

Town of Windsor
Stormwater Management Plan



2007 Annual Report

December 31, 2007

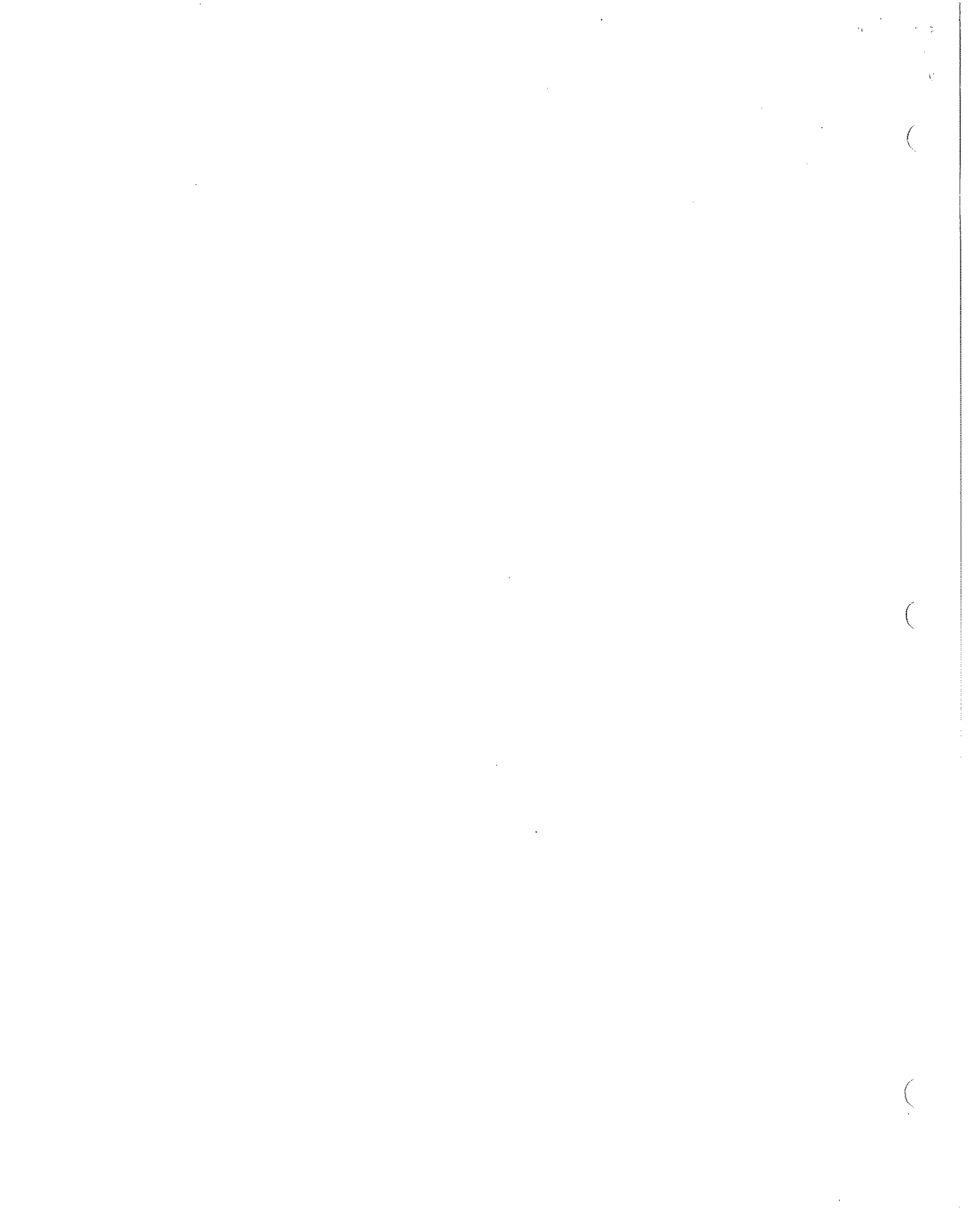


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Executive Summary

In 2004, the Town of Windsor prepared a five-year Phase II Stormwater Management Plan as required by the Connecticut Department of Environmental Protection's General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems.

This plan includes several goals and actions to achieve cleaner stormwater in drainage systems, watercourses, waterbodies, and wetlands throughout the Town.

