



Comprehensive Environmental Inc.

The background of the slide is a scenic landscape photograph. It shows a calm body of water, possibly a lake or a wide river, reflecting the sky and the surrounding trees. The trees are in various shades of green and yellow, suggesting an autumn setting. In the foreground, there are some rocks and tall grasses. The sky is a clear blue with some light clouds. The text is overlaid on this image in a white, sans-serif font with a slight drop shadow.

Lessons Learned in Stormwater Utility Development Town of Auburn, MA

NEIWPC Stormwater Utility Workshop
March 25, 2015
Michael Ohl, P.E., CFM, Principal



Overview

Background Information



SW Management Plan and Funding Analysis

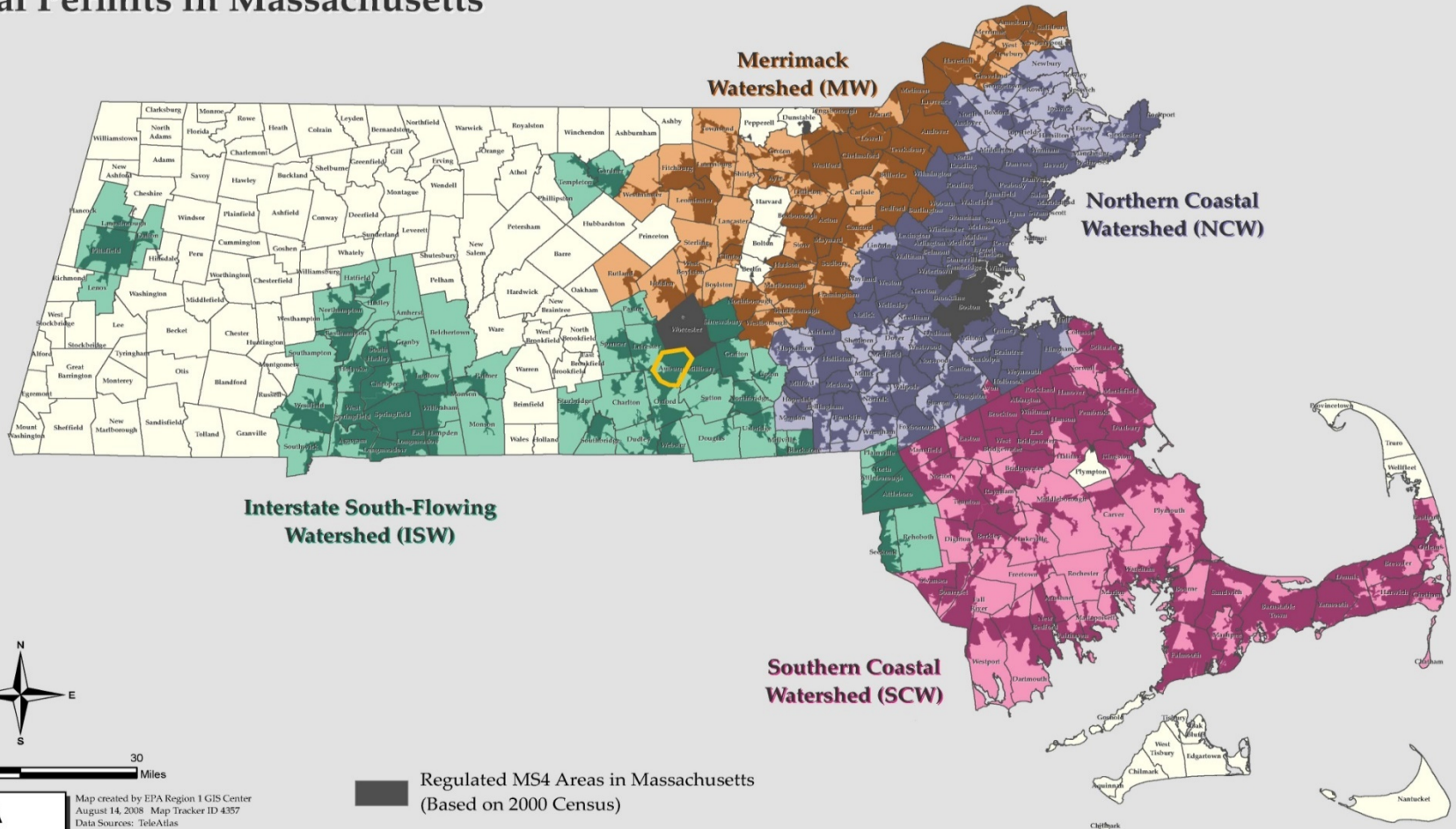


Public Education and Lessons Learned



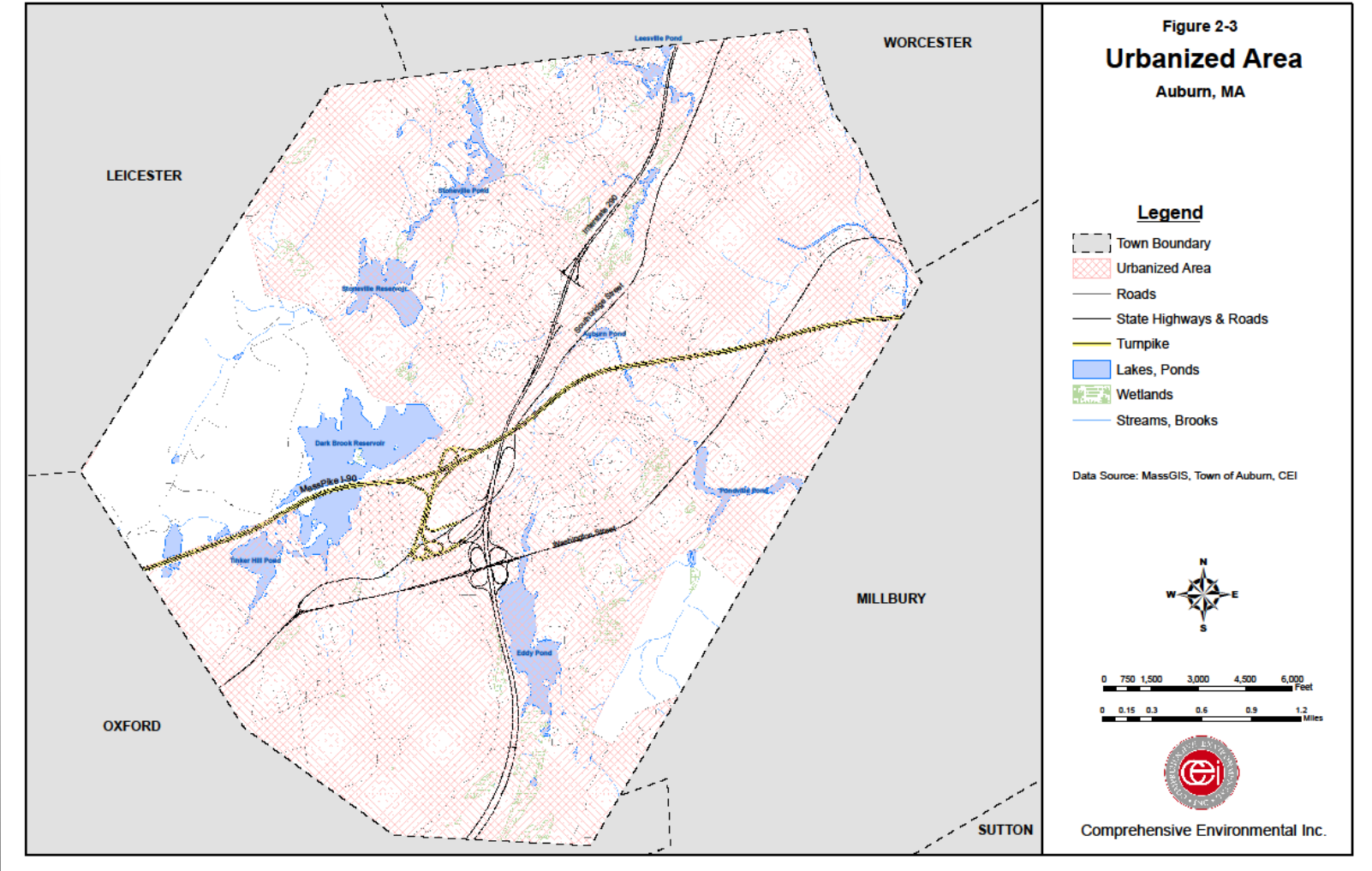
Background Information

Regulated MS4 Areas and Applicable Watershed-Specific General Permits in Massachusetts





Background Information (cont.)





Background Information (cont.)

