

Sustainable Stormwater Funding for the Upper Charles River

Steering Committee Meeting #2
November 15, 2010



Agenda

- **1:00-1:30** Project schedule and milestones; Confirm decision points; Review future agenda process;
- **1:30-2:00** Status report: Data collection and very initial assessment. Town's weigh in on priorities;
- **2:00-2:30** Presentation: Stormwater finance background, introduce regional approach;
- **2:30-2:45** Discussion on additional priorities, thoughts on regional approach;
- **2:45-3:00** Other coordination:
 - Industry / private sector input and representation;
 - CWA Section 319 Grant to CRWA; and
 - Discuss coordination efforts with upcoming MAPC presentations.



Sustainable Stormwater Management Financing for the Upper Charles River Watershed Project Framework

Issues and Context for Stormwater Utility Evaluation
November 2010

1. Municipal Stormwater Program Drivers

<i>Regulatory</i>	<i>Non-Regulatory</i>
• EPA RDA General Permit; • EPA MS4 Phase 2 General Permit; • Massachusetts Wetlands Protection Act (Stormwater Standards); and • Local Subdivision/Site Plan Review requirements.	• Property values; • Municipal Assets (drainage and infrastructure); • Drainage/flooding issues; • Water quality; • Deferred drainage/stormwater practice maintenance; and • Aesthetics (trash and debris, turbidity, eutrophication).

2. Charles River Phosphorus TMDL

Requires reduction of phosphorus loading to receiving waters from:

- Private sources (both residential and non-residential);
- Municipal sources (MS4 drainage system);
- CSO discharges; and
- Wastewater Treatment Facilities.

3. Range of Stormwater Control Strategies

Non-structural measures:

- Enhanced street sweeping;
- Semi-annual catch basin cleaning;
- Phosphorus ban on fertilizers;
- Organic waste and leaf litter collection.

On-site structural measures:

- Infiltration of 1" of precipitation;
- Range of other acceptable BMPs (sized appropriately).

Watershed-based Phosphorus management:

- Certified Municipal Phosphorus Program (CMPP);
- Phosphorus Control Program (PCP);
- Stormwater Master Plan (long-term plan for implementation of programs and practices).

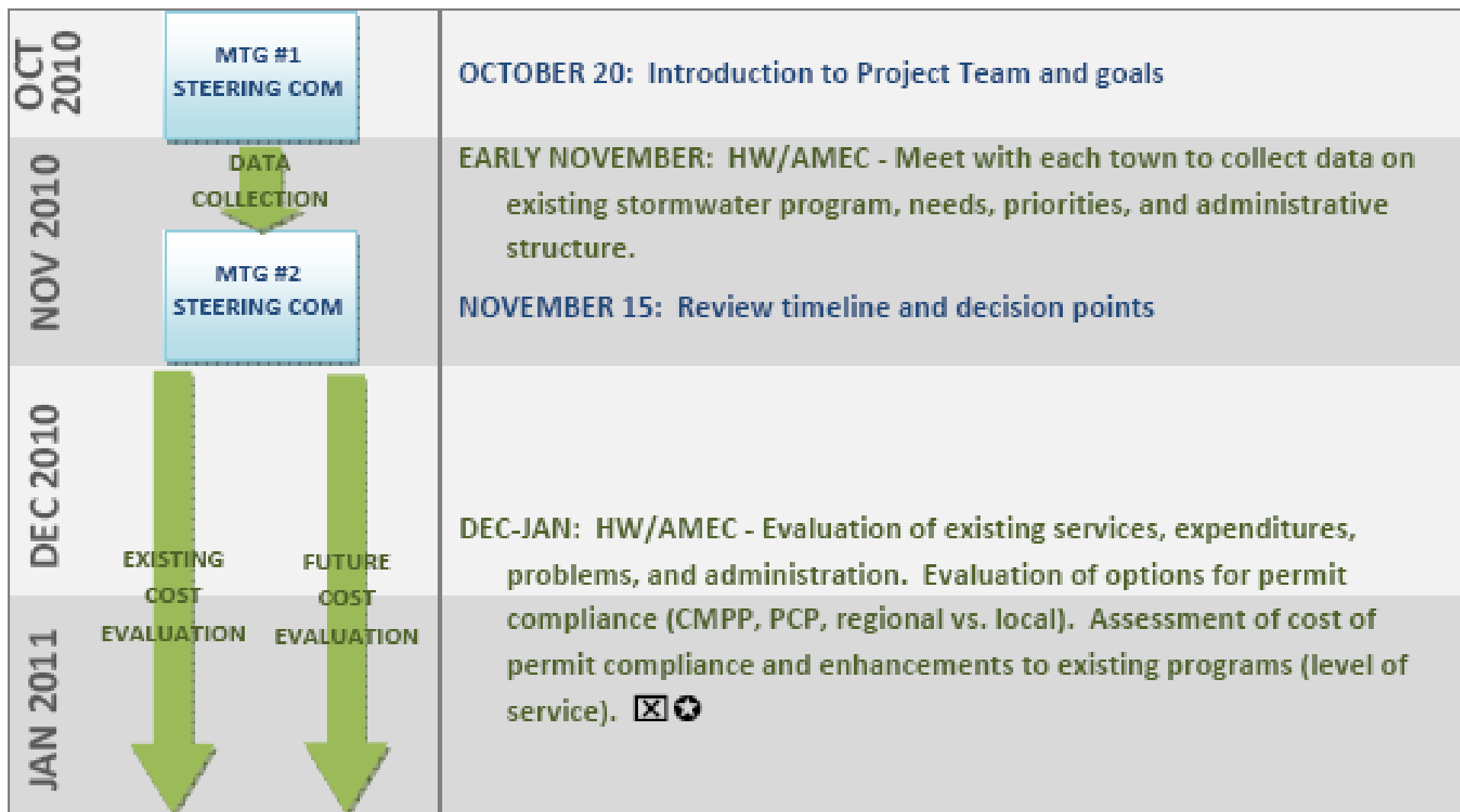
4. Basic Options for Meeting TMDL Requirements

