inspections for compliance. The Lake Road Street Improvement Project, currently under construction, includes green storm water treatment facilities. The Jackson Street Streetscape Project also incorporated green storm water treatment facilities and was completed in FY 2010-2011. The Storm Capital Project budget includes an update to the Stormwater Master Plan. The Master Plan will incorporate CIP projects for water quality and pretreatment of UIC's.

The City of Milwaukie lies entirely within the UGB. City expansion is planned for certain areas within the UGB but currently unincorporated. The City constructed a sanitary sewer system within or near the Johnson Creek floodplain that is currently under the authority of Clackamas County. The City annexed the right of way from Clackamas County to provide an opportunity for individual properties to annex to the City and connect to the sewer system. During fiscal year 2010-2011, six properties in this area connected to City sewer.

Table 4-1 Environmental Monitoring Results—Minthorn Springs Creek at Harmony Road						
ML_65015_C & ML_65015_G					Limits	
Sample Date	**11/9/2010**	**11/30/2010**	**1/13/2011**	**7/20/2011**	**S>E**	**Else**
	mg/l	**mg/l**	**mg/l**	**mg/l**	***mg/l***	***mg/l***
COLILERT	1203	576	248	2419		
HARDNESS	25	70	68	89		
NITRATE-NITRITE	0.16	0.21	0.55	0.16		
ORTHOPHOSPHATE	0.04	0.02	0.02	<0.10		
TOTAL PHOSPHATE	0.12	<0.08	0.07	0.13		
COPPER	0.004	0.0035	0.00341	0.0018		
LEAD	0.00133	0.00116	0.00152	0.076		
ZINC	0.030	0.028	0.0239	0.0074		
TSS	82	<1	98	129		
AMMONIA	<0.05	<0.05	<0.05	<0.05		
Field Test						
Temperature	9.5C	7.5C	8.9	17.5		
pH	6.9	6.6	7.2	7.3		
DO-mg/l	10.7	9.0	8.6	6.65		
Conductivity	55.6	78.6	132.2	178.1		

S>E=To to period between spawning to emergence of fry.
N.M.= No measurable amount
Else= Time period other than S>E
? = Parameters not set at this time
* = Hardness Dependant

Table 4-2 Environmental Monitoring Results—Roswell Outfall to Johnson Creek					
ML_23003_C				Limits	
Sample Date	**11/9/2010**	**11/30/2010**	**3/16/2011**	**S>E**	**Else**
	mg/l	**mg/l**	**mg/l**	***mg/l***	***mg/l***
COLILERT	>2419	3873	613		
HARDNESS	11	16	19		
NITRATE-NITRITE	<0.09	0.09	<0.45		
ORTHOPHOSPHATE	0.09	0.03	<0.01		
TOTAL PHOSPHATE	0.22	0.11	<0.04		
COPPER	0.0058	0.0058	0.0036		
LEAD	0.00340	0.00307	0.00188		
ZINC	0.033	0.037	0.024		
TSS	16	35	6.5		
AMMONIA	<0.05	<0.05	<0.05		
Field Test					
Temperature	10.6	8.7	8.5		
pH	7.2	6.9	7.0		
DO-mg/l	10.2	8.9	7.5		
Conductivity	22.7	26.6	25.1		

S>E=To to period between spawning to emergence of fry.
N.M.= No measurable amount
Else= Time period other than S>E
? = Parameters not set at this time
* = Hardness Dependant

Table 4-3
USGS 14211550 Johnson Creek at Milwaukie, OR
Location: Lat 45 degrees 27'11", Long 122 Degrees 38' 31", in NE ¼ SE ¼ SEC. 26, T. 1 S., R 1 E.
Clackamas County, Hydrologic Unit 17090012, on the right bank upstream side of the Millport Rd. Bridge,
In the city limits of Milwaukie, at mile 0.7

Date	Dis-charge, ft3/s, (Mean)	Gage height, feet, (Mean)	Temper-ature, water, deg C, (Maximum)	Temper-ature, water, deg C, (Minimum)	Temper-ature, water, deg C, (Mean)
07/01/2010	23[A]	24.12[A]	18.1[A]	16.3[A]	17.3[A]
07/02/2010	31[A]	24.22[A]	17.6[A]	15.6[A]	16.5[A]
07/03/2010	29[A]	24.20[A]	19.2[A]	15.0[A]	16.9[A]
07/04/2010	24[A]	24.14[A]	17.5[A]	15.4[A]	16.5[A]
07/05/2010	22[A]	24.12[A]	17.7[A]	14.7[A]	16.0[A]
07/06/2010	22[A]	24.12[A]	20.9[A]	14.6[A]	17.6[A]
07/07/2010	21[A]	24.10[A]	23.1[A]	17.0[A]	20.0[A]
07/08/2010	20[A]	24.08[A]	24.7[A]	19.0[A]	21.7[A]
07/09/2010	20[A]	24.08[A]	24.7[A]	19.6[A]	22.1[A]
07/10/2010	19[A]	24.07[A]	24.3[A]	19.6[A]	21.9[A]
07/11/2010	18[A]	24.07[A]	24.0[A]	19.6[A]	21.6[A]
07/12/2010	19[A]	24.07[A]	21.2[A]	17.7[A]	19.0[A]
07/13/2010	19[A]	24.08[A]	19.5[A]	15.8[A]	17.6[A]
07/14/2010	18[A]	24.06[A]	21.7[A]	15.8[A]	18.7[A]
07/15/2010	18[A]	24.06[A]	22.8[A]	17.4[A]	20.1[A]
07/16/2010	18[A]	24.06[A]	21.9[A]	17.3[A]	19.6[A]
07/17/2010	18[A]	24.06[A]	20.4[A]	16.6[A]	18.5[A]
07/18/2010	17[A]	24.05[A]	19.9[A]	16.4[A]	18.1[A]
07/19/2010	18[A]	24.06[A]	19.4[A]	15.9[A]	17.5[A]
07/20/2010	18[A]	24.06[A]	18.4[A]	16.0[A]	17.1[A]
07/21/2010	18[A]	24.06[A]	20.2[A]	15.7[A]	17.8[A]
07/22/2010	17[A]	24.05[A]	20.9[A]	16.7[A]	18.7[A]
07/23/2010	17[A]	24.05[A]	21.1[A]	16.4[A]	18.6[A]
07/24/2010	16[A]	24.04[A]	23.2[A]	17.4[A]	20.2[A]