Problems to be solved:

- Insufficient stormwater system O&M
- Inadequate infrastructure for current needs
- Aging infrastructure (beyond useful life)
- NPDES Phase II Permit Compliance for MS4 (existing and pending requirements)
- Need for additional funding



Insufficient O&M





Aging/Inadequate Infrastructure





Aging/Inadequate Infrastructure





Water Quality Issues

MassDEP 303d Listed Waters in Auburn

Dark Brook	Dark Brook Reservoir
Kettle Brook	Leesville Pond
Auburn Pond	Eddy Pond
Pondville Pond	Upper Stoneville Pond
Tinker Hill Pond	Lower Stoneville Pond





Water Quality Issues





SW Management Plan

- Shift to Proactive Approach
- Cost Avoidance through:
 - Minimize clogging of system (structures and pipes)
 - Minimize need for flushing and/or replacement
 - Minimize need for expensive dredging of ponds
- Extend Life of Town's Roadway Infrastructure



Stormwater Compliance Costs Original Summary

Compliance Component	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
#1 Infrastructure Maintenance	189	125	125	125	125
#2 Structural Water Quality BMPs - New	-	-	125	76	2
#3 Structural Water Quality BMPs - Existing	-	-	-	5	48
#4 Existing Infrastructure Improvements	170	222	203	203	266
#5 Aquatic Plant Control	61	31	31	39	31
#6 Administration	30	30	30	30	30
#7 Public Education	7	7	7	7	7
#8 Other NPDES Phase II Requirements	71	106	61	61	61
Indirect Town Costs	123	121	133	126	131
Operating Reserve	39	-	-	-	-
Total Stormwater Compliance Costs	\$690	\$642	\$715	\$672	\$701

Notes: Compliance Costs expressed in \$ thousands



Stormwater Compliance Costs “Bare Minimum” Summary

Compliance Component	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
#1 Infrastructure Maintenance	140	110	110	110	110
#4 Existing Infrastructure Improvements	90	120	115	110	105
#5 Aquatic Plant Control	31	23	23	31	23
#6 Administration	30	30	30	30	30
#7 Public Education	4	4	4	4	4
#8 Other NPDES Phase II Requirements	4	4	4	4	4
Total Stormwater Compliance Costs	\$299	\$291	\$286	\$289	\$276

