

**National Pollutant Discharge Elimination System (NPDES)
Municipal Stormwater System Annual Report**

I, the undersigned, hereby submit this National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater 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.

Name: Gary Parkin
Title: Engineering Director
City of Milwaukee

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1.0 Introduction and Permit Background

The Oregon Department of Environmental Quality (DEQ) regulates stormwater 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 Stormwater Management Plan (SWMP). This annual report is for permit year 12 (or permit year 3 under the renewed permit dated 2004) and documents activities from July 1, 2006 to June 30, 2007 as related to the City of Milwaukie's stormwater management efforts under its 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 stormwater 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. The recently updated 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 stormwater 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 stormwater related expenditures.

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

See Section 2.0 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 2.0 for a summary of the program monitoring activities.

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

See Section 4.3 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 Best Management Practices (BMPs) from the City's SWMP (summarized in Section 2.0).

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 Stormwater 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		
<p>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.</p>				
<p>BMP – Conduct Stormwater Conveyance System Cleaning and Maintenance</p>				
<p>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.</p>	<p>(1) Estimate the volume of debris removed during conveyance system cleaning activities. (2) Track the conveyance system repair efforts conducted.</p>	<p>2005/2006</p> <p>(1) The following volumes of debris were removed during conveyance cleaning activities:</p> <ul style="list-style-type: none"> • Drywells = 198 Cubic Yds. • Sedimentation manholes = 39 Cubic Yds. <p>Volumes of debris removed during pipe cleaning activities are not possible to record. The City performed TV inspection on 4,822 feet of pipe during permit year 11.</p> <p>(2) The following maintenance/repairs were conducted during permit year 11:</p> <ul style="list-style-type: none"> • 4 manholes cleaned • 557 drywell inspections • 3 drywells raised to surface • 22 outfalls cleared of brush & debris • 2 replaced manhole lids due to damage • 9 repaired manhole lid/cover • 30 storm main TV inspections • 2 storm main repairs • 1 baffle installed in manhole • 3 riser rings repaired • 8 manholes inspected 	<p>2006/2007</p> <p>(1) The following volumes of debris were removed during conveyance cleaning activities:</p> <ul style="list-style-type: none"> • Drywells = 168 Cubic Yds. • Sedimentation manholes = 6.9 Cubic Yds. <p>Volumes of debris removed during pipe cleaning activities are not possible to record. The City performed TV inspections on 2860.5 feet of pipe during permit year 12.</p> <p>(2) The following maintenance/repairs were conducted during permit year 12:</p> <ul style="list-style-type: none"> • 19 manholes cleaned • 787 drywell inspections • 4 drywells raised to surface • 9 outfall cleared of brush & debris • 37 drywells cleaned • 7 manhole lids repaired or replaced • 37 storm mains inspected • 17 catch basin repaired • 2 vaults cleaned • 1 catch basin installed • 1 manhole inspected • 15 drywells had oil booms installed • 2 sed-manholes cleaned 	<p>2007/2008</p>

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
BMP – Conduct Catch basin Cleaning and Maintenance				
<p>BMP Owner: City of Milwaukie Public Works Department</p> <p>Permit Year: Ongoing</p> <p>Implementation Activities: The City of Milwaukie cleans all public catch basins once every two years, more frequently if needed.</p>	<p>(1) Track the number of catch basins maintained.</p> <p>(2) Track the volume of debris removed during cleaning activities.</p>	<p>2005/2006</p> <p>(1) During permit year 11, twelve catch basins were maintained/repaired. 516 catch basins were cleaned.</p> <p>(2) The following volume of debris was removed during catch basin cleaning activities:</p> <ul style="list-style-type: none"> • Catch basins = 41.5 Cubic Yds. 	<p>2006/2007</p> <p>(1) During permit year 12, fifteen catch basins were maintained/repaired. 436 catch basins were cleaned.</p> <p>(2) The following volume of debris was removed during catch basin cleaning activities:</p> <ul style="list-style-type: none"> • Catch basins = 42.8 Cubic Yds. 	<p>2007/2008</p>
BMP – Conduct Structural Control Facility Cleaning and Maintenance				
<p>BMP Owner: City of Milwaukie Public Works Department</p> <p>Permit Year: Ongoing</p> <p>Implementation Activities: The City of Milwaukie inspects public structural water quality facilities annually on average. Facility maintenance is conducted every two years.</p>	<p>(1) Track the number of structural facilities inspected and maintained.</p> <p>(2) Track the volume of debris removed during cleaning activities.</p>	<p>2005/2006</p> <p>(1 & 2) The following maintenance/repairs were conducted during permit year 11:</p> <ul style="list-style-type: none"> • 5 detention ponds - removed brush only from perimeter, ponds themselves were ok. • 1 vault - removed 1.2 cubic yards of debris • 1 weir - removed approx 1 yard of debris 	<p>2006/2007</p> <p>(1 & 2) The following maintenance/repairs were conducted during permit year 12:</p> <ul style="list-style-type: none"> • 1 pond was cleaned, lots of sticks in the bottom of the pond. • 2 vaults - removed 4.5 cubic yards of debris • 1 weir - removed approx 1.5 Yards of debris 	<p>2007/2008</p>

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
<p>NPDES Permit Requirement – (2) <i>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).</i></p>				
<p>BMP – Conduct Master Planning for Stormwater Quality Improvement</p>				
<p>BMP Owner: City of Milwaukie Development 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 approximate 25-year period. Six of these CIPs were identified specifically for water quality purposes.</p>	<p>(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.</p>	<p>2005/2006</p> <p>(1) No master planning activities were conducted during this permit year. (2) The following Capital Improvement projects were implemented during permit year 11:</p> <ul style="list-style-type: none"> • 42nd Ave. Street Improvements – Project for traffic and pedestrian safety, to reduce localized street flooding, and to reduce the amount of roadside erosion and sediment transport within the Johnson Creek Watershed. • North Main Bio-Swale – Project for onsite retention and infiltration of stormwater from a mixed-use, redevelopment project. <p>(3) The locations of CIPs are currently mapped. The delineation and mapping of drainage areas to CIPs is currently being initiated for implementation during the next permit year.</p>	<p>2006/2007</p> <p>(1) No master planning activities were conducted during this permit year. (2) The following Capital Improvement projects were completed during permit year 12:</p> <ul style="list-style-type: none"> • 42nd Ave. Street Improvements – Project for traffic and pedestrian safety, to reduce localized street flooding, and to reduce the amount of roadside erosion and sediment transport within the Johnson Creek Watershed. • North Main Bio-Swale – Project for onsite retention and infiltration of storm water from a mixed-use, redevelopment project. <p>(3) The locations of CIPs are currently mapped. The delineation and mapping of drainage areas to CIPs is currently being initiated for implementation during the next permit year.</p>	<p>2007/2008</p>

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
BMP – Implement Municipal Development Codes				
<p>BMP Owner: City of Milwaukie Development Department</p> <p>Permit Year: Ongoing</p> <p>Implementation Activities: The City of Milwaukie reviews all new and redevelopment plans through the building permit process.</p> <p>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.</p>	<p>(1) Track the number of development applications reviewed and approved for compliance with the stormwater regulations.</p> <p>(2) Track any code modifications by ordinance.</p>	<p>2005/2006</p> <p>(1) Development applications including drainage reports are routinely reviewed for proper compliance with stormwater regulations. The following number of applications were reviewed during permit year 11:</p> <ul style="list-style-type: none"> • Commercial (New) = 10 • Commercial (Additions) = 7 • Residential (New) = 15 • Residential (Additions) = 32 <p>(2) The City of Milwaukie is developing their stormwater design standards and has obtained scopes of work from consultants to assist in the development of water quality design standards. The City expects to complete this work during the permit year 12.</p>	<p>2006/2007</p> <p>(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 12:</p> <ul style="list-style-type: none"> • Commercial (New) = 1 • Commercial (Additions) = 2 • Residential (New) = 15 • Residential (Additions) = 7 <p>(2) The City of Milwaukie has strengthened its storm water 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.”</p>	<p>2007/2008</p>

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation																																																																																						
<p>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.</p>																																																																																								
<p>BMP – Conduct Street Sweeping and Roadway Repair Activities</p>																																																																																								
<p>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.</p>	<p>(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.</p>	<p>2005/2006 (1-3) The following street sweeping activities occurred during permit year 11:</p> <table border="1" data-bbox="884 459 1213 1179"> <thead> <tr> <th>Month</th> <th>Curbed Miles</th> <th>Debris (CY)</th> </tr> </thead> <tbody> <tr><td>Jul '05</td><td>310</td><td>45</td></tr> <tr><td>Aug '05</td><td>227</td><td>40.5</td></tr> <tr><td>Sep '05</td><td>343</td><td>61.5</td></tr> <tr><td>Oct-05</td><td>363</td><td>104.5</td></tr> <tr><td>Nov '05</td><td>517</td><td>206</td></tr> <tr><td>Dec '05</td><td>366</td><td>127.5</td></tr> <tr><td>Jan '06</td><td>370</td><td>62.5</td></tr> <tr><td>Feb '06</td><td>195</td><td>45.5</td></tr> <tr><td>Mar '06</td><td>168</td><td>36</td></tr> <tr><td>Apr '06</td><td>278</td><td>65.5</td></tr> <tr><td>May'06</td><td>77</td><td>15.5</td></tr> <tr><td>Jun '06</td><td>142</td><td>28.5</td></tr> <tr><td>Total</td><td>3,356</td><td>838.5</td></tr> </tbody> </table>	Month	Curbed Miles	Debris (CY)	Jul '05	310	45	Aug '05	227	40.5	Sep '05	343	61.5	Oct-05	363	104.5	Nov '05	517	206	Dec '05	366	127.5	Jan '06	370	62.5	Feb '06	195	45.5	Mar '06	168	36	Apr '06	278	65.5	May'06	77	15.5	Jun '06	142	28.5	Total	3,356	838.5	<p>2006/2007 (1-3) The following street sweeping activities occurred during permit year 12:</p> <table border="1" data-bbox="1297 459 1627 1179"> <thead> <tr> <th>Month</th> <th>Curbed Miles</th> <th>Debris (CY)</th> </tr> </thead> <tbody> <tr><td>Jul '06</td><td>396</td><td>59</td></tr> <tr><td>Aug '06</td><td>521</td><td>89</td></tr> <tr><td>Sep '06</td><td>400</td><td>105</td></tr> <tr><td>Oct '06</td><td>512</td><td>176</td></tr> <tr><td>Nov '06</td><td>892</td><td>439</td></tr> <tr><td>Dec '06</td><td>443</td><td>149</td></tr> <tr><td>Jan '07</td><td>509</td><td>169</td></tr> <tr><td>Feb '07</td><td>404</td><td>86</td></tr> <tr><td>Mar '07</td><td>433</td><td>66</td></tr> <tr><td>Apr '07</td><td>242</td><td>61</td></tr> <tr><td>May '07</td><td>363</td><td>51</td></tr> <tr><td>Jun '07</td><td>524</td><td>92</td></tr> <tr><td>Total</td><td>5,639</td><td>1,542</td></tr> </tbody> </table>	Month	Curbed Miles	Debris (CY)	Jul '06	396	59	Aug '06	521	89	Sep '06	400	105	Oct '06	512	176	Nov '06	892	439	Dec '06	443	149	Jan '07	509	169	Feb '07	404	86	Mar '07	433	66	Apr '07	242	61	May '07	363	51	Jun '07	524	92	Total	5,639	1,542	<p>2007/2008</p>
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<p>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.</p>																																																																																								
<p>See BMP “Conduct Master Planning for Stormwater Quality” under Requirement 2 for applicable BMP and performance measures.</p>																																																																																								

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)).				
There are no open or closed landfills or other municipal waste handling facilities within the City of Milwaukie.	N/A	2005/2006 N/A	2006/2007 N/A	2007/2008
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 Clackamas County Parks Department 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.	2005/2006 (1) There have been no policy or procedural changes regarding pest management activities during permit year 11.	2006/2007 (1) There have been no policy or procedural changes regarding pest management activities during permit year 12.	2007/2008

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		
<p>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.</p> <p>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;</p> <p>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.</p>				
<p>BMP – Implement the Illicit Discharge Elimination Program</p>				
<p>BMP Owner: City of Milwaukie Public Works Department</p> <p>Permit Year: Ongoing</p> <p>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).</p>	<p>(1) Track any updates and modifications to the inspection procedures.</p> <p>(2) Track the number and location of outfalls inspected annually.</p> <p>(3) Summarize inspection results and indicate outfalls requiring monitoring (sampling) and/or investigations.</p> <p>(4) Indicate the outcome and resolution of any investigation activities conducted.</p>	<p>2005/2006</p> <p>(1) There have been no updates or modifications to the illicit discharge inspection procedures during permit year 11.</p> <p>(2-4) 64 outfalls (20 major and 44 minor) were inspected during the dry weather season. None were found to have evidence of cross connections or any waste other than stormwater or groundwater. The outfalls are plotted in GIS. The addresses of the outfalls are included in Appendix A.</p>	<p>2006/2007</p> <p>(1) There have been no updates or modifications to the illicit discharge inspection procedures during permit year 12.</p> <p>(2-4) 65 outfalls (20 major and 45 minor) were inspected during the dry weather season. None were found to have evidence of cross connections or any waste other than storm water or groundwater. The outfalls are plotted in GIS. The inspection results are included in Appendix A.</p>	<p>2007/2008</p>

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
BMP – Minimize Water Quality Impacts Related to Water Line Flushing				
<p>BMP Owner: City of Milwaukie Public Works Department</p> <p>Permit Year: Ongoing</p> <p>Implementation Activities: The City of Milwaukie conducts periodic 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 DEQs requirements for discharge.</p>	<p>No performance measures were proposed for reporting for this BMP.</p>	<p>2005/2006 N/A</p>	<p>2006/2007 N/A</p>	<p>2007/2008</p>

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				
<p>BMP Owner: City of Milwaukie Public Works Department and Clackamas County Fire District No. 1 Hazardous Materials Team</p> <p>Permit Year: Ongoing</p> <p>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.</p>	<p>(1) Indicate the number of spills responded to by the Public Works Department.</p> <p>(2) Indicate sources, causes, and resulting water quality problems resulting from spill activities.</p>	<p>2005/2006</p> <p>(1 & 2) The City of Milwaukie did not have any large spills in 2005/2006. There were some small spills related to vehicles leaking transmission fluid, brake fluid or hydraulic fluid which none entered the infrastructure or any waterways.</p> <p>Only one spill incident was reported to OERS (incident #2005-3087). This particular leak originated from a dump truck that was working in SE Portland but had driven through Milwaukie to access Interstate 205. The truck discharged hydraulic fluid on route to Interstate 205. However, the sun had dissipated the fluid before it could reach the infrastructure or waterway.</p>	<p>2006/2007</p> <p>(1 & 2) The City of Milwaukie had one large spill and one smaller spill, which were responded to.</p> <p>The small spill came from a dump truck, which broke a fuel line. The driver noticed the fuel leak and turned off the fuel valves. No fuel entered the storm system. Clackamas County Fire District responded to the incident and spread oil absorbent over the fuel to soak it up, then it was swept.</p> <p>The large spill came from Americold Logistics. A main compressor failed and gaseous ammonia was leaked into the sewer system. The outfall at Johnson Creek was inspected and there was no apparent damage. For more details please see Appendix C.</p>	<p>2007/2008</p>
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.				

