

# **City Of Northampton Storm Water Ad-Hoc Advisory Taskforce**

## **Findings / Recommendations Report**



### **Taskforce Members**

Rick Clark

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Emery Ford – Committee Chairman

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**July 2013**

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## **Introduction**

Northampton enjoys a wonderful location; the Connecticut River runs to the east, views of the Berkshire foothills to the west and views of the valley and mountains to the south. With all this comes exposure to flooding from the Connecticut River and the Mill River west of town. When it rains the water runs off the hills on its way to the Connecticut River.

That means Northampton and its people face the problem of flooding from the west, the hills and the Mill River and from the Connecticut River. The city has infrastructure, much of it greater than 100 years old, to deal with runoff from storm water and levees to protect it from the Mill River and Connecticut River.

Northampton faces compliance issues from both the United States Environmental Protection Agency (EPA) and the Army Corp of Engineers to update and upgrade both storm water runoff and flood control. This will require expenditures over several years. The requirements are mandatory, not a matter of choice.

The Joint Committee of the Department of Public Works (DPW) and the City Council appointed an ad hoc committee (taskforce) with members from all Northampton city wards and other affected areas to recommend a fair and equitable method to fund storm water and flood control mandates. The committee met nearly weekly for over three months, deliberating in publicized meetings. An audio and video recording <http://www.youtube.com/northassocvideo> of each meeting was published on the internet and linked to the DPW website. (<http://www.northamptonma.gov/dpw/engineering/floodctrl/>).

The May 2012 report “Storm water and Flood Control System Assessment and Utility Plan” by Camp Dresser & McKee Inc. (CDM) was a useful resource during our discussions. The report did an assessment of the city’s storm water and flood control infrastructure and looked at a range of budgetary issues including current and future funding allocations and the creation of a new utility to fund future work. It also looked at a series of specific drainage and erosion problem areas in the City, and projected costs necessary to address each situation.

The recommendations in the CDM report related to these specific cases were viewed by the taskforce as examples of the scope – in planning, implementation and funding of such projects, rather than a “to do” list of future city work. In fact, the examples included in the CDM report represent only some of the drainage and erosion problems that currently exist.

The committee is issuing this report to the joint committee with the recommendation that a fee is the fairest and most equitable way to pay for the needed expenditures for storm water runoff management and flood control.

Both rain water runoff and flooding impact all residents, it seems fair that everyone share in the expense together via a fair and equitable fee.

The report suggests two possible formulas for determining a fee for residents. The two fees recommended were developed by the committee after reviewing formulas used by other

communities, ease of implementation, the use of engineering principles and last but not least fees the committee feels are truly fair and equitable.

The ad hoc committee on storm water and flood control recommends to the joint committee a review of the report by all interested governmental agencies, appropriate and thorough review by the public in open meetings and implementation of a fee for storm water management and flood control for Northampton.

## **Principles**

Storm water management is a growing challenge for local governments. As a natural resource that is increasingly regulated, municipalities must develop approaches that protect and enhance how storm water is handled. For Northampton this is complicated by periodic flooding along the Connecticut River that forces the city to maintain extensive levees and mechanically pumps enormous amounts of runoff into an often swollen current.

The Ad Hoc Storm Water Taskforce has been told that the city does not have the resources to replace aging infrastructure or meet new federal regulations and was asked to “examine ways these costs could be funded” with “particular focus and equity and transparency”.

The taskforce examined a number of alternatives including debt exclusion overrides for capital projects, funding the mandated increase in maintenance from the general fund, federal grants, a new fee or some combination of these options. The taskforce concluded that only a new utility fee would provide a reliable revenue stream.

Massachusetts state law specifically allows municipalities to create a storm water utility for the same reasons it allows utilities for water and sewer systems. It is based on users paying a fee in relation to the storm water runoff they generate and can provide a dedicated, stable funding source for municipal storm water management.

A storm water utility that is supported by fees rather than taxes needs to meet legislative criteria. First, the overall cost of the program must be reasonably related to the service being provided and the funds raised must be segregated for use by the storm water program. Second, the fee should be proportional to the property’s contribution to storm water runoff and costs.

The taskforce agreed that flood control and storm water management shared enough infrastructure and personnel to form a single utility and the cost could be spread equitably between residential, commercial and tax-exempt properties.

Many existing storm water utilities are supported by property assessments based on the amount of impervious surface (i.e. buildings, pavement, and compacted ground) on a site. Evolving technology however has greatly expanded ways to measure runoff giving utilities new tools with which to work. The taskforce determined that the best way for this utility to be administered fairly and without a great amount of administrative overhead was to determine the average runoff for single-family, two-family and three-family homes and develop a fee based on those averages, rather than assessing each individual property.