Notes: Compliance Costs expressed in \$ thousands

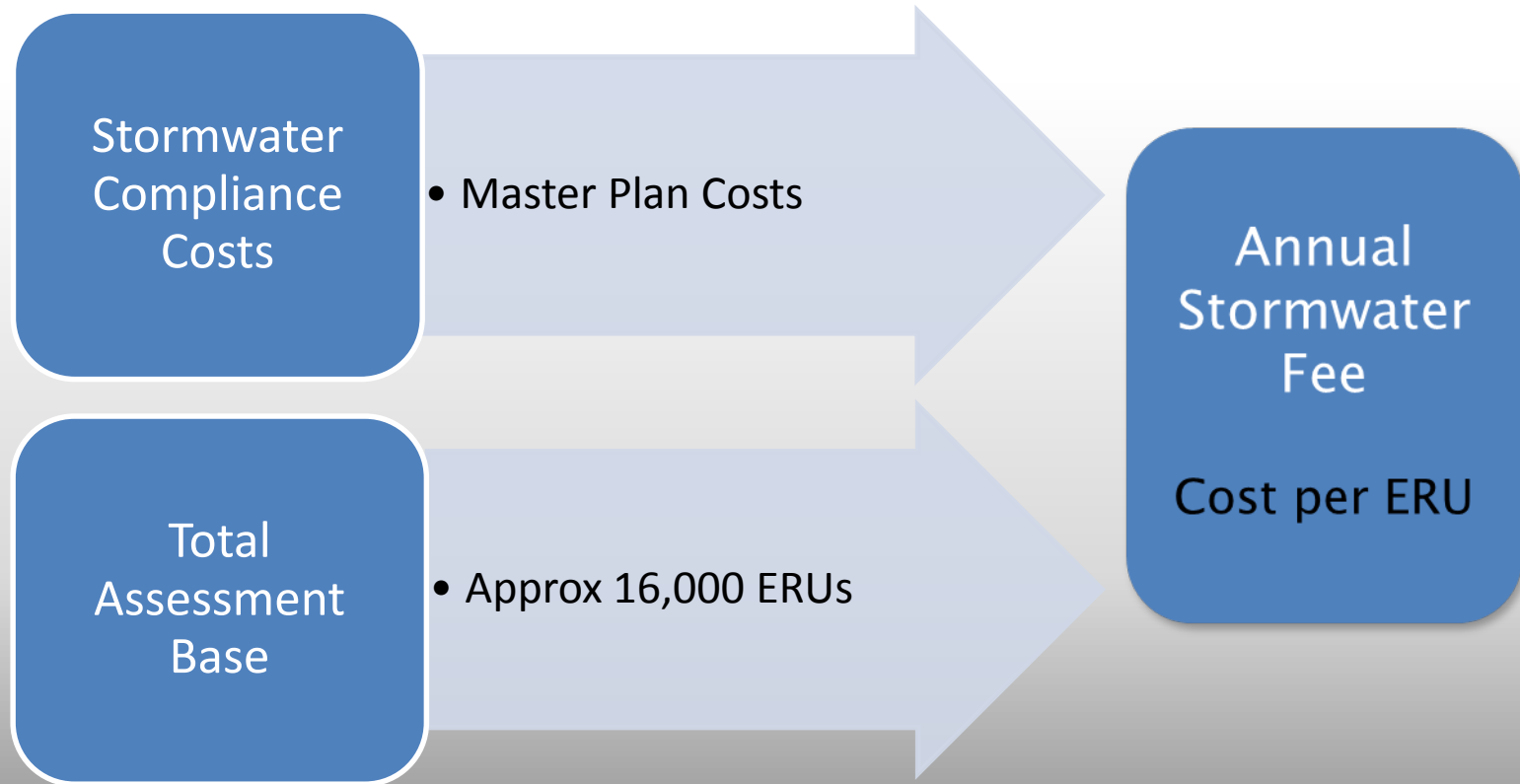


Funding Options

- Implementation of Stormwater Utility with Dedicated Stormwater Fees
- Increase in Property Taxes