07/25/2010	17[A]	24.04[A]	23.5[A]	18.2[A]	20.9[A]
07/26/2010	16[A]	24.03[A]	23.5[A]	18.3[A]	21.0[A]
07/27/2010	16[A]	24.03[A]	23.1[A]	18.1[A]	20.7[A]
07/28/2010	16[A]	24.04[A]	20.7[A]	17.8[A]	19.4[A]
07/29/2010	16[A]	24.04[A]	21.4[A]	16.9[A]	19.1[A]
07/30/2010	16[A]	24.03[A]	21.7[A]	17.3[A]	19.5[A]
07/31/2010	16[A]	24.03[A]	19.8[A]	17.1[A]	18.3[A]
08/01/2010	16[A]	24.04[A]	20.9[A]	16.6[A]	18.7[A]
08/02/2010	17[A]	24.04[A]	21.7[A]	17.1[A]	19.4[A]
08/03/2010	15[A]	24.02[A]	21.2[A]	17.4[A]	19.2[A]
08/04/2010	16[A]	24.04[A]	20.2[A]	17.4[A]	18.7[A]
08/05/2010	17[A]	24.04[A]	22.3[A]	17.6[A]	19.9[A]
08/06/2010	16[A]	24.03[A]	21.9[A]	17.7[A]	19.8[A]
08/07/2010	16[A]	24.04[A]	21.1[A]	17.8[A]	19.3[A]
08/08/2010	16[A]	24.04[A]	20.9[A]	17.8[A]	19.2[A]
08/09/2010	16[A]	24.03[A]	19.2[A]	16.6[A]	17.9[A]
08/10/2010	16[A]	24.03[A]	19.3[A]	16.4[A]	17.7[A]
08/11/2010	16[A]	24.03[A]	20.5[A]	16.5[A]	18.4[A]
08/12/2010	16[A]	24.03[A]	21.8[A]	16.8[A]	19.2[A]
08/13/2010	16[A]	24.03[A]	22.3[A]	17.6[A]	19.9[A]
08/14/2010	15[A]	24.01[A]	22.9[A]	18.0[A]	20.4[A]
08/15/2010	14[A]	24.01[A]	23.4[A]	18.5[A]	21.0[A]
08/16/2010	16[A]	24.03[A]	23.3[A]	18.5[A]	20.9[A]
08/17/2010	15[A]	24.01[A]	22.6[A]	18.9[A]	20.7[A]
08/18/2010	15[A]	24.01[A]	20.9[A]	17.8[A]	19.2[A]
08/19/2010	16[A]	24.03[A]	19.2[A]	17.1[A]	18.0[A]
08/20/2010	15[A]	24.02[A]	19.5[A]	15.0[A]	17.2[A]
08/21/2010	15[A]	24.01[A]	18.5[A]	15.2[A]	16.8[A]
08/22/2010	15[A]	24.01[A]	18.3[A]	15.6[A]	16.8[A]
08/23/2010	15[A]	24.01[A]	19.5[A]	14.6[A]	16.9[A]
08/24/2010	15[A]	24.02[A]	20.7[A]	15.5[A]	18.1[A]
08/25/2010	15[A]	24.02[A]	21.9[A]	17.1[A]	19.4[A]
08/26/2010	16[A]	24.03[A]	19.8[A]	16.7[A]	18.2[A]
08/27/2010	15[A]	24.02[A]	19.1[A]	15.2[A]	17.0[A]
08/28/2010	16[A]	24.02[A]	19.0[A]	15.0[A]	16.9[A]
08/29/2010	16[A]	24.03[A]	17.3[A]	14.8[A]	16.2[A]

08/30/2010	16[A]	24.03[A]	17.5[A]	15.0[A]	16.2[A]
08/31/2010	16[A]	24.03[A]	16.2[A]	14.6[A]	15.4[A]
09/01/2010	19[A]	24.08[A]	17.6[A]	15.2[A]	16.2[A]
09/02/2010	22[A]	24.11[A]	19.3[A]	15.1[A]	17.2[A]
09/03/2010	18[A]	24.06[A]	20.7[A]	16.3[A]	18.4[A]
09/04/2010	16[A]	24.03[A]	18.8[A]	16.3[A]	17.4[A]
09/05/2010	16[A]	24.03[A]	17.3[A]	15.1[A]	16.1[A]
09/06/2010	16[A]	24.03[A]	18.1[A]	13.6[A]	15.8[A]
09/07/2010	26[A]	24.14[A]	17.6[A]	15.6[A]	16.4[A]
09/08/2010	36[A]	24.27[A]	17.0[A]	15.4[A]	16.3[A]
09/09/2010	20[A]	24.09[A]	17.1[A]	15.4[A]	16.1[A]
09/10/2010	19[A]	24.07[A]	17.0[A]	14.7[A]	15.8[A]
09/11/2010	18[A]	24.07[A]	17.7[A]	14.4[A]	15.8[A]
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09/14/2010	17[A]	24.05[A]	17.9[A]	15.9[A]	16.8[A]
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09/19/2010	77[A]	24.64[A]	18.1[A]	16.9[A]	17.5[A]
09/20/2010	37[A]	24.29[A]	17.1[A]	16.0[A]	16.5[A]
09/21/2010	26[A]	24.16[A]	17.3[A]	14.9[A]	16.0[A]
09/22/2010	23[A]	24.12[A]	17.3[A]	14.7[A]	15.9[A]
09/23/2010	21[A]	24.10[A]	15.6[A]	14.4[A]	14.8[A]
09/24/2010	23[A]	24.12[A]	16.9[A]	13.7[A]	15.2[A]
09/25/2010	20[A]	24.09[A]	17.8[A]	14.0[A]	16.0[A]
09/26/2010	20[A]	24.09[A]	16.7[A]	15.7[A]	16.2[A]
09/27/2010	23[A]	24.13[A]	19.3[A]	15.8[A]	17.4[A]
09/28/2010	21[A]	24.10[A]	19.5[A]	17.1[A]	18.2[A]
09/29/2010	20[A]	[P]	18.6[A]	17.3[A]	17.3[A]
09/30/2010	18[A]	24.07[A]	18.8[A]	15.1[A]	16.9[A]
10/01/2010	17[A]	24.05[A]	17.3[P]	15.7[P]	16.5[P]
10/02/2010	18[A]	24.06[A]	17.3[P]	15.6[P]	16.3[P]
10/03/2010	18[A]	24.05[A]	16.1[P]	15.1[P]	15.5[P]
10/04/2010	17[A]	24.04[A]	15.3[P]	13.9[P]	14.5[P]

10/05/2010	16[A]	24.03[A]	15.8[P]	13.1[P]	14.3[P]
10/06/2010	17[A]	24.04[A]	16.3[P]	12.8[P]	14.4[P]
10/07/2010	16[A]	24.04[A]	15.2[P]	14.1[P]	14.7[P]
10/08/2010	16[A]	24.03[A]	16.1[P]	14.1[P]	15.0[P]
10/09/2010	39[A]	24.29[A]	15.9[P]	14.7[P]	15.3[P]
10/10/2010	153[A]	25.15[A]	16.5[P]	14.8[P]	15.7[P]
10/11/2010	53[A]	24.44[A]	14.8[P]	13.1[P]	13.9[P]
10/12/2010	30[A]	24.21[A]	14.1[P]	11.8[P]	13.0[P]
10/13/2010	24[A]	24.14[A]	14.6[P]	11.9[P]	13.2[P]
10/14/2010	22[A]	24.11[A]	14.4[P]	11.7[P]	13.1[P]
10/15/2010	20[A]	24.09[A]	13.6[P]	11.8[P]	12.7[P]
10/16/2010	19[A]	24.08[A]	13.0[P]	10.8[P]	11.9[P]
10/17/2010	19[A]	24.07[A]	12.6[P]	10.2[P]	11.4[P]
10/18/2010	18[A]	24.06[A]	12.8[P]	10.1[P]	11.4[P]
10/19/2010	18[A]	24.06[A]	13.5[P]	10.7[P]	12.0[P]
10/20/2010	18[A]	24.06[A]	14.1[P]	11.4[P]	12.7[P]
10/21/2010	17[A]	24.04[A]	13.3[P]	11.3[P]	12.4[P]
10/22/2010	17[A]	24.04[A]	14.2[P]	12.5[P]	13.2[P]
10/23/2010	21[A]	24.09[A]	13.7[P]	12.6[P]	13.1[P]
10/24/2010	188[A]	25.35[A]	12.7[P]	11.2[P]	12.0[P]
10/25/2010	129[A]	25.02[A]	11.8[P]	10.7[P]	11.1[P]
10/26/2010	70[A]	24.59[A]	10.9[P]	10.2[P]	10.5[P]
10/27/2010	41[A]	24.33[A]	11.2[P]	9.6[P]	10.5[P]
10/28/2010	41[A]	24.33[A]	11.7[P]	10.8[P]	11.2[P]
10/29/2010	56[A]	24.47[A]	12.5[P]	11.0[P]	11.6[P]
10/30/2010	44[A]	24.36[A]	11.5[P]	10.6[P]	11.0[P]
10/31/2010	125[A]	25.00[A]	11.7[P]	10.8[P]	11.3[P]
11/01/2010	78[A]	24.65[A]	14.3[P]	11.6[P]	12.5[P]
11/02/2010	152[A]	25.18[A]	13.7[P]	12.9[P]	13.3[P]
11/03/2010	69[A]	24.59[A]	13.6[P]	12.4[P]	12.9[P]
11/04/2010	50[A]	24.42[A]	13.3[P]	11.8[P]	12.6[P]
11/05/2010	42[A]	24.34[A]	12.9[P]	11.6[P]	12.3[P]
11/06/2010	50[A]	24.41[A]	12.9[P]	12.0[P]	12.4[P]
11/07/2010	186[A]	25.39[A]	12.8[P]	11.7[P]	12.3[P]
11/08/2010	110[A]	24.91[A]	11.7[P]	10.5[P]	11.2[P]
11/09/2010	137[A]	25.08[A]	10.5[P]	9.8[P]	10.1[P]