The General Permit requires the Town to submit annual reports, which demonstrate the plan progress, effectiveness, and upcoming goals and actions. These reports are also produced for residents for review and comment. The following information includes the Town's efforts to date on the plan and what the Town will accomplish throughout the life of the General Permit.

2007 Annual Report

The Town of Windsor completed the preparation of the Stormwater Management Plan in May 2004. The Plan is available for public review at the Windsor Main Library, the Wilson Branch Library, the Town Clerk's Office in the Windsor Town Hall, on the internet at www.townofwindsorct.com, or arrangements can be made to receive a copy by contacting the Engineering Department at (860) 285-1861.

As part of the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems, the Town is required to develop and submit annual reports to demonstrate the progress of the Plan.

The first permit year (2004) for the Plan technically began in January of 2004 although the Plan was not formally submitted to CTDEP until July 2004. The first permit year ended on December 31, 2004. This report covers the period of January 1, 2007 through December 31, 2007.

The activities completed this year, include the following:

Catch Basin Marker Installation

As part of the catch basin marker installation program, approximately 381 catch basins were marked with a placard, stating, "Drains to Waterways and the Long Island Sound, No Dumping!" To date, 544 catch basins have been marked. These markers warn people that discharging harmful contaminants into a catch basin has a negative impact on the local waterways and the Long Island Sound. This year, the Rotary Club of Windsor/Windsor Locks volunteered to install the markers. This program will continue throughout the permit years.

Stormwater Website

The Information Section of the Town's website, was used to provide information regarding the Town's efforts on stormwater management. This information can also be accessed through the introductory screen on the Town of Windsor's web page at www.townofwindsorct.com. The stormwater section includes the five-year Stormwater Management Plan, the presentation slides for the stormwater management plan that were used at the Conservation Commission meeting, and the 2004 through 2006 Annual Report. As the plan progresses, additional stormwater related information will be added to this web page. The 2007 Annual Report will be made available through the web page.

Household Hazardous Waste Collection Day

The Town continued its coordination efforts for the Metropolitan District Commission's (MDC) Household Hazardous Waste Collection Days in 2007.

This collection allows residents to properly dispose of household hazardous wastes such as pool chemicals, wood preservatives, and disinfectants. This program is anticipated to remain throughout the life of the permit. In 2007, MDC collected over 4800 pounds of hazardous waste from 279 Windsor households.

Community Clean-ups

The Town Environmental Planner conducted 2 community clean-ups, April 20, 2007 and September 29, 2007. The April clean-up was throughout Town and 1.4 tons of trash was collected. The September clean-up was focused on the banks of the Farmington River and Connecticut River, with over $\frac{3}{4}$ ton of debris removed.

Public Education

The Town provided stormwater management information to Windsor residents through a variety of media outlets over the past year. Feature articles and photos were published in local newspapers on the Earth Day and Connecticut River community clean-up efforts. These newspapers include the Hartford Courant, Journal Inquirer, Windsor Journal, and Reminder News. Promotional information on these events as well as other stormwater management educational information was also broadcast on Windsor's Government Access Television Channel, WGTV.

In addition, the Town of Windsor publication, *There's a lot to do in Windsor* included public relations information for pool and outdoor hot tub owners regarding regulations for pool wastewater discharge and environmental education tips for residents regarding washing cars and watering lawns. Earth Day and Connecticut River Clean-up programs were also publicized in the magazine to educate all citizens. This town magazine, published three times per year is mailed to every household and business in Windsor for a total distribution of 13,500.

This past Fall, the Environmental Planner conducted an informational dialogue with the Exchange Club, a civic organization in Windsor.

Street Sweeping

The Town continued its efforts to sweep Town-owned roadways and parking areas. All of the town roadways and parking areas were swept between the early spring and summer. This program will continue throughout the five-year stormwater plan.

Catch Basin Cleaning

The Town continued its efforts to clean Town-owned catch basins. In 2007 a total of 2335 catch basins were cleaned. This program will continue throughout the five-year stormwater plan.

Development Reviews

Town staff reviews all proposed developments with respect to stormwater quality impacts. Town staff works with developers and engineers for each individual project to determine the best management practices. This practice will also continue throughout the life of the plan.

Oil/water separators are now being required in new commercial and industrial parking areas for stormwater cleaning prior to discharge into detention basins or offsite stormwater systems.