- Everyone on their own (private properties under the RDA; municipal town by town decisions; homeowner participation- mostly volunteer);
- CMPP tied to watershed management plan(s) containing PCP (town by town with regulated RDA active participation); and
- Regional Watershed Management District (CMPP/PCP; trading & banking structure).



SUSTAINABLE STORMWATER FUNDING IN THE UPPER CHARLES RIVER WATERSHED

PROPOSED PROJECT FRAMEWORK - November 15, 2010



FEB 2011

PROGRAM
COSTS REPORTMTG #3
STEERING COMREVENUE
ASSESSMENTUTILITY
MANAGEMENT
ASSESSMENTFUNDING OPTIONS
REPORT

MAR 2011

APRIL 2011

MTG #4
STEERING COMPUBLIC
MESSAGINGFINALIZE
EVALUATIONSUSTAINABLE
STORMWATER FUNDING
EVALUATION REPORT

MAY 2011

MID-FEB: Draft report outlining existing and estimated future program costs and options for RDA participation. Towns/other stakeholders to send feedback to HW/AMEC. ☒ ⚙

MID-FEB: Progress meeting – Review/discuss findings on costs report.

FEB-MAR: HW/AMEC - Evaluation of funding options/alternatives (regional, local, hybrid), potential rate structure, credit options, billing options, and legal authority/constraints. Evaluation of management considerations and long-term data maintenance needs. ☒

END OF MAR: Draft report outlining funding options and data management assessments. Towns/other stakeholders to send feedback. ☒ ⚙

EARLY APR: Progress meeting – Review/discuss findings on the funding options and data management assessments. Discuss appropriate public messaging options for each town.

APR-MAY: HW/AMEC – Produce project outreach materials and assist each town with public messaging. HW/AMEC – Finalize evaluation based on feedback from stakeholders.

MAY: Draft and Final Evaluation Report, consisting of revised versions of the Program Costs Report and the Funding Options Report.



Prior Studies/Assessments

Affecting Stormwater Level of Service and Cost

- Lower Charles TMDL;
- Draft MS4 for North Coastal Watersheds;
- Draft RDA Permit for Milford, Bellingham & Franklin;
- Optimization Study for Three Upper Charles Communities – Tetra Tech, Dec 09;
- Spruce Pond Brook – Stormwater Management Plan: CRWA, Summer 2010;
- Phos. Removal Costs, BEC, Feb 10;
- Misc. Utility Publications: CRWA, Mar 07, Pioneer Valley PC, 89, Maine Model Utility, Jun 05, Ipswich River Watershed Association, Jun 07, NE Finance Center, May 05, Yarmouth MA DIMS, May 09; and
- Misc case studies: Reading, Newton, Chicopee, Long Creek, Lewiston, ME, S. Burlington, VT.



One-on-One Town Meetings

- What is your current program, what do you spend \$ on?
- What are you not doing, or have trouble funding?
- How much data/information do you have?
- What are some of the unique problems?
- What are your priorities for this project?