11/10/2010	213[A]	25.55[A]	10.4[P]	9.6[P]	9.9[P]
11/11/2010	108[A]	24.88[A]	10.0[P]	9.3[P]	9.6[P]
11/12/2010	82[A]	24.69[A]	10.5[P]	9.4[P]	9.9[P]
11/13/2010	70[A]	24.59[A]	9.8[P]	9.4[P]	9.6[P]
11/14/2010	198[A]	25.46[A]	11.1[P]	9.7[P]	10.5[P]
11/15/2010	153[A]	25.19[A]	12.1[P]	11.1[P]	11.7[P]
11/16/2010	118[A]	24.96[A]	12.1[P]	11.2[P]	11.6[P]
11/17/2010	136[A]	25.05[A]	11.2[P]	9.5[P]	10.6[P]
11/18/2010	618[A]	27.27[A]	9.5[P]	8.8[P]	9.1[P]
11/19/2010	218[A]	25.59[A]	9.3[P]	8.9[P]	9.1[P]
11/20/2010	174[A]	25.34[A]	9.3[P]	8.5[P]	8.9[P]
11/21/2010	129[A]	25.05[A]	8.5[P]	7.3[P]	7.7[P]
11/22/2010	167[A]	25.29[A]	7.5[P]	7.0[P]	7.3[P]
11/23/2010	182[A]	25.38[A]	7.0[P]	4.6[P]	5.8[P]
11/24/2010	110[A]	24.91[A]	4.6[P]	4.0[P]	4.4[P]
11/25/2010	86[A]	24.73[A]	6.1[P]	4.6[P]	5.4[P]
11/26/2010	82[A]	24.70[A]	7.3[P]	5.8[P]	6.6[P]
11/27/2010	118[A]	24.97[A]	7.7[P]	6.9[P]	7.3[P]
11/28/2010	95[A]	24.80[A]	8.0[P]	7.3[P]	7.6[P]
11/29/2010	80[P]	24.68[P]	8.1[P]	7.1[P]	7.6[P]
11/30/2010	145[P]	25.13[P]	8.0[P]	7.2[P]	7.6[P]
12/01/2010	260[P]	25.82[P]	8.7[P]	8.0[P]	8.4[P]
12/02/2010	183[P]	25.39[P]	8.9[P]	8.6[P]	8.7[P]
12/03/2010	124[P]	25.01[P]	8.7[P]	7.2[P]	8.2[P]
12/04/2010	95[P]	24.80[P]	7.2[P]	6.1[P]	6.7[P]
12/05/2010	75[P]	24.65[P]	6.7[P]	5.8[P]	6.2[P]
12/06/2010	80[P]	24.68[P]	6.6[P]	5.6[P]	6.1[P]
12/07/2010	73[P]	24.63[P]	7.0[P]	6.5[P]	6.7[P]
12/08/2010	162[P]	25.25[P]	8.5[P]	6.8[P]	7.7[P]
12/09/2010	609[P]	27.19[P]	9.2[P]	8.5[P]	8.8[P]
12/10/2010	714[P]	27.57[P]	9.0[P]	8.5[P]	8.7[P]
12/11/2010	587[P]	27.09[P]	8.6[P]	8.0[P]	8.3[P]
12/12/2010	485[P]	26.76[P]	10.7[P]	8.5[P]	9.9[P]
12/13/2010	260[P]	25.82[P]	11.1[P]	10.6[P]	10.9[P]
12/14/2010	561[P]	27.08[P]	11.0[P]	8.7[P]	9.7[P]
12/15/2010	434[P]	26.60[P]	8.8[P]	8.4[P]	8.6[P]

12/16/2010	213[P]	25.57[P]	8.8[P]	7.7[P]	8.3[P]
12/17/2010	146[P]	25.16[P]	7.7[P]	6.6[P]	7.2[P]
12/18/2010	133[P]	25.08[P]	7.4[P]	6.3[P]	6.9[P]
12/19/2010	112[P]	24.93[P]	7.2[P]	6.4[P]	6.8[P]
12/20/2010	150[P]	25.19[P]	6.8[P]	6.2[P]	6.5[P]
12/21/2010	120[P]	24.98[P]	7.0[P]	6.6[P]	6.8[P]
12/22/2010	99[P]	24.83[P]	7.9[P]	6.8[P]	7.3[P]
12/23/2010	84[P]	24.72[P]	7.9[P]	7.2[P]	7.5[P]
12/24/2010	73[P]	24.63[P]	7.6[P]	7.1[P]	7.4[P]
12/25/2010	70[P]	24.61[P]	8.4[P]	7.2[P]	7.7[P]
12/26/2010	93[P]	24.78[P]	8.0[P]	7.1[P]	7.6[P]
12/27/2010	124[P]	25.01[P]	7.8[P]	7.0[P]	7.4[P]
12/28/2010	569[P]	27.04[P]	8.4[P]	7.7[P]	8.1[P]
12/29/2010	726[P]	27.64[P]	8.0[P]	6.9[P]	7.2[P]
12/30/2010	271[P]	25.87[P]	6.9[P]	6.0[P]	6.6[P]
12/31/2010	165[P]	25.28[P]	6.0[P]	4.1[P]	5.1[P]
01/01/2011	119[P]	24.98[P]	4.1[P]	3.6[P]	3.8[P]
01/02/2011	94[P]	24.80[P]	3.8[P]	2.8[P]	3.4[P]
01/03/2011	76[P]	24.66[P]	3.1[P]	2.2[P]	2.7[P]
01/04/2011	65[P]	24.56[P]	3.7[P]	2.3[P]	3.0[P]
01/05/2011	65[P]	24.56[P]	5.3[P]	3.7[P]	4.6[P]
01/06/2011	64[P]	24.55[P]	7.0[P]	5.3[P]	6.2[P]
01/07/2011	60[P]	24.52[P]	7.8[P]	6.7[P]	7.2[P]
01/08/2011	73[P]	24.63[P]	6.9[P]	5.9[P]	6.3[P]
01/09/2011	66[P]	24.57[P]	6.5[P]	5.8[P]	6.1[P]
01/10/2011	61[P]	24.53[P]	6.1[P]	4.1[P]	5.5[P]
01/11/2011	54[P]	24.46[P]	4.1[P]	3.3[P]	3.6[P]
01/12/2011	90[P]	24.76[P]	6.0[P]	3.4[P]	4.9[P]
01/13/2011	216[P]	25.58[P]	8.5[P]	6.0[P]	7.6[P]
01/14/2011	145[P]	25.15[P]	9.7[P]	8.5[P]	9.2[P]
01/15/2011	201[P]	25.42[P]	10.3[P]	9.5[P]	9.8[P]
01/16/2011	735[P]	27.70[P]	10.3[P]	9.8[P]	10.1[P]
01/17/2011	615[P]	27.28[P]	10.0[P]	9.2[P]	9.6[P]
01/18/2011	338[P]	26.19[P]	9.2[P]	8.3[P]	8.8[P]
01/19/2011	322[P]	26.11[P]	8.3[P]	7.5[P]	7.8[P]
01/20/2011	182[P]	25.39[P]	7.5[P]	7.0[P]	7.1[P]