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
<p>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.</p>				
<p>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.</p>				
<p>NPDES Permit Requirement - (7) Controls to limit infiltration of seepage from municipal sanitary sewers to municipal separate storm sewer systems where necessary</p>				
<p>BMP – Control Infiltration and Cross Connections to the Stormwater Conveyance System</p>				
<p>BMP Owner: City of Milwaukie Public Works Department and Engineering Department</p> <p>Permit Year: Ongoing</p> <p>Implementation Activities: The City of Milwaukie implements an inflow and infiltration (I&I) abatement program for the sanitary sewer system.</p> <p>The City's Engineering Department reviews new and re-development 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.</p>	<p>(1) Indicate whether any cross connections were discovered during illicit discharge investigations, and describe follow-up activities.</p>	<p>2005/2006</p> <p>(1) Per results of the illicit discharge inspections, no cross connections were observed.</p>	<p>2006/2007</p> <p>(1) Per results of the illicit discharge inspections, no cross connections were observed.</p>	<p>2007/2008</p>

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

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
<p>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.</p>				
<p>BMP – Conduct Industrial Inspections and Enforcement</p>				
<p>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.</p>	<ol style="list-style-type: none"> (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. 	<p>2005/2006</p> <ol style="list-style-type: none"> (1) The City of Milwaukie queried the active 1200-Z permits within the city limits from DEQ's website. There are currently 5 active 1200-Z permits within the City's MS4 permit boundary. (2) The City of Milwaukie requested and received the submitted 1200-Z monitoring data from DEQ for the active 1200-Z permits within the city limits. Per submitted monitoring data for permit year 11, it appears that no data was submitted for two of the permits (although one permit is relatively new). One permit has a sampling waiver in place. Monitoring data was found for the remaining two permits, and each did not appear to exceed benchmarks during any of the monitored events. 	<p>2006/2007</p> <ol style="list-style-type: none"> (1) The City of Milwaukie queried the active 1200-Z permits within the city limits from DEQ's website. There are currently 5 active 1200-Z permits within the City's MS4 permit boundary. The summary of Milwaukie's 1200-Z permits are included in Appendix B. (2) Monitoring data has been backlogged until mid November, 2007. DEQ referred the City to see DEQ NW Region Program for further information. (3) During permit year 12, the City conducted 4 inspections of 1200-Z holders for ensuring all were in compliance of 1200-Z. (4) All 1200-Z permit holders were found to be in compliance of all regulations. 	<p>2007/2008</p>

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
		<p>(3 & 4) During permit year 11, no specific industrial inspections were initiated. However, while conducting storm system maintenance, an unauthorized vehicle wash area was observed at a nearby facility. City maintenance staff notified the owners that wash water could potentially enter the storm system, which would not be permissible, and the wash area was removed.</p>		

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) <i>Procedures for site planning which incorporate consideration of potential water quality impacts.</i>				
NPDES Permit Requirement – (2) <i>Requirements for nonstructural and structural best management practices.</i>				
BMP – Implement Erosion Control for New and Redevelopment				
<p>BMP Owner: City of Milwaukie Public Works Department and Development Department</p> <p>Permit Year: Ongoing</p> <p>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 "<i>Erosion Prevention and Sediment Control Planning and Design Manual (2000)</i>" in preparing the erosion control plans.</p>	<p>(1) Report any updates or modifications to the "<i>Erosion Prevention and Sediment Control Planning and Design Manual (2000)</i>".</p> <p>(2) (2) Record the number of erosion control plan reviews completed.</p>	<p>2005/2006</p> <p>(1) There have been no updates to the "<i>Erosion Prevention and Sediment Control Planning and Design Manual</i>" during permit year 11. An updated edition is expected to be released during 2007.</p> <p>(2) During permit year 11, there were 47 erosion control plan reviews completed.</p>	<p>2006/2007</p> <p>(1) There have been no updates to the "<i>Erosion Prevention and Sediment Control Planning and Design Manual</i>" during permit year 12. A multi jurisdictional committee is reviewing/revising the current "<i>Erosion Prevention and Sediment Control Planning and Design Manual</i>" An updated edition is expected some time in permit year 13.</p> <p>(2) During permit year 12, there were 45 erosion control plan reviews completed.</p>	<p>2007/2008</p>

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
NPDES Permit Requirement - (3) <i>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</i>				
BMP – Conduct Erosion Control Inspections				
BMP Owner: City of Milwaukie Public Works 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 non-compliance notices issued during inspections and the number of stop work orders issued annually.	2005/2006 (1) There were 73 erosion control inspections conducted during permit year 11. (2) There were 30 non-compliance notices issued during permit year 11.	2006/2007 (1) There were 107 erosion control inspections conducted during permit year 12. (2) There were 56 non-compliance notices issued during permit year 12.	2007/2008
NPDES Permit Requirement - (4) <i>Appropriate educational and training measures for construction site operators.</i>				
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		
<p>NPDES Permit Requirement, Component 1 - (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.</p>				
<p>NPDES Permit Requirement, Component 2 - (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.</p>				
<p>NPDES Permit Requirement, Component 2 - (6) Educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials.</p>				
<p>BMP – Provide Public Education and Outreach Materials regarding Stormwater Management</p>				
<p>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:</p> <ol style="list-style-type: none"> 1. The application of pesticides, herbicides and fertilizers by citizens. 2. Illicit discharges and dumping of waste materials into the storm drainage system. 3. Disposal of waste oil and toxic materials. 	<ol style="list-style-type: none"> (1) Track the number, types, and topics of public educational materials dispersed to the public. (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. 	<p>2005/2006</p> <ol style="list-style-type: none"> (1) Stormwater- related public educational materials are made available to the public at various City locations including the public library, city hall, and public works. For permit year 12, the City will track the number of material orders placed to gage the level of distribution. <p>(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 11, the City of Milwaukie conducted its first annual “Leaf Drop” program. This program allowed citizens to</p>	<p>2006/2007</p> <ol style="list-style-type: none"> (1) Stormwater- related public educational materials are made available to the public at various City locations including the public library, city hall, and public works. For permit year 12, approx 1000 “household products” wheels were picked up by citizens. These wheels describe the proper disposal of household products. Through an advertising campaign linked with Milwaukie High School public awareness of the Fish Lid project was brought to the attention of Milwaukie High School. The storm systems “Drains to Stream” fish lid was focused upon. <p>(2 & 3) The City of Milwaukie is actively partnered with a number of other jurisdictions to form the</p>	<p>2007/2008</p>

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
		<p>dispose of their leaves at a central location for no disposal fee. This program encouraged citizens to maintain and clean their lawns, thus minimizing the amount of debris entering the storm system and reducing the risk of flooding due to debris clogging catch basins.</p> <p>(4) Approximately 1600 catch basins have been stenciled to date.</p> <p>(5) During permit year 11, 95 storm manhole lids have been retrofit with "Dump no Waste to Streams" lids.</p>	<p>Regional Coalition for Clean Rivers and Streams, in order to develop regional advertising campaigns to promote healthy streams.</p> <p>In addition, during permit year 12, the City of Milwaukie conducted its third annual "Leaf Drop" program. We had indicated in the year 11 report that it was the first annual event. This was in error. This program allowed citizens to dispose of their leaves at a central location for no disposal fee. This program encouraged citizens to maintain and clean their lawns, thus minimizing the amount of debris entering the storm system and reducing the risk of flooding due to debris clogging catch basins.</p> <p>(4) Nearly all 1672 catch basins were stenciled in permit year 12.</p> <p>(5) During permit year 12, 68 storm manhole lids have been retrofitted with "Dump no Waste to Streams" lids. This gives us a total of 305 new lids throughout the City.</p>	

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
BMP – Conduct Staff Training in Spill Response				
<p>BMP Owner: City of Milwaukie Public Works Department</p> <p>Permit Year: Ongoing</p> <p>Implementation Activities: The City of Milwaukie provides training to City staff that initially respond 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.</p>	<p>(1) Indicate the number of spill response training opportunities offered annually.</p>	<p>2005/2006</p> <p>(1) The City is currently in the process of formalizing and scheduling staff training related to spill response. A summary of the training activities will be included in the annual report for permit year 12.</p>	<p>2006/2007</p> <p>(1) The City is currently active with the Spill Committee which is hosted by Portland's Bureau of Environmental Services on a monthly basis.</p> <p>New employees are trained in basic spill response to contain the spill with absorbent material and immediately report the spill to lead personal or supervisor for proper clean up and reporting.</p>	<p>2007/2008</p>

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
NPDES Permit Requirement, Component 4 – (4) <i>Appropriate educational and training measures for construction site operators.</i>				
BMP – Provide Educational Information to Construction Site Operators				
<p>BMP Owner: City of Milwaukie Public Works Department</p> <p>Permit Year: Ongoing</p> <p>Implementation Activities: The City of Milwaukie makes available their technical guidance manual, the <i>Clackamas County Erosion Prevention and Sediment Control Planning and Design Manual</i> (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. This certification allows the contractor a discount rate on all erosion control permits.</p>	<p>(1) Track the number of contractors receiving a discount on erosion control permit fees.</p>	<p>2005/2006</p> <p>(1) During permit year 11, no contractors applied for this discount.</p>	<p>2006/2007</p> <p>(1) During permit year 12, 2 contractors applied for this discount.</p>	<p>2007/2008</p>

BMP Implementation Summary	Annual Performance Measures	SWMP Implementation		
Additional Coordination Efforts				
BMP – Participate in Intergovernmental Coordination Efforts				
<p>BMP Owner: City of Milwaukie Public Works Department</p> <p>Permit Year: Ongoing</p> <p>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</p>	<p>(1) Indicate groups, committees, and organizations with which the City is currently participating.</p>	<p>2005/2006</p> <p>(1) The City of Milwaukie is currently involved with the following groups and organizations:</p> <ul style="list-style-type: none"> • Clackamas County NPDES Co-permittees • Johnson Creek Watershed Council • Oregon Association of Clean Water Agencies • Johnson Creek Interjurisdictional Committee • American Public Works Association • Stormwater Spill Committee 	<p>2006/2007</p> <p>(1) The City of Milwaukie is currently involved with the following groups and organizations:</p> <ul style="list-style-type: none"> • Clackamas County NPDES Co-permittees • Johnson Creek Watershed Council • Oregon Association of Clean Water Agencies • Johnson Creek Interjurisdictional Committee • American Public Works Association • Stormwater Spill Committee 	<p>2007/2008</p>

3.0 Additional Annual Report Requirements

3.1. Summary of Expenditures

The following summary outlines total stormwater expenditures for permit year 12 (2006-2007) and projected expenditures for permit year 13 (2007-2008).

2006/2007

Personnel Services / 5.5 FTEs	\$337,376.00
Materials and Services	\$698,442.00
Capital Outlay	\$15,000.00
Transfers	\$578,189.00
<u>Contingency</u>	<u>\$86,316.00</u>

Total \$1,715,323.00

2007/2008

Personnel Services / 5.0 FTEs	\$316,040.00
Materials and Services	\$670,373.00
Capital Outlay	\$10,000.00
Transfers	\$486,040.00
<u>Contingency</u>	<u>\$97,714.00</u>

Total \$1,580,167.00

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 stormwater 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 stormwater facilities and conveyances together constitute a stormwater system and that the effective regulation and control of stormwater can best be accomplished through formation, by the City, of a stormwater utility. (Ord. 1755 § 6 (part), 1994)

The City of Milwaukie is currently updating its Stormwater and Erosion Control standards to provide better guidance to staff and developers concerning BMPs for stormwater management.

3.3. 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 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 Public Improvement Project, the Milwaukie Town Center, involves the redevelopment of a full downtown City block. The Town Center design team has been directed to incorporate storm water management early in the process instead of as an afterthought. Ecoroofs 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 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.

Capital Improvement Projects are being designed with green storm water practices in mind. The Logus Road Sidewalk Project will include several BMPs including pretreatment for existing drywells, pervious pavement, and rain gardens. A piped system that moves water offsite is not being considered.

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. All properties are expected to be connected to City sewers and on-site systems decommissioned by the end of 2007 or face civil penalties.

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 SWMACC) and six of its co-permittees including the City of Milwaukie agreed to consolidate efforts and prepare one comprehensive stormwater monitoring plan. This plan was prepared for submittal with the November 1, 2006 NPDES Permit Annual Compliance Reports and is attached with this document. July of 2007 DEQ signed a MOA (memorandum of agreement) which gives the temporary approval of the cooperative monitoring plan pending the final approval from DEQ. This will allow the Clackamas County and the co-permittees to proceed with the monitoring plan for permit year 13. Milwaukie is planning to do the first instream sampling in late August 07. Storm sampling will most likely begin in October, targeting storm events in October through March.