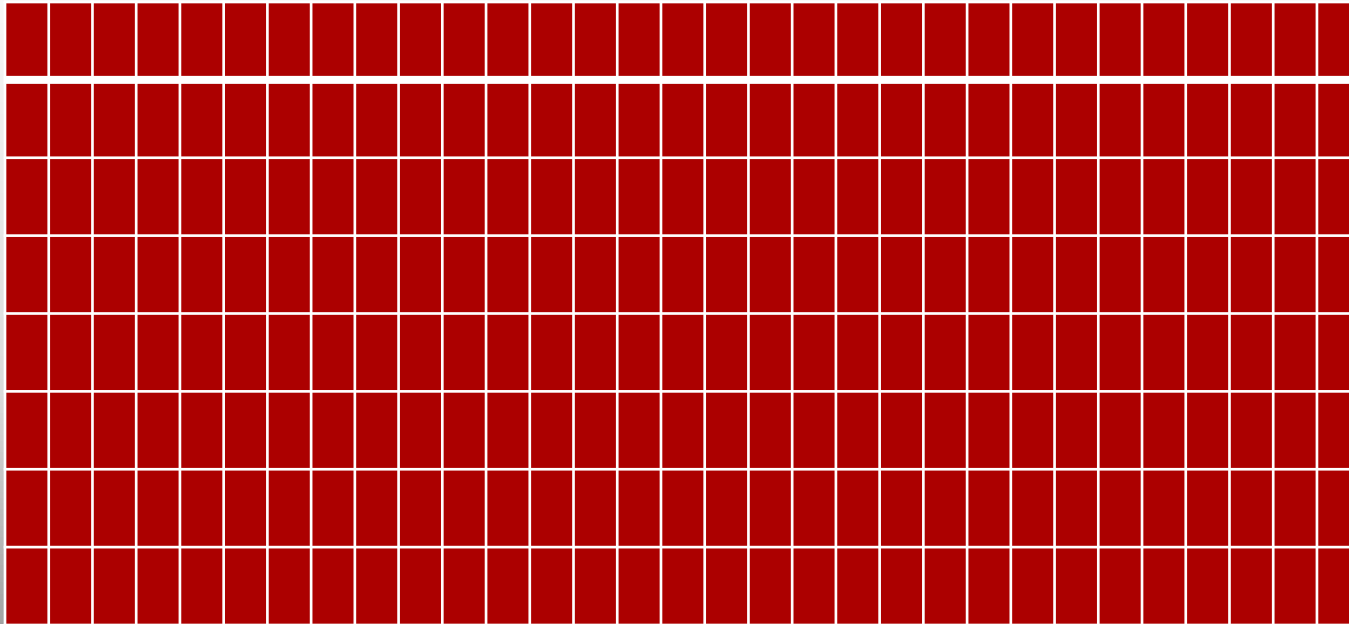
Method of Fee Calculation





Example – ERU Calculation

■ Typical Residential Property equals 1 Unit (2,000 sf)



Typical
“Big Box” Store
(Home Depot)