As detailed below in the two fee structures, the taskforce has agreed to recommend the principles that everyone contributes to the storm water runoff and that everyone has an interest in maintaining the city’s infrastructure. Every resident and business in Northampton benefits from a strong infrastructure and compliance with federal standards, therefore everyone contributes to the fee. Members agreed that city properties should not pay a fee as their budget comes from the general fund and are paid through property taxes. However, there is a list of proprieties in the attachment that will not be included in this fee, which are state or federally owned.

A utility that includes credits for improvements that retain or retard runoff gives ratepayers some control over cost and a way to positively affect the system. For instance, a residence could collect roof runoff in barrels to use for watering their garden, thus preventing runoff into the system and saving some money on their utility fee.

When the taskforce focused on developing a fee structure that was both fair and equitable, it could not reach consensus. There are many considerations:

- Pervious surface, lawns, farmland, forests, conservation land etc., all absorb rain when not frozen and yet they all shed measurable amounts of storm water.
- How much if anything should the city pay for its runoff?
- The water that runs off a house is much cleaner than water running from a street or parking lot and thus easier to manage.
- The floodwater that periodically threatens life and property is for the most part generated far from Northampton, but cost of maintaining flood control infrastructure will be a large part of the local storm water budget.

## **Glossary of Terms**

The following words, terms and phases, when used in this report shall have the meanings ascribed to them in this section.

**Credit** -means a reduction in the amount of a storm water utility fee charge to the owner of a particular property for the existence and use of privately owned, maintained and operated onsite or offsite storm water management systems or facilities, or continuing provision of services or activities that reduce or mitigate the city's cost of providing storm water management services for that particular property.

**Developed land** – shall mean a parcel of land in single and separate ownership altered from its natural state to include impervious surface area.

**Drainage system** – shall mean natural and manmade channels, swales, ditches, swamps, rivers, streams, creeks, wetlands, branches, reservoirs, pond, drainage ways, inlets, catch basins, gutters, pipes, culverts, bridges, head walls, storm sewers, lakes and other physical works that transfer, control, convey or otherwise influence the movement of storm water runoff.

**Dwelling unit** – means the individual, private premises contained in any building intended, whether occupied or not as the residence for on household regardless of the numbers of individuals in the household. A building may contain more than on dwelling unit.

**Improved property** – means property altered from its natural state by construction or installation of impervious surfaces.

**Impervious surface** -means those areas which prevent or impede the infiltration of storm water into the soil in the manner in which it entered the soil, in natural conditions, prior to development. Common impervious surfaces include, but are not limited to, rooftops, buildings or structures, sidewalks, walkways, patio areas, driveways, parking lots, storage areas, compacted gravel and soil surfaces, awnings and other fabric or plastic coverings, and other surfaces which prevent or impede the natural infiltration of storm water runoff which existed prior to development.

**Non-residential property** -means improved property that is not residential property as defined herein including, but not limited to such property as commercial and office buildings, public buildings and structures, industrial and manufacturing buildings, storage buildings and storage areas, parking lots, parks, recreation properties, tennis courts, swimming pools, public and private schools and universities, research facilities and stations, hospitals and convalescent centers, airports, agricultural uses, water and wastewater treatment plants, and any other form of use not otherwise mentioned which is not a residential property, and which has private parking lots and private drives or roads.

**Residential property** -means improved property without regard to form of ownership, containing three or fewer dwelling units except as may be modified from time-to-time herein by the term "single family". Residential properties shall not include improved property

containing structures used primarily for nonresidential purposes (i.e. hotels, motels, retirement centers, nursing homes or assisted living homes or properties designated as "mixed use" properties by the Board of Assessors.

**Storm water** -shall mean the runoff from precipitation that travels over natural state or developed land surfaces and enters a drainage system.

**Storm water management services** -mean all services provided by the city which relate to the:

- Transfer, control, conveyance or movement of storm water runoff through the city;
- Maintenance, repair and replacement of existing storm water management systems and facilities;
- Planning, development, design and construction of additional storm water management systems and facilities to meet current and anticipated needs;
- Regulation of the use of storm water management services, systems and facilities.
- Compliance with applicable State and Federal storm water management regulations and permit requirements. Storm water management services may address the quality of storm water runoff as well as the quantity thereof.

**Storm water Utility Fee** -means the periodic user fee imposed pursuant to this report by the City of Northampton for providing storm water management services.

