



February 12, 2018

Mr. Mark Austin, P.E.  
Town of Hamden  
2750 Dixwell Avenue  
Hamden, CT 06518

**RE: JANUARY-MARCH 2018 QUARTERLY AND SEMI-ANNUAL STORMWATER MONITORING REPORTING, DEPARTMENT OF PUBLIC WORKS GARAGE, VOED BUILDING, AND TRANSFER STATION, HAMDEN, CT (HRP #HAM4063.WM)**

Dear Mr. Austin:

Attached please find the Stormwater Monitoring Reports (SMRs) and visual inspection forms for quarterly and semi-annual monitoring conducted by HRP Associates, Inc. (HRP) at the above mentioned facilities for the period covering January through March 2018.

HRP collected samples and performed visual monitoring on January 12, 2018 at three Town facilities referenced above. This sampling event also satisfies the October 1, 2017 through March 31, 2018 semi-annual monitoring requirement. Semi-annual sampling performed in November 2017 will fulfill the "catch up" sampling required by the CT DEEP for the previously missed period (April 1 through September 30, 2017).

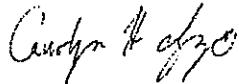
Semi-annual chemical analysis is no longer required for the remainder of the permit term from any of the outfalls located at the VOED facility. Therefore, there are no corresponding SMRs for this facility. The SMRs for sample collection at the Transfer Station and the Public Works Garage are included in Attachment 1. Please sign the "Statement of Certification" on page 3 of the SMRs, make a copy for your records, and submit the signed SMRs to CT DEEP to the address below by April 5, 2018:

Water Toxic Program Coordinator  
Bureau of Water Protection and Land Reuse  
CT Department of Energy and Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

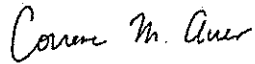
Supplemental data for this sample event (sample collection information and the laboratory report), required to be maintained by the Town of Hamden, is included in Attachments 2 and 3. A copy of the signed SMRs should be filed along with the data provided in Attachment 2 of this report. The quarterly visual sampling reports are included as Attachment 3.

If you have any questions or require additional information, please feel free to contact HRP at (860) 674-9570.

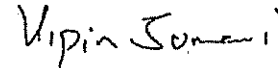
Sincerely,



Carrolyn H. Izzo  
Project Geologist



Correne M. Auer, P.E.  
Senior Project Engineer



Vipin Sumani, P.E.  
Project Manager

Attachments

cc: Joe Colello, Public Works Dept., 1125 Shepard Avenue, Hamden, CT 06514

# ATTACHMENT 1

## Stormwater Monitoring Report (for submission to CT DEEP)



**General Permit for the Discharge of Stormwater Associated with  
Industrial Activity, effective 10/1/2011  
Stormwater Monitoring Report Form  
Sector G - Municipal or Federal Facilities**

**Facility Information**

Permittee Name: Town of Hamden Site Name: Hamden PWG  
 Mailing Address: 2750 Dixwell Ave., Hamden, CT 06518  
 Contact Person: Mark Austin Title: Town Engineer  
 Business Phone: 203-287-7040 ext.: \_\_\_\_\_ Email: MAustin@Hamden.com  
 Site Address: 1125 Shepard Ave., Hamden, CT  
 Receiving Water (name/basin): Mill River (Basin No. 5302)  
 Permit #: GSI 001682 Primary SIC: 9199  
 Discharges into an Impaired Waterbody: Yes  No  (If yes, complete the table on page 3 of this form)

**Sample Information**

Sample Location: Outfall 001 Person Collecting Sample: C. Izzo, HRP Assoc.  
 Date/Time Collected: 1/12/18 / 13:55 Date of Previous Storm Event: 12/25/2017  
 This report is for samples required: Semi-annually  Annually  Other   
 Check here if the sample contains snow or ice melt:   
 Check here if a benchmark exceedance is solely due to background or off site sources  see note below

**Monitoring Results**

Parameter	Required Frequency	Results (Units)	Benchmark	Benchmark Exceedance (see pg 4)	Test Method	Laboratory Name
Oil & Grease	Semi-annual	NA	5.0 mg/L	<input type="checkbox"/>		
Rainfall pH	Semi-annual	NA	n/a			
Sample pH	Semi-annual	N/A	5-9 SU	<input type="checkbox"/>		
COD	Semi-annual	280 mg/L	75 mg/L	<input checked="" type="checkbox"/>	EPA 410.4	CTL PH0547
TSS	Semi-annual	250 mg/L	90 mg/L	<input checked="" type="checkbox"/>	SM 26540D	CTL PH0547
TP	Semi-annual	1.1 mg/L	0.40 mg/L	<input checked="" type="checkbox"/>	EPA 365.1	CTL PH0547
TKN	Semi-annual	1.5 mg/L	2.30 mg/L	<input type="checkbox"/>	EPA 351.2	CTL PH0547
NO <sub>3</sub> -N	Semi-annual	Exempt	1.10 mg/L	<input type="checkbox"/>		
Total Copper	Semi-annual	NA	0.059 mg/L	<input type="checkbox"/>		
Total Zinc	Semi-annual	NA	0.160 mg/L	<input type="checkbox"/>		
Total Lead	Semi-annual	NA	0.076 mg/L	<input type="checkbox"/>		
24 Hr. LC <sub>50</sub>	Annual-Year 1&2	NA	n/a			
48 Hr. LC <sub>50</sub>	Annual-Year 1&2	NA	n/a			

