Stormwater Utilities in CT?!

NEMO Program MS4 Webinar
10/1/19

UConn Center for Land Use Education and Research
Welcome to the CLEAR Webinar Series!

This is the 3rd presentation in the 2019 series

- Oak Mortality in Eastern CT
- MS4 Permit Year 3
- **Stormwater Utilities in CT – You Are Here!**
- Sea Level Rise Affecting Road Flooding and Marsh Migration Along CT's Coast – Oct. 16
- Getting to 2% - Case Studies in Impervious Cover Disconnection – Nov. 14

Register & Archive: [http://clear.uconn.edu](http://clear.uconn.edu)
Navigating the Webinar

- Open and close your Panel
- View, Select, and Test your audio
- Submit questions
- Handouts
- Recording: [http://clear.uconn.edu](http://clear.uconn.edu)
Today’s Topics

- Stormwater Utilities Overview
- CT’s First Stormwater Utility
- Expanding beyond New London
NEMO MS4 Support

CT DEEP funded support program

• MS4 Educator
• Online MS4 Guide
• Mapping resources
• Listserv
• Workshops & webinars
• Templates & tools

http://nemo.uconn.edu/ms4
What is a Stormwater Utility?

- Fee for using stormwater infrastructure
- Provides reliable funding source for maintenance, upgrades, regulatory costs
- Separate from general fund
- Typically based on impervious cover
- Growing number in response to MS4
Across the Country

• 1716 (or more)
• 40 states
• 6 states have 100+
• Largest = L.A. (3M+ people)
• Smallest = Indian Creek Village, FL (88 people)
• Avg. monthly fee = $5.85 (SFR)

(Western Kentucky University Stormwater Utility Survey 2019)
Across the Country

- 1716 (or more)
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Across the Country

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Source: Brookings analysis of WKU stormwater utility survey data
22 (or so) in New England


CITY OF NEW LONDON
STORMWATER MANAGEMENT

HISTORY AND SUCCESSFUL IMPLEMENTATION
TALKING POINTS

• BRIEF OVERVIEW OF NEW LONDON’S STORMWATER NEEDS AND MS4 REQUIREMENTS
• DISCUSS THE LOGIC OF FUNDING STORMWATER SERVICES THROUGH A USER BASED FEE
• ESTIMATE REVENUE REQUIRED TO MEET PRIORITY NEEDS
• PRESENT A TIMELINE FOR FULL IMPLEMENTATION
• IMPORTANT FACTORS THAT LEAD TO A SUCCESSFUL IMPLEMENTATION
REMEMBER SEPTEMBER 11, 2015

BANK STREET

BROAD STREET
REMEMBER SEPTEMBER 11, 2015

BROAD STREET

GARFIELD & JEFFERSON
THE MS4 PERMIT

MS4 DEFINED

• M UNICIPAL
• S EPARATE
• S TORM
• S EWER
• S YSTEM

• THIS GENERAL PERMIT REQUIRES EACH MUNICIPALITY TO TAKE STEPS TO KEEP THE STORMWATER ENTERING ITS STORM SEWER SYSTEMS CLEAN BEFORE THAT STORMWATER ENTERS WATER BODIES

SIX MINIMUM CONTROL MEASURES

• PUBLIC OUTREACH
• PUBLIC PARTICIPATION
• ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)
• CONSTRUCTION SITE STORMWATER RUNOFF CONTROL
• POST CONSTRUCTION STORMWATER MANAGEMENT
• POLLUTION PREVENTION AND GOOD HOUSEKEEPING
CITY-WIDE STORMWATER INFRASTRUCTURE

STORMWATER SYSTEM ASSETS

- Estimated value of more than $50 million
- Drainage outfalls: 60
- Drainage structures: 1,100
- Catch basins: 1,100
- Roads: 63 miles (most with drainage pipes)
- Stormceptors®: 4
- Additional mapping and investigations are needed to fully understand assets
CURRENT LACK OF FUNDING LEADS TO OPERATIONS AND MAINTENANCE CHALLENGES

• NO DEDICATED STORMWATER STAFF – REACTIVE MAINTENANCE BASED ON IMMEDIATE PROBLEMS

• DEFERRED MAINTENANCE OF STORM SEWERS AND CATCH BASINS

• NO LONG TERM PROGRAM PLAN - HISTORICALLY “TASK ORIENTED” FOR PUBLIC WORKS BUDGETING PURPOSES

• CITY HAS NOT KEPT UP WITH INDUSTRY BEST PRACTICES FOR INFRASTRUCTURE RE-INVESTMENT WHICH IS 2% OF ASSET VALUE OR $1,000,000 ANNUALLY

