



City of Northampton

Department of Public Works

Stormwater and Flood Control Utility

FY 2015 Annual Report

PURPOSE

Under City Ordinance § 280-13, Annual Reports, the Department of Public Works is required to make an annual presentation to the City Council providing information relating to the work and projects financed by the Stormwater and Flood Control Utility in the previous year, including, to the extent practicable, an account of expenditures from the stormwater management and flood control account and projected future expenditures. The Department will also present this information in a written report accessible on the City website.

STORMWATER AND FLOOD CONTROL UTILITY BUDGET AND RATES

Fiscal Year (FY) 2015 was the first year of this new utility. The Department of Public Works (DPW) created new Stormwater and Flood Control Utility billing fields within the City's financial accounting and utility billing software. Quarterly bills were sent to 11,126 property owners during this year. The FY 2015 Stormwater and Flood Control Utility Budget was set at \$1,980,056. The calculation of bills for all properties resulted in a total hydraulic area or usage number of 78,655,345 square feet. Based on the budget and the total hydraulic area, the annual billing rate was determined to be \$0.025174 per square foot of hydraulic area.

At the end of FY 2015, credits were approved for 956 properties for a total annual value of \$58,101.

STORMWATER CAPITAL PROJECTS

Eastern Avenue Drain Line Replacement

DPW Engineering designed the replacement of 500 feet of existing drain pipe from the intersection of Williams Street to the end of Eastern Avenue at the levee. Work continued along toe of the levee to a connection point of existing 24-inch concrete drain line. The project replaced a 1938, 10-inch, vitrified clay pipe that was collapsed with a 24 inch HDPE pipe as recommended by the CDM stormwater report. The project was completed by J.L. Raymakers & Sons, Inc. under contract with the City in the first half of FY 2015.

Rick Drive Drain Manhole Repair

Contracted with Heitkamp, Inc. to repair a failing drain manhole and culvert on Rick Drive.

Drainage Improvements as part of Annual Pavement Projects

As part of annual roadway paving projects, Warner Brothers, Inc. reset and replaced frames and grates or covers for a number of catch basins and manholes, partially rebuilt some manhole structures and installed drainage improvements, designed by the DPW Engineering, on Sylvester Road, North Main St and Main St in Florence, Chestnut St, Jackson St, Bridge Rd, North St, Bridge St and Prospect St.

FLOOD CONTROL CAPITAL PROJECTS

Mill River Levee Repairs

Vegetation and tree removal along the Mill River diversion channel from Paradise Pond to below the South Street Bridge. Required by the United States Army Corps of Engineers (USACE). Project completed in 2014.

Connecticut and Mill River Survey Services

Contracted with Northeast Survey, Inc. for topographic and boundary survey of the Connecticut River flood control parcels and the upper portion of the Mill River flood control system. The objective of this work was to provide updated survey data that is compatible with current GPS coordinates and updated to the NAVD88 vertical datum.

Connecticut and Mill River - Engineering Assessments

AECOM was selected to provide engineering assessments to address various issues previously noted by the USACE. Their work included assessment of observed encroachments to the Flood Control System and recommendation of alterations to the USACE; review of the freeboard elevations along the system levees and floodwalls; a risk analysis for the West Street pumping station relating to fuel type and storage capacity versus the consequences of the loss of the use of the station during a storm event; inspection of the flood control toe drain system including piping and manholes; inspection of the Hockanum Road pumping station's gravity, overflow and intake conduits; Phase I dam inspection/evaluation of the South Street drop structure in accordance with Department of Conservation and Recreation (DCR) Office of Dam Safety requirements; development of a supplement to the Flood Control System Operation and Maintenance Manual for the South Street drop structure; and inspection, evaluation and alternatives analysis of the Oxbow Bridge relative to the function of the flood control system.

Connecticut River Levee Repair Project

This work included vegetation removal and maintenance along the Connecticut River levee, minor repairs to the concrete flood wall and improvements to the levee crown. Design, bidding and construction oversight of this project was performed by the DPW. The work was performed by Kingsbury Companies.

Stop Log Structure Evaluation

The DPW engaged the services of Tighe & Bond consulting engineers to evaluate the condition of the two stop logs along the Connecticut River flood control system. Based on their findings, it was determined that improvements were required to restore the functionality of the stop log structures.