## **Fee Models Considered**

The task force developed a variety of storm water fee models. Each model attempted to distribute costs fairly and equitably amongst the many stakeholders in the City. Ultimately, two of the fee models were recommended by the task forces.

The following is a brief description of the basic elements of the proposed storm water fee models:

- All of the models incorporated impervious surface areas (buildings and pavement) in recognition of the major runoff contribution from these types of surfaces.
- Residential properties were handled in several different ways:
  - Fees were assessed based upon impervious areas estimated for each property
  - Flat fees were assessed for each category of “small” residential properties (one-, two- and three-family), based upon an average impervious area determined from Geographic Information System (GIS) data; or,
  - Tiered fees were established for each category of “small” residential, adjusted for property size (less than 0.5 acres, 0.5 to 1 acre, etc.)
- In addition to using impervious surface areas, several models incorporated pervious surface areas, such as lawns, cropland, wooded areas, etc., recognizing that though the runoff from these areas was significantly less than the impervious surfaces, all surfaces, including undeveloped land, create runoff.
- Several models used Runoff Coefficients<sup>1</sup>, obtained from engineering methods, to adjust for different types of surface imperviousness. Runoff coefficients are greater than 0 and less than 1, with the lowest values representing the least impervious surfaces (e.g. surfaces with the least runoff) to the maximum values for the most impervious surfaces, such as buildings and paved surfaces.
- Two of the models used an Equivalent Residential Unit (ERU) to represent the average impervious area of a single family residential property; the ERU could then be applied to all other properties to determine the fee. One of the ERU models also included a fee for parcels of undeveloped land.
- Two models included fees for undeveloped properties which were either indexed to one of the residential fees, or capped based upon acreage.
- Several models included municipal properties and right-of-ways (ROW) in the fee structure:
  - One of the models included charging the city for its runoff contribution, consistent with the other utilities used by the city (water and sewer). This model necessitated that the city’s portion of the storm water utility would be part of the general city budget.
  - Several models created a category called “The Commons” which allocated the municipal properties and ROW to all fee payers based on either total surface area, or proportionately based upon impervious area for each property.

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<sup>1</sup> “Design and Construction of Sanitary and Storm Sewers”, American Society of Civil Engineers, 1969.

After considerable discussion, a clear majority of the taskforce, 7 members voted for the Hydraulic Acreage model as their preferred choice. Two members voted for the ERU model, and two members voted for the Commons model. In a vote to provide an alternate choice, 8 members of the task force voted for the ERU Model.

The task force voted to include the ERU model as the alternate model for 2 primary reasons: The relationship (or nexus) between impervious area and storm water impact is relatively easy to explain to the public—you pave, you pay. The number of billable ERU's can be determined by limiting the parcel area measurements to impervious area only. Also, it is recommended by the task force as an alternate model because it is used by more than 80% of all storm water utilities nationwide according to 2009 EPA information

### **Preferred Model – Hydraulic Acreage**

The basic concept of the Hydraulic Acreage model is the calculation of storm water runoff associated with various types of surfaces. This model can be referred to as a “refined” model. All surfaces, including undeveloped land and farmland, create storm water runoff. One engineering approach to calculating storm water runoff; the Rational Method, uses runoff coefficients to estimate the storm water contribution from each area. Table 1 shows runoff coefficients for various surfaces has been provided. Some other municipalities have used variations of this method.

The proposed Hydraulic Acreage model uses three categories of surfaces and associated runoff coefficients to calculate site specific fees. The combination of the three surfaces and runoff coefficients serves to create a “hydraulic acreage” for each property, which can be multiplied by a rate established by the Board of Public Works and/or City Council. The storm water fee is calculated using the following information:

1. The portion of the hydraulic acreage associated with buildings is obtained by multiplying the building surface area times a runoff coefficient of 0.95. The building surface area is obtained from GIS and/or City of Northampton tax assessor's database. Building runoff is handled separately from other impervious areas for the following reasons:
  - a. The presence of a building implies that people and other assets are present on the property and are therefore going to be most impacted by flood control.
  - b. Flood control expenditures, at least in the near term, are said to be approximately 75% or more of the overall estimated annual costs associated with storm water.
  - c. Property owners can mitigate the runoff contribution from their building through use of rain barrels, dry wells, cisterns, green roofs, etc. Credits would be provided for certain measures implemented by property owners, as described in Section 4 of this report.
2. The portion of the hydraulic acreage associated with other (non-building) impervious surfaces is obtained by multiplying the surface area times a runoff coefficient of 0.70. Surface area measurements for driveways, pavement, and other paved or unpaved parking areas are obtained from GIS. The Rational Method runoff coefficient range for asphalt and concrete surfaces is 0.70-0.95.