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 years efforts. The City of Milwaukie currently monitors sixty-seven locations: one instream location at Minthorn Springs Creek at Harmony Road, prior to discharge in Kellogg Creek, and one outfall location at the Brookside outfall, prior to discharge in Johnson Creek and sixty-five other sites (outfalls) which are inspected annually for illicit discharges. Samples are collected quarterly at the Minthorn Creek at Harmony and the Brookside outfall, the sixty-five other outfall sites are visually inspected once a year during the dry weather season. Results of the monitoring effort are summarized below:

TABLE 4-1 Environmental Monitoring Results–Minthorn Springs Creek at Harmony Road

Sample Date	09/26/06	12/19/06	3/21/2006	06/19/2007
	mg/l	mg/l	mg/l	mg/l
Total Diss Solids	94.0	195	168	173
Total Susp Solids	8	3	2	8
Cadmium	<.010	0.00002	0.00002	.00002
Chromium	<.010	0.0007	0.0008	.0007
Copper	<.010	0.0029	0.0024	.0015
Lead	<.020	0.00044	0.00057	.00063
Nickel	<.010	0.0014	0.02	.0003
Zinc	<.010	0.0168	0.0133	.005
E. Coli	>2419 MPN/100ml	>2419 MPN/100ml	102 MPN/ 100 ml	727 MPN / 100ml
Ammonia Nitrogen	<0.05	<0.05	<0.05	<.05
Nitrate	<0.16	0.98	3.78	0.27
Orthophosphate	<0.11	0.08	0.07	0.12
Total Phosphate	<0.15	0.10	0.07	0.14
Oil & Grease	<5.0	<5.0	<5.0	<5.0
COD	7.0	9.0	<5.0	6
Hardness	392	151	112	142

Field Test

Temp	16.5c	5.8c	11.4c	20c
ph	7.55	7.35	7.24	7.67
DO-mg/l	5.12	8.37	7.48	7.27
DO-%	52.3	67.8	69.2	80.4

TABLE 4-2 Environmental Monitoring Results – Brookside Outfall to Johnson Creek

Sample Date	09/26/06	12/19/06	3/21/2006	No Sample
	mg/l	mg/l	mg/l	mg/l
Total Diss Solids	226	216	189	197
Total Susp Solids	2	2	14.0	2
Cadmium	<.010	0.00002	.00002	<0.00002
Chromium	<.010	0.0006	.0008	.001
Copper	<.010	0.0015	.0016	.001
Lead	<.020	0.00026	.00032	.00016
Nickel	<.010	0.0013	.0022	.0004
Zinc	<.010	0.0174	0.0145	.0154
E. Coli	4 MPN / 100ml	21 MPN / 100ml	93 MPN / 100ml	79 MPN / 100ml
Ammonia Nitrogen	<0.05	<0.05	<0.05	<0.05
Nitrate	3.75	4.77	3.78	3.96
Orthophosphate	0.12	0.07	0.07	0.12
Total Phosphate	0.14	0.09	0.10	0.11
Oil & Grease	<5.0	<5.0	<5.0	<0.05
COD	<5.0	<5.0	<5.0	<5.0
Hardness	89	163	112	124

Field Test

Temp	17c	7.9c	11.0c	16.4c
ph	7.53	7.37	7.16	7.35
DO-mg/l	4.91	8.14	8.44	7.77
DO-%	50.9	69.3	77.0	80.0

**TABLE 4-3 Environmental Monitoring Results – Kellogg Creek at Hwy 99E
(collected by Water Environment Services)**

We were unable to obtain the data from WES at the time of the writing of this report. To view this data please see Water Environment Services NPDES annual report

**Table 4-4 Monitoring Results – Johnson Creek @ Milport Rd.
(Collected by USGS)**

Date	Stream-flow (ft ³ /s) (Mean)	Gage height, feet (Mean)	Temperature, water, deg C (Maximum)	Temperature, water, deg C (Minimum)	Temperature, water, deg C (Mean)	Turbidity, IR LED light, det ang 90 deg, FNU (Maximum)	Turbidity, IR LED light, det ang 90 deg, FNU (Minimum)	Turbidity, IR LED light, det ang 90 deg, FNU (Median)
01/06/2006	273 ^A	25.89 ^A	8.8 ^P	8.4 ^P	8.6 ^P	108 ^P	16.2 ^P	76.9 ^P
01/07/2006	330 ^A	26.22 ^A	9.0 ^P	8.3 ^P	8.8 ^P	91.4 ^P	48.7 ^P	60.1 ^P
01/08/2006	239 ^A	25.74 ^A	8.5 ^P	7.9 ^P	8.2 ^P	97.7 ^P	27.4 ^P	42.0 ^P
01/09/2006	240 ^A	25.74 ^A	9.3 ^P	8.5 ^P	8.7 ^P	52.7 ^P	23.7 ^P	27.0 ^P
01/10/2006	674 ^A	27.48 ^A	10.0 ^P	9.3 ^P	9.8 ^P	263 ^P	52.7 ^P	135 ^P
01/11/2006	907 ^A	28.19 ^A	9.7 ^P	8.4 ^P	8.8 ^P	280 ^P	108 ^P	127 ^P
01/12/2006	386 ^A	26.48 ^A	8.6 ^P	8.3 ^P	8.4 ^P	108 ^P	36.7 ^P	47.1 ^P
01/13/2006	455 ^A	26.77 ^A	8.8 ^P	8.2 ^P	8.4 ^P	74.7 ^P	47.7 ^P	56.9 ^P
01/14/2006	395 ^A	26.51 ^A	8.7 ^P	8.2 ^P	8.5 ^P	71.2 ^P	37.1 ^P	50.9 ^P
01/15/2006	235 ^A	25.72 ^A	8.2 ^P	7.6 ^P	7.8 ^P	37.7 ^P	22.7 ^P	27.9 ^P
01/16/2006	233 ^A	25.71 ^A	8.3 ^P	7.4 ^P	7.7 ^P	47.1 ^P	21.3 ^P	32.1 ^P
01/17/2006	635 ^A	27.39 ^A	8.7 ^P	8.1 ^P	8.4 ^P	164 ^P	47.1 ^P	129 ^P
01/18/2006	432 ^A	26.66 ^A	8.4 ^P	8.0 ^P	8.2 ^P	123 ^P	38.7 ^P	50.8 ^P
01/19/2006	240 ^A	25.74 ^A	8.6 ^P	8.3 ^P	8.5 ^P	38.7 ^P	22.0 ^P	26.3 ^P
01/20/2006	287 ^A	25.99 ^A	8.5 ^P	7.9 ^P	8.2 ^P	88.3 ^P	21.5 ^P	61.3 ^P
01/21/2006	200 ^A	25.52 ^A	8.4 ^P	7.9 ^P	8.1 ^P	82.6 ^P	24.7 ^P	35.1 ^P
01/22/2006	150 ^A	25.23 ^A	8.3 ^P	8.0 ^P	8.1 ^P	24.7 ^P	16.3 ^P	19.6 ^P
01/23/2006	120 ^A	25.02 ^A	8.5 ^P	7.5 ^P	8.0 ^P	16.5 ^P	13.9 ^P	15.6 ^P
01/24/2006	101 ^A	24.89 ^A	7.9 ^P	6.9 ^P	7.4 ^P	14.4 ^P	12.6 ^P	13.9 ^P
01/25/2006	92 ^A	24.82 ^A	7.6 ^P	6.8 ^P	7.2 ^P	22.9 ^P	12.3 ^P	13.2 ^P
01/26/2006	95 ^A	24.84 ^A	7.6 ^P	6.9 ^P	7.2 ^P	25.1 ^P	14.6 ^P	18.0 ^P
01/27/2006	112 ^A	24.97 ^A	7.8 ^P	6.8 ^P	7.3 ^P	30.1 ^P	20.2 ^P	22.1 ^P
01/28/2006	247 ^A	25.78 ^A	7.6 ^P	7.2 ^P	7.4 ^P	238 ^P	30.1 ^P	105 ^P
01/29/2006	283 ^A	25.93 ^A	8.1 ^P	7.6 ^P	7.7 ^P	134 ^P	48.4 ^P	73.0 ^P
01/30/2006	507 ^A	26.98 ^A	9.0 ^P	8.1 ^P	8.7 ^P	153 ^P	87.0 ^P	124 ^P
01/31/2006	357 ^A	26.33 ^A	8.5 ^P	7.4 ^P	7.8 ^P	123 ^P	47.7 ^P	72.2 ^P
02/01/2006	335 ^A	26.22 ^A	8.8 ^P	7.4 ^P	8.2 ^P	90.6 ^P	36.0 ^P	68.5 ^P
02/02/2006	356 ^A	26.32 ^A	9.0 ^P	8.7 ^P	8.8 ^P	161 ^P	34.2 ^P	67.4 ^P
02/03/2006	284 ^A	25.97 ^A	9.3 ^P	8.6 ^P	8.9 ^P	118 ^P	32.6 ^P	51.9 ^P
02/04/2006	348 ^A	26.29 ^A	9.3 ^P	7.9 ^P	8.6 ^P	145 ^P	40.5 ^P	73.4 ^P
02/05/2006	219 ^A	25.63 ^A	8.0 ^P	7.3 ^P	7.7 ^P	78.7 ^P	25.9 ^P	37.2 ^P
02/06/2006	155 ^A	25.26 ^A	8.3 ^P	7.2 ^P	7.6 ^P	25.9 ^P	19.2 ^P	23.0 ^P

02/07/2006	120 ^A	25.02 ^A	8.3 ^P	6.5 ^P	7.4 ^P	29.7 ^P	14.7 ^P	18.2 ^P
02/08/2006	97 ^A	24.86 ^A	9.1 ^P	7.2 ^P	8.0 ^P	15.9 ^P	12.3 ^P	14.0 ^P
02/09/2006	81 ^A	24.74 ^A	8.6 ^P	6.8 ^P	7.7 ^P	12.7 ^P	10.6 ^P	11.7 ^P
02/10/2006	69 ^A	24.64 ^A	7.8 ^P	5.9 ^P	6.7 ^P	12.7 ^P	9.5 ^P	10.5 ^P
02/11/2006	60 ^A	24.56 ^A	7.3 ^P	5.5 ^P	6.3 ^P	10.7 ^P	9.1 ^P	9.9 ^P
02/12/2006	53 ^A	24.50 ^A	9.0 ^P	6.5 ^P	7.7 ^P	10.2 ^P	8.4 ^P	9.1 ^P
02/13/2006	52 ^A	24.49 ^A	8.9 ^P	7.1 ^P	7.8 ^P	10.5 ^P	8.1 ^P	8.6 ^P
02/14/2006	52 ^A	24.49 ^A	8.0 ^P	6.3 ^P	7.1 ^P	9.4 ^P	7.9 ^P	8.5 ^P
02/15/2006	48 ^A	24.45 ^A	7.3 ^P	5.0 ^P	6.1 ^P	10.4 ^P	7.5 ^P	8.4 ^P
02/16/2006	43 ^A	24.40 ^A	6.3 ^P	3.9 ^P	5.1 ^P	9.5 ^P	7.8 ^P	8.5 ^P
02/17/2006	40 ^A	24.37 ^A	4.8 ^P	2.0 ^P	3.4 ^P	10.6 ^P	6.3 ^P	8.7 ^P
02/18/2006	35 ^A	24.32 ^A	3.6 ^P	0.8 ^P	2.1 ^P	11.0 ^P	6.7 ^P	8.4 ^P
02/19/2006	35 ^A	24.31 ^A	4.9 ^P	1.3 ^P	3.0 ^P	9.3 ^P	6.4 ^P	8.2 ^P
02/20/2006	34 ^A	24.31 ^A	4.6 ^P	1.9 ^P	3.4 ^P	9.7 ^P	6.1 ^P	6.9 ^P
02/21/2006	35 ^A	24.32 ^A	7.1 ^P	4.3 ^P	5.7 ^P	7.8 ^P	5.4 ^P	6.1 ^P
02/22/2006	34 ^A	24.31 ^A	7.9 ^P	6.2 ^P	7.0 ^P	13.4 ^P	5.5 ^P	7.9 ^P
02/23/2006	34 ^A	24.30 ^A	8.4 ^P	7.2 ^P	7.7 ^P	13.4 ^P	5.8 ^P	8.8 ^P
02/24/2006	47 ^A	24.44 ^A	7.9 ^P	5.3 ^P	6.6 ^P	21.4 ^P	10.0 ^P	13.7 ^P
02/25/2006	37 ^A	24.34 ^A	7.4 ^P	5.2 ^P	6.3 ^P	13.1 ^P	10.9 ^P	11.9 ^P
02/26/2006	34 ^A	24.31 ^A	7.2 ^P	5.9 ^P	6.6 ^P	29.1 ^P	11.4 ^P	18.0 ^P
02/27/2006	40 ^A	24.37 ^A	8.6 ^P	7.0 ^P	7.8 ^P	14.4 ^P	8.9 ^P	10.1 ^P
02/28/2006	156 ^A	25.23 ^A	8.2 ^P	7.5 ^P	7.7 ^P	135 ^P	14.4 ^P	98.9 ^P
03/01/2006	137 ^A	25.14 ^A	8.9 ^P	7.0 ^P	7.9 ^P	141 ^P	41.9 ^P	64.5 ^P
03/02/2006	95 ^A	24.84 ^A	9.0 ^P	7.6 ^P	8.2 ^P	41.9 ^P	20.7 ^P	30.5 ^P
03/03/2006	74 ^A	24.69 ^A	8.7 ^P	6.4 ^P	7.6 ^P	20.7 ^P	15.1 ^P	16.1 ^P
03/04/2006	63 ^A	24.59 ^A	9.8 ^P	6.9 ^P	8.2 ^P	15.1 ^P	10.3 ^P	11.1 ^P
03/05/2006	75 ^A	24.69 ^A	9.1 ^P	7.9 ^P	8.4 ^P	22.4 ^P	10.7 ^P	15.6 ^P
03/06/2006	59 ^A	24.56 ^A	9.8 ^P	8.1 ^P	8.9 ^P	19.1 ^P	11.0 ^P	13.3 ^P
03/07/2006	62 ^A	24.58 ^A	10.1 ^P	8.2 ^P	9.0 ^P	28.9 ^P	12.0 ^P	14.9 ^P
03/08/2006	99 ^A	24.87 ^A	8.4 ^P	6.9 ^P	7.9 ^P	130 ^P	15.6 ^P	20.4 ^P
03/09/2006	209 ^A	25.57 ^A	6.9 ^P	5.3 ^P	5.8 ^P	168 ^P	75.2 ^P	131 ^P
03/10/2006	217 ^A	25.62 ^A	6.7 ^P	5.4 ^P	5.9 ^P	111 ^P	41.5 ^P	64.5 ^P
03/11/2006	149 ^A	25.22 ^A	7.0 ^P	5.4 ^P	6.1 ^P	41.5 ^P	22.1 ^P	29.0 ^P
03/12/2006	131 ^A	25.10 ^A	7.4 ^P	6.2 ^P	6.7 ^P	24.7 ^P	18.2 ^P	21.0 ^P
03/13/2006	103 ^A	24.90 ^A	8.1 ^P	5.7 ^P	6.9 ^P	24.3 ^P	13.8 ^P	15.8 ^P
03/14/2006	89 ^A	24.80 ^A	8.3 ^P	6.6 ^P	7.4 ^P	20.6 ^P	10.6 ^P	13.2 ^P
03/15/2006	75 ^A	24.69 ^A	8.7 ^P	6.8 ^P	7.7 ^P	16.8 ^P	13.4 ^P	15.1 ^P
03/16/2006	83 ^A	24.75 ^A	8.6 ^P	7.7 ^P	8.1 ^P	25.7 ^P	14.9 ^P	18.2 ^P
03/17/2006	73 ^A	24.68 ^A	9.9 ^P	7.6 ^P	8.6 ^P	17.3 ^P	10.1 ^P	13.5 ^P
03/18/2006	69 ^A	24.65 ^A	9.2 ^P	7.9 ^P	8.5 ^P	15.9 ^P	11.0 ^P	12.6 ^P
03/19/2006	60 ^A	24.56 ^A	10.6 ^P	6.7 ^P	8.5 ^P	14.8 ^P	9.5 ^P	11.5 ^P