• MS4 STORMWATER PERMIT CONTINUES TO EVOLVE REQUIRING ADDITIONAL O&M RESOURCES
STORMWATER REGULATORY MANDATES

- The city has been an MS4 permit holder since 2003.
- The permit is required under the Federal Clean Water Act and administered by the Department of Energy and Environmental Protection (DEEP).
- The MS4 permit authorizes municipalities to discharge stormwater from the public stormwater system into local waters.
- New MS4 permit – **Effective July 1, 2017**
- New requirements:
  - Enhanced operation, maintenance, and mapping requirements
  - Stormwater activities focusing on illicit discharge and detection elimination (IDDE), post construction stormwater management regulations and stormwater retrofits
  - Additional requirements required to enhance best management practices in the public education and IDDE programs to address water quality impairments - phosphorous, nitrogen, bacteria, and mercury
STORMWATER MANAGEMENT FUNDING APPROACH

WHEN DO WE HAVE TO WORRY ABOUT THIS?

- Water quality issues are a problem now and stormwater management is part of the solution.
- Stormwater program is not adequately funded on an annual basis to meet current needs.
- MS4 Phase II permit requires a significant increase to existing stormwater programs.

WHAT HAPPENS IF WE DO NOTHING?

- Still have to meet permit conditions and mandated program increases are expensive.
- Deterioration of existing assets valued over $50 million.
- MS4 noncompliance can result in fines & potential 3rd party suits.

WHY A STORMWATER UTILITY MODEL?

- Fee based system provides an equitable and flexible distribution of cost.
- No impact on tax base and users pay for their impact.
STORMWATER PROGRAM FUNDING MECHANISMS

• OPTION A: TAX INCREASE
  • BASED ON PROPERTY VALUE
  • EXCLUDES CONTRIBUTION BY TAX EXEMPT PROPERTIES
  • FUNDING NOT GUARANTEED

• OPTION B: STORMWATER UTILITY (USER FEE)
  • BASED ON IMPERVIOUS COVER
  • ALL PROPERTY INCLUDED
  • DEDICATED FUNDING – STORMWATER ENTERPRISE FUND
BASIS FOR STORMWATER FUNDING

• ALL SYSTEM USERS PAY THEIR FAIR SHARE
• COMPLETELY BASED ON SQUARE FEET (SF) OF IMPERVIOUS COVER (IC) NOT PROPERTY VALUE
• RESIDENTIAL EQUIVALENT UNIT (REU) = 1000 SF OF IC
• CREDIT AND APPEALS SYSTEM
• QUARTERLY INTEGRATED BILLING SYSTEM WITH WATER AND SEWER BILLS
• ADEQUATE FUNDING FOR OPERATIONS AND MAINTENANCE AND CAPITAL IMPROVEMENTS
## STORMWATER PROGRAM FEES

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Units</th>
<th>Total IC</th>
<th>% of IC</th>
<th>Average IC</th>
<th>REU</th>
<th>Quarterly Cost</th>
<th>Revenue</th>
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<tbody>
<tr>
<td>Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-1000</td>
<td>286</td>
<td>191,916</td>
<td>0.47%</td>
<td>671</td>
<td>1</td>
<td>$ 7.50</td>
<td>$ 8,580</td>
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<tr>
<td>1000-2000</td>
<td>1930</td>
<td>3,021,388</td>
<td>7.42%</td>
<td>1,565</td>
<td>2</td>
<td>$ 15.00</td>
<td>$ 115,800</td>
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<tr>
<td>2000-3000</td>
<td>1520</td>
<td>3,705,912</td>
<td>9.10%</td>
<td>2,438</td>
<td>3</td>
<td>$ 22.50</td>
<td>$ 136,800</td>
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<tr>
<td>3000+</td>
<td>1218</td>
<td>5,504,091</td>
<td>13.52%</td>
<td>4,519</td>
<td>5</td>
<td>$ 37.50</td>
<td>$ 182,700</td>
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<tr>
<td>Commercial</td>
<td>828</td>
<td>16,880,522</td>
<td>41.46%</td>
<td>20,387</td>
<td>20.4</td>
<td>$ 152.90</td>
<td>$ 506,416</td>
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<tr>
<td>Tax Exempt</td>
<td>168</td>
<td>7,078,629</td>
<td>17.39%</td>
<td>42,135</td>
<td>42.1</td>
<td>$ 316.01</td>
<td>$ 212,359</td>
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<tr>
<td>Municipal</td>
<td>112</td>
<td>4,330,290</td>
<td>10.64%</td>
<td>38,663</td>
<td>38.7</td>
<td>$ 289.97</td>
<td>$ 129,909</td>
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<tr>
<td>Totals</td>
<td>6062</td>
<td>40,712,748</td>
<td>100.00%</td>
<td></td>
<td></td>
<td>$ 1,292,563</td>
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Residential Equivalent Unit = 1000
Square Feet (SF) of Impervious Cover (IC) = $7.50
RECOMMENDATIONS OF THE STORMWATER COMMITTEE