A lower runoff coefficient is used as an average in this formula for these impervious areas for the following reasons:

- a. Using a reduced runoff coefficients for this type of surface acknowledges that certain storm water controls may already be in place for these areas due to building code (such as retention ponds).
  - b. There are various types of impervious surfaces, including crushed stone or gravel, compacted dirt, brick, or stone that may have a lower runoff coefficient than concrete or asphalt.
  - c. The use of a lower runoff coefficient for non-building impervious surfaces places more value on flood control associated with buildings, and less value on storm water runoff from other impervious areas, resulting in higher fees for properties that are more highly developed with buildings.
3. The portion of the hydraulic acreage associated with pervious surfaces is obtained by multiplying the surface area (up to a maximum of 1 acre) times a runoff coefficient of 0.10. Pervious surfaces include lawns, wooded areas, farms, recreational areas, etc. Pervious surfaces generally serve a beneficial function by filtering and infiltrating storm water to the subsurface. However, under heavy rain conditions, pervious surfaces become saturated and have reduced capacity to absorb storm water. The combination of the low runoff coefficient and the 1-acre maximum surface area acknowledges that these surfaces provide a net benefit under most conditions except for flooding.
4. A simplified fee model will be used for residential properties. Average hydraulic acreages have been estimated for 1, 2 and 3 family houses using GIS data. This simplification is recommended due to the large number and variability of residential properties, and the high cost to obtain detailed information for each property.

The Hydraulic Acreage model results in residential properties contributing approximately 57% of the total fee, with the remaining 43% from commercial, industrial, tax exempt and “other”. By comparison, all of the other fee models developed by members of the task force including the ERU model presented below, result in residential properties contributing approximately 49% to 52% of the total storm water fee. For reference, residential properties pay approximately 83% of the property taxes in the city.

Based upon our research, the following pros and cons of the Hydraulic Acreage model should be considered:

#### **PROS**

- The Hydraulic Acreage model has been used in other municipalities, though it is not as common as the ERU model or other fee structures.
- The Hydraulic Acreage model attempts to determine more accurately the amount of storm water running off each measured surface.
- Incorporates a simplified fee structure for small residential properties.

## CONS

- Requires more refined information than other models due to the use of separate factors for buildings, impervious and pervious surfaces.
- Precise measurement of residential properties, though currently possible, may not be worth the effort given their number. As a result, average fees for each category of small residential (1, 2 and 3 family) have been developed. The use of averages, including the differentiation between buildings and other impervious surfaces, and the inclusion of pervious surfaces, has resulted in 2-family rates being lower than single family rates, though the difference is small.
- May be too complex for citizens to understand.

# Table 1

| Rational Method Runoff Coefficients  |          |  |
|--|----------|--|
| Type of Development  |          | Runoff Coefficients                          |
| Business<br>Downtown<br>Neighborhood   |          | 0.70 to 0.95<br>0.50 to 0.70                 |
| Residential<br>Single family<br>Multi-units (detached)<br>Multi-units (attached) |          | 0.30 to 0.50<br>0.40 to 0.60<br>0.60 to 0.75 |
| Residential (suburban)   |          | 0.25 to 0.40                                 |
| Apartment  |          | 0.50 to 0.70                                 |
| Industrial<br>Light<br>Heavy   |          | 0.50 to 0.80<br>0.60 to 0.90                 |
| Park, Cemeteries   |          | 0.10 to 0.25                                 |
| Playgrounds  |          | 0.20 to 0.35                                 |
| Railroad Yard  |          | 0.20 to 0.35                                 |
| Unimproved   |          | 0.10 to 0.30                                 |
| Character of Surface   |          |  |
| Pavement<br>Asphalt and Concrete<br>Brick  |          | 0.70 to 0.95<br>0.70 to 0.85                 |
| Roofs  |          | 0.75 to 0.95                                 |
| Lawns, Sandy Soil  |          |  |
| Flat   | 2%       | 0.05 to 0.10                                 |
| Average  | 2% to 7% | 0.10 to 0.15                                 |
| Steep  | 7%       | 0.15 to 0.20                                 |
| Lawns, Heavy Soil  |          |  |
| Flat   | 2%       | 0.13 to 0.17                                 |
| Average  | 2% to 7% | 0.18 to 0.22                                 |
| Steep  | 7%       | 0.25 to 0.35                                 |

Source: Design and Construction of Sanitary and Storm Sewers, American Society of Civil Engineers and the Water Pollution Control Federation, 1969

## **Alternate Model – Equivalent Residential Unit (ERU) Plus Undeveloped Land**

Equivalent Residential Unit or “ERU” means the average impervious square footage of a detached single family residential property. This model can be referred to as a “simple” model. It sets a fee based solely on impervious area, using the term ERU as a unit of measure. In this formula there are 3 categories of property whose owners will be responsible for a storm water fee:

\***Residential Parcels:** 1, 2, and 3 family homes.