03/20/2006	55 ^A	24.52 ^A	10.8 ^P	6.9 ^P	8.9 ^P			
03/21/2006	53 ^A	24.50 ^A	10.4 ^P	8.7 ^P	9.5 ^P			
03/22/2006	50 ^A	24.47 ^A	10.9 ^P	9.1 ^P	9.9 ^P			
03/23/2006	44 ^A	24.41 ^A	11.6 ^P	9.4 ^P	10.5 ^P			
03/24/2006	56 ^A	24.52 ^A	12.2 ^P	10.0 ^P	10.9 ^P			
03/25/2006	59 ^A	24.55 ^A	10.7 ^P	8.9 ^P	9.8 ^P			
03/26/2006	52 ^A	24.49 ^A	10.8 ^P	8.1 ^P	9.4 ^P			
03/27/2006	46 ^A	24.43 ^A	12.5 ^P	8.4 ^P	10.3 ^P			
03/28/2006	43 ^A	24.40 ^A	13.6 ^P	10.0 ^P	11.7 ^P			
03/29/2006	41 ^A	24.39 ^A	11.7 ^P	10.4 ^P	10.7 ^P	8.0 ^P	6.0 ^P	7.0 ^P
03/30/2006	43 ^A	24.41 ^A	11.9 ^P	9.9 ^P	10.8 ^P			
03/31/2006	46 ^A	24.43 ^A	14.0 ^P	9.8 ^P	11.7 ^P			
04/01/2006	84 ^A	24.76 ^A	11.9 ^P	10.0 ^P	10.9 ^P	37.4 ^P	9.0 ^P	22.8 ^P
04/02/2006	61 ^A	24.58 ^A	12.0 ^P	10.0 ^P	10.9 ^P	28.2 ^P	21.4 ^P	25.1 ^P
04/03/2006	57 ^A	24.53 ^A	12.2 ^P	10.3 ^P	11.2 ^P	21.4 ^P	9.5 ^P	11.7 ^P
04/04/2006	54 ^A	24.51 ^A	14.2 ^P	9.7 ^P	11.9 ^P			
04/05/2006	53 ^A	24.50 ^A	13.7 ^P	10.9 ^P	12.2 ^P			
04/06/2006	53 ^A	24.49 ^A	13.9 ^P	10.6 ^P	12.1 ^P	59.8 ^P	12.8 ^P	23.0 ^P
04/07/2006	42 ^A	24.39 ^A	14.0 ^P	11.0 ^P	12.4 ^P			
04/08/2006	75 ^A	24.68 ^A	12.7 ^P	11.4 ^P	12.0 ^P	40.1 ^P	6.6 ^P	22.1 ^P
04/09/2006	65 ^A	24.60 ^A	13.5 ^P	11.3 ^P	12.2 ^P	25.5 ^P	14.1 ^P	20.4 ^P
04/10/2006	189 ^A	25.42 ^A	12.1 ^P	10.5 ^P	11.1 ^P	314 ^P	23.8 ^P	156 ^P
04/11/2006	128 ^A	25.08 ^A	12.7 ^P	10.5 ^P	11.4 ^P	184 ^P	30.0 ^P	47.7 ^P
04/12/2006	96 ^A	24.85 ^A	14.2 ^P	11.3 ^P	12.5 ^P	30.1 ^P	15.8 ^P	20.2 ^P
04/13/2006	74 ^A	24.69 ^A	13.0 ^P	11.5 ^P	12.2 ^P	29.0 ^P	10.2 ^P	12.0 ^P
04/14/2006	104 ^A	24.90 ^A	12.1 ^P	10.5 ^P	11.4 ^P	55.2 ^P	10.0 ^P	12.0 ^P
04/15/2006	231 ^A	25.69 ^A	10.5 ^P	8.9 ^P	9.4 ^P	128 ^P	46.7 ^P	73.0 ^P
04/16/2006	181 ^A	25.41 ^A	9.9 ^P	8.4 ^P	9.1 ^P	60.8 ^P	28.8 ^P	37.4 ^P
04/17/2006	139 ^A	25.15 ^A	11.0 ^P	9.0 ^P	9.9 ^P	40.0 ^P	18.3 ^P	26.6 ^P
04/18/2006	111 ^A	24.96 ^A	12.3 ^P	8.6 ^P	10.4 ^P	26.8 ^P	14.2 ^P	19.5 ^P
04/19/2006	86 ^A	24.78 ^A	14.1 ^P	9.9 ^P	11.8 ^P	14.2 ^P	8.8 ^P	9.8 ^P
04/20/2006	71 ^A	24.66 ^A	14.9 ^P	11.1 ^P	13.0 ^P	9.7 ^P	6.9 ^P	7.7 ^P
04/21/2006	70 ^A	24.65 ^A	14.7 ^P	12.1 ^P	13.2 ^P	8.6 ^P	7.1 ^P	7.9 ^P
04/22/2006	57 ^A	24.53 ^A	14.8 ^P	10.6 ^P	12.6 ^P	8.4 ^P	6.5 ^P	7.4 ^P
04/23/2006	48 ^A	24.45 ^A	15.7 ^P	10.9 ^P	13.3 ^P	8.0 ^P	5.8 ^P	6.4 ^P
04/24/2006	44 ^A	24.41 ^A	16.4 ^P	11.5 ^P	14.0 ^P	7.3 ^P	5.2 ^P	6.1 ^P
04/25/2006	39 ^A	24.36 ^A	16.5 ^P	12.2 ^P	14.3 ^P	6.2 ^P	4.8 ^P	5.6 ^P
04/26/2006	35 ^A	24.32 ^A	14.9 ^P	12.6 ^P	13.5 ^P	6.2 ^P	5.0 ^P	5.5 ^P
04/27/2006	33 ^A	24.30 ^A	17.3 ^P	11.9 ^P	14.5 ^P	7.0 ^P	4.9 ^P	5.4 ^P
04/28/2006	31 ^A	24.27 ^A	19.1 ^P	13.8 ^P	16.4 ^P	6.6 ^P	4.8 ^P	5.6 ^P
04/29/2006	35 ^A	24.31 ^A	17.2 ^P	13.6 ^P	15.4 ^P	14.3 ^P	5.0 ^P	5.7 ^P

04/30/2006	41 ^A	24.38 ^A	15.6 ^P	11.6 ^P	13.5 ^P	18.6 ^P	6.6 ^P	8.7 ^P
05/01/2006	29 ^A	24.26 ^A	14.5 ^P	11.6 ^P	13.1 ^P	6.7 ^P	4.9 ^P	5.9 ^P
05/02/2006	27 ^A	24.23 ^A	15.8 ^P	10.6 ^P	13.1 ^P	7.1 ^P	4.4 ^P	5.3 ^P
05/03/2006	25 ^A	24.21 ^A	16.9 ^P	11.6 ^P	14.2 ^P	6.4 ^P	4.4 ^P	5.4 ^P
05/04/2006	24 ^A	24.19 ^A	17.9 ^P	13.0 ^P	15.4 ^P	8.3 ^P	4.6 ^P	5.5 ^P
05/05/2006	23 ^A	24.18 ^A	18.3 ^P	13.5 ^P	15.9 ^P	8.0 ^P	4.8 ^P	5.6 ^P
05/06/2006	22 ^A	24.17 ^A	16.0 ^P	13.6 ^P	14.7 ^P	6.7 ^P	5.1 ^P	5.7 ^P
05/07/2006	27 ^A	24.23 ^A	14.4 ^P	12.5 ^P	13.2 ^P	32.4 ^P	4.8 ^P	6.1 ^P
05/08/2006	43 ^A	24.40 ^A	14.1 ^P	11.2 ^P	12.6 ^P	63.6 ^P	9.9 ^P	12.8 ^P
05/09/2006	26 ^A	24.22 ^A	16.3 ^P	10.8 ^P	13.5 ^P	10.8 ^P	5.7 ^P	6.5 ^P
05/10/2006	23 ^A	24.18 ^A	18.0 ^P	12.5 ^P	15.2 ^P	6.6 ^P	4.5 ^P	5.4 ^P
05/11/2006	22 ^A	24.17 ^A	17.3 ^P	14.6 ^P	16.0 ^P	5.8 ^P	4.2 ^P	4.9 ^P
05/12/2006	20 ^A	24.15 ^A	16.7 ^P	13.3 ^P	14.9 ^P	5.6 ^P	4.2 ^P	5.0 ^P
05/13/2006	20 ^A	24.14 ^A	17.9 ^P	12.5 ^P	15.2 ^P	9.5 ^P	4.2 ^P	4.8 ^P
05/14/2006	19 ^A	24.13 ^A	19.8 ^P	13.6 ^P	16.6 ^P	8.8 ^P	4.7 ^P	5.7 ^P
05/15/2006	19 ^A	24.12 ^A	21.3 ^P	15.7 ^P	18.5 ^P	7.4 ^P	4.4 ^P	5.7 ^P
05/16/2006	18 ^A	24.11 ^A	22.5 ^P	17.6 ^P	20.0 ^P			
05/17/2006	17 ^A	24.10 ^A	22.5 ^P	17.0 ^P	19.7 ^P			
05/18/2006	16 ^A	24.09 ^A	22.3 ^P	17.0 ^P	19.7 ^P			
05/19/2006	17 ^A	24.10 ^A	19.8 ^P	17.2 ^P	18.1 ^P			
05/20/2006	17 ^A	24.10 ^A	20.5 ^P	15.9 ^P	18.1 ^P	7.8 ^P	4.6 ^P	5.6 ^P
05/21/2006	20 ^A	24.14 ^A	19.4 ^P	16.3 ^P	17.8 ^P	96.5 ^P	4.1 ^P	5.3 ^P
05/22/2006	38 ^A	24.35 ^A	18.1 ^P	16.1 ^P	17.2 ^P	26.0 ^P	10.4 ^P	15.1 ^P
05/23/2006	37 ^A	24.34 ^A	17.6 ^P	15.3 ^P	16.5 ^P	19.0 ^P	8.5 ^P	11.1 ^P
05/24/2006	47 ^A	24.43 ^A	16.7 ^P	15.1 ^P	15.9 ^P	274 ^P	8.4 ^P	11.5 ^P
05/25/2006	55 ^A	24.51 ^A	16.9 ^P	14.2 ^P	15.4 ^P	243 ^P	20.9 ^P	37.3 ^P
05/26/2006	52 ^A	24.48 ^A	15.4 ^P	13.7 ^P	14.4 ^P	48.4 ^P	16.3 ^P	21.7 ^P
05/27/2006	63 ^A	24.58 ^A	14.0 ^P	12.9 ^P	13.4 ^P	49.4 ^P	16.7 ^P	30.2 ^P
05/28/2006	64 ^A	24.60 ^A	14.5 ^P	12.5 ^P	13.4 ^P	49.0 ^P	27.8 ^P	36.7 ^P
05/29/2006	42 ^A	24.39 ^A	16.8 ^P	13.0 ^P	14.7 ^P	27.8 ^P	13.1 ^P	15.4 ^P
05/30/2006	33 ^A	24.29 ^A	18.8 ^P	13.5 ^P	16.2 ^P	14.8 ^P	10.1 ^P	11.5 ^P
05/31/2006	29 ^A	24.25 ^A	17.8 ^P	15.8 ^P	17.0 ^P	11.5 ^P	7.7 ^P	9.1 ^P
06/01/2006	34 ^A	24.31 ^A	17.8 ^P	16.2 ^P	17.0 ^P	21.7 ^P	8.1 ^P	13.3 ^P
06/02/2006	56 ^A	24.52 ^A	18.4 ^P	16.3 ^P	17.3 ^P	35.8 ^P	14.9 ^P	19.1 ^P
06/03/2006	40 ^A	24.37 ^A	18.9 ^P	16.0 ^P	17.5 ^P	20.2 ^P	10.7 ^P	12.3 ^P
06/04/2006	41 ^A	24.38 ^A	19.2 ^P	16.8 ^P	18.0 ^P	20.9 ^P	11.0 ^P	12.4 ^P
06/05/2006	35 ^A	24.32 ^A	20.2 ^P	16.7 ^P	18.4 ^P	12.5 ^P	7.9 ^P	9.1 ^P
06/06/2006	29 ^A	24.26 ^A	20.8 ^P	16.7 ^P	18.7 ^P	9.4 ^P	6.8 ^P	7.8 ^P
06/07/2006	26 ^A	24.22 ^A	19.6 ^P	16.3 ^P	17.9 ^P	8.2 ^P	5.7 ^P	7.0 ^P
06/08/2006	25 ^A	24.20 ^A	17.6 ^P	16.0 ^P	16.7 ^P	7.4 ^P	5.3 ^P	6.1 ^P
06/09/2006	23 ^A	24.18 ^A	16.2 ^P	15.0 ^P	15.4 ^P	8.6 ^P	4.9 ^P	5.9 ^P