\* See Additional Sector G Monitoring Section on page 3 of this form for Federal or Municipal facilities with incidental solid deicing material storage only.

**Exemptions**

List here any parameter(s) that will not be sampled for the remainder of the permit term: see note below  
O&G, pH, NO3-N, Total Cu, Total Zn, Total Pb

**NOTE:** Complete the "Data Tracking Table" (page 4 on this form) to show the parameter is eligible for the monitoring exemption in Section 5(e)(1)(B)(iii) of the general permit. If you are discontinuing monitoring for impaired water parameters (per Section 5(e)(1)(D)), or parameters that are present due to natural or background levels or off site run-on (per Section 5(e)(1)(B)(V)), attach additional supporting information to this form.

**STORMWATER ACUTE TOXICITY TEST DATA SHEET**  
 (required annually only during Year 1 and Year 2 of the permit)

Site Name: <b>Hamden PWG</b>	
Date/Time Begin:	Date/Time End:
Sample Hardness:	Sample Conductivity:
Test Species: <i>Daphnia pulex</i> < 24 hrs old	Dilution Water Hardness:

Effluent Dilution	Number of Organisms Surviving			Dissolved Oxygen (mg/L)			Temperature (°C)			pH (su)			
	Hour	00	24	48	00	24	48	00	24	48	00	24	48
CONTROL 1													
CONTROL 2													
CONTROL 3													
CONTROL 4													
6.25% A													
6.25% B													
6.25% C													
6.25% D													
12.5% A													
12.5% B													
12.5% C													
12.5% D													
25% A													
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50% B													
50% C													
50% D													
100% A													
100% B													
100% C													
100% D													

**REFERENCE TOXICANT RESULTS**

Test Species	Date	Reference Toxicant	Source	LC <sub>50</sub>
<i>Daphnia pulex</i>				

## Additional Monitoring: Sector G

For Federal or Municipal facilities with incidental solid deicing material storage only:

Parameter	Required Frequency	Results (units)	Benchmark	Test Method	Laboratory Name
Chloride	Semi-annual Years 1&2 only		n/a		
Cyanide	Semi-annual Years 1&2 only		n/a		

### Additional Monitoring for Discharges to Impaired Waters (if applicable):

Parameter	Frequency	Results (units)	Test Method	Laboratory Name

### Statement of Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."



Signature of Permittee

2-28-2017

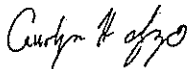
Date

Mark Austin, P.E.

Name of Permittee (print or type)

Town Engineer

Title (if applicable)



Signature of Preparer (if different than above)

2/8/2017

Date

Carrolyn Izzo, HRP Associates, Inc.

Name of Preparer (print or type)

Project Geologist

Title (if applicable)

Please send all completed forms to:

WATER TOXICS PROGRAM COORDINATOR  
 BUREAU OF WATER PROTECTION AND LAND REUSE  
 CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION  
 79 ELM STREET  
 HARTFORD, CT 06106-5127

**General Permit for the Discharge of Stormwater Associated with  
Industrial Activity, effective 10/1/2011  
Data Tracking Sheet  
Sector G-Municipal or Federal Facilities**

Permittee Name: <u>Town of Hamden</u>	Permit #: GSI <u>001682</u>
Site Name: <u>Hamden PWG</u>	
Site Address: <u>1125 Shepard Avenue, Hamden, CT</u>	
Sample Location: <u>Outfall 001</u>	

Enter the sample dates and the data reported for the 4 most recent semi-annual sample results at this discharge location in the chart below. To determine the average for the four samples add up each of the four results and then divide that number by 4. **Only monitoring collected under the current permit (effective 10/1/11,) can be used to earn the monitoring exemption.**

$$\text{Average} = \frac{(\text{Sample 1} + \text{Sample 2} + \text{Sample 3} + \text{Sample 4})}{4}$$