Typical Stormwater Utility Data Needs Checklist

Problems and needs

- What are your problems or opportunities?
- Do you have supporting data (e.g. CIP list, complaint files, etc.)?
- What sort of messaging might resonate with the public about these needs?

Existing program

- Who does what?
- What do you spend (all aspects)?
- How are you organized?

Future Program

- What are your program priorities?

Data

- What is the shortest path to a master account file within rate parameters?
- What is the current billing platform, would it work to get stormwater on it?

Misc.

- What is going on that might impact implementation (e.g. recent rate increase)?
- What is the character/demographics of the town?
- Other municipal agreements in place?



Data Collection

What is the current stormwater program?

Such as:

- Conveyance operations and maintenance (pipes, CBs, culverts);
- Street sweeping and leaf collection;
- Stream repair and maintenance;
- Permitting, inspection, and enforcement for new construction and redevelopment;
- Public education and awareness; public involvement activities;
- Pollution prevention/good housekeeping on publicly owned lands and operations;
- Illicit discharge detection and elimination;
- Mapping;
- Flood plain management; and
- Planning and studies related to land use and/or stormwater management.



GIS Data

MassGIS + town specific data

- Land use/zoning;
- Impervious cover;
- Drainage network (outfalls);
- Existing stormwater practices; and
- Other supporting data (water lines, sewer, soils, etc)



Milford

Data Collection Progress

- NPDES Phase II Permit Annual Report – 4/30/10;
- Zoning, Subdivision and Wetland codes;
- Comprehensive Plan – 2003;
- General bylaw –Chapter 36 Stormwater Mgmt;
- List/street address of existing detention basins;
- Mapping: MassGIS; portion of storm drain system, parcels from DEP; and
- Misc: Educational flyers, population, etc.



Bellingham

Data Collection Progress

- NPDES Phase II Permit Annual Report #6, through March 2010;
- Master Plan 2010;
- Zoning bylaw, Wetlands, Subdivision Rules & Regulations;
- General bylaw – Chapter 19(Water & Sewer);
- Comprehensive Water Resources Management Plan (CWRMP);
- Development Handbook;
- Stormwater and Erosion Control Handbook;
- List/location of In-line BMPs; and
- Mapping: MassGIS; storm drain system, parcels, impervious cover components, lots of other stuff.



Franklin

Data Collection Progress

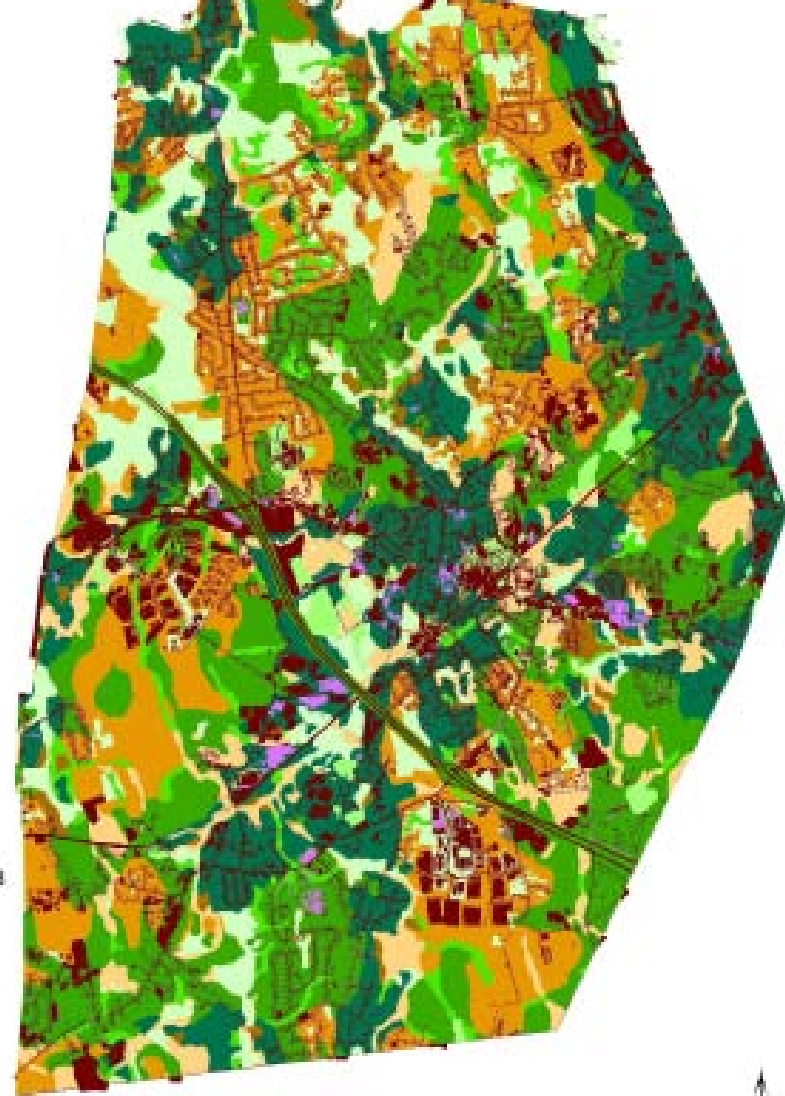
- NPDES Phase II Permit Annual Report May 20, 2010;
- Master Plan 2010;
- Subdivision Rules & Regulations, Wetlands R&Rs;
- Stormwater Utility Initial Feasibility Study: CEI, July 07, July 09 cost update;
- BMP Inspection Inventory: CEI, Feb 07;
- Examples of inter-municipal agreements;
- Franklin BMP Guidebook, Nov 01;
- Town Stormwater bylaw – Chapter 153;
- Mapping: MassGIS; storm drain system, parcels, impervious cover components, lots of other stuff.