06/10/2006	23 ^A	24.18 ^A	18.7 ^P	14.4 ^P	16.4 ^P	7.4 ^P	4.7 ^P	5.6 ^P
06/11/2006	22 ^A	24.17 ^A	20.3 ^P	15.6 ^P	18.0 ^P	7.6 ^P	4.2 ^P	5.3 ^P
06/12/2006	25 ^A	24.20 ^A	19.0 ^P	17.3 ^P	17.9 ^P	15.2 ^P	5.0 ^P	6.0 ^P
06/13/2006	29 ^A	24.25 ^A	17.9 ^P	16.3 ^P	17.1 ^P	13.2 ^P	5.2 ^P	6.7 ^P
06/14/2006	24 ^A	24.19 ^A	17.1 ^P	15.7 ^P	16.4 ^P	7.3 ^P	4.9 ^P	5.8 ^P
06/15/2006	22 ^A	24.17 ^A	18.0 ^P	15.0 ^P	16.5 ^P	9.2 ^P	5.0 ^P	6.4 ^P
06/16/2006	21 ^A	24.16 ^A	19.1 ^P	16.2 ^P	17.5 ^P	9.8 ^P	4.6 ^P	6.2 ^P
06/17/2006	21 ^A	24.15 ^A	19.4 ^P	15.7 ^P	17.4 ^P	8.3 ^P	4.2 ^P	5.6 ^P
06/18/2006	19 ^A	24.13 ^A	18.1 ^P	15.5 ^P	16.9 ^P	9.4 ^P	4.5 ^P	6.5 ^P
06/19/2006	18 ^A	24.12 ^A	17.4 ^P	15.0 ^P	16.2 ^P	12.3 ^P	5.0 ^P	8.1 ^P
06/20/2006	18 ^A	24.11 ^A	19.0 ^P	14.5 ^P	16.6 ^P	13.5 ^P	4.8 ^P	8.4 ^P
06/21/2006	18 ^A	24.12 ^A	19.8 ^P	15.1 ^P	17.4 ^P	12.8 ^P	5.7 ^P	7.9 ^P
06/22/2006	18 ^A	24.11 ^A	20.5 ^P	15.5 ^P	17.9 ^P	13.7 ^P	6.2 ^P	9.2 ^P
06/23/2006	17 ^A	24.09 ^A	21.1 ^P	15.6 ^P	18.3 ^P	13.4 ^P	5.0 ^P	7.7 ^P
06/24/2006	16 ^A	24.08 ^A	22.7 ^P	16.6 ^P	19.6 ^P	8.8 ^P	4.5 ^P	6.3 ^P
06/25/2006	15 ^A	24.07 ^A	24.3 ^P	18.1 ^P	21.2 ^P	6.4 ^P	4.3 ^P	5.2 ^P
06/26/2006	16 ^A	24.08 ^A	25.3 ^P	19.7 ^P	22.5 ^P	7.6 ^P	4.3 ^P	5.2 ^P
06/27/2006	15 ^A	24.07 ^A	25.1 ^P	20.4 ^P	22.6 ^P	12.0 ^P	4.5 ^P	5.5 ^P
06/28/2006	15 ^A	24.06 ^A	22.4 ^P	17.8 ^P	20.2 ^P	14.9 ^P	5.4 ^P	7.2 ^P
06/29/2006	15 ^A	24.06 ^A	21.8 ^P	17.2 ^P	19.5 ^P	17.3 ^P	5.0 ^P	7.1 ^P
06/30/2006	15 ^A	24.06 ^A	23.4 ^P	17.9 ^P	20.5 ^P	13.5 ^P	5.4 ^P	7.2 ^P
07/01/2006	16 ^A	24.07 ^A	22.8 ^P	17.9 ^P	20.5 ^P	28.5 ^P	6.0 ^P	8.1 ^P
07/02/2006	15 ^A	24.06 ^A	23.4 ^P	18.1 ^P	20.8 ^P	34.2 ^P	5.9 ^P	10.1 ^P
07/03/2006	15 ^A	24.06 ^A	23.3 ^P	18.3 ^P	20.9 ^P	20.2 ^P	4.4 ^P	5.1 ^P
07/04/2006	16 ^A	24.07 ^A	22.6 ^P	18.4 ^P	20.5 ^P	8.2 ^P	4.5 ^P	5.4 ^P
07/05/2006	17 ^A	24.08 ^A	20.1 ^P	17.4 ^P	18.0 ^P	7.7 ^P	5.0 ^P	5.9 ^P
07/06/2006	16 ^A	24.07 ^A	17.8 ^P	16.3 ^P	17.1 ^P	12.0 ^P	4.8 ^P	5.9 ^P
07/07/2006	16 ^A	24.08 ^A	20.8 ^P	15.2 ^P	18.0 ^P	12.0 ^P	4.6 ^P	6.3 ^P
07/08/2006	17 ^A	24.08 ^A	22.6 ^P	16.6 ^P	19.6 ^P	13.3 ^P	4.8 ^P	6.7 ^P
07/09/2006	17 ^A	24.08 ^A	24.0 ^P	18.5 ^P	21.1 ^P	13.0 ^P	5.3 ^P	7.7 ^P
07/10/2006	16 ^A	24.08 ^A	22.0 ^P	18.6 ^P	20.3 ^P	18.8 ^P	6.1 ^P	9.1 ^P
07/11/2006	16 ^A	24.08 ^A	21.3 ^P	17.2 ^P	19.4 ^P	16.9 ^P	6.0 ^P	8.4 ^P
07/12/2006	16 ^A	24.08 ^A	19.6 ^P	17.5 ^P	18.5 ^P	15.4 ^P	5.8 ^P	9.8 ^P
07/13/2006	19 ^A	24.12 ^A	21.3 ^P	17.4 ^P	19.2 ^P	31.7 ^P	6.6 ^P	12.8 ^P
07/14/2006	17 ^A	24.08 ^A	22.5 ^P	17.3 ^P	20.0 ^P	86.5 ^P	6.1 ^P	14.2 ^P
07/15/2006	15 ^A	24.06 ^A	22.8 ^P	18.5 ^P	20.5 ^P	55.2 ^P	5.4 ^P	7.9 ^P
07/16/2006	15 ^A	24.05 ^A	22.6 ^P	17.4 ^P	20.1 ^P	8.8 ^P	4.9 ^P	6.3 ^P
07/17/2006	15 ^A	24.05 ^A	21.9 ^P	17.5 ^P	19.8 ^P	12.6 ^P	4.7 ^P	6.4 ^P
07/18/2006	15 ^A	24.05 ^A	21.3 ^P	16.6 ^P	19.0 ^P	7.9 ^P	5.0 ^P	5.8 ^P
07/19/2006	14 ^A	24.04 ^A	22.2 ^P	17.0 ^P	19.7 ^P	7.1 ^P	4.0 ^P	5.3 ^P
07/20/2006	14 ^A	24.04 ^A	23.3 ^P	17.8 ^P	20.6 ^P	8.2 ^P	5.1 ^P	6.0 ^P

07/21/2006	13 ^A	24.03 ^A	24.8 ^P	19.1 ^P	22.0 ^P	6.9 ^P	4.7 ^P	5.4 ^P
07/22/2006	14 ^A	24.04 ^A	23.4 ^P	21.4 ^P	22.3 ^P	6.5 ^P	4.1 ^P	5.4 ^P
07/23/2006	14 ^A	24.04 ^A	25.7 ^P	20.1 ^P	22.8 ^P	6.6 ^P	3.7 ^P	5.0 ^P
07/24/2006	14 ^A	24.04 ^A	25.8 ^P	21.0 ^P	23.3 ^P	6.9 ^P	3.2 ^P	4.5 ^P
07/25/2006	14 ^A	24.04 ^A	24.1 ^P	19.7 ^P	22.0 ^P	6.4 ^P	2.9 ^P	4.4 ^P
07/26/2006	14 ^A	24.04 ^A	23.4 ^P	19.0 ^P	21.2 ^P	10.6 ^P	4.1 ^P	5.4 ^P
07/27/2006	14 ^A	24.04 ^A	23.6 ^P	18.9 ^P	21.2 ^P	9.2 ^P	4.3 ^P	5.7 ^P
07/28/2006	14 ^A	24.04 ^A	21.2 ^P	17.7 ^P	19.5 ^P	8.5 ^P	4.5 ^P	5.5 ^P
07/29/2006	14 ^A	24.03 ^A	20.0 ^P	16.9 ^P	18.4 ^P	6.1 ^P	4.2 ^P	5.1 ^P
07/30/2006	14 ^A	24.04 ^A	19.0 ^P	16.6 ^P	17.9 ^P	5.9 ^P	3.8 ^P	4.8 ^P
07/31/2006	14 ^A	24.05 ^A	20.5 ^P	15.5 ^P	18.0 ^P	6.2 ^P	3.6 ^P	4.6 ^P
08/01/2006	14 ^A	24.05 ^A	20.1 ^P	16.3 ^P	18.2 ^P	6.1 ^P	3.9 ^P	5.2 ^P
08/02/2006	14 ^A	24.05 ^A	20.7 ^P	16.2 ^P	18.4 ^P	6.3 ^P	4.6 ^P	5.3 ^P
08/03/2006	14 ^A	24.04 ^A	21.1 ^P	16.2 ^P	18.6 ^P	5.8 ^P	3.9 ^P	4.7 ^P
08/04/2006	14 ^A	24.04 ^A	21.0 ^P	16.2 ^P	18.6 ^P	5.5 ^P	3.5 ^P	4.6 ^P
08/05/2006	14 ^A	24.04 ^A	22.0 ^P	16.7 ^P	19.4 ^P	5.3 ^P	3.2 ^P	4.3 ^P
08/06/2006	14 ^A	24.04 ^A	22.7 ^P	17.6 ^P	20.1 ^P	7.0 ^P	3.9 ^P	5.1 ^P
08/07/2006	14 ^A	24.04 ^A	23.0 ^P	18.0 ^P	20.5 ^P	10.8 ^P	4.0 ^P	5.6 ^P
08/08/2006	14 ^A	24.04 ^A	21.3 ^P	17.5 ^P	19.5 ^P	12.4 ^P	4.0 ^P	5.3 ^P
08/09/2006	14 ^A	24.04 ^A	22.0 ^P	18.1 ^P	20.0 ^P	6.6 ^P	3.8 ^P	5.0 ^P
08/10/2006	14 ^A	24.04 ^A	21.1 ^P	17.3 ^P	19.2 ^P	5.8 ^P	3.4 ^P	4.4 ^P
08/11/2006	14 ^A	24.04 ^A	20.0 ^P	16.8 ^P	18.3 ^P	6.9 ^P	3.6 ^P	4.6 ^P
08/12/2006	15 ^A	24.06 ^A	20.0 ^P	15.7 ^P	17.8 ^P	5.7 ^P	3.6 ^P	4.4 ^P
08/13/2006	14 ^A	24.05 ^A	21.5 ^P	16.4 ^P	18.9 ^P	6.2 ^P	3.3 ^P	4.7 ^P
08/14/2006	14 ^A	24.04 ^A	22.3 ^P	17.3 ^P	19.7 ^P	7.9 ^P	3.5 ^P	4.6 ^P
08/15/2006	14 ^A	24.04 ^A	19.8 ^P	16.9 ^P	18.3 ^P	8.7 ^P	3.9 ^P	4.8 ^P
08/16/2006	15 ^A	24.05 ^A	18.3 ^P	16.0 ^P	17.2 ^P	6.0 ^P	3.0 ^P	4.3 ^P
08/17/2006	15 ^A	24.05 ^A	19.3 ^P	15.9 ^P	17.5 ^P	7.4 ^P	3.4 ^P	4.2 ^P
08/18/2006	14 ^A	24.05 ^A	21.2 ^P	16.2 ^P	18.6 ^P	7.3 ^P	3.3 ^P	4.3 ^P
08/19/2006	14 ^A	24.04 ^A	22.4 ^P	17.2 ^P	19.7 ^P	5.5 ^P	3.4 ^P	4.5 ^P
08/20/2006	14 ^A	24.04 ^A	22.0 ^P	17.3 ^P	19.7 ^P	6.4 ^P	3.5 ^P	4.6 ^P
08/21/2006	14 ^A	24.04 ^A	20.6 ^P	17.4 ^P	19.1 ^P	8.1 ^P	3.5 ^P	4.5 ^P
08/22/2006	15 ^A	24.05 ^A	19.6 ^P	16.3 ^P	17.9 ^P	6.7 ^P	3.6 ^P	4.6 ^P
08/23/2006	15 ^A	24.05 ^A	18.4 ^P	16.1 ^P	17.2 ^P	6.2 ^P	3.6 ^P	4.6 ^P
08/24/2006	15 ^A	24.05 ^A	17.9 ^P	15.6 ^P	16.6 ^P	9.4 ^P	3.8 ^P	4.7 ^P
08/25/2006	14 ^A	24.04 ^A	20.2 ^P	14.9 ^P	17.4 ^P	7.6 ^P	3.5 ^P	4.6 ^P
08/26/2006	15 ^A	24.05 ^A	21.4 ^P	16.4 ^P	18.8 ^P	7.3 ^P	3.8 ^P	4.9 ^P
08/27/2006	14 ^A	24.04 ^A	22.0 ^P	17.1 ^P	19.5 ^P	6.2 ^P	3.3 ^P	4.4 ^P
08/28/2006	15 ^A	24.06 ^A	22.1 ^P	17.6 ^P	19.7 ^P	6.3 ^P	3.3 ^P	4.6 ^P
08/29/2006	15 ^A	24.06 ^A	19.3 ^P	16.5 ^P	17.5 ^P	8.2 ^P	4.5 ^P	5.6 ^P
08/30/2006	16 ^A	24.07 ^A	16.9 ^P	15.0 ^P	16.0 ^P	7.3 ^P	4.5 ^P	5.7 ^P