Water Testing - 2007

The Town was required by the permit to complete a minimum of six outfall water tests, which represent the overall nature of each respective land use type, including industrial, commercial, and residential land uses. Outfalls are stormwater discharges, typically pipes located at the end of a storm drainage system that allow stormwater to enter into a watercourse, waterbody, wetland etc.

The six outfall water testing locations were selected in an attempt to geographically cover the Town and subsequently cover different watersheds, watercourses, wetlands, etc. We visited several potential outfalls and selected the following locations due to their geographic location, accessibility, and the nature of the contributing watershed area:

Commercial Outfall Locations

1. 1075 Kennedy Road (Shopping Center with Stop & Shop)
2. 555 Day Hill Road (Day Hill Village Shoppes)

Industrial Outfall Locations

1. 800 Marshall Phelps Road (Industrial Park)
2. 615 Day Hill Road (Scott's Lawn Care)
3. 570 Hayden Station Road – Alternate test location (Industrial Park)

Residential Outfall Locations

1. Between 124 and 128 Harvest Lane
2. Between 21 and 27 Philip Henry Circle

Both residential sites showed a drop in E. coli levels with R1 showing an increase in lead. Industrial Site 1 showed increased levels of hardness, COD, TP, ammonia, and lead while Industrial Site 2 showed a decrease in oil & grease, TSS, and NO₃+NO₂. Commercial Site 1 showed decreased levels of TSS, E.coli, and lead with Commercial Site 2 showing an increase in hardness and TP.

In addition, the Town is conducting a pilot program using catch basin inserts in a small drainage area on Rainbow Road. Base water testing was done in April 2007. The inserts were installed in May and the first test was done in November. The results of the first test showed a decrease in turbidity, TSS, E. coli, and lead. Increases were shown in hardness, conductivity and TP. As soon as the weather permits, the inserts are due to be cleaned.

Proposed 2008 Permit Year Activities

Several goals and actions are proposed, which will be completed during the fifth permit year (2008) of the Plan. The following measures are planned to be completed in 2008 with respect to the Minimum Control Measures:

Public Participation/Involvement

- Conduct a community cleanup
- Conduct a public information meeting
- Request involvement from a Town Organization(s)

Public Education and Outreach

- Develop educational brochures
- Develop an educational television campaign
- Continue catch basin markings, with new markers for new residential subdivisions

Illicit Discharge Detection and Elimination

- Continue household hazardous waste collection day
- Develop an illicit discharge ordinance
- Employee training

Pollution Prevention/Municipal Stormwater Practices

- Develop employee training materials
- Develop Best Management Practices
- Evaluate maintenance program effectiveness
- Employ Stormwater Pollution Prevention Plans for Town facilities
- Utilize the Information Management System
- Prepare a stormwater system maintenance plan and schedule
- Continue street sweeping and catch basin cleaning

Construction Site Runoff Control

- Setup information management system
- Develop a sediment and erosion control ordinance

Post Construction Site Runoff Control

- Develop a list of recommended Best Management Practices
- Develop a post construction runoff control ordinance
- Continue staff training

Water Testing, Evaluation, and Reporting

- Continue to conduct water quality testing (Commercial, Industrial, Residential)
- Prepare an evaluation Report



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: <u>Town of Windsor</u>	
Mailing Address: <u>275 Broad Street, Windsor, CT 06095</u>	
Contact Person: <u>Cyd Groff</u>	Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration #GSM	<u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#1 – 1075 Kennedy Rd.

Please circle the appropriate area description: Industrial, Commercial, or Residential

Receiving Water (name, basin): Farmington River

Time of Start of Discharge: 8:30am

Date/Time Collected: 4/12/07 10:12-10:31am Water Temperature: 4.4degC

Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions

Storm Magnitude (inches): 1.12 inches Storm Duration (hours): 8hrs

Date of Previous Storm Event: 4/4/07

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.25 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.11 s.u.	Measurement Taken in Field
Hardness	S 2340 B	17.8 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	120 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	1.6 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	63 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	31.3 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	26 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.19 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.28 mg/l	Phoenix Environmental Labs
TKN	E 351.1	1.3 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	1.3 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	260 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Tom Lenehan, Town Engineer

Signature: *Tom Lenehan* Date: 5/30/07



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Permit Registration #GSM	<u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#2 - 124/128 Harvest Lane