01/21/2011	263[P]	25.80[P]	7.9[P]	7.2[P]	7.5[P]
01/22/2011	210[P]	25.55[P]	8.4[P]	7.4[P]	8.0[P]
01/23/2011	148[P]	25.17[P]	7.9[P]	7.3[P]	7.5[P]
01/24/2011	118[P]	24.97[P]	8.8[P]	7.9[P]	8.3[P]
01/25/2011	96[P]	24.81[P]	9.4[P]	8.3[P]	8.7[P]
01/26/2011	81[P]	24.70[P]	8.7[P]	7.8[P]	8.2[P]
01/27/2011	71[P]	24.61[P]	8.7[P]	7.4[P]	7.9[P]
01/28/2011	65[P]	24.56[P]	9.1[P]	7.1[P]	8.1[P]
01/29/2011	62[P]	24.54[P]	10.0[P]	8.7[P]	9.2[P]
01/30/2011	55[P]	24.48[P]	9.8[P]	8.6[P]	9.1[P]
01/31/2011	49[P]	24.42[P]	9.0[P]	6.7[P]	8.1[P]
02/01/2011	44[P]	24.37[P]	6.7[P]	4.3[P]	5.5[P]
02/02/2011	41[P]	24.34[P]	5.1[P]	3.2[P]	4.2[P]
02/03/2011	40[P]	24.33[P]	6.8[P]	4.2[P]	5.4[P]
02/04/2011	37[P]	24.31[P]	8.0[P]	6.3[P]	7.1[P]
02/05/2011	37[P]	24.30[P]	9.3[P]	7.9[P]	8.6[P]
02/06/2011	43[P]	24.36[P]	10.4[P]	8.8[P]	9.6[P]
02/07/2011	58[P]	24.50[P]	9.8[P]	8.6[P]	9.2[P]
02/08/2011	57[P]	24.50[P]	9.0[P]	7.4[P]	8.4[P]
02/09/2011	50[P]	24.43[P]	7.9[P]	6.1[P]	7.0[P]
02/10/2011	46[P]	24.39[P]	7.4[P]	5.2[P]	6.3[P]
02/11/2011	44[P]	24.37[P]	P	P	P
02/12/2011	50[P]	24.42[P]	P	P	P
02/13/2011	85[P]	24.72[P]	P	P	P
02/14/2011	87[P]	24.73[P]	P	P	P
02/15/2011	295[P]	25.99[P]	7.8[P]	7.0[P]	7.3[P]
02/16/2011	220[P]	25.61[P]	7.0[P]	6.3[P]	6.6[P]
02/17/2011	178[P]	25.36[P]	7.1[P]	6.1[P]	6.6[P]
02/18/2011	130[P]	25.06[P]	7.1[P]	6.1[P]	6.6[P]
02/19/2011	108[P]	24.90[P]	7.4[P]	5.9[P]	6.5[P]
02/20/2011	86[P]	24.73[P]	6.9[P]	5.3[P]	6.1[P]
02/21/2011	74[P]	24.64[P]	7.9[P]	6.0[P]	6.9[P]
02/22/2011	69[P]	24.60[P]	8.0[P]	6.3[P]	7.0[P]
02/23/2011	65[P]	24.56[P]	7.1[P]	5.9[P]	6.4[P]
02/24/2011	70[P]	24.61[P]	6.6[P]	4.6[P]	5.6[P]
02/25/2011	62[P]	24.54[P]	5.2[P]	2.8[P]	4.0[P]

02/26/2011	54[P]	24.46[P]	3.9[P]	1.8[P]	2.9[P]
02/27/2011	52[P]	24.45[P]	5.9[P]	3.4[P]	4.6[P]
02/28/2011	394[P]	26.27[P]	5.7[P]	4.5[P]	5.0[P]
03/01/2011	792[P]	27.91[P]	6.0[P]	4.4[P]	5.0[P]
03/02/2011	366[P]	26.32[P]	7.1[P]	6.0[P]	6.6[P]
03/03/2011	242[P]	25.73[P]	7.3[P]	6.4[P]	6.9[P]
03/04/2011	201[P]	25.50[P]	7.4[P]	6.7[P]	7.0[P]
03/05/2011	208[P]	25.54[P]	8.4[P]	7.3[P]	7.8[P]
03/06/2011	150[P]	25.19[P]	8.1[P]	7.0[P]	7.7[P]
03/07/2011	121[P]	24.99[P]	8.0[P]	6.4[P]	7.2[P]
03/08/2011	111[P]	24.92[P]	9.4[P]	7.2[P]	8.2[P]
03/09/2011	147[P]	25.16[P]	9.8[P]	8.8[P]	9.3[P]
03/10/2011	575[P]	27.11[P]	9.5[P]	8.3[P]	8.8[P]
03/11/2011	264[P]	25.84[P]	8.8[P]	7.5[P]	8.2[P]
03/12/2011	188[P]	25.43[P]	8.9[P]	8.3[P]	8.5[P]
03/13/2011	203[P]	25.49[P]	9.3[P]	8.5[P]	8.7[P]
03/14/2011	280[P]	25.92[P]	9.0[P]	7.9[P]	8.5[P]
03/15/2011	396[P]	26.36[P]	9.2[P]	8.3[P]	8.9[P]
03/16/2011	474[P]	26.79[P]	8.3[P]	7.6[P]	7.8[P]
03/17/2011	409[P]	26.51[P]	8.3[P]	7.2[P]	7.7[P]
03/18/2011	247[P]	25.76[P]	8.3[P]	8.0[P]	8.1[P]
03/19/2011	192[P]	25.45[P]	8.7[P]	7.0[P]	7.9[P]
03/20/2011	156[P]	25.22[P]	8.6[P]	7.5[P]	8.0[P]
03/21/2011	134[P]	25.08[P]	9.7[P]	8.3[P]	8.8[P]
03/22/2011	112[P]	24.93[P]	9.7[P]	8.1[P]	8.8[P]
03/23/2011	99[P]	24.83[P]	9.8[P]	7.4[P]	8.6[P]
03/24/2011	133[P]	25.07[P]	9.3[P]	8.1[P]	8.6[P]
03/25/2011	134[P]	25.08[P]	9.0[P]	7.5[P]	8.2[P]
03/26/2011	159[P]	25.24[P]	9.3[P]	8.0[P]	8.6[P]
03/27/2011	149[P]	25.17[P]	9.3[P]	8.3[P]	8.7[P]
03/28/2011	145[P]	25.15[P]	9.9[P]	8.1[P]	8.9[P]
03/29/2011	204[P]	25.48[P]	9.7[P]	9.0[P]	9.3[P]
03/30/2011	269[P]	25.86[P]	10.4[P]	9.4[P]	9.8[P]
03/31/2011	169[P]	25.30[P]	11.9[P]	10.1[P]	10.7[P]
04/01/2011	132[P]	25.07[P]	13.0[P]	10.4[P]	11.4[P]
04/02/2011	178[P]	25.36[P]	11.5[P]	9.8[P]	10.7[P]