08/31/2006	17 ^A	24.09 ^A	18.4 ^P	13.9 ^P	16.1 ^P	6.9 ^P	3.9 ^P	5.0 ^P
09/01/2006	15 ^A	24.06 ^A	19.4 ^P	15.0 ^P	17.2 ^P	6.5 ^P	3.6 ^P	5.0 ^P
09/02/2006	15 ^A	24.05 ^A	20.6 ^P	16.0 ^P	18.2 ^P	10.0 ^P	3.6 ^P	4.9 ^P
09/03/2006	15 ^A	24.05 ^A	20.0 ^P	16.7 ^P	18.3 ^P	9.2 ^P	4.0 ^P	5.0 ^P
09/04/2006	15 ^A	24.05 ^A	20.3 ^P	16.4 ^P	18.3 ^P	12.0 ^P	5.1 ^P	6.4 ^P
09/05/2006	15 ^A	24.05 ^A	19.9 ^P	16.1 ^P	18.1 ^P	29.5 ^P	6.3 ^P	10.4 ^P
09/06/2006	15 ^A	24.05 ^A	20.6 ^P	16.2 ^P	18.2 ^P	26.7 ^P	4.1 ^P	10.8 ^P
09/07/2006	15 ^A	24.05 ^A	19.7 ^P	15.3 ^P	17.6 ^P			
09/08/2006	15 ^A	24.06 ^A	19.4 ^P	15.2 ^P	17.3 ^P	11.5 ^P	4.2 ^P	5.6 ^P
09/09/2006	16 ^A	24.07 ^A	18.9 ^P	16.2 ^P	17.5 ^P	7.3 ^P	4.1 ^P	4.8 ^P
09/10/2006	16 ^A	24.07 ^A	18.6 ^P	14.5 ^P	16.6 ^P	8.9 ^P	3.6 ^P	4.7 ^P
09/11/2006	15 ^A	24.06 ^A	19.4 ^P	14.6 ^P	16.9 ^P	8.9 ^P	3.8 ^P	4.9 ^P
09/12/2006	15 ^A	24.06 ^A	19.8 ^P	15.2 ^P	17.4 ^P	10.8 ^P	4.1 ^P	5.3 ^P
09/13/2006	16 ^A	24.07 ^A	17.9 ^P	14.8 ^P	16.4 ^P	8.9 ^P	4.2 ^P	5.3 ^P
09/14/2006	32 ^A	24.23 ^A	15.9 ^P	14.3 ^P	15.0 ^P			
09/15/2006	68 ^A	24.60 ^A	15.2 ^P	13.4 ^P	14.2 ^P	313 ^P	24.4 ^P	76.3 ^P
09/16/2006	28 ^A	24.23 ^A	15.8 ^P	13.4 ^P	14.6 ^P	34.0 ^P	11.6 ^P	17.3 ^P
09/17/2006	19 ^A	24.11 ^A	16.9 ^P	13.7 ^P	15.1 ^P	15.4 ^P	8.4 ^P	10.2 ^P
09/18/2006	30 ^A	24.26 ^A	17.1 ^P	15.2 ^P	16.0 ^P	36.3 ^P	7.4 ^P	11.4 ^P
09/19/2006	31 ^A	24.27 ^A	16.4 ^P	14.6 ^P	15.6 ^P	24.9 ^P	9.6 ^P	13.8 ^P
09/20/2006	25 ^A	24.20 ^A	15.6 ^P	13.7 ^P	14.6 ^P	10.8 ^P	6.1 ^P	8.3 ^P
09/21/2006	31 ^A	24.27 ^A	14.9 ^P	14.0 ^P	14.3 ^P	26.0 ^P	6.5 ^P	9.1 ^P
09/22/2006	20 ^A	24.15 ^A	15.6 ^P	12.4 ^P	14.0 ^P	6.7 ^P	4.8 ^P	5.6 ^P
09/23/2006	16 ^A	24.08 ^A	17.0 ^P	12.9 ^P	14.8 ^P	6.0 ^P	4.3 ^P	5.4 ^P
09/24/2006	17 ^A	24.10 ^A	17.5 ^P	13.8 ^P	15.6 ^P	7.9 ^P	4.6 ^P	5.9 ^P
09/25/2006	16 ^A	24.09 ^A	18.2 ^P	14.1 ^P	16.0 ^P	6.8 ^P	4.8 ^P	5.6 ^P
09/26/2006	15 ^A	24.08 ^A	18.2 ^P	14.2 ^P	16.2 ^P	6.5 ^P	4.9 ^P	5.7 ^P
09/27/2006	15 ^A	24.08 ^A	18.1 ^P	14.2 ^P	16.1 ^P	8.1 ^P	5.0 ^P	6.0 ^P
09/28/2006	14 ^A	24.07 ^A	18.4 ^P	14.3 ^P	16.3 ^P	6.7 ^P	5.0 ^P	5.7 ^P
09/29/2006	15 ^A	24.08 ^A	18.3 ^P	14.7 ^P	16.4 ^P	7.5 ^P	4.9 ^P	5.7 ^P
09/30/2006	15 ^A	24.08 ^A	17.2 ^P	14.1 ^P	15.7 ^P	17.2 ^P	5.1 ^P	6.6 ^P
10/01/2006	14 ^P	24.07 ^P	16.0 ^P	13.2 ^P	14.7 ^P	17.1 ^P	4.7 ^P	6.6 ^P
10/02/2006	14 ^P	24.06 ^P	16.1 ^P	13.0 ^P	14.5 ^P	13.0 ^P	5.1 ^P	6.0 ^P
10/03/2006	14 ^P	24.06 ^P	14.8 ^P	13.2 ^P	14.0 ^P	10.6 ^P	3.8 ^P	5.6 ^P
10/04/2006	14 ^P	24.06 ^P	14.7 ^P	12.6 ^P	13.6 ^P	5.2 ^P	3.5 ^P	4.1 ^P
10/05/2006	14 ^P	24.06 ^P	16.0 ^P	12.4 ^P	14.2 ^P	5.4 ^P	3.2 ^P	4.1 ^P
10/06/2006	13 ^P	24.06 ^P	14.8 ^P	13.3 ^P	14.1 ^P	9.3 ^P	3.8 ^P	4.4 ^P
10/07/2006	14 ^P	24.07 ^P	15.1 ^P	13.0 ^P	13.9 ^P	5.1 ^P	3.4 ^P	4.2 ^P
10/08/2006	14 ^P	24.07 ^P	13.6 ^P	12.1 ^P	13.0 ^P	6.4 ^P	3.1 ^P	4.2 ^P
10/09/2006	13 ^P	24.06 ^P	14.7 ^P	11.9 ^P	13.2 ^P	5.5 ^P	3.2 ^P	4.0 ^P
10/10/2006	13 ^P	24.04 ^P	14.5 ^P	11.0 ^P	12.8 ^P	6.3 ^P	3.3 ^P	3.9 ^P

10/11/2006	12 ^P	24.04 ^P	15.0 ^P	11.5 ^P	13.2 ^P	7.9 ^P	3.4 ^P	3.9 ^P
10/12/2006	12 ^P	24.04 ^P	15.1 ^P	11.3 ^P	13.2 ^P	5.5 ^P	3.5 ^P	4.2 ^P
10/13/2006	14 ^P	24.06 ^P	14.8 ^P	11.4 ^P	13.1 ^P	6.4 ^P	3.4 ^P	4.5 ^P
10/14/2006	13 ^P	24.06 ^P	13.6 ^P	12.3 ^P	12.8 ^P	5.3 ^P	2.9 ^P	4.0 ^P
10/15/2006	31 ^P	24.27 ^P	13.6 ^P	12.2 ^P	12.6 ^P	136 ^P	3.5 ^P	11.3 ^P
10/16/2006	61 ^P	24.58 ^P	13.2 ^P	11.6 ^P	12.4 ^P	158 ^P	21.2 ^P	36.4 ^P
10/17/2006	27 ^P	24.25 ^P	13.6 ^P	12.3 ^P	12.8 ^P	21.9 ^P	7.8 ^P	14.1 ^P
10/18/2006	18 ^P	24.14 ^P	13.1 ^P	12.0 ^P	12.5 ^P	8.1 ^P	4.9 ^P	5.9 ^P
10/19/2006	45 ^P	24.43 ^P	13.3 ^P	12.6 ^P	12.9 ^P	77.9 ^P	5.2 ^P	20.9 ^P
10/20/2006	34 ^P	24.33 ^P	13.4 ^P	12.2 ^P	12.7 ^P	25.3 ^P	7.5 ^P	12.8 ^P
10/21/2006	21 ^P	24.18 ^P	13.3 ^P	11.0 ^P	12.1 ^P	8.2 ^P	4.4 ^P	6.6 ^P
10/22/2006	16 ^P	24.10 ^P	13.7 ^P	11.1 ^P	12.3 ^P	14.2 ^P	3.8 ^P	5.0 ^P
10/23/2006	16 ^P	24.10 ^P	12.4 ^P	10.6 ^P	11.5 ^P			
10/24/2006	16 ^P	24.11 ^P	11.8 ^P	10.0 ^P	10.9 ^P			
10/25/2006	20 ^P	24.16 ^P	11.5 ^P	9.9 ^P	10.8 ^P			
10/26/2006	16 ^P	24.10 ^P	11.8 ^P	9.4 ^P	10.5 ^P			
10/27/2006	15 ^P	24.08 ^P	12.2 ^P	9.2 ^P	10.7 ^P			
10/28/2006	15 ^P	24.08 ^P	11.9 ^P	9.9 ^P	10.8 ^P			
10/29/2006	15 ^P	24.08 ^P	11.8 ^P	9.8 ^P	10.8 ^P			
10/30/2006	15 ^{e P}							
10/31/2006	15 ^{e P}							
11/01/2006	15 ^{e P}							
11/02/2006								
11/03/2006	116 ^P	25.00 ^P	10.5 ^P	7.3 ^P	9.1 ^P	220 ^P	34.8 ^P	52.9 ^P
11/04/2006	103 ^P	24.91 ^P	12.8 ^P	10.0 ^P	11.2 ^P	123 ^P	40.7 ^P	67.7 ^P
11/05/2006	187 ^P	25.45 ^P	13.7 ^P	12.0 ^P	12.6 ^P	352 ^P	108 ^P	132 ^P
11/06/2006	303 ^P	26.04 ^P	15.5 ^P	13.5 ^P	14.5 ^P	349 ^P	82.1 ^P	140 ^P
11/07/2006	853 ^P	28.08 ^P	15.5 ^P	13.7 ^P	14.7 ^P	290 ^P	138 ^P	233 ^P
11/08/2006	326 ^P	26.19 ^P	13.7 ^P	11.8 ^P	12.6 ^P	170 ^P	52.3 ^P	88.6 ^P
11/09/2006	236 ^P	25.73 ^P	11.8 ^P	11.0 ^P	11.3 ^P	88.6 ^P	35.7 ^P	62.9 ^P
11/10/2006	209 ^P	25.54 ^P	11.0 ^P	10.0 ^P	10.5 ^P	99.0 ^P	23.9 ^P	30.1 ^P
11/11/2006	382 ^P	26.42 ^P	10.5 ^P	10.0 ^P	10.2 ^P	108 ^P	34.3 ^P	70.4 ^P
11/12/2006	179 ^P	25.42 ^P	10.4 ^P	9.5 ^P	10.1 ^P	49.6 ^P	18.7 ^P	24.4 ^P
11/13/2006	294 ^P	26.05 ^P	10.5 ^P	9.7 ^P	10.1 ^P	64.3 ^P	34.8 ^P	48.5 ^P
11/14/2006	227 ^P	25.68 ^P	10.4 ^P	9.7 ^P	10.1 ^P	62.3 ^P	19.8 ^P	43.2 ^P
11/15/2006	142 ^P	25.19 ^P	11.0 ^P	10.2 ^P	10.5 ^P	58.5 ^P	13.4 ^P	16.9 ^P
11/16/2006	215 ^P	25.61 ^P	10.9 ^P	10.2 ^P	10.7 ^P			
11/17/2006	112 ^P	24.99 ^P	10.2 ^P	9.1 ^P	9.6 ^P	42.0 ^P	14.6 ^P	21.8 ^P
11/18/2006	83 ^P	24.77 ^P	9.2 ^P	8.5 ^P	8.8 ^P	22.4 ^P	10.8 ^P	13.7 ^P
11/19/2006	104 ^P	24.92 ^P	9.8 ^P	8.6 ^P	9.2 ^P	43.4 ^P	10.4 ^P	12.4 ^P
11/20/2006	152 ^P	25.25 ^P	10.5 ^P	9.7 ^P	10.0 ^P	50.2 ^P	28.1 ^P	38.7 ^P