equals

248 Units
(496,000 sf)



Estimated Annual SW Bill

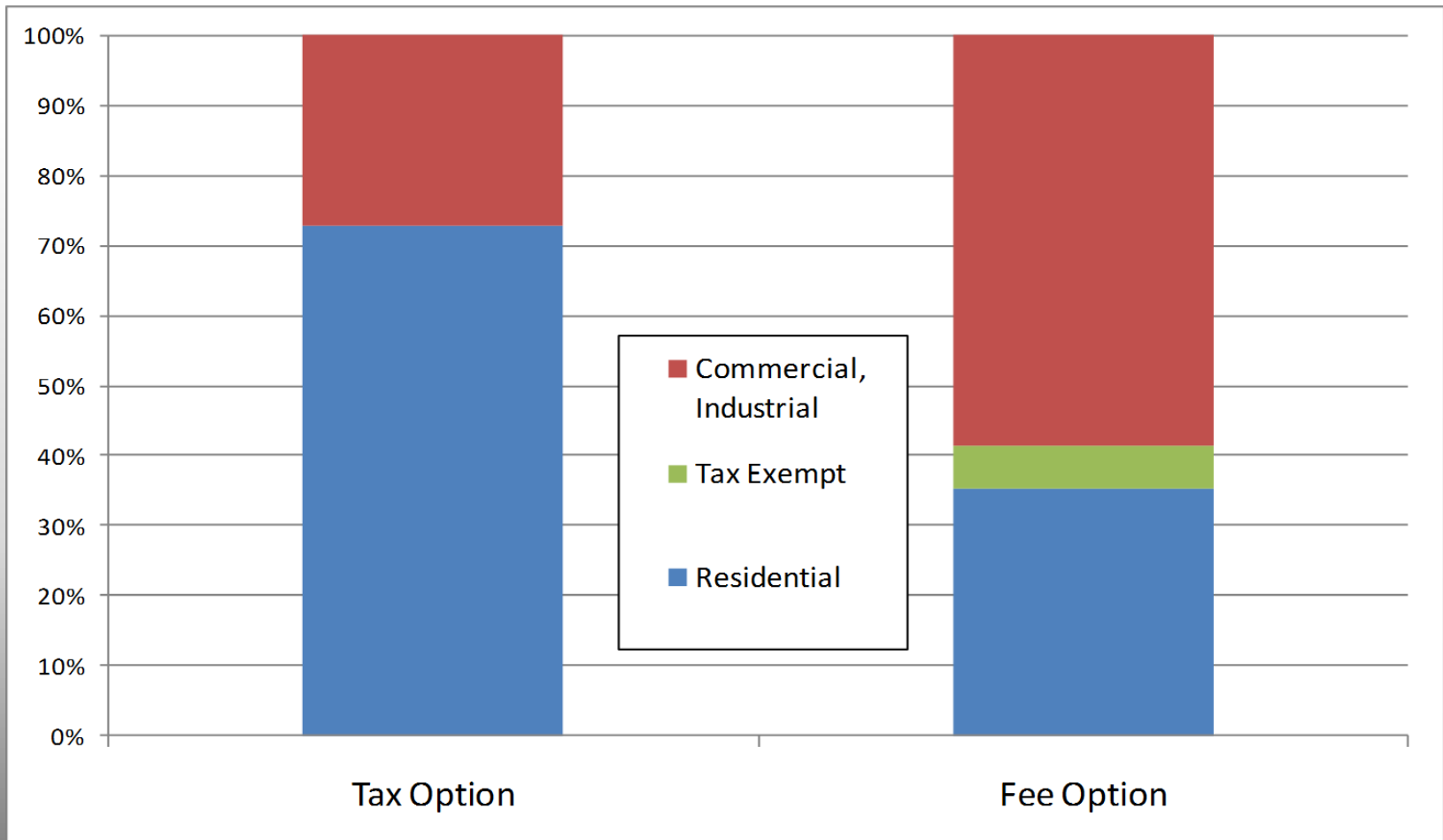
Classification	Original Compliance Costs		Minimum Compliance Costs	
	FEE Option	TAX Option	FEE Option	TAX Option
Residential	\$52	\$79	\$23	\$35
Non-Residential	\$1,196	\$417	\$525	\$183

Residential charges based upon “typical” residential property with 2,000 sf impervious area and \$255,000 valuation.

Non-residential charges based upon “typical” non-residential property with 45,000 sf impervious area and \$822,000 valuation.



Comparison of Assessment Base Tax versus Fee Options





Financial Calculations

- Tax Base Numbers

	Residential	Commercial
Total	5755	336
Valuation Range	\$96,600 - \$1,700,000	\$27,500 - \$64,000,000
Average Valuation	\$255,000	\$822,000

- Stormwater Fee Numbers

	Residential	Commercial
Total	5755	336
Impervious Range	2,000 sf	470 – 1,500,000 sf
Average Impervious	2,000 sf	45,000 sf



Key Lessons Learned

- Public Education/Involvement is key
- Graphics are essential to illustrate problem
- Expect the unexpected (not our problem)
- Time is essential for entire process
- Decision is ultimately up to the community (not a “one size fits all” solution)



Public Involvement

- Board of Selectmen Meetings
- Chamber of Commerce (business)
- General Public Informational Sessions
- Public Hearing



Public Information

AUBURN BOARD OF SELECTMEN STORMWATER PUBLIC HEARING

April 12, 2010 6:30 PM

The Auburn Board of Selectmen will hold a public hearing to discuss the implementation of the Stormwater Management Master Plan, related costs and revenue to be derived from fees or local taxes. Implementation of a plan is necessary for compliance with the Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) permit and to avoid much greater future costs of collapsed roadways, polluted ponds and increased flooding.

The Hearing will begin with a presentation of what's needed and why it is critical. The public is encouraged to attend and to provide written and/or verbal comments for the record.

