

The background is a light blue gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text is centered in a black, serif font.

CITY OF NEW LONDON STORMWATER MANAGEMENT

RECOMMENDATIONS, CHALLENGES AND FUNDING OPTIONS

TALKING POINTS

- DIVERSE STORMWATER TASK FORCE
- DEVELOP A BETTER UNDERSTANDING OF THE CITY'S EXISTING AND FUTURE STORMWATER MANAGEMENT CHALLENGES
- ESTIMATE THE REVENUE REQUIRED TO MEET PRIORITY NEEDS
- EXAMINE AND DISCUSS THE FEASIBILITY OF FUNDING STORMWATER SERVICES THROUGH A USER BASED FEE
- PRESENT A TIMELINE FOR COMPLIANCE WITH THE MS4 PERMIT
- LESSONS LEARNED

REMEMBER SEPTEMBER 11, 2015



BANK STREET



BROAD STREET

REMEMBER SEPTEMBER 11, 2015



BROAD STREET



GARFIELD & JEFFERSON

CITY-WIDE STORMWATER INFRASTRUCTURE

STORMWATER SYSTEM ASSETS

- ESTIMATED VALUE OF MORE THAN \$50 MILLION
- DRAINAGE OUTFALLS: 100
- DRAINAGE STRUCTURES: 1,800
- CATCH BASINS: 1,800
- ROADS: 63 MILES (MOST WITH DRAINAGE PIPES)
- STORMCEPTORS®: 4
- REGULAR MAPPING AND INVESTIGATIONS ARE NEEDED TO FULLY UNDERSTAND ASSETS

THE MS4 PERMIT REQUIREMENTS

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

MS4 COMMUNITIES IN CT



DEEP MAP
SHOWING
COMMUNITIES
THAT REQUIRE
MS4 PERMITS
BASED ON 2010
CENSUS.

OVER 110
MUNICIPALITIES
REQUIRE
PERMITS.

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.

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 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 UTILITY OVERVIEW



HO

?

▶ (CHARGED TO A PARCEL FOR A PORTION OF THE CITY'S STORMWATER SERVICES OR WASTEWATER FEES)

▶ (PROPORTIONAL TO THE ESTIMATED STORMWATER RUNOFF FROM A PROPERTY AREAS...)

STREET RUNOFF...

ON THE SYSTEM...

E

▶ (PROPERTIES CONTRIBUTE 18% OF IMPERVIOUS COVER, DISTRIBUTING THE COST EQUALLY)



FUNDING ANALYSIS

BASIC APPROACH FOR CALCULATING FEES

- MEASURED IMPERVIOUS SURFACE FOR EACH PARCEL USING GIS
- BILLING UNITS ARE CALCULATED BASED ON SET BILLING UNITS PER SQUARE FOOT INCREMENTS)
- TOTAL PROGRAM COSTS ÷ BILLING UNITS = \$/BILLING UNIT



STORMWATER PROGRAM COSTS

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

EXAMPLES OF STORMWATER REGULATORY COMPLIANCE COSTS

NEW NPDES MS4 PERMIT –COST FOR CT COMMUNITIES*

- **NEW LONDON** - 4,985 PEOPLE/SQ. MILE

ESTIMATED \$1,300,000

- **BRISTOL** - 2,257 PEOPLE/SQ. MILE

\$882,000

- **EAST HARTFORD** - 2,593 PEOPLE/SQ. MILE

\$1.9 MILLION

- **NEW MILFORD** - 445 PEOPLE/SQ. MILE

\$2.2 MILLION

- **KILLINGLY** - 357 PEOPLE/SQ. MILE

\$467,000

*FROM CT CONFERENCE OF MUNICIPALITIES (CCM) TESTIMONY (DECEMBER 2014)

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

PATH TO IMPLEMENTATION

Get support for drafting a stormwater utility ordinance for Council consideration in June 2017

Outreach to the community to educate and get feedback on the proposed approach

Hold Public Hearing to consider ordinance

Approved, build billing database and implement new fee in October 2018

HOW IS IT GOING TODAY?

- 3 YEARS OF OPERATION COMPLETED
- APPROXIMATELY \$4 MILLION IN FUNDS COLLECTED
- SIGNIFICANT CAPITAL WORK COMPLETED
- REGULAR MAINTENANCE WORK PERFORMED
- SIGNIFICANTLY REDUCED FLOODING
- FULLY MS4 COMPLIANT
- STABLE RATES NOT CHANGED SINCE INCEPTION
- BUILDING CAPITAL RESERVES

LESSONS LEARNED

- PUBLIC EDUCATION IS KEY
- GET SUPPORT OF LOCAL POLITICIANS
- CREATE A **DIVERSE** STORMWATER TASK FORCE
- GET SUPPORT FROM PNZ
- BUDGET 5 YEARS AHEAD WITH DEDICATED FUNDS
- CONSIDER CONTRACTING SOME MS4 SUBTASKS TO CONTROL COSTS
- PERFORM VISIBLE MEANINGFUL WORK IMMEDIATELY