11/21/2006	145 ^P	25.20 ^P	10.0 ^P	9.2 ^P	9.8 ^P	55.4 ^P	21.0 ^P	27.0 ^P
11/22/2006	310 ^P	26.12 ^P	9.3 ^P	8.9 ^P	9.1 ^P	235 ^P	55.0 ^P	88.0 ^P
11/23/2006	381 ^P	26.45 ^P	9.0 ^P	8.6 ^P	8.7 ^P	278 ^P	41.3 ^P	73.5 ^P
11/24/2006	490 ^P	26.90 ^P	9.3 ^P	8.7 ^P	9.0 ^P	218 ^P	51.0 ^P	121 ^P
11/25/2006	227 ^P	25.69 ^P	9.3 ^P	8.5 ^P	9.0 ^P	124 ^P	19.7 ^P	43.9 ^P
11/26/2006	290 ^P	26.01 ^P	8.5 ^P	7.6 ^P	8.1 ^P	99.8 ^P	18.7 ^P	50.9 ^P
11/27/2006	193 ^P	25.50 ^P	8.2 ^P	7.2 ^P	7.7 ^P	52.4 ^P	17.1 ^P	25.4 ^P
11/28/2006	133 ^P	25.13 ^P	7.2 ^P	6.2 ^P	6.8 ^P	17.1 ^P	13.8 ^P	15.3 ^P
11/29/2006	99 ^P	24.90 ^P	6.2 ^P	5.5 ^P	5.9 ^P	13.8 ^P	10.1 ^P	12.1 ^P
11/30/2006	137 ^P	25.15 ^P	6.8 ^P	5.4 ^P	6.1 ^P	23.6 ^P	10.1 ^P	20.1 ^P
12/01/2006	110 ^P	24.97 ^P	7.9 ^P	6.8 ^P	7.3 ^P	27.4 ^P	12.8 ^P	18.6 ^P
12/02/2006	88 ^P	24.81 ^P	7.5 ^P	5.3 ^P	6.7 ^P	13.0 ^P	9.8 ^P	10.6 ^P
12/03/2006	73 ^P	24.70 ^P	5.3 ^P	4.4 ^P	4.9 ^P	13.0 ^P	8.2 ^P	9.5 ^P
12/04/2006	64 ^P	24.62 ^P	6.0 ^P	4.4 ^P	5.2 ^P	8.7 ^P	7.0 ^P	7.9 ^P
12/05/2006	56 ^P	24.55 ^P	7.2 ^P	5.9 ^P	6.5 ^P	7.5 ^P	6.6 ^P	6.9 ^P
12/06/2006	50 ^P	24.49 ^P	6.8 ^P	5.6 ^P	6.2 ^P	7.3 ^P	5.9 ^P	6.6 ^P
12/07/2006	46 ^P	24.45 ^P	6.8 ^P	5.7 ^P	6.2 ^P	8.3 ^P	5.6 ^P	6.3 ^P
12/08/2006	43 ^P	24.42 ^P	6.4 ^P	5.7 ^P	6.0 ^P	6.8 ^P	5.1 ^P	5.8 ^P
12/09/2006	59 ^P	24.57 ^P	7.1 ^P	5.7 ^P	6.4 ^P	22.3 ^P	5.1 ^P	9.6 ^P
12/10/2006	53 ^P	24.52 ^P	8.0 ^P	6.4 ^P	7.2 ^P	13.9 ^P	8.6 ^P	9.6 ^P
12/11/2006	120 ^P	24.99 ^P	9.0 ^P	8.0 ^P	8.4 ^P	103 ^P	10.9 ^P	30.8 ^P
12/12/2006	261 ^P	25.87 ^P	8.8 ^P	8.3 ^P	8.6 ^P	186 ^P	50.8 ^P	132 ^P
12/13/2006	385 ^P	26.45 ^P	9.3 ^P	8.8 ^P	9.1 ^P	161 ^P	55.7 ^P	110 ^P
12/14/2006	766 ^P	27.58 ^P	9.5 ^P	8.7 ^P	9.1 ^P	306 ^P	43.9 ^P	196 ^P
12/15/2006	651 ^P	27.47 ^P	9.5 ^P	7.2 ^P	8.4 ^P	213 ^P	63.3 ^P	95.6 ^P
12/16/2006	270 ^P	25.92 ^P	7.2 ^P	6.3 ^P	6.7 ^P	63.3 ^P	25.6 ^P	37.5 ^P
12/17/2006	161 ^P	25.31 ^P	6.3 ^P	5.3 ^P	5.9 ^P	25.7 ^P	17.4 ^P	20.7 ^P
12/18/2006	116 ^P	25.01 ^P	5.4 ^P	4.8 ^P	5.1 ^P	17.6 ^P	13.3 ^P	15.3 ^P
12/19/2006	94 ^P	24.86 ^P	5.3 ^P	4.7 ^P	4.9 ^P	20.5 ^P	10.8 ^P	12.4 ^P
12/20/2006	80 ^P	24.76 ^P	5.5 ^P	4.4 ^P	4.8 ^P	20.4 ^P	9.2 ^P	10.2 ^P
12/21/2006	152 ^P	25.25 ^P	6.0 ^P	5.0 ^P	5.5 ^P	92.6 ^P	14.6 ^P	46.7 ^P
12/22/2006	143 ^P	25.20 ^P	6.9 ^P	6.0 ^P	6.4 ^P	90.3 ^P	29.6 ^P	37.7 ^P
12/23/2006	252 ^P	25.81 ^P	7.1 ^P	6.5 ^P	6.8 ^P	105 ^P	31.5 ^P	74.3 ^P
12/24/2006	208 ^P	25.59 ^P	7.6 ^P	6.9 ^P	7.1 ^P	90.6 ^P	23.8 ^P	37.6 ^P
12/25/2006	639 ^P	27.37 ^P	7.8 ^P	7.0 ^P	7.4 ^P	209 ^P	52.1 ^P	143 ^P
12/26/2006	509 ^P	26.96 ^P	7.8 ^P	7.3 ^P	7.5 ^P	95.7 ^P	34.2 ^P	54.4 ^P
12/27/2006	354 ^P	26.34 ^P	7.7 ^P	7.2 ^P	7.6 ^P	92.7 ^P	37.6 ^P	47.2 ^P
12/28/2006	196 ^P	25.52 ^P	7.2 ^P	5.6 ^P	6.4 ^P	39.1 ^P	17.1 ^P	23.2 ^P
12/29/2006	139 ^P	25.17 ^P	6.0 ^P	5.3 ^P	5.7 ^P	18.3 ^P	13.0 ^P	16.9 ^P
12/30/2006	109 ^P	24.97 ^P	5.8 ^P	4.9 ^P	5.4 ^P	20.6 ^P	10.3 ^P	12.1 ^P
12/31/2006	88 ^P	24.81 ^P	5.4 ^P	4.6 ^P	5.0 ^P	20.5 ^P	9.4 ^P	10.6 ^P

01/01/2007	80 ^P	24.75 ^P	5.6 ^P	4.6 ^P	5.1 ^P	23.4 ^P	9.0 ^P	9.8 ^P
01/02/2007	129 ^P	25.05 ^P	9.2 ^P	5.6 ^P	7.5 ^P	110 ^P	9.0 ^P	10.2 ^P
01/03/2007	907 ^P	28.16 ^P	9.1 ^P	7.9 ^P	8.4 ^P	290 ^P	101 ^P	186 ^P
01/04/2007	449 ^P	26.75 ^P	7.9 ^P	6.6 ^P	7.2 ^P	114 ^P	56.3 ^P	82.5 ^P
01/05/2007	242 ^P	25.77 ^P	6.8 ^P	6.4 ^P	6.7 ^P	94.9 ^P	24.9 ^P	35.4 ^P
01/06/2007	297 ^P	26.06 ^P	7.5 ^P	6.7 ^P	7.0 ^P	144 ^P	29.4 ^P	65.9 ^P
01/07/2007	208 ^P	25.59 ^P	8.4 ^P	7.5 ^P	8.0 ^P	60.5 ^P	26.6 ^P	30.7 ^P
01/08/2007	181 ^P	25.43 ^P	8.6 ^P	8.2 ^P	8.4 ^P	34.3 ^P	20.4 ^P	27.2 ^P
01/09/2007	145 ^P	25.21 ^P	9.0 ^P	8.3 ^P	8.7 ^P	31.3 ^P	19.0 ^P	20.0 ^P
01/10/2007	209 ^P	25.59 ^P	8.3 ^P	6.2 ^P	7.0 ^P	146 ^P	28.1 ^P	74.4 ^P
01/11/2007	137 ^P	25.16 ^P	6.2 ^P	4.7 ^P	5.7 ^P	50.7 ^P	18.9 ^P	26.3 ^P
01/12/2007	104 ^P	24.93 ^P	4.7 ^P	3.1 ^P	4.0 ^P	18.9 ^P	14.2 ^P	15.7 ^P
01/13/2007	85 ^P	24.79 ^P	3.6 ^P	2.6 ^P	3.1 ^P	15.1 ^P	11.0 ^P	13.1 ^P
01/14/2007	72 ^P	24.69 ^P	3.2 ^P	2.0 ^P	2.6 ^P	15.1 ^P	9.9 ^P	10.9 ^P
01/15/2007	62 ^P	24.60 ^P	2.5 ^P	1.2 ^P	1.9 ^P	17.3 ^P	8.5 ^P	9.5 ^P
01/16/2007	56 ^P	24.55 ^P	2.6 ^P	1.1 ^P	2.0 ^P	16.2 ^P	7.6 ^P	8.4 ^P
01/17/2007	52 ^P	24.51 ^P	4.2 ^P	2.6 ^P	3.4 ^P	16.5 ^P	7.6 ^P	8.6 ^P
01/18/2007	51 ^P	24.50 ^P	5.6 ^P	4.1 ^P	4.7 ^P	16.0 ^P	7.5 ^P	10.0 ^P
01/19/2007	53 ^P	24.52 ^P	5.8 ^P	4.6 ^P	5.1 ^P	29.8 ^P	8.5 ^P	12.7 ^P
01/20/2007	73 ^P	24.69 ^P	6.0 ^P	4.8 ^P	5.3 ^P	50.1 ^P	12.9 ^P	19.6 ^P
01/21/2007	63 ^P	24.61 ^P	6.1 ^P	4.9 ^P	5.5 ^P	15.4 ^P	11.2 ^P	13.3 ^P
01/22/2007	58 ^P	24.56 ^P	7.5 ^P	6.0 ^P	6.6 ^P	13.0 ^P	8.9 ^P	10.5 ^P
01/23/2007	54 ^P	24.53 ^P	7.4 ^P	5.9 ^P	6.6 ^P	16.9 ^P	8.3 ^P	9.4 ^P
01/24/2007	50 ^P	24.49 ^P	6.6 ^P	5.0 ^P	5.8 ^P	8.5 ^P	7.1 ^P	8.0 ^P
01/25/2007	46 ^P	24.46 ^P	5.8 ^P	4.9 ^P	5.4 ^P	8.6 ^P	6.6 ^P	7.2 ^P
01/26/2007	44 ^P	24.43 ^P	6.9 ^P	5.2 ^P	5.9 ^P	8.0 ^P	6.3 ^P	6.9 ^P
01/27/2007	40 ^P	24.40 ^P	5.9 ^P	4.4 ^P	5.1 ^P	8.6 ^P	5.9 ^P	6.5 ^P
01/28/2007	37 ^P	24.36 ^P	5.3 ^P	3.4 ^P	4.3 ^P	8.1 ^P	6.0 ^P	6.9 ^P
01/29/2007	36 ^P	24.35 ^P	5.7 ^P	3.2 ^P	4.4 ^P	17.0 ^P	6.6 ^P	7.5 ^P
01/30/2007	34 ^P	24.33 ^P	5.3 ^P	3.5 ^P	4.3 ^P	17.7 ^P	5.5 ^P	7.1 ^P
01/31/2007	32 ^P	24.31 ^P	5.3 ^P	3.3 ^P	4.2 ^P	9.3 ^P	5.6 ^P	6.3 ^P
02/01/2007	31 ^P	24.30 ^P	5.3 ^P	3.1 ^P	4.2 ^P	8.1 ^P	5.9 ^P	6.9 ^P
02/02/2007	30 ^P	24.28 ^P	6.0 ^P	3.4 ^P	4.6 ^P	7.8 ^P	5.6 ^P	6.4 ^P
02/03/2007	30 ^P	24.28 ^P	6.0 ^P	4.0 ^P	5.0 ^P	12.9 ^P	5.6 ^P	6.4 ^P
02/04/2007	30 ^P	24.29 ^P	8.6 ^P	5.8 ^P	7.1 ^P	7.3 ^P	4.8 ^P	5.9 ^P
02/05/2007	28 ^P	24.26 ^P	8.8 ^P	7.0 ^P	7.9 ^P	7.7 ^P	4.6 ^P	5.3 ^P
02/06/2007	28 ^P	24.26 ^P	9.6 ^P	7.3 ^P	8.4 ^P	5.9 ^P	4.1 ^P	4.8 ^P
02/07/2007	27 ^P	24.25 ^P	8.9 ^P	8.0 ^P	8.5 ^P	20.1 ^P	3.9 ^P	4.8 ^P
02/08/2007	33 ^P	24.32 ^P	9.6 ^P	7.8 ^P	8.6 ^P	11.8 ^P	4.9 ^P	6.3 ^P
02/09/2007	58 ^P	24.56 ^P	9.6 ^P	8.2 ^P	8.7 ^P	45.8 ^P	4.9 ^P	15.9 ^P
02/10/2007	45 ^P	24.44 ^P	8.8 ^P	7.8 ^P	8.3 ^P	22.0 ^P	9.5 ^P	11.8 ^P