04/03/2011	134[P]	25.08[P]	10.2[P]	8.9[P]	9.6[P]
04/04/2011	152[P]	25.18[P]	10.0[P]	9.3[P]	9.6[P]
04/05/2011	237[P]	25.69[P]	10.3[P]	8.9[P]	9.5[P]
04/06/2011	190[P]	25.43[P]	9.7[P]	8.7[P]	9.2[P]
04/07/2011	167[P]	25.29[P]	9.5[P]	8.1[P]	8.7[P]
04/08/2011	131[P]	25.06[P]	10.9[P]	7.4[P]	9.0[P]
04/09/2011	106[P]	24.88[P]	11.5[P]	9.1[P]	10.1[P]
04/10/2011	98[P]	24.82[P]	11.0[P]	9.7[P]	10.3[P]
04/11/2011	133[P]	25.07[P]	11.1[P]	9.4[P]	10.2[P]
04/12/2011	97[P]	24.82[P]	11.9[P]	8.8[P]	10.2[P]
04/13/2011	88[P]	24.75[P]	11.2[P]	9.7[P]	10.3[P]
04/14/2011	164[P]	25.26[P]	9.8[P]	8.6[P]	9.3[P]
04/15/2011	545[P]	27.06[P]	9.8[P]	8.7[P]	9.1[P]
04/16/2011	450[P]	26.65[P]	10.1[P]	9.7[P]	9.9[P]
04/17/2011	218[P]	25.60[P]	10.4[P]	8.7[P]	9.6[P]
04/18/2011	150[P]	25.19[P]	10.4[P]	8.6[P]	9.5[P]
04/19/2011	115[P]	24.95[P]	12.0[P]	8.5[P]	10.0[P]
04/20/2011	95[P]	24.80[P]	11.8[P]	9.3[P]	10.4[P]
04/21/2011	86[P]	24.74[P]	11.6[P]	9.5[P]	10.4[P]
04/22/2011	80[P]	24.69[P]	13.3[P]	8.8[P]	10.8[P]
04/23/2011	67[P]	24.58[P]	15.0[P]	9.9[P]	12.2[P]
04/24/2011	67[P]	24.58[P]	13.1[P]	11.7[P]	12.3[P]
04/25/2011	175[P]	25.31[P]	11.9[P]	10.5[P]	11.1[P]
04/26/2011	123[P]	25.01[P]	12.0[P]	10.0[P]	10.9[P]
04/27/2011	98[P]	24.82[P]	12.2[P]	10.4[P]	11.1[P]
04/28/2011	93[P]	24.79[P]	11.2[P]	9.8[P]	10.5[P]
04/29/2011	108[P]	24.89[P]	11.4[P]	9.2[P]	10.1[P]
04/30/2011	81[P]	24.69[P]	12.9[P]	9.7[P]	11.1[P]
05/01/2011	71[P]	24.62[P]	14.7[P]	9.8[P]	12.1[P]
05/02/2011	64[P]	24.56[P]	14.2[P]	11.8[P]	12.8[P]
05/03/2011	58[P]	24.50[P]	14.3[P]	11.6[P]	12.8[P]
05/04/2011	52[P]	24.45[P]	16.1[P]	10.5[P]	13.2[P]
05/05/2011	49[P]	24.42[P]	14.2[P]	12.4[P]	13.2[P]
05/06/2011	52[P]	24.45[P]	13.3[P]	12.0[P]	12.7[P]
05/07/2011	60[P]	24.52[P]	13.6[P]	11.2[P]	12.3[P]
05/08/2011	70[P]	24.60[P]	13.4[P]	11.5[P]	12.4[P]

05/09/2011	103[P]	24.86[P]	12.7[P]	11.3[P]	12.0[P]
05/10/2011	72[P]	24.63[P]	15.0[P]	11.3[P]	12.8[P]
05/11/2011	71[P]	24.61[P]	13.7[P]	12.0[P]	12.9[P]
05/12/2011	80[P]	24.69[P]	15.0[P]	10.8[P]	12.8[P]
05/13/2011	60[P]	24.52[P]	15.8[P]	11.8[P]	13.7[P]
05/14/2011	55[P]	24.48[P]	15.4[P]	13.2[P]	14.2[P]
05/15/2011	133[P]	25.05[P]	13.9[P]	12.2[P]	12.8[P]
05/16/2011	116[P]	24.96[P]	13.5[P]	11.4[P]	12.4[P]
05/17/2011	87[P]	24.74[P]	14.1[P]	11.3[P]	12.6[P]
05/18/2011	72[P]	24.62[P]	16.3[P]	11.9[P]	13.9[P]
05/19/2011	60[P]	24.52[P]	17.4[P]	12.7[P]	14.9[P]
05/20/2011	52[P]	24.45[P]	18.0[P]	13.1[P]	15.5[P]
05/21/2011	48[P]	24.41[P]	16.3[P]	14.1[P]	15.2[P]
05/22/2011	45[P]	24.38[P]	14.7[P]	13.5[P]	14.0[P]
05/23/2011	43[P]	24.37[P]	15.1[P]	12.6[P]	13.8[P]
05/24/2011	42[P]	24.35[P]	17.3[P]	12.4[P]	14.7[P]
05/25/2011	44[P]	24.37[P]	15.4[P]	13.2[P]	14.3[P]
05/26/2011	48[P]	24.42[P]	14.0[P]	11.6[P]	12.9[P]
05/27/2011	72[P]	24.61[P]	13.7[P]	12.1[P]	12.9[P]
05/28/2011	74[P]	24.64[P]	15.3[P]	11.7[P]	13.2[P]
05/29/2011	52[P]	24.45[P]	13.5[P]	12.1[P]	12.6[P]
05/30/2011	48[P]	24.41[P]	15.3[P]	12.0[P]	13.5[P]
05/31/2011	44[P]	24.37[P]	15.6[P]	13.0[P]	14.1[P]
06/01/2011	60[P]	24.52[P]	15.0[P]	13.0[P]	14.0[P]
06/02/2011	51[P]	24.44[P]	15.3[P]	12.5[P]	13.9[P]
06/03/2011	46[P]	24.39[P]	18.0[P]	12.5[P]	15.2[P]
06/04/2011	39[P]	24.33[P]	19.8[P]	14.4[P]	17.0[P]
06/05/2011	36[P]	24.29[P]	19.8[P]	16.5[P]	18.1[P]
06/06/2011	38[P]	24.31[P]	18.6[P]	16.3[P]	17.4[P]
06/07/2011	37[P]	24.30[P]	16.8[P]	15.1[P]	15.9[P]
06/08/2011	34[P]	24.27[P]	15.5[P]	14.2[P]	14.9[P]
06/09/2011	32[P]	24.24[P]	19.4[P]	13.9[P]	16.4[P]
06/10/2011	30[P]	24.23[P]	17.3[P]	15.3[P]	16.0[P]
06/11/2011	30[P]	24.22[P]	18.4[P]	14.5[P]	16.1[P]
06/12/2011	29[P]	24.21[P]	17.1[P]	14.6[P]	15.9[P]
06/13/2011	31[P]	24.23[P]	17.9[P]	14.8[P]	16.3[P]

06/14/2011	29[P]	24.21[P]	17.3[P]	15.2[P]	16.1[P]
06/15/2011	28[P]	24.20[P]	16.2[P]	14.3[P]	15.2[P]
06/16/2011	28[P]	24.20[P]	17.2[P]	13.0[P]	15.0[P]
06/17/2011	26[P]	24.18[P]	19.6[P]	13.9[P]	16.6[P]
06/18/2011	29[P]	24.21[P]	17.3[P]	15.3[P]	15.9[P]
06/19/2011	37[P]	24.30[P]	16.6[P]	14.6[P]	15.5[P]
06/20/2011	31[P]	24.24[P]	18.3[P]	14.9[P]	16.4[P]
06/21/2011	28[P]	24.20[P]	20.6[P]	15.3[P]	17.8[P]
06/22/2011	26[P]	24.17[P]	18.8[P]	16.7[P]	17.7[P]
06/23/2011	25[P]	24.16[P]	17.6[P]	15.2[P]	16.4[P]
06/24/2011	24[P]	24.16[P]	17.6[P]	15.0[P]	16.2[P]
06/25/2011	24[P]	24.15[P]	19.7[P]	14.0[P]	16.7[P]
06/26/2011	23[P]	24.14[P]	19.6[P]	15.2[P]	17.4[P]
06/27/2011	24[P]	24.16[P]	19.9[P]	16.5[P]	18.1[P]
06/28/2011	25[P]	24.17[P]	18.5[P]	17.1[P]	17.7[P]
06/29/2011	25[P]	24.16[P]	17.8[P]	16.3[P]	17.1[P]
06/30/2011	25[P]	24.16[P]	16.9[P]	15.3[P]	16.1[P]

Table 4-4

Harney Raingage - 2033 SE. Harney St.