Parameter	Sample Result				Average	Benchmark*	Quality for exemption?
	1	2	3	4			
Sample Date	11/16/17	1/12/18					
O&G	N/A	N/A				5.0 mg/L	
Sample pH	N/A	N/A				5-9 S.U.	
COD	120	280			150	75 mg/L	No
TSS	92	250			171	90 mg/L	No
TP	0.23	1.1			0.67	0.40 mg/L	No
TKN	1.6	1.5			1.55	2.30 mg/L	No
NO <sub>3</sub> -N	N/A	N/A				1.10 mg/L	
Total Copper	N/A	N/A				0.059 mg/L	
Total Zinc	N/A	N/A				0.160 mg/L	
Total Lead	N/A	N/A				0.076 mg/L	

\*If the average of the 4 most recent samples is less than the benchmark listed, your facility is no longer required to sample semi-annually for that parameter for the rest of the permit (current permit expires 9/30/2016). If your facility qualifies for an exemption from monitoring for sample pH, your facility is also exempt from monitoring rainfall pH for the remainder of the permit.

If the average of the four (4) most recent samples is equal to or greater than the benchmark listed, check the appropriate box on page 1. If so, you have exceeded the benchmark and must continue to sample this parameter semiannually until the average is below the benchmark. See Section 5(e)(1)(B) of the General permit for requirements when exceeding a benchmark.

If the sample results reported by the testing laboratory were below detection limit, for the purpose of averaging, use a value that is 1/2 the detection limit for that parameter in the formula above. For example, if the result for Oil & Grease was <2.0 mg/L, use a value of 1.0 mg/L for determining the average. Please refer to section 5 e(1)B(iii) for a more detailed explanation.



**General Permit for the Discharge of Stormwater Associated with  
Industrial Activity, effective 10/1/2011  
Stormwater Monitoring Report Form  
Sector G - Municipal or Federal Facilities**

**Facility Information**

Permittee Name: Town of Hamden Site Name: Hamden PWG  
 Mailing Address: 2750 Dixwell Ave., Hamden, CT 06518  
 Contact Person: Mark Austin Title: Town Engineer  
 Business Phone: 203-287-7040 ext.: \_\_\_\_\_ Email: MAustin@Hamden.com  
 Site Address: 1125 Shepard Ave., Hamden, CT  
 Receiving Water (name/basin): Mill River (Basin No. 5302)  
 Permit #: GSI 001682 Primary SIC: 9199  
 Discharges into an Impaired Waterbody: Yes  No  (If yes, complete the table on page 3 of this form)

**Sample Information**

Sample Location: Outfall 003 Person Collecting Sample: C. Izzo, HRP Associates  
 Date/Time Collected: 1/12/18 / 14:10 Date of Previous Storm Event: 12/25/2017  
 This report is for samples required: Semi-annually  Annually  Other   
 Check here if the sample contains snow or ice melt:   
 Check here if a benchmark exceedance is solely due to background or off site sources  see note below

**Monitoring Results**

Parameter	Required Frequency	Results (units)	Benchmark	Benchmark Exceedance (see pg.4)	Test Method	Laboratory Name
Oil & Grease	Semi-annual	ND<2.0	5.0 mg/L	<input type="checkbox"/>		
Rainfall pH	Semi-annual	6.59	n/a			
Sample pH	Semi-annual	8.15	5-9 SU	<input type="checkbox"/>		
COD	Semi-annual	490 mg/L	75 mg/L	<input checked="" type="checkbox"/>		
TSS	Semi-annual	880 mg/L	90 mg/L	<input checked="" type="checkbox"/>		
TP	Semi-annual	0.72 mg/L	0.40 mg/L	<input checked="" type="checkbox"/>		
TKN	Semi-annual	1.2 mg/L	2.30 mg/L	<input type="checkbox"/>		
NO <sub>3</sub> -N	Semi-annual	ND<0.55	1.10 mg/L	<input type="checkbox"/>	SM 4500-NO3 F	CTL PH0547
Total Copper	Semi-annual	0.070 mg/L	0.059 mg/L	<input checked="" type="checkbox"/>		
Total Zinc	Semi-annual	0.36 mg/L	0.160 mg/L	<input checked="" type="checkbox"/>		
Total Lead	Semi-annual	0.041 mg/L	0.076 mg/L	<input type="checkbox"/>		
24 Hr. LC <sub>50</sub>	Annual-Year 1&2	N/A	n/a			
48 Hr. LC <sub>50</sub>	Annual-Year 1&2	N/A	n/a			

\* See Additional Sector G Monitoring Section on page 3 of this form for Federal or Municipal facilities with incidental solid deicing material storage only.

**Exemptions**

List here any parameter(s) that will not be sampled for the remainder of the permit term: see note below

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**NOTE:** Complete the "Data Tracking Table" (page 4 on this form) to show the parameter is eligible for the monitoring exemption in Section 5(e)(1)(B)(iii) of the general permit. If you are discontinuing monitoring for impaired water parameters (per Section 5(e)(1)(D)), or parameters that are present due to natural or background levels or off site run-on (per Section 5(e)(1)(B)(V)), attach additional supporting information to this form.