02/11/2007	75 ^P	24.71 ^P	8.8 ^P	7.5 ^P	8.1 ^P	47.4 ^P	20.5 ^P	27.9 ^P
02/12/2007	60 ^P	24.58 ^P	9.6 ^P	8.0 ^P	8.6 ^P	22.4 ^P	14.0 ^P	15.9 ^P
02/13/2007	51 ^P	24.50 ^P	9.0 ^P	7.9 ^P	8.4 ^P	15.8 ^P	9.3 ^P	10.5 ^P
02/14/2007	52 ^P	24.51 ^P	8.5 ^P	7.8 ^P	8.2 ^P	38.9 ^P	7.8 ^P	9.8 ^P
02/15/2007	171 ^P	25.28 ^P	9.7 ^P	8.3 ^P	9.1 ^P	269 ^P	15.1 ^P	30.9 ^P
02/16/2007	288 ^P	26.01 ^P	9.2 ^P	8.9 ^P	9.1 ^P	316 ^P	54.1 ^P	94.2 ^P
02/17/2007	180 ^P	25.42 ^P	9.7 ^P	8.8 ^P	9.2 ^P	54.1 ^P	25.3 ^P	35.4 ^P
02/18/2007	132 ^P	25.13 ^P	9.2 ^P	8.3 ^P	8.8 ^P	32.2 ^P	18.0 ^P	20.8 ^P
02/19/2007	105 ^P	24.94 ^P	8.9 ^P	8.0 ^P	8.4 ^P	36.7 ^P	12.9 ^P	16.2 ^P
02/20/2007	195 ^P	25.49 ^P	8.4 ^P	7.5 ^P	7.9 ^P	119 ^P	15.5 ^P	78.1 ^P
02/21/2007	159 ^P	25.30 ^P	7.7 ^P	6.6 ^P	7.2 ^P	116 ^P	26.5 ^P	47.4 ^P
02/22/2007	169 ^P	25.37 ^P	7.6 ^P	7.0 ^P	7.3 ^P	38.5 ^P	26.0 ^P	29.6 ^P
02/23/2007	131 ^P	25.12 ^P	7.6 ^P	6.6 ^P	7.1 ^P	34.1 ^P	18.7 ^P	23.8 ^P
02/24/2007	290 ^P	25.96 ^P	7.2 ^P	7.0 ^P	7.1 ^P	170 ^P	17.5 ^P	69.2 ^P
02/25/2007	332 ^P	26.24 ^P	7.5 ^P	7.1 ^P	7.3 ^P	146 ^P	46.4 ^P	58.0 ^P
02/26/2007	232 ^P	25.72 ^P	7.4 ^P	6.7 ^P	7.1 ^P	46.4 ^P	23.9 ^P	30.4 ^P
02/27/2007	174 ^P	25.40 ^P	7.0 ^P	6.4 ^P	6.6 ^P	47.5 ^P	20.0 ^P	24.1 ^P
02/28/2007	148 ^P	25.23 ^P	7.0 ^P	6.0 ^P	6.4 ^P	41.8 ^P	19.5 ^P	23.0 ^P
03/01/2007	122 ^P	25.06 ^P	7.0 ^P	6.0 ^P	6.5 ^P	28.9 ^P	16.4 ^P	19.6 ^P
03/02/2007	196 ^P	25.49 ^P	7.7 ^P	6.8 ^P	7.1 ^P	74.7 ^P	16.1 ^P	31.4 ^P
03/03/2007	386 ^P	26.47 ^P	8.2 ^P	6.9 ^P	7.5 ^P	134 ^P	35.3 ^P	82.0 ^P
03/04/2007	202 ^P	25.55 ^P	9.3 ^P	8.0 ^P	8.6 ^P	35.3 ^P	17.6 ^P	23.8 ^P
03/05/2007	138 ^P	25.16 ^P	10.4 ^P	8.8 ^P	9.4 ^P	17.6 ^P	13.0 ^P	14.5 ^P
03/06/2007	107 ^P	24.95 ^P	10.9 ^P	8.3 ^P	9.5 ^P	32.8 ^P	10.2 ^P	11.3 ^P
03/07/2007	106 ^P	24.95 ^P	10.6 ^P	9.5 ^P	9.9 ^P	61.8 ^P	9.8 ^P	11.2 ^P
03/08/2007	103 ^P	24.93 ^P	9.7 ^P	8.8 ^P	9.3 ^P	65.2 ^P	18.5 ^P	26.5 ^P
03/09/2007	87 ^P	24.80 ^P	9.7 ^P	8.7 ^P	9.2 ^P	57.8 ^P	13.1 ^P	14.9 ^P
03/10/2007	86 ^P	24.80 ^P	10.4 ^P	9.3 ^P	9.9 ^P	20.0 ^P	9.9 ^P	13.0 ^P

Explanation	
A	Approved for publication -- Processing and review completed.
P	Provisional data subject to revision.
e	Value has been estimated.

4.3. Discussion of water quality improvements or degradations

The purpose of participating in a coordinated monitoring effort with Clackamas County and other co-permittees is to distribute resources widely and produce data that will provide comprehensive information for the County as a whole. Analyzing the limited number of samples collected by the City of Milwaukie would not allow for assessment of water quality improvements or degradation, as there are not enough samples to report results with any statistical significance. In addition, for the City of Milwaukie, samples were not specifically collected during storm events, which does not allow for analysis regarding the impacts of stormwater runoff on receiving waters.

The coordinated monitoring effort was implemented as of July 1, 2007. For the data collected as a result of the coordinated monitoring effort, some analyses would be conducted annually and submitted with the annual compliance reports while other analyses would be conducted after several years of data have been collected (e.g., the five year permit period) so that the data is more statistically robust in terms of providing information. Data and discussion regarding water quality improvements and degradation would be provided in annual reports following several years of implementation of the coordinated monitoring plan.

Appendix A Outfall Inventory for Use in Illicit Discharge Inspections

ID #	Address	Results
15001	12201 SE 19TH AV MILWAUKIE	No illicit discharges observed
25019	2700 SE BOYD ST MILWAUKIE	No illicit discharges observed
25210	10505 SE 17TH AV MILWAUKIE	No illicit discharges observed
25213	10700 SE MCLOUGHLIN BV MILWAUKIE	No illicit discharges observed
25214	10282 SE MAIN ST MILWAUKIE	No illicit discharges observed
25219	10500 SE 26TH AV MILWAUKIE	No illicit discharges observed
25221	10501 SE MAIN ST MILWAUKIE	No illicit discharges observed
25225	9800 SE MCBROD AV MILWAUKIE	No illicit discharges observed
25226	9501 SE MCLOUGHLIN BV MILWAUKIE	No illicit discharges observed
25227	9501 SE MCLOUGHLIN BV MILWAUKIE	No illicit discharges observed
25228	9701 SE MCLOUGHLIN BV MILWAUKIE	No illicit discharges observed
25232	2808 SE BALFOUR ST MILWAUKIE	No illicit discharges observed
25233	9000 SE MCBROD AV MILWAUKIE	No illicit discharges observed
25235	9200 SE MCBROD AV MILWAUKIE	No illicit discharges observed
25236	9097 SE MCLOUGHLIN BV MILWAUKIE	No illicit discharges observed
25237	2211 SE OCHOCO ST MILWAUKIE	No illicit discharges observed
25238	2211 SE OCHOCO ST MILWAUKIE	No illicit discharges observed
25244	9301 SE WICHITA AV MILWAUKIE	No illicit discharges observed
25245	8810 SE ROCKVORST ST MILWAUKIE	No illicit discharges observed
25246	9097 SE MCLOUGHLIN BV MILWAUKIE	No illicit discharges observed
25261	5015 SE BROOKSIDE DR MILWAUKIE	No illicit discharges observed
25262	4539 SE BROOKSIDE DR MILWAUKIE	No illicit discharges observed
25264	5110 SE JOHNSON CREEK BV MILWAUKIE	No illicit discharges observed
25266	5543 SE TAMBARA CT MILWAUKIE	No illicit discharges observed
25267	5249 SE BROOKSIDE DR MILWAUKIE	No illicit discharges observed
25273	9079 SE MCLOUGHLIN BV MILWAUKIE	No illicit discharges observed
25274	4708 SE JOHNSON CREEK BV MILWAUKIE	No illicit discharges observed
25275	5145 SE BROOKSIDE DR MILWAUKIE	No illicit discharges observed
25283	2381 SE CLATSOP ST MILWAUKIE	No illicit discharges observed
25289	1651 SE LAVA DR MILWAUKIE	No illicit discharges observed
45006	12374 SE OATFIELD RD MILWAUKIE	No illicit discharges observed
45007	12368 SE OATFIELD RD MILWAUKIE	No illicit discharges observed
45008	12511 SE GUILFORD DR MILWAUKIE	No illicit discharges observed
45009	3606 SE LAKE RD MILWAUKIE	No illicit discharges observed
45010	3600 SE LICYNTRA LN MILWAUKIE	No illicit discharges observed
45011	3926 SE LICYNTRA LN MILWAUKIE	No illicit discharges observed
45013	4206 SE SOMEWHERE DR MILWAUKIE	No illicit discharges observed
45014	4296 SE BRAE ST MILWAUKIE	No illicit discharges observed
45015	4586 SE RYAN CT MILWAUKIE	No illicit discharges observed
45016	11100 SE MCLOUGHLIN BV MILWAUKIE	No illicit discharges observed
45017	11222 SE MAIN ST MILWAUKIE	No illicit discharges observed
65001	10890 SE OAK ST MILWAUKIE	No illicit discharges observed
65002	10890 SE OAK ST MILWAUKIE	No illicit discharges observed

65003	10890	SE OAK	ST	MILWAUKIE	No illicit discharges observed
65004	11400	SE 37TH	AV	MILWAUKIE	No illicit discharges observed
65005	4141	SE RAILROAD	AV	MILWAUKIE	No illicit discharges observed
65007	12515	SE 70TH	AV	MILWAUKIE	No illicit discharges observed
65008	12515	SE 70TH	AV	MILWAUKIE	No illicit discharges observed
65011	12045	SE STANLEY	AV	MILWAUKIE	No illicit discharges observed
65012	12396	SE MAPLE	CT	MILWAUKIE	No illicit discharges observed
65013	12425	SE ASH	CT	MILWAUKIE	No illicit discharges observed
65014	12476	SE GROVE	CT	MILWAUKIE	No illicit discharges observed
65015	6201	SE HARMONY	RD	MILWAUKIE	No illicit discharges observed
65016	12582	SE LINWOOD	AV	MILWAUKIE	No illicit discharges observed
65017	12515	SE 70TH	AV	MILWAUKIE	No illicit discharges observed
65019	4243	SE INTERNATIONAL	WY	MILWAUKIE	No illicit discharges observed
65020	5124	SE APPENINE	WY	MILWAUKIE	No illicit discharges observed
65021	11880	SE HOME	AV	MILWAUKIE	No illicit discharges observed
65022	12015	SE VIVALDI	CR	MILWAUKIE	No illicit discharges observed
65023	12172	SE BECKMAN	AV	MILWAUKIE	No illicit discharges observed
65027	13001	SE RUSK	RD	MILWAUKIE	No illicit discharges observed
65028	12045	SE STANLEY	AV	MILWAUKIE	No illicit discharges observed
65029	4700	SE INTERNATIONAL	WY	MILWAUKIE	No illicit discharges observed
65031	4700	SE INTERNATIONAL	WY	MILWAUKIE	No illicit discharges observed
65032	4700	SE INTERNATIONAL	WY	MILWAUKIE	No illicit discharges observed

Appendix B Summary of Milwaukie 1200-Z Permits

<u>WQFileNbr</u>	<u>SIC</u>	<u>LegalName</u>	<u>City</u>	<u>County</u>	<u>PmtType</u>	<u>IsActive</u>
<u>63545</u>	<u>3425</u>	BLOUNT, INC.	MILWAUKIE	CLACKAMAS	GEN12Z	True
<u>107733</u>	<u>3561</u>	HARDER MECHANICAL CONTRACTORS INC	MILWAUKIE	CLACKAMAS	GEN12Z	True
<u>101867</u>	<u>3612</u>	OECO CORPORATION	MILWAUKIE	CLACKAMAS	GEN12Z	True
<u>113693</u>	<u>4225</u>	OREGON TRANSFER CO.	MILWAUKIE	CLACKAMAS	GEN12Z	True
<u>115817</u>	<u>3369</u>	PCC STRUCTURALS, INC.	MILWAUKIE	CLACKAMAS	GEN12Z	True

Appendix C

Incident Report AmeriCold-Ammonia Release

OERS# 2007-1188

Incident Location: AmeriCold Logistics
9501 SE McLoughlin Blvd
P.O. Box 22052
Milwaukie OR, 97269

2:40 PM, June 7th 2007, at the **AmeriCold** location, a main compressor (Vilter compressor) ruptured. This resulted in a release of a misty gas of ammonia. The ammonia is used in the process to heat the floors of the refrigerated warehouse. The compressor ruptured in the mechanical/engine room. This room is divided into two spaces both of which have a one floor drain each. When the compressor ruptured, a piece of shrapnel damaged an adjoining water pipe, splitting it open. The room filled to about 5 to 6" with a combination of water & ammonia. The mixture was draining down both floor drains and was seeping out the doors spreading out into the parking lot. Once the doors were opened water started flowing outside into the trough drains surrounding the parking lot as well as draining into the two floor drains.

NRC was called to handle the clean up. Upon arrival NRC blocked both floor drains and sand bagged the parking to stop the flow of water/ammonia into the trough drains after which they vacuumed the liquid up. After vacuuming NRC crews spread an absorbent on the wet parking lot to absorb the remaining contaminated water.

6:50 AM, June 8th 2007, I (Dave Butcher-City of Milwaukie) in checking phone message found Andrew Swanson of WES (Water Environment Services) had left a message asking if it was ok that he gave out my cell number to a WES employee so we could talk about the spill that happened last night. That was the first time I heard of the spill. I called Andrew back and got as many details as I could.

11:30 AM (approx), June 8th 2007, Ed Gilmore of WES, called me and we arranged to meet to conduct a tour of AmeriCold for further investigation.

12:00 PM Ed Gilmore and I met Rocky Criscola GM of AmeriCold, to conduct a site inspection. The engine/mechanical room had a damp floor but no standing water, the smell of ammonia was still present. The parking lot still had the absorbent material spread out and was expected to be swept shortly.

Ed and I concluded our site inspection with Rocky Criscola.

12:30 PM (approx) Ed Gilmore and I inspected Johnson Creek at AmeriCold's outfall to the creek. We saw no damage to the creek.

RECOMMENDATIONS

1. I recommend AmeriCold should install and automatic shut off or an emergency shut off of some kind for their storm drain system surrounding their parking lot. With the high vehicle/truck traffic in this parking lot and for emergencies as this ammonia spill I feel it's needed.
2. The floor drains inside the mechanical/engine room should have an emergency shut off or be plugged off completely (only if they are not totally necessary)
3. The responsible person for reporting, tracking and cleaning spills for the City of Milwaukie (Utility Specialist II at this time) should be notified of spills or gas/chemical releases.
4. Sewage Treatment plant should be notified if contaminants could hit the plant.

Dave Butcher
Utility Specialist II
City of Milwaukie