PROVISIONAL, UNCORRECTED RAW DATA FROM THE CITY OF PORTLAND HYDRA NETWORK.
Data are the number of tips of the rain gage bucket.
Each tip is 0.01 inches of rainfall.
[-, missing data]
Dates and times are PACIFIC STANDARD TIME.

Date	Daily Total	Hourly data --> 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
30-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-JUN-2011	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-JUN-2011	8	4	0	0	1	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0
27-JUN-2011	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
26-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-JUN-2011	19	0	0	0	0	0	0	0	1	2	2	4	2	1	1	0	0	6	0	0	0	0	0	0	0
17-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-JUN-2011	7	0	0	0	0	0	0	0	0	0	1	3	1	0	1	0	0	1	0	0	0	0	0	0	0
14-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-JUN-2011	21	1	1	0	0	0	2	10	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-JUN-2011	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0
11-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-JUN-2011	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
05-JUN-2011	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
04-JUN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-JUN-2011	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
02-JUN-2011	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0

01-JUN-2011	51	10	6	10	2	2	1	3	3	0	0	1	0	0	0	7	2	0	0	0	2	1	0	1	0
31-MAY-2011	20	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	16
30-MAY-2011	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
29-MAY-2011	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9	0	0	0	0
28-MAY-2011	8	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
27-MAY-2011	36	1	3	1	0	0	0	0	0	0	0	5	2	2	14	1	1	5	0	0	1	0	0	0	0
26-MAY-2011	16	0	0	0	0	0	1	3	1	0	0	0	0	4	0	0	0	2	2	0	1	0	0	2	0
25-MAY-2011	29	0	0	0	0	5	3	0	0	3	3	4	0	0	10	1	0	0	0	0	0	0	0	0	0
24-MAY-2011	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
23-MAY-2011	3	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0
22-MAY-2011	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0
21-MAY-2011	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
20-MAY-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-MAY-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-MAY-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-MAY-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-MAY-2011	5	0	2	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
15-MAY-2011	71	1	6	11	13	11	6	4	6	3	2	1	3	1	0	0	1	2	0	0	0	0	0	0	0
14-MAY-2011	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
13-MAY-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-MAY-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-MAY-2011	36	0	0	0	0	0	0	0	0	0	0	0	0	1	6	7	12	9	0	1	0	0	0	0	0
10-MAY-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09-MAY-2011	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
08-MAY-2011	23	0	4	0	1	0	0	1	1	0	0	7	0	7	0	0	0	1	0	0	0	0	0	1	0
07-MAY-2011	8	0	0	0	0	0	1	0	0	0	0	2	0	0	0	1	1	1	1	0	0	0	1	0	0
06-MAY-2011	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	8	5	7	1	0	0	0	0
05-MAY-2011	3	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04-MAY-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-MAY-2011	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-MAY-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-MAY-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-APR-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-APR-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-APR-2011	17	0	0	0	0	0	0	0	0	0	0	0	1	2	3	6	2	0	1	1	1	0	0	0	0
27-APR-2011	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0
26-APR-2011	11	5	2	1	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0
25-APR-2011	66	7	4	2	8	8	6	21	7	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1
24-APR-2011	23	0	0	3	1	1	1	1	1	0	0	1	0	1	0	0	7	0	0	0	0	1	0	1	4
23-APR-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-APR-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-APR-2011	14	0	0	0	0	0	0	0	0	0	0	0	0	8	4	1	1	0	0	0	0	0	0	0	0
20-APR-2011	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0

19-APR-2011	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-APR-2011	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
17-APR-2011	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
16-APR-2011	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-APR-2011	87	7	2	0	2	2	2	2	2	6	5	4	4	7	7	8	7	7	4	3	3	2	0	1	0
14-APR-2011	114	1	2	5	4	9	19	9	5	0	0	0	0	1	4	7	0	1	2	12	9	4	6	5	9
13-APR-2011	9	0	0	0	0	0	0	1	1	1	1	0	0	0	4	0	1	0	0	0	0	0	0	0	0
12-APR-2011	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11-APR-2011	9	4	1	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0
10-APR-2011	45	0	4	5	6	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	4	6	5	6	4
09-APR-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-APR-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-APR-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-APR-2011	21	1	8	0	3	0	0	0	0	0	2	5	0	0	0	1	1	0	0	0	0	0	0	0	0
05-APR-2011	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04-APR-2011	69	0	0	0	0	1	3	2	4	6	4	8	3	1	1	3	3	7	10	9	3	1	0	0	0
03-APR-2011	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
02-APR-2011	11	3	1	0	0	0	0	0	2	0	0	1	0	3	0	1	0	0	0	0	0	0	0	0	0
01-APR-2011	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	14	5	5
31-MAR-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-MAR-2011	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-MAR-2011	62	3	0	1	0	0	0	0	0	0	0	0	7	11	4	1	6	6	5	2	3	3	3	7	0
28-MAR-2011	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	2	1
27-MAR-2011	12	1	0	0	0	0	0	1	1	0	1	3	1	3	0	0	1	0	0	0	0	0	0	0	0
26-MAR-2011	40	0	3	7	11	6	0	1	0	0	0	0	0	2	0	0	0	4	1	2	1	2	0	0	0
25-MAR-2011	8	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3	0	1	0	0	1	0	0
24-MAR-2011	18	1	0	1	0	0	0	0	1	0	0	0	0	1	0	3	10	1	0	0	0	0	0	0	0
23-MAR-2011	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	13	7	0	0	0
22-MAR-2011	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
21-MAR-2011	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0
20-MAR-2011	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-MAR-2011	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
18-MAR-2011	15	0	0	0	0	1	0	3	2	3	0	0	0	0	0	0	0	0	4	0	0	1	1	0	0
17-MAR-2011	29	0	0	0	1	0	0	0	0	2	2	1	1	0	0	5	0	10	6	1	0	0	0	0	0
16-MAR-2011	54	0	0	0	2	1	1	2	1	0	1	0	2	2	0	0	1	7	1	14	4	2	2	6	5
15-MAR-2011	78	6	2	2	4	2	2	0	0	0	2	2	1	12	11	3	19	4	0	0	0	5	1	0	0
14-MAR-2011	28	0	3	3	9	3	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7
13-MAR-2011	71	0	0	0	1	1	1	2	3	2	4	3	4	0	0	22	12	1	0	7	8	0	0	0	0
12-MAR-2011	25	0	0	0	0	0	0	0	2	3	5	10	4	1	0	0	0	0	0	0	0	0	0	0	0
11-MAR-2011	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-MAR-2011	97	5	13	16	13	26	14	3	0	0	1	1	1	3	1	0	0	0	0	0	0	0	0	0	0
09-MAR-2011	59	0	0	2	1	1	2	0	0	1	0	0	5	2	2	0	0	5	5	8	9	4	1	5	6
08-MAR-2011	17	1	3	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3