**STORMWATER ACUTE TOXICITY TEST DATA SHEET**  
 (required annually only during Year 1 and Year 2 of the permit)

Site Name: <b>NA (CTL No. 12204)</b>	
Date/Time Begin:	Date/Time End:
Sample Hardness:	Sample Conductivity:
Test Species: <i>Daphnia pulex</i> < 24 hrs old	Dilution Water Hardness:

Effluent Dilution	Number of Organisms Surviving			Dissolved Oxygen (mg/L)			Temperature (°C)			pH (su)			
	Hour	00	24	48	00	24	48	00	24	48	00	24	48
CONTROL 1													
CONTROL 2													
CONTROL 3													
CONTROL 4													
6.25% A													
6.25% B													
6.25% C													
6.25% D													
12.5% A													
12.5% B													
12.5% C													
12.5% D													
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25% C													
25% D													
50% A													
50% B													
50% C													
50% D													
100% A													
100% B													
100% C													
100% D													

**REFERENCE TOXICANT RESULTS**

Test Species	Date	Reference Toxicant	Source	LC <sub>50</sub>
<i>Daphnia pulex</i>				

### Additional Monitoring: Sector G

For Federal or Municipal facilities with **incidental solid deicing material storage only:**

Parameter	Required Frequency	Results (units)	Benchmark	Test Method	Laboratory Name
Chloride	Semi-annual Years 1&2 only		n/a		
Cyanide	Semi-annual Years 1&2 only		n/a		

### Additional Monitoring for Discharges to Impaired Waters (if applicable):

Parameter	Frequency	Results (units)	Test Method	Laboratory Name

### Statement of Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."



Signature of Permittee

2-28-2018

Date

**Mark Austin, P.E.**

Name of Permittee (print or type)

**Town Engineer**

Title (if applicable)



Signature of Preparer (if different than above)

2/8/2018

Date

**Carrolyn Izzo, HRP Associates, Inc.**

Name of Preparer (print or type)

**Project Geologist**

Title (if applicable)

Please send all completed forms to:

WATER TOXICS PROGRAM COORDINATOR  
 BUREAU OF WATER PROTECTION AND LAND REUSE  
 CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION  
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**General Permit for the Discharge of Stormwater Associated with  
Industrial Activity, effective 10/1/2011  
Data Tracking Sheet  
Sector G-Municipal or Federal Facilities**

Permittee Name: <u>Town of Hamden</u>	Permit #: GSI <u>001682</u>
Site Name: <u>Hamden PWG</u>	
Site Address: <u>1125 Shepard Ave., Hamden, CT</u>	
Sample Location: <u>Outfall 003</u>	

Enter the sample dates and the data reported for the 4 most recent semi-annual sample results at this discharge location in the chart below. To determine the average for the four samples add up each of the four results and then divide that number by 4. **Only monitoring collected under the current permit (effective 10/1/11,) can be used to earn the monitoring exemption.**

$$\text{Average} = \frac{(\text{Sample 1} + \text{Sample 2} + \text{Sample 3} + \text{Sample 4})}{4}$$

Parameter	Sample Result				Average	Benchmark	Quality for exemption?
	1	2	3	4			
Sample Date	11/16/17	1/12/18					
O&G	22	ND<2.0			12	5.0 mg/L	No
Sample pH	7.4	8.15			7.78	5-9 S.U.	No
COD	150	490			320	75 mg/L	No
TSS	76	880			438	90 mg/L	No
TP	0.29	0.72			0.51	0.40 mg/L	No
TKN	1.6	1.2			1.4	2.30 mg/L	No
NO <sub>3</sub> -N	0.42	ND<0.05			0.24	1.10 mg/L	No
Total Copper	ND<0.03	0.070			0.10	0.059 mg/L	No
Total Zinc	0.16	0.36			0.26	0.160 mg/L	No
Total Lead	0.014	0.041			0.028	0.076 mg/L	No

\*If the average of the 4 most recent samples is less than the benchmark listed, your facility is no longer required to sample semi-annually for that parameter for the rest of the permit (current permit expires 9/30/2016). If your facility qualifies for an exemption from monitoring for sample pH, your facility is also exempt from monitoring rainfall pH for the remainder of the permit.

If the average of the four (4) most recent samples is equal to or greater than the benchmark listed, check the appropriate box on page 1. If so, you have exceeded the benchmark and must continue to sample this parameter semiannually until the average is below the benchmark. See Section 5(e)(1)(B) of the General permit for requirements when exceeding a benchmark.