Why do we need all this information?

- Evaluate Cost of Service
 - ✓ MS4
 - ✓ RDA
 - ✓ Other Drivers
- Evaluate Revenue Potential
 - ✓ ERUs

Legend



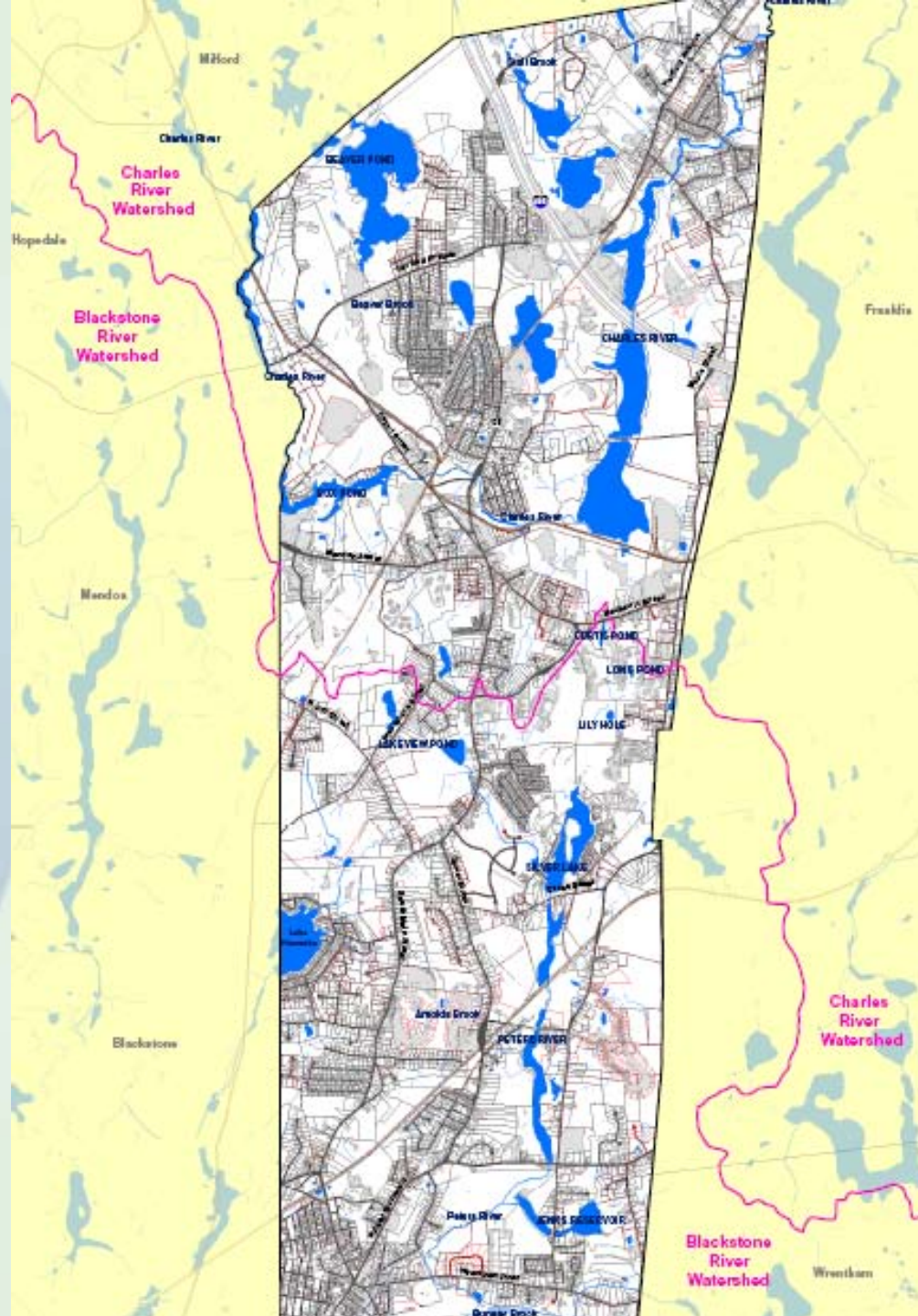
Management categories in
the community of Franklin