STORMWATER SYSTEM OPERATION AND MAINTENANCE

Catch Basin Cleaning

- Cleaned over 1,000 catch basins throughout the City from April to October

Catch Basin and Drain Manhole Cover Repairs/Replacement

- Catch basin covers and grates were repaired, reset or replaced throughout the City

Drain Pipe Repairs

- Completed drain pipe repairs throughout the City

Storm Event Flood Mitigation

- Ongoing removal of leaves, snow and debris from catch basin grates throughout the City before and during storm events to mitigate road drainage backups and flooding.
- Clean debris from culverts throughout the City to mitigate brook backups and flooding.

Street Sweeping

- All City streets swept one time—2 sweepers and 1 truck, April to September
- Central Business District swept two times per month
- Central Business District swept for special events such as First Night and Holiday Stroll
- Florence Center, Baystate Village, Leeds Village, King St/Damon Rd/Bridge St Area, Glendale Rd, West Farms Rd and Downtown Parking Lots swept monthly.

Cleaning of Drain Ditches

- Cleaned sediment and debris from drainage ditches throughout the City.

Stormwater System Inspections

- Pipe video inspections of drain lines and other system inspections throughout the City to identify and investigate structural failures, sink holes and other problems in the drainage system
- Inspected drain outfalls throughout the City to investigate erosion problems and inspect for possible illicit discharges to the drainage system in compliance with the EPA MS4 Permit.

King Street Brook / Barrett Street Marsh Flood Mitigation

- Inspection of King St Brook at the bike path culvert weekly and during major storms throughout the year
- Vegetation and debris removal in the brook channel between Barrett St and the culvert behind CVS
- Clean debris off the grate at the culvert entrance behind CVS weekly
- Sidewalk and grading improvements on State Street for property flood mitigation

Hinckley Street Drain System Reconstruction

- DPW Engineering designed a new drain system for Hinckley Street and the surrounding stormwater system.

Development Project Engineering Review

- DPW Engineering staff review of all development plans submitted for permitting through the Office of Planning and Sustainability for impacts to the City's drainage system, proposed drainage connections and/or alterations to the City drainage system.

Public Drainage Information Requests

- DPW Engineering staff responds to inquiries from designers, contractors, developers and land owners with questions about the drainage system and provides documents and information.

Stormwater Management Permits

- DPW Engineering staff provides ongoing review and inspection of development projects that disturb over 1 acre in the City under the Stormwater Management Permit program in compliance with EPA MS4 Permit.

DPW Engineering Project Coordination and Development

- DPW Engineering staff provided coordination, development support and construction oversight on certain projects for stormwater management system capital projects.

Illicit Discharge Investigations

- Mill River bacteria investigation—Sampling and investigation of the Mill River and adjacent drain systems and waterways for levels of e-coli bacteria. Follow-up investigations of the drainage and sanitary sewer systems.

Catch Basin Label Installation

- Installed “No Dumping Drains to River” Labels at catch basins throughout City as part of public education activities in compliance with the EPA MS4 Permit.

FLOOD CONTROL SYSTEM OPERATION AND MAINTENANCE

Operation and Maintenance of the Connecticut River Flood Control Pump Station

- Activated the Connecticut River flood control pumps for 20 days during high river levels and major precipitation events
- Maintenance of the station including pumping systems, gates, trash racks, electrical components, National Weather Service river gauge and other associated systems.

Operation and Maintenance of the Mill River Flood Control Pump Station

- Maintenance of the station including the engine, pump, fuel system and other components of the station.

Stop Log Structure Operation and Maintenance

- Trial deployment of the Route 5 and railroad stop log structures on the Connecticut River System and the West Street stop log structure on the Mill River system, one per year on a rotating basis.

Levee Inspection and Maintenance

- Vegetation maintenance and routine inspection of the Connecticut River and Mill River levees.

DPW Engineering Coordination and Development

- DPW Engineering staff provided coordination and development support for all flood control capital projects.