\***All Other Parcels:** large residential (4family +), industrial, commercial, tax exempt.

\***Undeveloped Parcels:** land with no impervious surface.

In Northampton, the average single family house represents 3,679 square feet (sf) of impervious surface, two-family homes average 3,916sf and three-family homes average 4,985sf. The *residential category* includes only these 3 property types, or tiers. A tiered system for residential properties accounts for 2 and 3 family homes with a slightly higher fee for each tier. Therefore, all single family homes represent 1 ERU and would be billed for 1 ERU.

*All other parcels* would be billed according to the actual amount of impervious surface on each parcel. Parcels with 4 family dwellings and larger and all non-residential properties are then charged according to how many ERUs they contain (dividing their impervious surface by the area of 1 ERU). Therefore a property in this category in Northampton with 36,790sf of impervious surface would pay a fee of 10 x 1 ERU.

In order that all property owners participate, a fee for *undeveloped parcels* is included in the formula. This fee has been arbitrarily set at the equivalent of 1 ERU for every 10 acres of undeveloped land. Additional acres are prorated. Likewise, undeveloped parcels less than 10 acres would pay a prorated per acre fee based on 1 ERU.

At this time, variations of the ERU formula are among the most common methods in determining rates assigned to storm water fee payers. All fees are set on a base unit. Fees are based solely on impervious surface (except undeveloped parcel fee). Impervious surface measurements are derived from GIS technology. In terms of description, the ERU method for calculation of a storm water fee is defined as “simple” as opposed to “refined”.

Based upon our research, the following Pros and Cons of the ERU model should be considered:

### **PROS**

- All fees are determined only by impervious surface of each parcel (except undeveloped parcel fee).

- All or most of the data needed is already available.
- Allows for a credit/incentive program to be developed for all impervious surfaces.
- Easy to explain and understand.
- May allow more of the educational focus to be on why a storm water fee is needed and how we all contribute to the problem (instead of focusing on the intricacies of a more complicated fee structure).

## **CONS**

- Once a simple system is adopted, it may be difficult to change to a more refined system.
- Uses an arbitrary fee for undeveloped properties.

## **Other Considerations**

**Credits and Incentives** – Implementation of a new municipal storm water fee will be controversial, particularly given the current economic climate. In order to build public support for a new storm water fee to help alleviate the immediate burden of the new fee on property owners and to encourage activities that reduce the impact of storm water discharges on the public system, the taskforce recommends creation of a credits and incentives program that could reduce the overall fee paid by certain property owners.

**Fee Caps and Floors** – The taskforce recommends that the city consider adopting caps on annual rate increases for a specified period of time (no increase higher than the rate of inflation for the first three years). To ensure that any fee implemented is done so equitably, the taskforce also recommends that all property owners pay a minimum fee, even if their participation in a credit/exemption program (should the city adopt one), might otherwise completely offset their fee. The city may also want to consider a phase-in of the fee over several years – i.e. property owners would pay 50 percent of their bill the first year, 75 percent the second year, and 100 percent the third year.

**Discounts** – The city currently offers a means-based discount and a disability discount as part of its solid waste management plan. The city may want to consider similar discounts as part of the storm water fee program.

**Impact on Revenues** – The adoption of any of these policies will have a negative impact on revenues generated by the storm water fee. As a result, fee rates would have to be increased to offset lost revenues. Before deciding which, if any, of the policies might be adopted, the city may want to survey other communities which provide such programs to determine how popular they are.

**Impact on Expenditures** – The adoption of any of these policies could also increase costs to the city, depending on the model adopted, due to potential certification and inspection requirements. Some communities have created a “self-policing” application and review process, whereby the applicants – either/both residential or commercial—have to submit as part of their (re)permitting a series of documents, photos, etc., and third-party evaluations created to meet municipal standards. Either way, additional administrative costs would also be involved, but these could be offset in whole or in part by permitting fees.

For additional information on exemptions, credits and incentives, see attachments.