If the sample results reported by the testing laboratory were below detection limit, for the purpose of averaging, use a value that is 1/2 the detection limit for that parameter in the formula above. For example, if the result for Oil & Grease was <2.0 mg/L, use a value of 1.0 mg/L for determining the average. Please refer to section 5 e(1)B(iii) for a more detailed explanation.



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Industrial Activity, effective 10/1/2011  
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Sector G - Municipal or Federal Facilities**

**Facility Information**

Permittee Name: Town of Hamden Site Name: Hamden PWG  
 Mailing Address: 2750 Dixwell Ave., Hamden, CT 06518  
 Contact Person: Mark Austin Title: Town Engineer  
 Business Phone: 203-287-7040 ext.: \_\_\_\_\_ Email: MAustin@Hamden.com  
 Site Address: 1125 Shepard Ave., Hamden, CT  
 Receiving Water (name/basin): Mill River (Basin No. 5302)  
 Permit #: GSI 001682 Primary SIC: 9199  
 Discharges into an Impaired Waterbody: Yes  No  (If yes, complete the table on page 3 of this form)

**Sample Information**

Sample Location: Outfall 006 Person Collecting Sample: C. Izzo, HRP Associates  
 Date/Time Collected: 1/12/18 / 13:42 Date of Previous Storm Event: 12/25/2017  
 This report is for samples required: Semi-annually  Annually  Other   
 Check here if the sample contains snow or ice melt:   
 Check here if a benchmark exceedance is solely due to background or off site sources  see note below

**Monitoring Results**

Parameter	Required Frequency	Results (Units)	Benchmark	Benchmark Exceedance (see pg 4)	Test Method	Laboratory Name
Oil & Grease	Semi-annual	ND<2.0	5.0 mg/L	<input type="checkbox"/>		
Rainfall pH	Semi-annual	Exempt	n/a			
Sample pH	Semi-annual	Exempt	5-9 SU	<input type="checkbox"/>		
COD	Semi-annual	500 mg/L	75 mg/L	<input checked="" type="checkbox"/>		
TSS	Semi-annual	110 mg/L	90 mg/L	<input checked="" type="checkbox"/>		
TP	Semi-annual	1.9 mg/L	0.40 mg/L	<input checked="" type="checkbox"/>		
TKN	Semi-annual	ND<0.5	2.30 mg/L	<input type="checkbox"/>		
NO <sub>3</sub> -N	Semi-annual	Exempt	1.10 mg/L	<input type="checkbox"/>	SM 4500-NO3 F	CTL PH0547
Total Copper	Semi-annual	ND<0.020	0.059 mg/L	<input type="checkbox"/>		
Total Zinc	Semi-annual	0.097 mg/L	0.160 mg/L	<input type="checkbox"/>		
Total Lead	Semi-annual	0.023 mg/L	0.076 mg/L	<input type="checkbox"/>		
24 Hr. LC <sub>50</sub>	Annual-Year 1&2	N/A	n/a			
48 Hr. LC <sub>50</sub>	Annual-Year 1&2	N/A	n/a			

\* See Additional Sector G Monitoring Section on page 3 of this form for Federal or Municipal facilities with incidental solid deicing material storage only.

**Exemptions**

List here any parameter(s) that will not be sampled for the remainder of the permit term: see note below  
pH, NO3-N

**NOTE:** Complete the "Data Tracking Table" (page 4 on this form) to show the parameter is eligible for the monitoring exemption in Section 5(e)(1)(B)(iii) of the general permit. If you are discontinuing monitoring for impaired water parameters (per Section 5(e)(1)(D)), or parameters that are present due to natural or background levels or off site run-on (per Section 5(e)(1)(B)(V)), attach additional supporting information to this form.

**STORMWATER ACUTE TOXICITY TEST DATA SHEET**  
 (required annually only during Year 1 and Year 2 of the permit)

Site Name: <b>NA (CTL No. 12204)</b>	
Date/Time Begin:	Date/Time End:
Sample Hardness:	Sample Conductivity:
Test Species: <i>Daphnia pulex</i> < 24 hrs old	Dilution Water Hardness:

Effluent Dilution	Number of Organisms Surviving			Dissolved Oxygen (mg/L)			Temperature (°C)			pH (su)			
	Hour	00	24	48	00	24	48	00	24	48	00	24	48
CONTROL 1													
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100% D													

**REFERENCE TOXICANT RESULTS**

Test Species	Date	Reference Toxicant	Source	LC <sub>50</sub>
<i>Daphnia pulex</i>				

## Additional Monitoring: Sector G

For Federal or Municipal facilities with incidental solid deicing material storage only:

Parameter	Required Frequency	Results (units)	Benchmark	Test Method	Laboratory Name
Chloride	Semi-annual Years 1&2 only		n/a		
Cyanide	Semi-annual Years 1&2 only		n/a		