GENERAL RECOMMENDATIONS

• ESTABLISH A STORMWATER ORDINANCE
• CREATE A STORMWATER AUTHORITY
• ESTABLISH A USER BASED FEE FUNDING PLAN
• ESTABLISH A DEDICATED ENTERPRISE FUND FOR STORMWATER
• ADMINISTER THE PROGRAM THROUGH THE W&WPCA
• UTILIZE EXISTING CONTRACT OPERATIONS
IMPLEMENTATION TIMELINE

• MAR 2017 - WWPCA REQUEST TO COUNCIL FOR STORMWATER STUDY
• JUN 2017 - FIRST STORMWATER TASK FORCE MEETING (TOTAL OF 6 MEETINGS)
• MAY 2018 - PUBLIC HEARING TO CONSIDER SWU PROPOSAL
• JUN 2018 - COUNCIL APPROVAL AND CREATION OF A STORMWATER UTILITY
• OCT 2018 - FIRST STORMWATER CHARGES ON UTILITY BILLS
• OCT 2018 - STORMWATER MAINTENANCE WORK BEGINS
FACTORS THAT LEAD TO A SUCCESSFUL SWU IMPLEMENTATION

- ENABLING LEGISLATION
- PUBLIC OUTREACH AND TASK FORCE
- ESTABLISHED WWPCA
- UPDATED BILLING SOFTWARE
- IN HOUSE GIS CAPABILITIES
- IN HOUSE ENGINEERING
- SUCCESSFUL CONTRACT OPERATIONS
- HIGH PERCENTAGE OF TAX EXEMPT PROPERTIES
- POLITICAL SUPPORT
DETERMINING FEES BASED ON ZONING/ASSESSOR’S INFORMATION