Based on these comments and others received so far, the Board of Selectmen will decide whether to endorse the recommended fee system or to continue to budget the program at increased levels under the General Fund paid for by taxes.

What Is Proposed?

- A Stormwater Management program
- A dedicated fee for Stormwater Management

Why Is This Proposed?

- To meet the **mandated regulatory requirements** of the Environmental Protection Agency under the National Pollutant Discharge Elimination System (NPDES) program
- To repair and fix **flooding problems**
- To replace or rehabilitate **deteriorating and undersized infrastructure**
- To address **water quality problems affecting fisheries, wildlife, recreation**
- To **improve quality of life and aesthetics** including business attraction
- To **preserve property values**
- To **preserve source water quality of drinking water supplies**
- To **avoid lawsuits** due to drainage discharges to private property
- To **protect recreation such as beaches, swimming and fishing**

What Are The Funding Options?

- **Dedicated Stormwater Fee**
 - Dedicated Stormwater Fee provides an assessment of costs in proportion with a property's stormwater runoff and impact on the drain system and Town waterways and ponds. A typical residential property produces less than 50,000 gallons of runoff per year compared to the typical non-residential property which produces more than 1 million gallons of runoff per year.
- **Taxes Through the General Fund**
 - Taxes Through the General Fund are strictly based upon property valuation and have historically limited stormwater funding due to budget cuts.

More on the Other Side

What Is the Estimated Cost?

Classification	Fee Basis	Tax Basis
Residential	\$23 per year \$2 per month flat fee all households	On average \$35 per year based on property value
Non-Residential (average costs)	\$525 per year \$44 per month on average based on volume of runoff created	On average \$183 per year based on property value

Charges based upon the "bare minimum" funding necessary to comply with existing NPDES Phase II Permit requirements. Residential tax impact based upon a "typical" residential property with \$255,000 valuation. The Non-residential charges based upon "typical" non-residential property with 45,000 sf impervious area and \$822,000 valuation. A potential abatement of up to 50% is typical for larger properties in other stormwater fee systems depending on the level of stormwater treatment. These estimates are preliminary and for information purposes only.

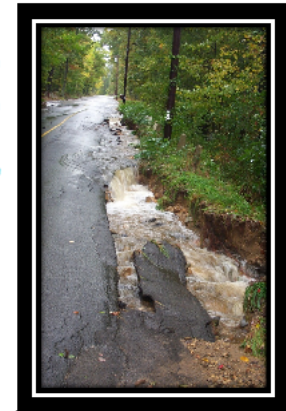
What Are the Costs of Inaction?

- Potential **Monetary Fines** or Sanctions from EPA
- **Increased Repair or Replacement Costs** from clogged Stormwater Infrastructure (pipes)
- **Increased Repair or Replacement Costs** from failed or collapsed roadways
- **Increased Pollution** in the Town's waterways
- **Decreased Recreational Opportunities such as swimming and fishing** due to deterioration of Town's waterways and ponds
- **Increased Flooding** of Public/Private Properties
- **Potential Lawsuits** due to Increased Flooding
- **Accelerated deterioration** of roadways

Additional information can be found on the Town's website and at the following locations:

- Town Hall (Clerk's Office)
- Senior Center
- Library

For further information, contact Bill Coyle, Auburn Town Engineer at (508) 832-7728.



Just One Example: Road Damage From Drainage Problems on Rochdale Street shown above

More on the Other Side



Public Involvement (cont.)

Typical residential property

50,000 gallons of runoff per year

Typical non-residential property

1,000,000 gallons of runoff per year

Stormwater Management
 Auburn, Massachusetts

PRELIMINARY - FOR DISCUSSION ONLY

April 7, 2010
 Page 1 of 3

Note: List represents a sampling of businesses within Town and is not intended to be a complete listing of all non-residential properties.