STORMWATER AND FLOOD CONTROL UTILITY ADMINISTRATION

DPW Utility Billing Department

- Maintenance of records and processing of quarterly Stormwater and Flood Control Utility bills
- Processing of abatements and credits to Stormwater and Flood Control Utility Fees
- Communication with property owners regarding billing questions

DPW Engineering Department

- Review of Stormwater and Flood Control Utility credit applications and administration of the credit program.
- Review of Stormwater and Flood Control Utility abatement requests.
- Communication with property owners regarding technical billing questions
- Maintenance and correction of property data and fee calculations for the Stormwater and Flood Control Utility

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City of Northampton
STORMWATER ENTERPRISE FUND REVENUE 2015

P 1
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FOR 2015 99

	ORIGINAL ESTIM REV	ESTIM REV ADJSTMTS	REVISED EST REV	ACTUAL YTD REVENUE	REMAINING REVENUE	PCT COLL
6200 STORMWATER ENTERPRISE						
62004 STORMWATER REVENUE						
423040 STORMWATER RATES	-1,980,056	0	-1,980,056	-1,675,093.63	-304,962.37	84.6%
423042 STORMWATER INTEREST INCOME	0	0	0	-3,469.84	3,469.84	100.0%
423043 STORMWATER MISC. INCOME	0	0	0	-7,800.00	7,800.00	100.0%
TOTAL STORMWATER REVENUE	-1,980,056	0	-1,980,056	-1,686,363.47	-293,692.53	85.2%
TOTAL STORMWATER ENTERPRISE	-1,980,056	0	-1,980,056	-1,686,363.47	-293,692.53	85.2%
GRAND TOTAL	-1,980,056	0	-1,980,056	-1,686,363.47	-293,692.53	85.2%

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REPORT OPTIONS

	Field #	Total	Page Break
Sequence 1	1	Y	N
Sequence 2	9	Y	N
Sequence 3	11	Y	N
Sequence 4	0	N	N

Report title:

STORMWATER ENTERPRISE FUND REVENUE 2015

Includes accounts exceeding 0% of budget.

Print totals only: Y

Print Full or Short description: F

Print full GL account: N

Format type: 1

Double space: N

Suppress zero bal accts: Y

Include requisition amount: N

Print Revenues-Version headings: Y

Print revenue as credit: Y

Print revenue budgets as zero: N

Include Fund Balance: N

Print journal detail: N

From Yr/Per: 2016/ 9

To Yr/Per: 2016/ 9

Include budget entries: Y

Incl encumb/liq entries: Y

Sort by JE # or PO #: J

Detail format option: 1

Include additional JE comments: N

Multiyear view: D

Amounts/totals exceed 999 million dollars: N

Year/Period: 2015/99

Print MTD Version: N

Roll projects to object: N

Carry forward code: 1

Find Criteria

Field Name	Field Value
Fund	62*
FUNCTION	
DEPARTMENT	
DOE	
BUDGET CAT	
LOCATION	
CURR/GRANT	
GRADE	
Character Code	
Org	
Object	
Project	
Account type	Revenue

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STORMWATER ENTERPRISE FUND REVENUE 2015

P 3
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REPORT OPTIONS

Account status
Rollup Code

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STORMWATER ENTERPRISE FUND EXPENSE 2015