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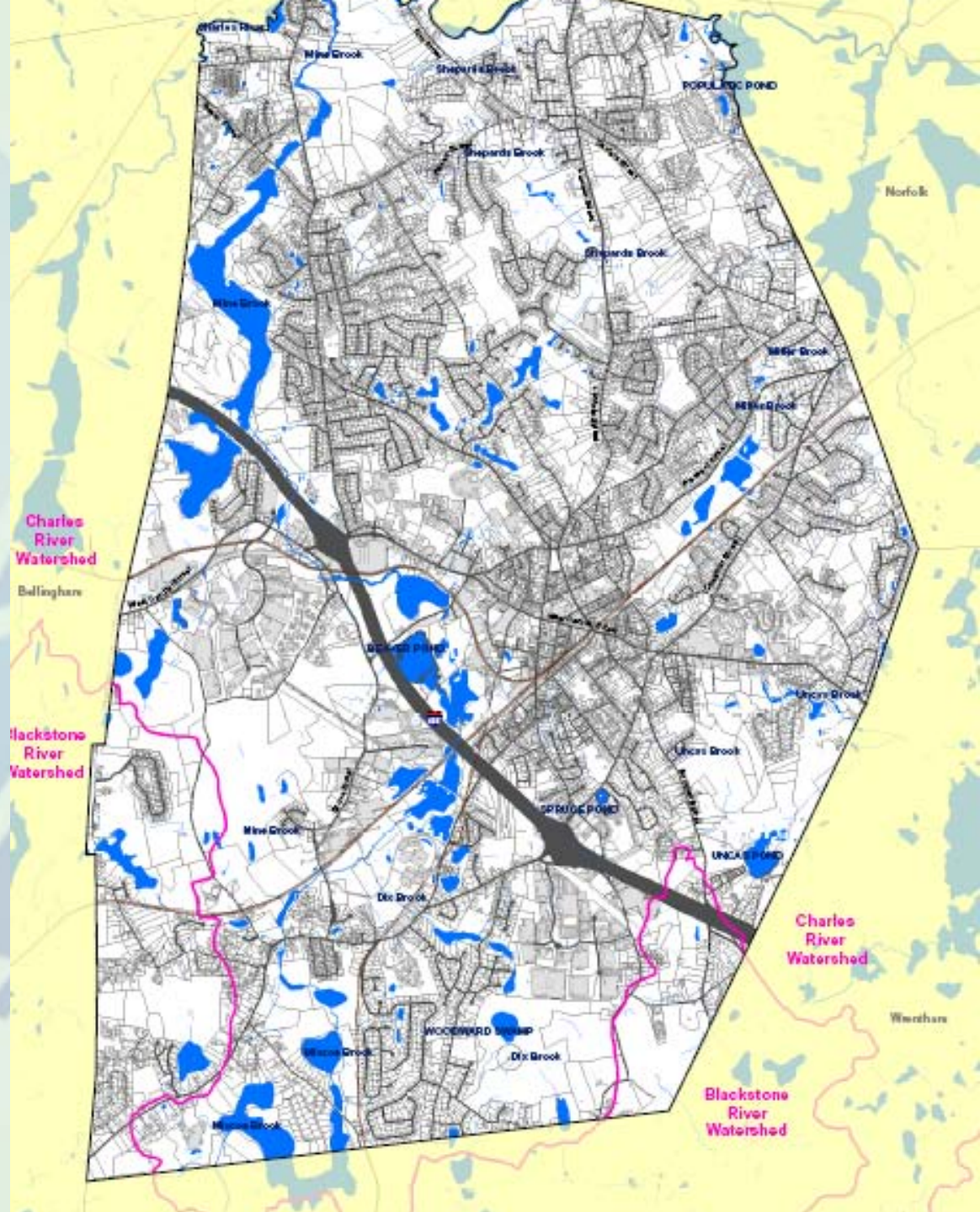
Figure B-2. The management categories in Franklin.