Please circle the appropriate area description: Industrial, Commercial, or **Residential**

Receiving Water (name, basin): Farmington River

Time of Start of Discharge: 8:30am

Date/Time Collected: 4/12/07 10:43-10:49am Water Temperature: 45.6degC

Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions

Storm Magnitude (inches): 1.12 inches Storm Duration (hours): 8hrs

Date of Previous Storm Event: 4/4/07


MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	5.90 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.11 s.u.	Measurement Taken in Field
Hardness	S 2340 B	11.7 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	67 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.4 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	40 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	36.0 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	35 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.15 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.29 mg/l	Phoenix Environmental Labs
TKN	E 351.1	1.1 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.27 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	<20 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

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Authorized Official: Tom Lenehan, Town Engineer

Signature:  Date: 5/20/07



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Stormwater Monitoring Report Form

PERMITTEE INFORMATION

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Mailing Address: <u>275 Broad Street, Windsor, CT 06095</u>	
Contact Person: <u>Cyd Groff</u>	Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration #GSM	<u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#3 - 615 Day Hill Rd

Please circle the appropriate area description: Industrial, Commercial, or Residential

Receiving Water (name, basin): Mill Brook

Time of Start of Discharge: 8:30am

Date/Time Collected: 4/12/07 11:06-11:11am Water Temperature: 4.6degC

Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions

Storm Magnitude (inches): 1.12 inches Storm Duration (hours): 8hrs

Date of Previous Storm Event: 4/4/07

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.21 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.11 s.u.	Measurement Taken in Field
Hardness	S 2340 B	7.15 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	46 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	2.6 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	43 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	55.0 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	45 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.41 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.54 mg/l	Phoenix Environmental Labs
TKN	E 351.1	2.4 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.22 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	160 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Tom Lenehan, Town Engineer

Signature: *Tom Lenehan* Date: 5/12/07



**General Permit for the Discharge of Stormwater from Small
Municipal Separate Storm Sewer Systems**

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: <u>Town of Windsor</u>
Mailing Address: <u>275 Broad Street, Windsor, CT 06095</u>
Contact Person: <u>Cyd Groff</u> Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration # <u>GSM</u> <u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#4 - 555 Day Hill Rd.

Please circle the appropriate area description: Industrial, **Commercial**, or Residential

Receiving Water (name, basin): Mill Brook

Time of Start of Discharge: 8:30am

Date/Time Collected: 4/12/07 11:18-11:29 am Water Temperature: 6.1degC

Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions

Storm Magnitude (inches): 1.12 inches Storm Duration (hours): 8hrs

Date of Previous Storm Event: 4/4/07

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	5.90 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.11 s.u.	Measurement Taken in Field
Hardness	S 2340 B	5.95 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	75 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.4 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	20 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	23.4 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	14 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.13 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.16 mg/l	Phoenix Environmental Labs
TKN	E 351.1	0.61 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.26 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	100 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Tom Lenehan, Town Engineer

Signature: *Tom Lenehan* Date: 5/20/07



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

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Mailing Address: <u>275 Broad Street, Windsor, CT 06095</u>	
Contact Person: <u>Cyd Groff</u>	Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration # <u>GSM</u>	<u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#5 – 800 Marshall Phelps

Please circle the appropriate area description: Industrial, Commercial, or Residential

Receiving Water (name, basin): Mill Brook

Time of Start of Discharge: 8:30am

Date/Time Collected: 4/12/07 11:38-11:46 am Water Temperature: 5.3degC

Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions

Storm Magnitude (inches): 1.12 inches Storm Duration (hours): 8hrs

Date of Previous Storm Event: 4/4/07

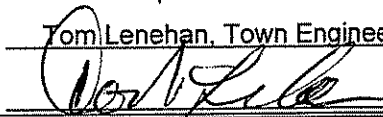
MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	4.05 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.11 s.u.	Measurement Taken in Field
Hardness	S 2340 B	1.44 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	8.0 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.4 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	15 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	9.54 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	16 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.06 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.09 mg/l	Phoenix Environmental Labs
TKN	E 351.1	0.29 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.07 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	<20 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

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Authorized Official: Tom Lenehan, Town Engineer

Signature:  Date: 5/30/07



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Contact Person: <u>Cyd Groff</u>	Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration #GSM <u>200401195</u>	