### Additional Monitoring for Discharges to Impaired Waters (if applicable):

Parameter	Frequency	Results (units)	Test Method	Laboratory Name

### Statement of Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."



Signature of Permittee

2-20-2018

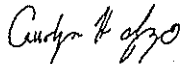
Date

**Mark Austin, P.E.**

Name of Permittee (print or type)

**Town Engineer**

Title (if applicable)



Signature of Preparer (if different than above)

2/8/2017

Date

**Carrolyn Izzo, HRP Associates, Inc.**

Name of Preparer (print or type)

**Project Geologist**

Title (if applicable)

Please send all completed forms to:

WATER TOXICS PROGRAM COORDINATOR  
 BUREAU OF WATER PROTECTION AND LAND REUSE  
 CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION  
 79 ELM STREET  
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Industrial Activity, effective 10/1/2011  
Data Tracking Sheet  
Sector G-Municipal or Federal Facilities**

Permittee Name: <u>Town of Hamden</u>	Permit #: GSI <u>001682</u>
Site Name: <u>Hamden PWG</u>	
Site Address: <u>1125 Shepard Ave., Hamden, CT</u>	
Sample Location: <u>Outfall 006</u>	

Enter the sample dates and the data reported for the 4 most recent semi-annual sample results at this discharge location in the chart below. To determine the average for the four samples add up each of the four results and then divide that number by 4. **Only monitoring collected under the current permit (effective 10/1/11,) can be used to earn the monitoring exemption.**

$$\text{Average} = \frac{(\text{Sample 1} + \text{Sample 2} + \text{Sample 3} + \text{Sample 4})}{4}$$

Parameter	Sample Result				Average	Benchmark	Quality for exemption?
	1	2	3	4			
Sample Date	11/16/17	1/12/18					
O&G	6.2	ND<2.0			4.1	5.0 mg/L	No
Sample pH	Exempt	Exempt			Exempt	5-9 S.U.	Yes, Previously
COD	1500	500			1000	75 mg/L	No
TSS	2400	110			1255	90 mg/L	No
TP	2.6	1.9			2.25	0.40 mg/L	No
TKN	7.9	ND<0.5			4.2	2.30 mg/L	No
NO <sub>3</sub> -N	Exempt	Exempt			Exempt	1.10 mg/L	Yes, Previously
Total Copper	0.12	ND<0.020			0.07	0.059 mg/L	No
Total Zinc	0.50	0.097			0.3	0.160 mg/L	No
Total Lead	0.15	0.023			0.09	0.076 mg/L	No

\*If the average of the 4 most recent samples is less than the benchmark listed, your facility is no longer required to sample semi-annually for that parameter for the rest of the permit (current permit expires 9/30/2016). If your facility qualifies for an exemption from monitoring for sample pH, your facility is also exempt from monitoring rainfall pH for the remainder of the permit.

If the average of the four (4) most recent samples is equal to or greater than the benchmark listed, check the appropriate box on page 1. If so, you have exceeded the benchmark and must continue to sample this parameter semiannually until the average is below the benchmark. See Section 5(e)(1)(B) of the General permit for requirements when exceeding a benchmark.

If the sample results reported by the testing laboratory were below detection limit, for the purpose of averaging, use a value that is 1/2 the detection limit for that parameter in the formula above. For example, if the result for Oil & Grease was <2.0 mg/L, use a value of 1.0 mg/L for determining the average. Please refer to section 5 e(1)B(iii) for a more detailed explanation.



**General Permit for the Discharge of Stormwater Associated with Industrial Activity, effective 10/1/2011**  
**Stormwater Monitoring Report Form**  
**Sector C – Refuse Systems**

**Facility Information**

Permittee Name: Town of Hamden Site Name: Hamden Landfill, Trans. Sta. & Recyc. Ctr  
 Mailing Address: 2750 Dixwell Ave., Hamden, CT 06514  
 Contact Person: Mark Austin Title: Town Engineer  
 Business Phone: (203) 287-7040 ext.: \_\_\_\_\_ Email: MAustin@Hamden.com  
 Site Address: 231 Wintergreen Ave., Hamden, CT 06514  
 Receiving Water (name/basin): Wintergreen Brook (Basin No. 5304)  
 Permit #: GSI 001681 Primary SIC: 4953  
 Discharges into an Impaired Waterbody: Yes  No  (If yes, complete the table on page 3 of this form)

**Sample Information**

Sample Location: Outfall 001 Person Collecting Sample: C. Izzo (HRP Associates)  
 Date/Time Collected: 1/12/18 / 12:55 Date of Previous Storm Event: December 25, 2017  
 This report is for samples required: Semi-annually  Annually  Other   
 Check here if the sample contains snow or ice melt:   
 Check here if a benchmark exceedance is solely due to background or off site sources  see note below