## **Attachments**

CITY OF NORTHAMPTON

MASSACHUSETTS

March 7, 2013

In City Council,

Upon the recommendation of Councilor Jesse M. Adams, Councilor Paul D. Spector and Councilor William H. Dwight

Ordered, that

Whereas, the City of Northampton faces significant new expenses to maintain our storm water drainage system, and

Whereas, though all of the work is needed and beneficial it is NOT a matter of choice, and

Whereas, the federal government is mandating many improvements, and

Whereas, in the past, this system has been funded by the general fund,

NOW, THEREFORE BE IT ORDERED,

The City Council hereby creates a Storm Water Ad-Hoc Advisory Taskforce as an advisory body to the City Council. The Taskforce will have the following charge:

- To deliberate in public and conform to the principles of Best Practices as referenced in the city's Best Practices Final Recommendations.
- To examine ways in which these costs could be funded, looking at what other communities have done and our own enterprise fund system.
- To recommend the general principles which should guide the new funding with particular focus on equity and transparency.
- To offer recommendations about actual formulas that might be employed.

The members of the Storm Water Advisory Taskforce shall be selected by March 15, 2013 and submitted to the City Council Clerk according to the following method:

- 9 members selected by each City Councilor
- 1 member selected by the Chamber of Commerce
- 1 member selected by the Board of Public Works
- 1 member selected by the Non-Profit Community

In City Council, March 7, 2013  
Rules suspended, passed two readings and enrolled.

Attest: May L. Smidura, Clerk of Council

Approved: David J. Narkewicz, Mayor  
A true copy.