P 1
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FOR 2015 13

	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
6200 STORMWATER ENTERPRISE							
62611 STMWTR ENT STORMDRAINS-PS							
511000 SALARIES PERMANENT	423,893	0	423,893	372,515.07	.00	51,377.93	87.9%
513000 OVERTIME	10,000	0	10,000	14,989.69	.00	-4,989.69	149.9%
514002 LONGEVITY	3,228	0	3,228	.00	.00	3,228.00	.0%
514004 WEEK ADJUSTMENT	4,778	0	4,778	665.00	.00	4,113.00	13.9%
514005 LICENSE & CERTIFICATION	100	0	100	293.25	.00	-193.25	293.3%
514007 WORKING OUT OF GRADE	833	0	833	4.76	.00	828.24	.6%
519020 UNIFORM ALLOWANCE	825	0	825	92.53	.00	732.47	11.2%
TOTAL STMWTR ENT STORMDRAINS-PS	443,657	0	443,657	388,560.30	.00	55,096.70	87.6%
62612 STMWTR ENT STORMDRAINS-OM							
524004 R & M VEHICLES	500	0	500	644.50	.00	-144.50	128.9%
524020 R & M WATER/SEWER TREATMENT	3,000	0	3,000	2,048.26	.00	951.74	68.3%
527008 R&L CONSTRUCTION EQUIPMENT	500	0	500	1,596.65	.00	-1,096.65	319.3%
527012 R & L UNIFORMS	2,000	0	2,000	.00	.00	2,000.00	.0%
529007 SECURITY SERVICES/OUTSIDE DE	5,000	0	5,000	480.00	.00	4,520.00	9.6%
530003 ARCHITECTURE AND ENGINEERING	50,000	0	50,000	10,965.25	29,000.00	10,034.75	79.9%
530004 TECHNOLOGY SERVICES	5,000	0	5,000	6,559.80	.00	-1,559.80	131.2%
530005 TRAINING & SEMINARS	2,000	0	2,000	1,710.96	.00	289.04	85.5%
530006 MEDICAL/TESTING SERVICES	200	0	200	149.00	.00	51.00	74.5%
530019 LAB SAMPLE ANALYSIS	2,000	0	2,000	.00	.00	2,000.00	.0%
531006 DPW TV INSPECTIONS	5,000	0	5,000	980.00	.00	4,020.00	19.6%
531009 CATCH BASIN CLNING DISPOSAL	30,000	0	30,000	.00	.00	30,000.00	.0%
534300 PRINTING	10,000	0	10,000	1,995.97	.00	8,004.03	20.0%
534600 ADVERTISING	1,000	0	1,000	161.43	.00	838.57	16.1%
542000 OFFICE SUPPLIES - GENERAL	400	0	400	2,316.98	.00	-1,916.98	579.2%
543003 R&M SUPPLIES-TOOLS	1,000	0	1,000	12.12	.00	987.88	1.2%
543015 R&M SUPPLIES-EQUIPMENT	5,000	0	5,000	7,010.67	.00	-2,010.67	140.2%
546001 RAKES, HOES AND OTHER TOOLS	1,000	0	1,000	52.66	.00	947.34	5.3%
546003 LOAM, GRASS SEED, LIME	1,000	0	1,000	.00	.00	1,000.00	.0%
548000 VEHICULAR SUPPLIES	20,000	0	20,000	2,183.24	.00	17,816.76	10.9%
548001 GASOLINE/DIESEL	5,000	0	5,000	4,088.64	.00	911.36	81.8%
553001 SAFETY SUPPLIES	1,500	0	1,500	749.94	.00	750.06	50.0%
553040 SEWER DIVISION SUPPLIES	10,000	0	10,000	3,941.36	.00	6,058.64	39.4%

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City of Northampton
STORMWATER ENTERPRISE FUND EXPENSE 2015

P 2
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FOR 2015 13

	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
553050 STREETS & SIDEWALKS SUPPLIES	5,000	0	5,000	63.24	.00	4,936.76	1.3%
553052 CATCH BASIN FRAMES/GRATES	15,000	0	15,000	19,279.59	.00	-4,279.59	128.5%
558003 DATA PROCESSING SUPPLIES	350	0	350	575.26	.00	-225.26	164.4%
TOTAL STMWTR ENT STORMDRAINS-OM	181,450	0	181,450	67,565.52	29,000.00	84,884.48	53.2%
62613 STMWTR ENT STORMDRAINS-OOM							
583001 CATCH BASIN DEWTER FACILITY	60,000	0	60,000	.00	60,000.00	.00	100.0%
587002 REPLACE EQUIP TRUCKS & BUSES	100,600	0	100,600	.00	100,600.00	.00	100.0%
589022 DRAIN REPLACEMENT	500,000	0	500,000	233,854.90	266,145.10	.00	100.0%
TOTAL STMWTR ENT STORMDRAINS-OOM	660,600	0	660,600	233,854.90	426,745.10	.00	100.0%
62631 STMWTR ENT FLD CNTL-PS							
511000 SALARIES PERMANENT	13,650	0	13,650	13,388.00	.00	262.00	98.1%
513000 OVERTIME	13,000	0	13,000	9,077.11	.00	3,922.89	69.8%
514002 LONGEVITY	160	0	160	.00	.00	160.00	.0%
519020 UNIFORM ALLOWANCE	45	0	45	.00	.00	45.00	.0%
TOTAL STMWTR ENT FLD CNTL-PS	26,855	0	26,855	22,465.11	.00	4,389.89	83.7%
62632 STMWRT ENT FLD CNTL - OM							
521001 ELECTRICITY	4,000	0	4,000	4,182.54	.00	-182.54	104.6%
521101 NATURAL GAS	1,500	0	1,500	3,399.63	.00	-1,899.63	226.6%
523003 STORMWATER SERVICES	0	0	0	1,332.71	.00	-1,332.71	100.0%
524001 R & M BUILDINGS	200	0	200	150.00	.00	50.00	75.0%
524002 R & M GROUNDS	2,500	0	2,500	.00	.00	2,500.00	.0%
524008 R & M COMMUNICATION LINES	0	0	0	542.53	.00	-542.53	100.0%
524020 R & M WATER/SEWER TREATMENT	10,000	0	10,000	.00	.00	10,000.00	.0%
530003 ARCHITECTURE AND ENGINEERING	50,000	0	50,000	26,278.87	23,721.13	.00	100.0%
543000 R&M SUPPLIES-BLDGS & EQUIP	1,000	0	1,000	.00	.00	1,000.00	.0%
543003 R&M SUPPLIES-TOOLS	500	0	500	.00	.00	500.00	.0%
543015 R&M SUPPLIES-EQUIPMENT	9,925	0	9,925	5,655.00	.00	4,270.00	57.0%
543020 R&M SUPPLIES-BUILDINGS	500	0	500	68.16	.00	431.84	13.6%
548001 GASOLINE/DIESEL	10,000	0	10,000	.00	.00	10,000.00	.0%