**Monitoring Results**

Parameter	Required Frequency	Results (units)	Benchmark	Effluent Limit	Benchmark Exceedance (see pg 4)	Test Method	Laboratory Name
Oil & Grease	Semi-annual	Exempt	5.0 mg/L	n/a	<input type="checkbox"/>		
Rainfall pH	Semi-annual	Exempt	n/a	n/a	<input type="checkbox"/>		
Sample pH	Semi-annual	Exempt	5-9 SU	*			
COD	Semi-annual	190 mg/L	75 mg/L	n/a	<input checked="" type="checkbox"/>	EPA 410.4	CTL PH0547
TSS	Semi-annual	260 mg/L	90 mg/L	*	<input checked="" type="checkbox"/>	SM 2540D	CTL PH0547
TP	Semi-annual	1.0 mg/L	0.40 mg/L	n/a	<input checked="" type="checkbox"/>	EPA 365.1	CTL PH0547
TKN	Semi-annual	2.2 mg/L	2.30 mg/L	n/a	<input type="checkbox"/>	EPA 351.2	CTL PH0547
NO <sub>3</sub> -N	Semi-annual	Exempt	1.10 mg/L	n/a	<input type="checkbox"/>		
Total Copper	Semi-annual	ND<0.02	0.059 mg/L	n/a	<input type="checkbox"/>	EPA 200.8	CTL PH0547
Total Zinc	Semi-annual	0.080	0.160 mg/L	*	<input type="checkbox"/>	EPA 200.8	CTL PH0547
Total Lead	Semi-annual	0.035 mg/L	0.076 mg/L	n/a	<input type="checkbox"/>	EPA 200.8	CTL PH0547
24 Hr. LC <sub>50</sub>	Annual-Year 1&2	NA	n/a	n/a		NA	NA
48 Hr. LC <sub>50</sub>	Annual-Year 1&2	NA	n/a	n/a		NA	NA

\* See Additional Sector C Monitoring Section on page 3 of this form.

**Exemptions**

List here any parameter(s) that will not be sampled for the remainder of the permit term: see note below  
O&G, pH, NO3-N

**NOTE:** Complete the "Data Tracking Table" (page 4 on this form) to show the parameter is eligible for the monitoring exemption in Section 5(e)(1)(B)(iii) of the general permit. If you are discontinuing monitoring for impaired water parameters (per Section 5(e)(1)(D)), or parameters that are present due to natural or background levels or off site run-on (per Section 5(e)(1)(B)(V)), attach additional supporting information to this form.



**STORMWATER ACUTE TOXICITY TEST DATA SHEET**  
(required annually only during Year 1 and Year 2 of the permit)

Site Name: <b>Hamden Landfill, Transfer Station and Recycling Center</b>	
Date/Time Begin:	Date/Time End:
Sample Hardness:	Sample Conductivity:
Test Species: <i>Daphnia pulex</i> < 24 hrs old	Dilution Water Hardness:

Effluent Dilution	Number of Organisms Surviving			Dissolved Oxygen (mg/L)			Temperature (°C)			pH (su)			
	Hour	00	24	48	00	24	48	00	24	48	00	24	48
CONTROL 1													
CONTROL 2													
CONTROL 3													
CONTROL 4													
6.25% A													
6.25% B													
6.25% C													
6.25% D													
12.5% A													
12.5% B													
12.5% C													
12.5% D													
25% A													
25% B													
25% C													
25% D													
50% A													
50% B													
50% C													
50% D													
100% A													
100% B													
100% C													
100% D													

**REFERENCE TOXICANT RESULTS**

Test Species	Date	Reference Toxicant	Source	LC <sub>50</sub>
<i>Daphnia pulex</i>				

**Additional Monitoring: Sector C – Landfills and Solid Waste Disposal Areas Only**

Parameter	Required Frequency	Results (Units)	Benchmark	Effluent Limit	Benchmark Exceedance (see pg 4)	Test Method	Laboratory Name
Total Iron	Quarterly	11 mg/L	1 mg/L	n/a	<input checked="" type="checkbox"/>	SM 3111B	CTL PH0547
<b>Effluent Samples*</b>							
BOD	Annually for the entire permit term		n/a	140 mg/L	<input type="checkbox"/>		
TSS	Annually for the entire permit term		n/a	88 mg/L	<input type="checkbox"/>		
Ammonia	Annually for the entire permit term		n/a	10 mg/L	<input type="checkbox"/>		
Alpha Terpineol	Annually for the entire permit term		n/a	0.033 mg/L	<input type="checkbox"/>		
Benzoic Acid	Annually for the entire permit term		n/a	0.12 mg/L	<input type="checkbox"/>		
p-Cresol	Annually for the entire permit term		n/a	0.025 mg/L	<input type="checkbox"/>		
Phenol	Annually for the entire permit term		n/a	0.026 mg/L	<input type="checkbox"/>		
Total Zinc	Annually for the entire permit term		n/a	0.200 mg/L	<input type="checkbox"/>		
Sample pH	Annually for the entire permit term		n/a	6-9 mg/L	<input type="checkbox"/>		

\*Annual samples may be taken at the same time as one of the semi-annual samples for the general sampling parameters. An effluent limit applies to any single sample (not average of 4).