07-MAR-2011	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	1
06-MAR-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-MAR-2011	7	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
04-MAR-2011	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	16	3	1	6	2	0	1
03-MAR-2011	26	0	0	0	0	0	1	0	4	0	7	1	0	1	0	0	1	8	2	1	0	0	0	0	0
02-MAR-2011	19	0	0	1	1	1	2	3	1	0	0	0	3	5	1	0	0	0	0	0	0	0	0	1	0
01-MAR-2011	69	5	9	6	4	7	10	6	7	6	6	0	1	1	1	0	0	0	0	0	0	0	0	0	0
28-FEB-2011	233	11	24	20	4	2	1	28	23	25	9	11	5	6	9	7	5	10	6	4	4	2	7	6	4
27-FEB-2011	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	1	1	1	1	5
26-FEB-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-FEB-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-FEB-2011	13	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	4	1	0	0	0	0	0	0	0
23-FEB-2011	12	0	0	0	0	1	1	0	0	0	0	0	0	0	6	0	0	0	0	0	1	2	0	0	1
22-FEB-2011	10	0	0	0	0	0	1	0	3	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0	1
21-FEB-2011	3	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
20-FEB-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-FEB-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-FEB-2011	21	0	0	0	0	0	0	0	0	1	0	0	0	2	2	0	1	5	7	3	0	0	0	0	0
17-FEB-2011	3	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-FEB-2011	35	0	0	0	0	0	2	8	6	4	0	1	0	0	0	1	3	1	0	8	0	0	1	0	0
15-FEB-2011	67	0	4	2	6	7	6	4	13	9	7	0	2	0	0	0	2	0	0	0	0	4	1	0	0
14-FEB-2011	45	0	0	0	0	0	0	0	4	3	0	0	0	3	2	0	0	12	12	5	1	0	0	0	3
13-FEB-2011	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5	1	0	0	0	0	0
12-FEB-2011	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	11	14	18	1	0	0
11-FEB-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-FEB-2011	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09-FEB-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-FEB-2011	5	0	2	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-FEB-2011	32	0	1	15	0	1	1	7	0	0	0	0	0	2	0	0	0	0	0	1	0	0	4	0	0
06-FEB-2011	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0
05-FEB-2011	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	1	1	0	0
04-FEB-2011	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
03-FEB-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-FEB-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-FEB-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-JAN-2011	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-JAN-2011	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

23-JAN-2011	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
22-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-JAN-2011	62	0	0	1	1	6	7	5	10	11	8	5	6	2	0	0	0	0	0	0	0	0	0	0	0
20-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-JAN-2011	63	0	0	0	0	0	0	4	2	4	1	1	3	8	6	3	5	8	10	6	2	0	0	0	0
17-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-JAN-2011	102	0	0	3	20	22	4	12	3	7	6	15	1	0	0	8	0	0	0	0	0	0	1	0	0
15-JAN-2011	100	0	0	0	0	0	0	0	0	0	5	2	5	15	12	10	10	13	6	8	4	3	3	0	4
14-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-JAN-2011	60	7	22	7	4	2	0	1	0	0	0	0	0	1	3	5	3	0	3	2	0	0	0	0	0
12-JAN-2011	60	8	3	7	3	3	3	2	2	1	1	1	4	6	7	1	0	0	0	1	3	3	0	1	0
11-JAN-2011	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09-JAN-2011	5	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
08-JAN-2011	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-JAN-2011	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	5	1	0	0	0	0	0
06-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-JAN-2011	26	0	0	0	0	0	0	2	4	3	3	2	2	1	2	3	2	1	0	0	1	0	0	0	0
04-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-JAN-2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-DEC-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-DEC-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-DEC-2010	17	1	0	1	0	1	0	3	0	0	1	1	0	7	2	0	0	0	0	0	0	0	0	0	0
28-DEC-2010	144	11	4	1	5	5	4	3	4	5	9	9	9	10	12	9	7	6	3	7	6	6	4	4	1
27-DEC-2010	67	4	2	2	0	0	0	3	0	0	0	0	1	2	3	4	3	5	4	6	7	7	9	2	3
26-DEC-2010	42	0	0	0	1	0	0	0	5	4	0	3	1	2	9	0	3	5	0	1	1	0	0	3	4
25-DEC-2010	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12	2	1	0	0	0
24-DEC-2010	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	0	0
23-DEC-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-DEC-2010	5	0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-DEC-2010	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-DEC-2010	38	0	2	5	8	1	1	0	3	2	6	0	3	3	0	0	0	0	0	0	0	1	0	1	2
19-DEC-2010	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	0	1	1
18-DEC-2010	41	1	7	6	10	3	2	0	2	2	0	0	0	0	0	1	0	1	0	0	0	0	5	1	0
17-DEC-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-DEC-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-DEC-2010	8	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3	0	0	0	0	0
14-DEC-2010	95	12	15	4	1	3	0	6	14	1	0	7	1	1	3	1	2	8	0	4	0	0	8	0	4
13-DEC-2010	18	1	0	0	0	0	0	0	0	0	0	1	1	7	0	0	0	0	0	0	0	0	0	1	7
12-DEC-2010	15	1	0	0	0	0	0	0	0	0	0	0	0	0	4	3	1	2	1	1	1	0	0	1	0

11-DEC-2010	115	0	0	0	0	0	2	9	10	10	9	17	16	11	20	4	1	0	2	0	0	0	1	1	2
10-DEC-2010	37	0	0	0	0	0	4	8	8	9	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0
09-DEC-2010	197	24	27	2	16	3	0	0	1	1	1	0	2	1	16	21	19	37	23	0	2	1	0	0	0
08-DEC-2010	57	3	4	3	10	3	1	0	0	1	7	0	0	0	0	0	0	4	1	0	0	0	3	12	5
07-DEC-2010	24	0	1	3	0	0	1	0	0	0	0	0	0	0	1	3	6	4	2	2	0	0	1	0	0
06-DEC-2010	7	0	0	0	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-DEC-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-DEC-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-DEC-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-DEC-2010	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-DEC-2010	35	0	0	0	1	6	15	2	4	0	0	1	2	1	1	0	2	0	0	0	0	0	0	0	0
30-NOV-2010	68	2	5	7	5	2	2	1	2	2	4	4	5	4	5	3	5	6	2	2	0	0	0	0	0
29-NOV-2010	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3	1	1	0	0
28-NOV-2010	4	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
27-NOV-2010	20	4	3	1	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-NOV-2010	22	0	0	0	0	1	2	2	1	0	0	0	1	3	5	1	0	0	0	0	0	0	2	2	2
25-NOV-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-NOV-2010	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
23-NOV-2010	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
22-NOV-2010	30	0	0	0	0	0	0	0	0	2	2	1	1	6	3	3	0	7	3	1	0	1	0	0	0
21-NOV-2010	32	1	0	0	0	0	0	0	0	0	0	0	0	0	9	10	6	0	0	0	5	0	1	0	0
20-NOV-2010	24	1	4	9	5	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-NOV-2010	15	1	0	0	0	0	0	0	0	0	0	0	0	3	1	2	6	0	0	1	0	0	1	0	0
18-NOV-2010	61	6	8	2	3	0	0	5	0	0	0	0	2	15	0	0	1	13	1	0	0	0	0	5	0
17-NOV-2010	135	0	0	0	0	0	0	0	0	0	0	0	0	3	2	3	9	13	29	13	9	16	17	12	9
16-NOV-2010	4	0	0	0	1	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
15-NOV-2010	5	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3
14-NOV-2010	18	2	4	7	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-NOV-2010	25	0	0	0	0	0	1	1	2	0	1	2	2	0	1	3	2	1	2	1	1	0	1	3	1
12-NOV-2010	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-NOV-2010	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	1	0	4	0	0	0	0	0
10-NOV-2010	5	1	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09-NOV-2010	70	0	0	0	0	0	0	0	2	2	9	5	4	2	2	11	6	2	0	0	2	1	16	5	1
08-NOV-2010	17	0	0	0	0	0	0	0	0	0	0	0	1	0	9	6	0	1	0	0	0	0	0	0	0
07-NOV-2010	27	2	2	0	0	0	0	0	0	1	0	0	0	0	8	0	6	5	0	1	2	0	0	0	0
06-NOV-2010	90	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3	10	9	13	15	13	19	3
05-NOV-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-NOV-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-NOV-2010	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-NOV-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-NOV-2010	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	9	23	9	12	5	1	0	0	0
31-OCT-2010	6	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
30-OCT-2010	51	0	0	0	0	0	0	0	0	1	0	2	1	1	1	0	0	0	0	0	0	3	13	17	12