<table>
<thead>
<tr>
<th>Street #</th>
<th>Street_Name</th>
<th>PID</th>
<th>Grantee</th>
<th>Mailing_Address</th>
<th>Use_Code</th>
<th>Use_Descript</th>
<th>Zone</th>
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<td>STUART AVE</td>
<td>1</td>
<td>NEW LONDON CITY OF_OCE</td>
<td>181 CAPTAINS WALK</td>
<td>903C</td>
<td>MUNICIPAL MDL_94</td>
<td>OS</td>
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<tr>
<td>2</td>
<td>BRIDGE TO WATERFRD</td>
<td>2</td>
<td>NEW LONDON CITY OF_PEN</td>
<td>181 STATE ST</td>
<td>9030</td>
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<tr>
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<td>NEPTUNE AVE</td>
<td>3</td>
<td>PICAZIO HARRY F III</td>
<td>28 GRASSY ILL RD</td>
<td>1010</td>
<td>Single Family</td>
<td>R_1A</td>
</tr>
<tr>
<td>5</td>
<td>NEPTUNE AVE</td>
<td>4</td>
<td>PICAZIO HARRY F III</td>
<td>28 GRASSY HILL RD</td>
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<td>Single Family</td>
<td>R_1A</td>
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<tr>
<td>6</td>
<td>NEPTUNE AVE</td>
<td>5</td>
<td>PARK STREET LLC</td>
<td>28 GRASSY HILL RD</td>
<td>1060</td>
<td>Land w_OBs</td>
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<tr>
<td>7</td>
<td>OCEAN AVE</td>
<td>7</td>
<td>GUILLOCHEAU MARITZA MAIANO</td>
<td>1153 OCEAN AVE</td>
<td>1010</td>
<td>Single Family</td>
<td>R_1A</td>
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<td>8</td>
<td>OCEAN AVE</td>
<td>8</td>
<td>HANRAHAN JAMES M And CHERYL L</td>
<td>305 GLENWOOD AVE</td>
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<td>R_1A</td>
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<td>9</td>
<td>DUDDY JOHN S And JOANNE M</td>
<td>1165 OCEAN AVE</td>
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<td>10</td>
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<td>NEDZEL CORINNA L And CARL</td>
<td>7 BENTLEY AVE</td>
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<td>11</td>
<td>CURCURO DONALD J</td>
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<td>Four Family</td>
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<td>16</td>
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<td>90 NEPTUNE AVE</td>
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<td>NEPTUNE AVE</td>
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<td>GOUR LANA TRUSTEE</td>
<td>54 SOUTH MAPLE STREET</td>
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<td>R_1A</td>
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<td>PARK ST</td>
<td>18</td>
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<td>INNS MDL_94</td>
<td>R_1A</td>
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<td>PARK ST</td>
<td>19</td>
<td>BLACKBURN VIVIAN</td>
<td>216 GLENWOOD AVE</td>
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<td>STUART AVE</td>
<td>20</td>
<td>LAUOIE KENNETH J</td>
<td>501 DEEP WOOD DR</td>
<td>1050</td>
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<td>R_1A</td>
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<td>21</td>
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<td>R_1A</td>
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<td>STUART AVE</td>
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<td>SWAIN THOMAS W IV</td>
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<td>R_1A</td>
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<td>LEADER SYLVIA TRUSTEE</td>
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<td>STUART AVE</td>
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<td>STATTLER RANDAL C</td>
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<td>R_1A</td>
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<td>25</td>
<td>STUART AVE</td>
<td>25</td>
<td>KING WILLIAM F</td>
<td>401 HIGHLAND AVE</td>
<td>1010</td>
<td>Single Family</td>
<td>R_1A</td>
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</table>
DETERMINING IMPERVIOUS COVERAGE WITH GIS

2012 Impervious Surface Download

CT_StatewideImpervious_SoutheasternCDG_NewLondon_Buffer
REMOVING THE ROADS FROM THE LAYER
REMOVING THE SIDEWALKS FROM THE LAYER
COMBINING IC LAYER TO ZONING PARCEL LAYER

- INTERSECT
- DISSOLVE BY PID
DETERMINING IMPERVIOUS COVERAGE BY PARCEL
LINKING BILLING SOFTWARE WITH IC LAYER

• ISSUES
  • NO MATCHING FIELD
  • MULTIPLE METERS PER ACCOUNT
  • DIFFERENT ADDRESSES THAN THE ASSESSOR’S INFORMATION
  • NEW ACCOUNTS NEEDED FOR PROPERTIES WITHOUT SEWER/WATER
LINKING BILLING SOFTWARE WITH IC LAYER (CONTINUED)

- EXPORTED BILLING SOFTWARE REPORT OF ALL ACTIVE CUSTOMERS IN NEW LONDON
- GEOCODED ADDRESSES
LINKING BILLING SOFTWARE WITH IC LAYER
(CONTINUED)
LINKING BILLING SOFTWARE WITH IC LAYER (CONTINUED)

• 561 PARCELS WITHOUT ACCOUNTS
STORMWATER BILLING IMPLEMENTATION
What about other towns?

**M. Randall Collins Jr.** - Advocacy Manager for Public Policy & Advocacy with Connecticut Conference of Municipalities (CCM).

CCM is the state’s largest, nonpartisan organization of municipal leaders, representing towns and cities of all sizes from all corners of the state, with 169 member municipalities.

More than 20 years’ experience working at the State Capitol representing a wide range of clients before the General Assembly, Executive Branch and State Agencies and has worked at CCM for 7 years.

Randy oversees the Committees on Commerce, Finance Revenue & Bonding, Government Administration & Elections, Transportation, and Veterans’ Affairs. He has also focused on Land Use, and Environmental policy issues and was the CCM lead in negotiating the current MS4 permit.

Outside of the Capitol, Randy served 6 years in the United States Marine Corps and deployed twice in support of Operation Enduring and Operation Iraqi Freedom. He currently lives in West Hartford with his wife Valerie and two young sons Jackson and Reagan.