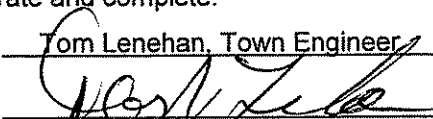
SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____	
<u>#6 - 21/27 Philip Henry Circle</u>	
Please circle the appropriate area description: Industrial, Commercial, or <u>Residential</u>	
Receiving Water (name, basin): <u>Decker's Brook/Connecticut River</u>	
Time of Start of Discharge: <u>8:30am</u>	
Date/Time Collected: <u>4/12/07 12:18-12:23 am</u>	Water Temperature: <u>5.1degC</u>
Person Collecting Sample: <u>Mark Morgano, TurnKey Compliance Solutions</u>	
Storm Magnitude (inches): <u>1.12 inches</u>	Storm Duration (hours): <u>8hrs</u>
Date of Previous Storm Event: <u>4/4/07</u>	

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	5.92 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.11 s.u.	Measurement Taken in Field
Hardness	S 2340 B	20.1 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	78 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	1.9 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	52 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	72.1 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	74 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.30 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.18 mg/l	Phoenix Environmental Labs
TKN	E 351.1	1 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.19 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	>2000 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

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Authorized Official: <u>Tom Lenehan, Town Engineer</u>	
Signature: <u></u>	Date: <u>5/3/07</u>



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Contact Person: <u>Cyd Groff</u>	Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration #GSM	<u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____ <u>EXTRA A – Bart's on Palisado Avenue</u>
Please circle the appropriate area description: Industrial, Commercial, or Residential
Receiving Water (name, basin): <u>Farmington River</u>

Time of Start of Discharge: 8:30am

Date/Time Collected: 4/12/07 12:36-12:43pm Water Temperature: 5.6 degC

Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions

Storm Magnitude (inches): 1.12 inches Storm Duration (hours): 8hrs

Date of Previous Storm Event: 4/4/07

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	5.23 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.11 s.u.	Measurement Taken in Field
Hardness	S 2340 B	8.5 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	20 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.4 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	43 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	29.4 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	48 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.18 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.13 mg/l	Phoenix Environmental Labs
TKN	E 351.1	0.63 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.08 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	>1200 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.	
Authorized Official: <u>Tom Lenehan, Town Engineer</u>	
Signature:	Date: <u>5/30/07</u>



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Contact Person: <u>Cyd Groff</u>	Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration #GSM	<u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____	
<u>EXTRA B – Rainbow Road at East Granby Road</u>	
Please circle the appropriate area description: Industrial, Commercial, or Residential	
Receiving Water (name, basin): _____	
Time of Start of Discharge: <u>8:30am</u>	
Date/Time Collected: <u>4/12/07 10:12-10:31am</u>	Water Temperature: <u>5.4degC</u>
Person Collecting Sample: <u>Mark Morgano, TurnKey Compliance Solutions</u>	
Storm Magnitude (inches): <u>1.12 inches</u>	Storm Duration (hours): <u>8hrs</u>
Date of Previous Storm Event: <u>4/4/07</u>	

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.07 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.11 s.u.	Measurement Taken in Field
Hardness	S 2340 B	42.1 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	290 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.6 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	13 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	17.3 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	29 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.10 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.06 mg/l	Phoenix Environmental Labs
TKN	E 351.1	0.47 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.43 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	500 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

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Authorized Official: <u>Tom Lenahan, Town Engineer</u>	
Signature: <u><i>Tom Lenahan</i></u>	Date: <u>5/20/07</u>



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Town: Town of Windsor

Mailing Address: 275 Broad Street, Windsor, CT 06095

Contact Person: Cyd Groff Title: Environmental Planner Phone: 860-285-1987

Permit Registration #GSM 200401195

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#1 - 1075 Kennedy Rd.