Bellingham, MA



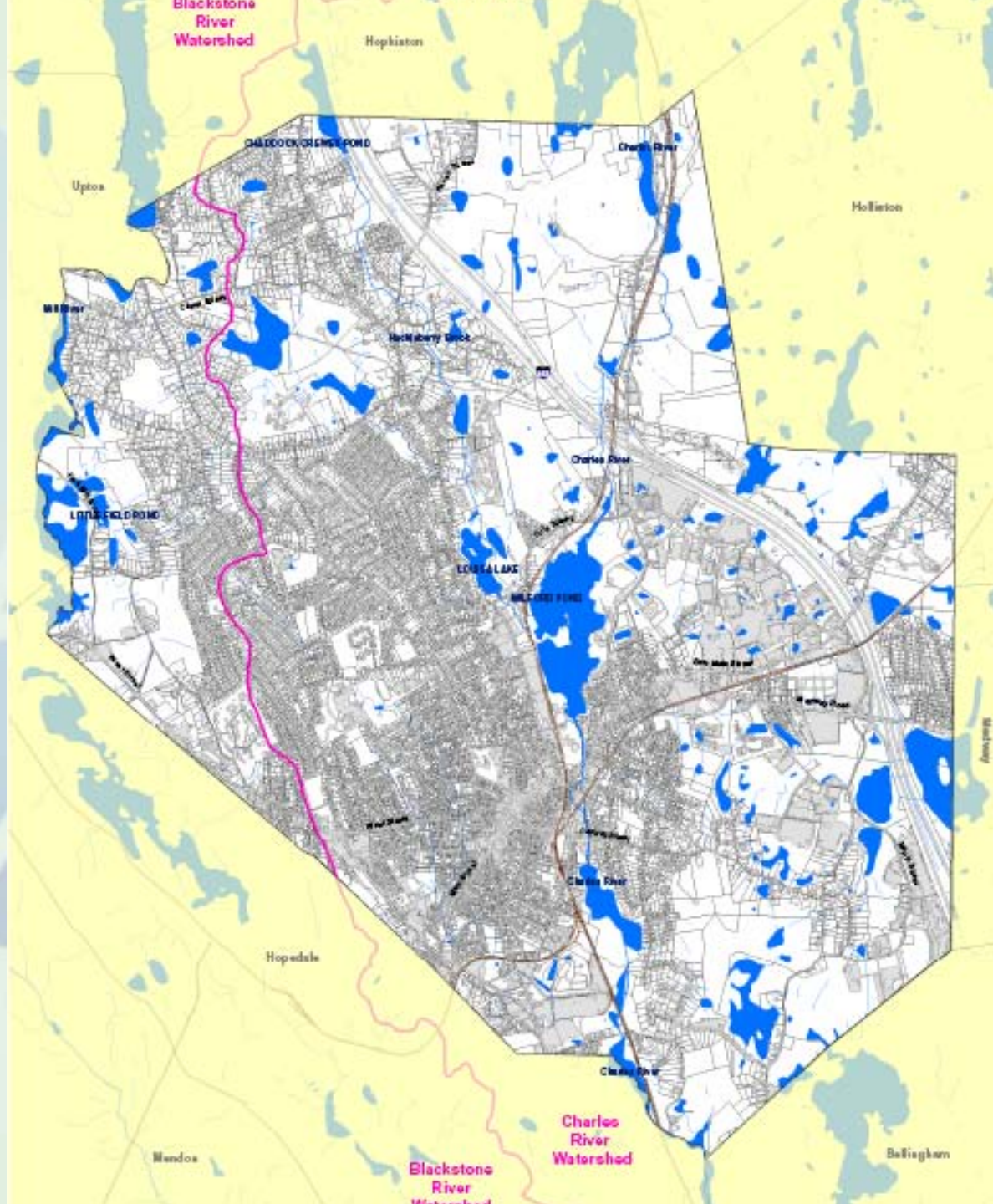


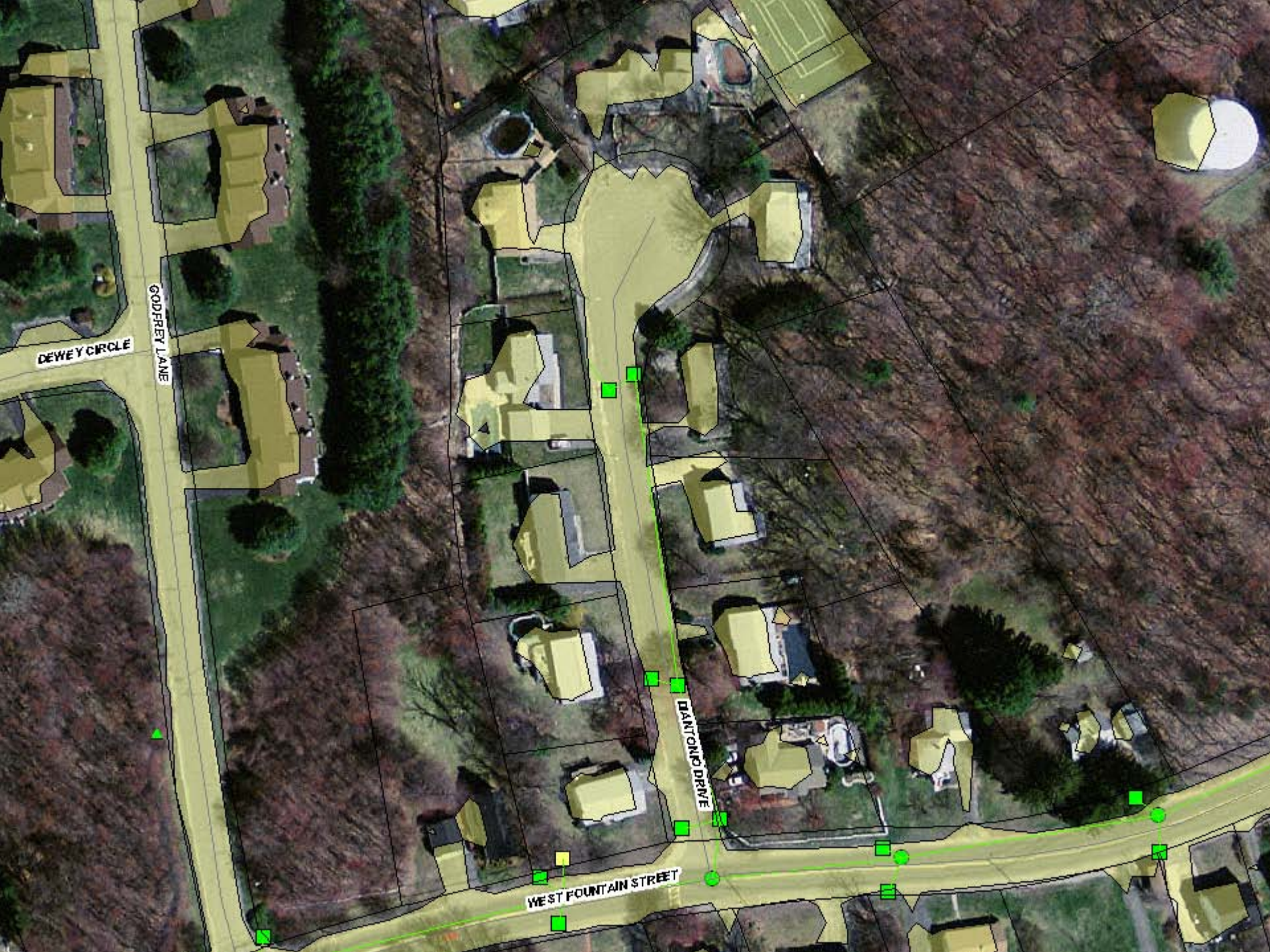
Franklin, MA





Milford, MA





DEWEY CIRCLE

GODFREY LANE

DANTON DRIVE

WEST FOUNTAIN STREET

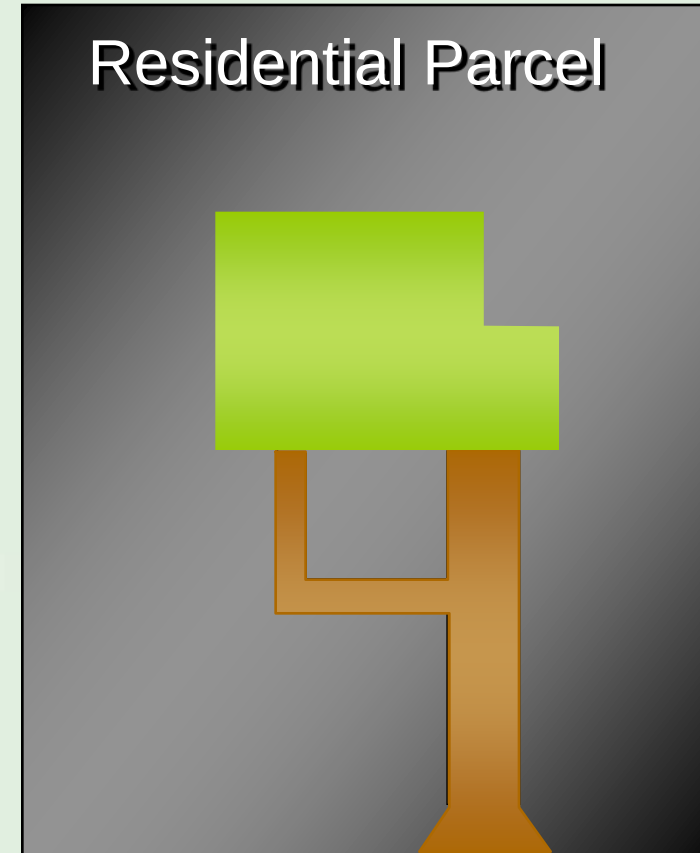
Milford's Priorities

- Phosphorus Control Plan (PCP) and a Certified Municipal Phosphorus Program (CMPP) should address both costs/rates and management.