Attest: May L. Smidura, Clerk of Council

# FY 2015-16 Stormwater Expenses

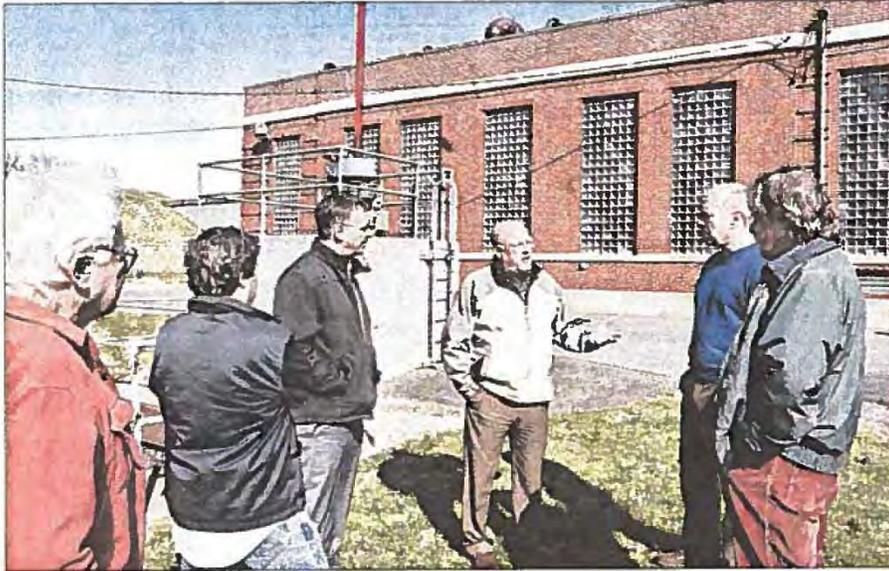
| -   | FY 2013          | FY 2014          | FY 2015            | FY 2016            |
|---|------------------|------------------|--------------------|--------------------|
| <b>Existing Operation Budget Allocations</b>              |                  |                  |                    |                    |
| Flood Control Personnel (Overtime Storm)                  | \$23,000         | \$23,000         | \$23,690           | \$24,401           |
| Flood Control O&M   | \$32,625         | \$32,625         | \$33,884           | \$35,194           |
| Stormdrain Personnel                                      | \$110,098        | \$111,374        | \$112,928          | \$116,316          |
| Stormdrains O&M   | \$54,050         | \$54,050         | \$55,672           | \$57,342           |
| Indirect Costs  | \$0              | \$0              | \$230,000          | \$240,000          |
| <i>Total Allocated O&amp;M</i>                            | <i>\$219,773</i> | <i>\$221,049</i> | <i>\$456,174</i>   | <i>\$473,253</i>   |
| <b>Increase in O&amp;M Budget (due to new EPA permit)</b> |                  |                  |                    |                    |
| Monitoring (Outfalls/Drain Manholes)                      | -                | -                | \$100,000          | \$103,000          |
| Engineering Staff   | -                | -                | \$60,000           | \$61,800           |
| Operations Staff  | -                | -                | \$100,000          | \$103,000          |
| Billing Clerk   | -                | -                | \$50,000           | \$51,500           |
| Catch basin cleaning vehicle                              | -                | -                | \$26,000           | \$26,000           |
| Vector truck  | -                | -                | \$60,000           | \$60,000           |
| Public education  | -                | -                | \$20,000           | \$20,600           |
| Energy costs  | -                | -                | \$20,000           | \$20,600           |
| <i>Total Incremental O&amp;M</i>                          | <i>\$0</i>       | <i>\$0</i>       | <i>\$436,000</i>   | <i>\$446,500</i>   |
| <b>Infrastructure Investments</b>                         |                  |                  |                    |                    |
| Flood Control Pump Station Analysis/dem                   | \$219,240        | \$0              | \$200,000          | \$500,000          |
| North St Drainage   | \$0              | \$20,000         | \$500,000          | \$500,000          |
| Drainage Infrastructure -undefined                        | \$0              | \$20,000         | \$30,000           | \$30,000           |
| <i>Municipal green design/construction</i>                | <i>\$0</i>       | <i>\$0</i>       | <i>\$30,000</i>    | <i>\$30,000</i>    |
| <i>Total Infrastructure Investments</i>                   | <i>\$219,240</i> | <i>\$20,000</i>  | <i>\$730,000</i>   | <i>\$530,000</i>   |
| <b>Total Operating Expenses</b>                           | <b>\$439,013</b> | <b>\$241,049</b> | <b>\$1,622,174</b> | <b>\$1,449,753</b> |
| <b>Debt Service</b>                                       |                  |                  |                    |                    |
| General Bond (See Below)                                  | \$99,746         | \$94,301         | \$91,801           | \$90,373           |
| <i>Ridgewood Terrace/Crescent St</i>                      |                  |                  |                    |                    |
| <i>Burrett St/Utility Study</i>                           |                  |                  |                    |                    |
| <i>Mill River Levee - Porridal Repair</i>                 |                  |                  |                    |                    |
| <i>Anticipated Future Debt (See Below)</i>                |                  |                  |                    |                    |
| <i>Levee Capital Improvements</i>                         |                  |                  | <i>\$37,700</i>    | <i>\$36,758</i>    |
| <i>River Road Retaining Wall</i>                          |                  |                  | <i>\$160,800</i>   | <i>\$156,780</i>   |
| <i>Roberts Meadow Brook</i>                               |                  |                  | <i>\$54,600</i>    | <i>\$53,235</i>    |
| <i>Levee Certification</i>                                |                  |                  | <i>\$55,000</i>    | <i>\$53,625</i>    |
| <i>Total Debt Service</i>                                 | <i>\$99,746</i>  | <i>\$94,301</i>  | <i>\$399,901</i>   | <i>\$390,771</i>   |
| <b>Total Revenue Requirement</b>                          | <b>\$538,759</b> | <b>\$335,350</b> | <b>\$2,022,075</b> | <b>\$1,840,524</b> |

# GAZETTE

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## WHERE THE MONEY FLOWS



JERREY ROBERTS

Public Works Director Edward "Ned" Huntley, center, fields questions during a recent tour of the flood control pumping station for members of the Stormwater Ad Hoc Advisory Task Force.

## Task force eyes options for new stormwater fund

By CHAD CAIN  
Staff Writer

**NORTHAMPTON** — Property owners beware, a new fee is almost assuredly coming your way.

A special task force is poised this spring to recommend the creation of a new enterprise fund to help pay for expensive, much-needed and, in some cases, required upgrades to the city's stormwater and flood control systems.

Exactly how much in new fees property owners would pay remains in flux, but early estimates for homeowners range from \$30 to \$120 annually, depending on a number of factors, including lot size.



JERREY ROBERTS

Huntley, fifth from left, hosts a tour of the flood control pumping station for members of a new fee task force.

■ See FUND / Page A4

## UM pro hails NI player's coming

By MATT VAUTOUR  
@GazetteUMass

Pat Griffin didn't know he, but she thought the female for someone to be the first male professional team sport reveal he was gay.

Griffin, a long-time advocate and educator for gay and lesbian issues in sports, had been expecting it would happen soon.

Still, NBA center Jason Collins' announcement in Sports Illustrated was cause for celebration for Griffin, a Belchertown is a professor emerita in education at the University of Massachusetts.

More coverage, Pages D1,

"I can't see any bad this," Griffin said. "I think I'm thrilled that we've hit this threshold of the first male pro athlete coming up a lot of time and energy."