Please circle the appropriate area description: Industrial, Commercial, or Residential

Receiving Water (name, basin): Farmington River

Time of Start of Discharge: Approximately 4am

Date/Time Collected: 11/26/07 5:15am Water Temperature: 5.1degC

Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions

Storm Magnitude (inches): 2.32 inches Storm Duration (hours): 3 hrs

Date of Previous Storm Event: 11/20/07

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.71 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	8.56 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	240 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.5 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	16 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	7.35 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	10 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.12 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.2 mg/l	Phoenix Environmental Labs
TKN	E 351.1	0.54 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.30 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	<10 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Tom Lenehan, Town Engineer

Signature: *Tom Lenehan* Date: 12/31/07



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: <u>Town of Windsor</u>	
Mailing Address: <u>275 Broad Street, Windsor, CT 06095</u>	
Contact Person: <u>Cyd Groff</u>	Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration #GSM	<u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#2 - 124/128 Harvest Lane

Please circle the appropriate area description: Industrial, Commercial, or Residential

Receiving Water (name, basin): Farmington River

Time of Start of Discharge: Approximately 4am

Date/Time Collected: 11/26/07 5:30am Water Temperature: 6.2 degC

Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions

Storm Magnitude (inches): 2.32 inches Storm Duration (hours): 3hrs

Date of Previous Storm Event: 11/20/07

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	7.07 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	12.5 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	40 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.5 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	47 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	12.9 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	6 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.30 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.23 mg/l	Phoenix Environmental Labs
TKN	E 351.1	1.2 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.44 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	<10 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Tom Lenehan, Town Engineer

Signature: *[Handwritten Signature]* Date: 12/31/07



**General Permit for the Discharge of Stormwater from Small
Municipal Separate Storm Sewer Systems**

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: <u>Town of Windsor</u>
Mailing Address: <u>275 Broad Street, Windsor, CT 06095</u>
Contact Person: <u>Cyd Groff</u> Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration # <u>GSM</u> <u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#3 - 615 Day Hill Rd

Please circle the appropriate area description: Industrial, Commercial, or Residential

Receiving Water (name, basin): Mill Brook

Time of Start of Discharge: Approximately 4am

Date/Time Collected: 11/26/07 5:42am Water Temperature: 6.3degC

Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions

Storm Magnitude (inches): 2.32 inches Storm Duration (hours): 3 hrs

Date of Previous Storm Event: 11/20/07

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.98 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	3.05 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	40 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.5 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	25 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	13.0 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	<5 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.21 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.11 mg/l	Phoenix Environmental Labs
TKN	E 351.1	0.43 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.064 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	50 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Tom Lenehan, Town Engineer

Signature: *[Signature]* Date: 12/3/07



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: <u>Town of Windsor</u>	
Mailing Address: <u>275 Broad Street, Windsor, CT 06095</u>	
Contact Person: <u>Cyd Groff</u>	Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration # <u>GSM</u>	<u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#4 - 555 Day Hill Rd.

Please circle the appropriate area description: Industrial, Commercial, or Residential

Receiving Water (name, basin): Mill Brook

Time of Start of Discharge: Approximately 4am

Date/Time Collected: 11/26/07 5:59am Water Temperature: 3.7degC

Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions

Storm Magnitude (inches): 2.32 inches Storm Duration (hours): 3 hrs

Date of Previous Storm Event: 11/20/07

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.94 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	14.1 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	85 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.4 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	20 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	8.22 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	16 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.45 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.18 mg/l	Phoenix Environmental Labs
TKN	E 351.1	0.79 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.19 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	90 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

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Authorized Official: Tom Lenehan, Town Engineer

Signature: *[Signature]* Date: 12/31/07



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: <u>Town of Windsor</u>	
Mailing Address: <u>275 Broad Street, Windsor, CT 06095</u>	
Contact Person: <u>Cyd Groff</u>	Title: <u>Environmental Planner</u> Phone: <u>860-285-1987</u>
Permit Registration # <u>GSM</u>	<u>200401195</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#5 - 800 Marshall Phelps

Please circle the appropriate area description: Industrial, Commercial, or Residential

Receiving Water (name, basin): Mill Brook

Time of Start of Discharge: Approximately 4am

Date/Time Collected: 11/26/07 6:04am Water Temperature: 3.8degC

Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions

Storm Magnitude (inches): 2.32 inches Storm Duration (hours): 3 hrs

Date of Previous Storm Event: 11/20/07

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.69 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	13.7 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	81 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.5 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	27 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	8.41 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	5 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.19 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.21 mg/l	Phoenix Environmental Labs
TKN	E 351.1	0.8 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.18 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	80 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

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Authorized Official: Tom Lenehan, Town Engineer