29-OCT-2010	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-OCT-2010	39	0	0	0	0	1	2	2	2	3	1	1	1	2	1	0	0	1	3	3	1	2	2	10	1
27-OCT-2010	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-OCT-2010	9	1	5	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
25-OCT-2010	37	1	1	3	2	2	1	0	10	0	0	0	1	1	2	1	3	0	0	0	0	9	0	0	0
24-OCT-2010	161	5	2	5	1	18	21	0	12	0	6	3	9	0	16	2	0	2	3	9	30	13	1	3	0
23-OCT-2010	63	0	0	0	0	0	0	0	3	0	0	0	0	1	0	2	1	2	2	7	16	8	5	8	8
22-OCT-2010	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
21-OCT-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-OCT-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-OCT-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-OCT-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-OCT-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-OCT-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-OCT-2010	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-OCT-2010	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
13-OCT-2010	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12-OCT-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-OCT-2010	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-OCT-2010	114	0	1	12	7	14	12	20	10	13	10	13	2	0	0	0	0	0	0	0	0	0	0	0	0
09-OCT-2010	68	1	5	8	7	1	0	4	8	11	6	4	5	5	1	0	1	1	0	0	0	0	0	0	0
08-OCT-2010	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07-OCT-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-OCT-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-OCT-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-OCT-2010	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
03-OCT-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-OCT-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-OCT-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-SEP-2010	10	0	0	0	0	0	0	0	1	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0
25-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-SEP-2010	6	0	0	0	0	0	0	0	0	0	0	1	4	0	1	0	0	0	0	0	0	0	0	0	0
22-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-SEP-2010	6	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-SEP-2010	7	1	0	0	0	0	0	0	0	1	0	0	0	2	1	0	0	0	0	0	1	0	0	0	1
18-SEP-2010	86	0	0	0	0	0	0	0	0	0	0	0	0	3	2	2	2	1	5	9	1	48	5	8	0
17-SEP-2010	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	2	3	0	0	2	0	0

16-SEP-2010	20	2	2	5	1	4	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-SEP-2010	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	3	4	1	1	2	1	0
14-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-SEP-2010	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-SEP-2010	81	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	43	19	11	2	2	0	0	0
06-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-SEP-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-SEP-2010	5	0	1	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
31-AUG-2010	16	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	2	2	1	1	1	2	1	2
30-AUG-2010	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
29-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

04-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-AUG-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-JUL-2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-JUL-2010	17	0	0	0	2	0	2	0	0	3	1	0	0	0	0	0	0	6	2	1	0	0	0	0	0
01-JUL-2010	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5	2	0	0

Appendix A
Outfall Inventory for Use in Illicit Discharge Inspections

ID #	Dia.	Address		
25245	48.00	8810	SE	ROCKVORST
25019	24.00	2700	SE	BOYD
25237	48.00	2211	SE	OCHOCO
25238	12.00	2211	SE	OCHOCO
25246	12.00	9097	SE	MCLOUGHLIN
25235	10.00	9200	SE	MCBROD
25236	18.00	9097	SE	MCLOUGHLIN
25273	18.00	9079	SE	MCLOUGHLIN
25283	12.00	2381	SE	CLATSOP
25019	24.00	2700	SE	BOYD
25210	18.00	10505	SE	17TH
25213	24.00	10700	SE	MCLOUGHLIN
25219	18.00	10500	SE	26TH
25221	12.00	10501	SE	MAIN
45008	12.00	12511	SE	GUILFORD
45009	24.00	3606	SE	LAKE
45010	24.00	3600	SE	LICYNTRA
45011	12.00	3926	SE	LICYNTRA
45013	20.00	4206	SE	SOMEWHERE
45014	21.00	4296	SE	BRAE
45015	18.00	4586	SE	RYAN
15001	24.00	12201	SE	19TH
45016	12.00	11100	SE	MCLOUGHLIN
45017	24.00	11222	SE	MAIN
65007	32.00	12515	SE	70TH
65017	18.00	12515	SE	70TH
65008	12.00	12515	SE	70TH
65015	30.00	6201	SE	HARMONY
65016	0.00	12582	SE	LINWOOD
65027	48.00	13001	SE	RUSK
65001	12.00	10890	SE	OAK
65002	24.00	10890	SE	OAK

ID #	Dia.	Address		
65003	24.00	10890	SE	OAK
65004	12.00	11400	SE	37TH
65005	18.00	4141	SE	RAILROAD
65019	24.00	4243	SE	INTERNATIONAL
65029	54.00	4700	SE	INTERNATIONAL
65031	24.00	4700	SE	INTERNATIONAL
65032	48.00	4700	SE	INTERNATIONAL
25262	48.00	4539	SE	BROOKSIDE
25244	24.00	9301	SE	WICHITA
25261	8.00	5015	SE	BROOKSIDE
25264	24.00	5110	SE	JOHNSON CREEK
25266	12.00	5543	SE	TAMBARA
25267	10.00	5249	SE	BROOKSIDE
25274	12.00	4708	SE	JOHNSON CREEK
25275	10.00	5145	SE	BROOKSIDE
25333	18.00	9000	SE	MCBROD
25225	18.00	9800	SE	MCBROD
25226	36.00	9501	SE	MCLOUGHLIN
25227	21.00	9501	SE	MCLOUGHLIN
25228	24.00	9701	SE	MCLOUGHLIN
25232	18.00	2808	SE	BALFOUR
45006	12.00	12374	SE	OATFIELD
45007	10.00	12368	SE	OATFIELD
65011	15.00	12045	SE	STANLEY
65012	10.00	12396	SE	MAPLE
65013	15.00	12425	SE	ASH
65014	10.00	12476	SE	GROVE
65020	12.00	5124	SE	APPENINE
65021	12.00	11880	SE	HOME
65022	12.00	12015	SE	VIVALDI
65023	24.00	12172	SE	BECKMAN
65028	18.00	12045	SE	STANLEY

64 outfalls are inspected annually

Appendix B
Summary of Milwaukie 1200-Z Permits

WQ File Number	SIC	Legal Name	City	County	Permit Type	Is Active
63545	3425	Blount, Inc	Milwaukie	Clackamas	GEN12Z	True
107733	3561	Harder Mechanical Contractors Inc	Milwaukie	Clackamas	GEN12Z	True
101867	3612	OECO Corporation	Milwaukie	Clackamas	GEN12Z	True
113693	4225	Oregon Transfer Co.	Milwaukie	Clackamas	GEN12Z	True
115817	3369	PCC Structurals, Inc	Milwaukie	Clackamas	GEN12Z	True
100521	3089	McClure Industries, Inc.	Milwaukie	Clackamas	GEN12Z	True
109735	3398	Beaver Heat Treating Corp.	Milwaukie	Clackamas	GEN12Z	True
118130	3356	Caledonian Alloys	Milwaukie	Clackamas	GEN12Z	True

Table generated per DEQ's website, accessed 10/01/10, and modified per discussion with the City of Milwaukie: http://www.deq.state.or.us/wq/sisdata/facilitycriteria.asp

Appendix C
B-1 & B-2 Monitoring Tables
for City of Milwaukie

Table B-1: Milwaukie Sampling Types and Locations			
Sampling Type	**Location(s)**	**Minimum Sample Frequency**	**Responsible Co-Permittee**
MS4 Discharge Monitoring	One outfall in the City of Milwaukie	Three storm events per July 1 to June 30 reporting period	City of Milwaukie
In Stream	One Creek in the City of Milwaukie	Four visits per July 1 to June 30 reporting period	City of Milwaukie
In Stream Johnson Creek	Continuous Monitoring Station	Continuous	US Geological Survey (Portland)

Table B-2: Milwaukie Analytical Parameters MS4 Discharge Monitoring and In Stream Monitoring	
FIELD PARAMETERS	Conductivity pH Dissolved Oxygen Water Temperature
TOTAL METALS	Copper Lead Zinc
OTHER	Total Suspended Solids, Hardness
NUTRIENTS	Nitrate Ammonia Orthophosphate Total Phosphorus
BIOLOGICAL	E. Coli