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City of Northampton
STORMWATER ENTERPRISE FUND EXPENSE 2015

P 3
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FOR 2015 13

	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
553001 SAFETY SUPPLIES	500	0	500	.00	.00	500.00	.0%
558003 DATA PROCESSING SUPPLIES	0	0	0	83.10	.00	-83.10	100.0%
TOTAL STMWRT ENT FLD CNTL - OM	90,625	0	90,625	41,692.54	23,721.13	25,211.33	72.2%
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62633 STMWTR ENT FLD CNTL - OOM							
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584000 SITE IMPROVEMENTS	200,000	0	200,000	.00	200,000.00	.00	100.0%
TOTAL STMWTR ENT FLD CNTL - OOM	200,000	0	200,000	.00	200,000.00	.00	100.0%
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62710 STRWTR ENT DEBT PYMT							
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591000 MATURING PRINCIPAL ON LONG T	66,450	0	66,450	.00	.00	66,450.00	.0%
TOTAL STRWTR ENT DEBT PYMT	66,450	0	66,450	.00	.00	66,450.00	.0%
<hr/>							
62750 STRMTR ENT INT ON DEBT							
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591500 INTEREST ON LONG TERM DEBT	66,450	0	66,450	.00	.00	66,450.00	.0%
TOTAL STRMTR ENT INT ON DEBT	66,450	0	66,450	.00	.00	66,450.00	.0%
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62991 STRWTR ENT INDIRECT EXPENCE							
<hr/>							
596100 TRANSFERS TO GENERAL FUND	243,969	0	243,969	243,969.00	.00	.00	100.0%
TOTAL STRWTR ENT INDIRECT EXPENCE	243,969	0	243,969	243,969.00	.00	.00	100.0%
TOTAL STORMWATER ENTERPRISE	1,980,056	0	1,980,056	998,107.37	679,466.23	302,482.40	84.7%
GRAND TOTAL	1,980,056	0	1,980,056	998,107.37	679,466.23	302,482.40	84.7%

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REPORT OPTIONS

	Field #	Total	Page Break
Sequence 1	1	Y	N
Sequence 2	9	Y	N
Sequence 3	11	Y	N
Sequence 4	0	N	N

Report title:

STORMWATER ENTERPRISE FUND EXPENSE 2015

Includes accounts exceeding 0% of budget.

Print totals only: Y

Print Full or Short description: F

Print full GL account: N

Format type: 1

Double space: N

Suppress zero bal accts: Y

Include requisition amount: N

Print Revenues-Version headings: N

Print revenue as credit: Y

Print revenue budgets as zero: N

Include Fund Balance: N

Print journal detail: N

From Yr/Per: 2016/ 9

To Yr/Per: 2016/ 9

Include budget entries: Y

Incl encumb/liq entries: Y

Sort by JE # or PO #: J

Detail format option: 1

Include additional JE comments: N

Multiyear view: D

Amounts/totals exceed 999 million dollars: N

Year/Period: 2015/13

Print MTD Version: N

Roll projects to object: N

Carry forward code: 1

Find Criteria

Field Name	Field Value
Fund	62*
FUNCTION	
DEPARTMENT	
DOE	
BUDGET CAT	
LOCATION	
CURR/GRANT	
GRADE	
Character Code	
Org	
Object	
Project	
Account type	Expense

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STORMWATER ENTERPRISE FUND EXPENSE 2015

P 5
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REPORT OPTIONS

Account status
Rollup Code