- Guidance for implementation of the local and/or regional stormwater utility, particularly regarding legal, billing, and data requirements.
- Costs and staff needed to comply with the MS4 permit.
- The specific benefits to the Town and its residents of having a stormwater utility.
- Public involvement and education - throughout the Feasibility Evaluation process.



The Typical Residence Defines the Equivalent Residential Unit (Base Unit)

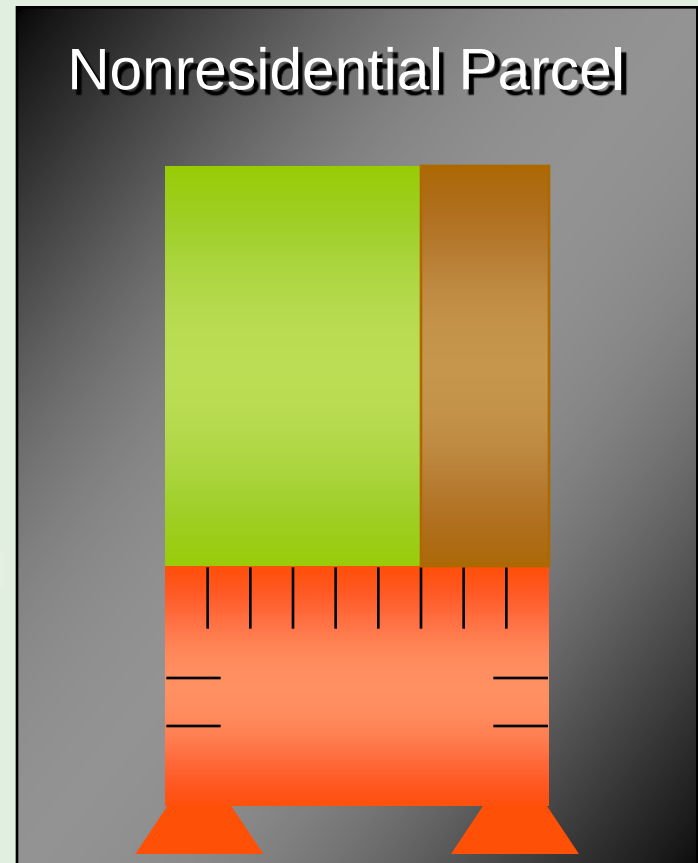
House Area	1,785 Ft ²
Other Impervious Area	621 Ft ²
Total	2,406 Ft ²



Businesses Are Billed as Multiples of the ERU

Building Area	9,000 Ft ²
Parking	11,000 Ft ²
Other Impervious Area	4,060 Ft ²
Total	24,060 Ft ²

24,060 Ft² = 10 ERUs



Residential Impervious Surfaces

-  **Roofs**
-  **Driveways**
-  **Walkways**
(does not include County-maintained sidewalks)



Associated Non-Residential Impervious Surfaces

-  **Roofs**
-  **Parking Lots**
-  **Sidewalks/Patios**