Signature: *[Handwritten Signature]* Date: 12/31/07



**General Permit for the Discharge of Stormwater from Small
Municipal Separate Storm Sewer Systems**

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: Town of Windsor
 Mailing Address: 275 Broad Street, Windsor, CT 06095
 Contact Person: Cyd Groff Title: Environmental Planner Phone: 860-285-1987
 Permit Registration #GSM 200401195

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
#6 - 21/27 Philip Henry Circle
 Please circle the appropriate area description: Industrial, Commercial, or **Residential**
 Receiving Water (name, basin): Decker's Brook/Connecticut River
 Time of Start of Discharge: Approximately 4am
 Date/Time Collected: 11/26/07 6:09am Water Temperature: 5.2degC
 Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions
 Storm Magnitude (inches): 2.32 inches Storm Duration (hours): 3 hrs
 Date of Previous Storm Event: 11/20/07

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.66 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	2.85 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	240 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.5 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	27 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	14.9 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	68 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.42 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.1 mg/l	Phoenix Environmental Labs
TKN	E 351.1	0.39 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.062 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	10 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

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Authorized Official: Tom Lenehan, Town Engineer
 Signature: *Tom Lenehan* Date: 11/26/07



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: Town of Windsor

Mailing Address: 275 Broad Street, Windsor, CT 06095

Contact Person: Cyd Groff Title: Environmental Planner Phone: 860-285-1987

Permit Registration # GSM 200401195

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): _____
EXTRA A – Bart's on Palisado Avenue

Please circle the appropriate area description: Industrial, Commercial, or Residential

Receiving Water (name, basin): Farmington River

Time of Start of Discharge: Approximately 4am

Date/Time Collected: 11/26/07 6:52am Water Temperature: 5.6degC

Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions

Storm Magnitude (inches): 2.32 inches Storm Duration (hours): 3 hrs

Date of Previous Storm Event: 11/20/07

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.06 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	7.21 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	19 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	2.5 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	36 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	8.44 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	11 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.22 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.06 mg/l	Phoenix Environmental Labs
TKN	E 351.1	0.43 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.051 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	<10 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

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Authorized Official: Tom Lenehan, Town Engineer

Signature: *Tom Lenehan* Date: 12/3/07



**General Permit for the Discharge of Stormwater from Small
Municipal Separate Storm Sewer Systems**

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town:	Town of Windsor		
Mailing Address:	275 Broad Street, Windsor, CT 06095		
Contact Person:	Cyd Groff	Title:	Environmental Planner Phone: 860-285-1987
Permit Registration #GSM	200401195		

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description):	_____
EXTRA B – Rainbow Road at East Granby Road	_____
Please circle the appropriate area description: Industrial, Commercial, or <u>Residential</u>	
Receiving Water (name, basin):	_____

Time of Start of Discharge: Approximately 4am

Date/Time Collected: 11/26/07 6:33am Water Temperature: 5.2degC

Person Collecting Sample: Mark Morgano, TurnKey Compliance Solutions

Storm Magnitude (inches): 2.32 inches Storm Duration (hours): 3 hrs

Date of Previous Storm Event: 11/20/07

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	pH Probe	6.08 s.u.	Measurement Taken in Field
Rain pH	pH Probe	6.13 s.u.	Measurement Taken in Field
Hardness	S 2340 B	69.2 mg/l	Phoenix Environmental Labs
Conductivity	SM 2510 B	490 umhos/cm	Phoenix Environmental Labs
Oil & Grease	EPA 1664	<1.5 mg/l	Phoenix Environmental Labs
COD	SM 5220 D	16 mg/l	Phoenix Environmental Labs
Turbidity	E 180.1	3.32 NTU	Phoenix Environmental Labs
TSS	SM 2540 D	8.5 mg/l	Phoenix Environmental Labs
TP	E 365.2	0.34 mg/l	Phoenix Environmental Labs
Ammonia	S 4500 NH3	0.09 mg/l	Phoenix Environmental Labs
TKN	E 351.1	0.47 mg/l	Phoenix Environmental Labs
NO ₃ +NO ₂	E 353.2	0.54 mg/l	Phoenix Environmental Labs
E. coli	SM 9222 G	10 /100 mls	Phoenix Environmental Labs

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.	
Authorized Official:	<u>Tom Lenehan, Town Engineer</u>
Signature:	<u><i>Tom Lenehan</i></u> Date: <u>12/3/07</u>