**Additional Monitoring for Discharges to Impaired Waters (if applicable)**

Parameter	Required Frequency	Results (units)	Test Method	Laboratory Name

**Statement of Certification**

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."

*Mark Austin*

Signature of Permittee

2-20-2018

Date

**Mark Austin, P.E.**

Name of Permittee (print or type)

**Town Engineer**

Title (if applicable)

*Carolyn Izzo*

Signature of Preparer (if different than above)

2/8/2017

Date

**Carrolyn Izzo, HRP Associates, Inc.**

Name of Preparer (print or type)

**Project Geologist**

Title (if applicable)

Please send all completed forms to:

WATER TOXICS PROGRAM COORDINATOR  
 BUREAU OF WATER PROTECTION AND LAND REUSE  
 CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION  
 79 ELM STREET  
 HARTFORD, CT 06106-5127

**General Permit for the Discharge of Stormwater Associated with  
Industrial Activity, effective 10/1/2011  
Data Tracking Sheet  
Sector C – Refuse Systems**

Permittee Name: <u>Town of Hamden</u>	Permit #: <u>GSI 001681</u>
Site Name: <u>Hamden Landfill, Transfer Station and Recycling Center</u>	
Site Address: <u>Wintergreen Brook (Basin No. 5304)</u>	
Sample Location: <u>Outfall 001</u>	

Enter the sample dates and the data reported for the four (4) most recent semi-annual or quarterly monitoring sample results at this discharge location in the chart below. To determine the average for the four samples add up each of the four results and then divide that number by 4. **Only monitoring collected under the current permit (effective 10/1/11,) can be used to earn the monitoring exemption.**

$$\text{Average} = \frac{(\text{Sample 1} + \text{Sample 2} + \text{Sample 3} + \text{Sample 4})}{4}$$

Parameter	Sample Result				Average	Benchmark**	Qualify for exemption?
	1	2	3	4			
Sample Date	11/16/17	1/12/18					
O&G	Exempt	Exempt			Exempt	5.0 mg/L	Yes, previously
Sample pH*	Exempt	Exempt			Exempt	5-9 S.U.	Yes, previously
COD	430 mg/L	190 mg/L			310	75 mg/L	No
TSS*	400 mg/L	260 mg/L			330	90 mg/L	No
TP	0.90 mg/L	1.0 mg/L			0.95	0.4 mg/L	No
TKN	3.5 mg/L	2.2 mg/L			2.85	2.30 mg/L	No
NO <sub>3</sub> -N	Exempt	Exempt			Exempt	1.10 mg/L	Yes, previously
Total Copper	<0.030 mg/L	<0.020 mg/L			<0.030	0.059 mg/L	No
Total Zinc*	0.11 mg/L	0.080 mg/L			0.095	0.16 mg/L	No
Total Lead	0.039 mg/L	0.035 mg/L			0.037	0.076 mg/L	No
Total Iron	10 mg/L	11 mg/L			10.5	1.0 mg/L	No

\*\*If the average of the four (4) most recent samples is less than the benchmark listed, your facility is no longer required to sample semi-annually or quarterly for that parameter for the rest of the permit (current permit expires 9/30/2016).

If the average of the four (4) most recent samples is equal to or greater than the benchmark listed, check the appropriate box on page 1. If so, you have exceeded the benchmark and must continue to sample this parameter semiannually until the average is below the benchmark. See Section 5(e)(1)(B) of the General permit for requirements when exceeding a benchmark.

If the sample result reported by the testing laboratory was below detection limit, for the purpose of averaging, use a value that is ½ the detection limit for that parameter in the formula above. For example, if the result for Oil & Grease was <2.0 mg/L, use a value of 1.0 mg/L for determining the average. Please refer to Section 5 e(1)B(iii) for a more detailed explanation.

\*Due to effluent limits, landfills and solid waste disposal areas within Sector C are required to monitor annually for nine parameters including sample pH, TSS and Zinc for the entire permit term. The pH of uncontaminated rainfall is also recommended to provide background information. See additional

monitoring for landfills and solid waste disposal areas within Sector C on page 2 of this form for this list of parameters.