Stormwater Annual Charges (estimated) \$23.00 \$0.22
 per \$1K valuation

Business	Impervious Area (sq. ft.)	ERUs	Annual Fee	Tax Increase	Assessed Value
Auburn Industrial Park (Sword Street)					
14 Sword Street	116080	58.0	\$1,335	\$559	\$2,541,200
28 Sword Street	213270	107.6	\$2,476	\$762	\$3,464,000
29 Sword Street	56050	28.0	\$645	\$239	\$1,087,000
31 Sword Street	48080	24.0	\$553	\$119	\$540,400
33 Sword Street (Imperial Distributors, Inc.)	114140	57.1	\$1,313	\$635	\$2,888,000
35 Sword Street (Kadant Web Systems, Inc.)	223200	111.6	\$2,567	\$622	\$2,826,100
43 Sword Street	82500	41.3	\$949	\$329	\$1,494,000
44 Sword Street	821380	310.7	\$7,146	\$2,813	\$12,785,400
45 Sword Street	19680	9.8	\$226	\$131	\$593,900
47 Sword Street (Mass. Truck Refrigeration Service)	57450	28.7	\$661	\$127	\$555,500
48 Sword Street	42230	21.1	\$486	\$408	\$1,855,800
49 Sword Street	64640	32.3	\$743	\$221	\$1,003,000
Heritage Mall- 567 Southbridge Street	190310	95.2	\$2,189	\$563	\$2,559,500
Northeast Insurance Agency Re/Max Acclaim Sign-A-Rama and others					
319 Southbridge Street	25220	12.6	\$290	\$32	\$145,100
Central Mass. Disposal South County Physical Therapy and others					
492 Washington Street	29610	14.8	\$341	\$299	\$1,358,800
Papa Chiropractica - Auburn Worcester Regional Association of Realtors and others					
TJ Maxx Plaza- 711 Southbridge Street	284190	142.1	\$3,268	\$1,459	\$6,630,600
AAA Southern New England and others					
19 Midstate Drive	68570	34.3	\$789	\$424	\$1,927,100
Industrial Hearing Testing and others					
771 Southbridge Street	106430	53.2	\$1,224	\$586	\$2,664,100
Outback Steakhouse and others					
27 Midstate Drive	36800	18.4	\$423	\$351	\$1,595,500
Psychax and others					
2 Old Common Road	10060	5.0	\$116	\$137	\$622,200
Philip R. Shea, Jr., CPA and others					
714 Southbridge Street	20430	10.2	\$235	\$126	\$573,400
Rascom Exteriors, Inc. and others					
1 St. Mark Street	62990	31.5	\$724	\$336	\$1,328,600
Seasons at the Spa and others					
714B Southbridge Street	24280	12.1	\$279	\$250	\$1,135,400
Weichert Realtors Real Estate Marketing Center and others					



Public Perception/Comments

Why do only half of Massachusetts Towns need to comply?

What are neighboring communities doing and spending?

Would some money currently allocated in the tax base be freed up?

What is the minimum amount to comply with the current Permit?

Town is “being sold a Lamborghini, when it just needs a Honda”.

Fee to businesses may drive them out of the Town.

Fee is a hidden tax and is a proposition 2½ loophole.

Fee will offset recent financial benefits for businesses (tax rate shift).



Public Perception/Comments

Stormwater problems caused by others due to state highways (MassDOT).
Why shouldn't the State pick up more of these additional stormwater costs?

Stormwater problems caused by others travelling on state highways.
(i.e. drug dealers from out-of-state tossing stuff out windows)

General agreement that Highway Dept had been hard hit with staff cuts.
Chamber of Commerce supported additional Highway Dept staffing.

Confusion with water quality issues (drinking water versus stormwater).

Concern over who would be in control over Stormwater Enterprise Fund.

Difficult economic times for any cost increases (fee or tax increase).

Has federal funding been sought? i.e. grants



Final Decision

- Town Meeting voted in 2010 to support increase in property taxes to fund additional stormwater budget/needs.
- Town Meeting has continued to support a similar level of increased funding for stormwater budget/needs since 2010.



Key Lessons Learned

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