Collins, 33, just completed an NBA season, splitting time between the Boston Celtics and the Washington Wizards. He's a free agent and is expected to continue his NBA career.

Griffin thought Collins, a Stan who lists President Bill Joseph Kennedy III among his influences, did a good job of articulating the concerns of athletes debating coming out.

"I thought his article was great."

■ See PLAYER'S / Page A4

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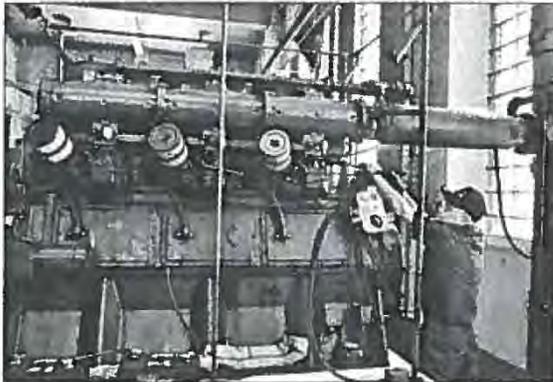
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JERREY ROBERTS

**Station operator Bill Lamere turns on a pump engine during a tour of the station by members of the Stormwater Ad Hoc Advisory Task Force Monday.**

## Fund eyed for stormwater work

■ Continued from A1

Commercial and non-residential property owners would pay considerably more depending on how much pavement and other impervious surface is on their property.

The Storm Water Ad Hoc Advisory Task Force, created earlier this year, is poring over the details of four fee structure models. Its members stress that the figures are very fluid and will likely change as the committee decides on a number of items, including exemptions, credits and whether to cap fees at a certain amount.

"We're in the modeling stages," Chairman Emory Ford reminded the panel as it examined sample bills for specific properties at a meeting last week. "None of this is necessarily real. We're just trying to get our arms around things."

The task force Thursday made one decision that will change the fees, agreeing that the city should not be billed for its property since the money to pay for that fee would come directly from taxpayers. That will likely raise the stormwater fee for all users.

The committee will also consider other exemptions, including for items such as conservation and farmland.

Ford said that, in the end, the task force must strive to come up with a recommendation that

on the horizon, the City Council created the task force to study possible ways to pay for the work and to recommend a fair system to tax property owners.

"These projects are going to take big bites, very big bites," said Chris Hellman, another task force member.

Here's a brief synopsis of the four models under review:

■ Two proposals submitted by task force member Robert Reckman and Board of Public Works Chairman Terry Culhane are similar in concept.

Under both plans, single-, two- and three-family homes would be charged on a tiered basis based on lot size: less than a half-acre, between a half-acre and 1 acre, and between 1 and 3 acres under Reckman's plan, or between 1 and 5 acres under Culhane's proposal.

Both plans propose averaging the amount of impervious surface on residential properties and charging all owners the same standard fee. That would make up about three-fourths of the bill, with the rest coming in the form of a "commons" fee for shared public infrastructure. The commons fee would be based on a property's lot size.

The fee estimates vary only slightly under the two plans. Single-family homes would pay about \$82 a year for lots less than half an acre, about \$93 on lots between a half-acre and 1 acre, and about \$120 for lots between 1 and

## NH honors Old Man 10 years

CONCORD, N.H. (AP) — Edward Geddes already had spent two long days on the mountain when the weather turned. Battered by wind and soaked by rain — "like shower baths of ice water" — he clung to a rope and pressed on, even after the rain turned to ice that coated his clothing and left two of his fingers crooked for the rest of his life.

It was 1916, and the crew assigned to help Geddes rescue New Hampshire's Old Man of the Mountain had given up. But Geddes continued the work alone, drilling 11-inch holes into the granite and installing turnbuckles and rods to hold the ledges in place.

"When the men Col. Greenleaf had hired to help me all deserted, I did not intend to be beaten. I leave it to you to judge whether I had time to play or not," he wrote when the work was complete.

Thanks to Geddes' efforts and

those of others who followed, the 40-foot-tall natural rock formation that resembled an old man's face remained suspended 1,200 feet above Franconia Notch until May 3, 2003, when it smashed to the ground. Over the years, it became the state's most recognizable symbol — the Legislature adopted it as the state emblem in 1945, and it still appears on the state quarter, highway signs, license plates and countless souvenirs.

A decade after the Old Man's demise, the famed stone profile is little more than a historical footnote to the state's youngest residents. But it remains a beloved family member to others, including the descendants of Geddes, a granite quarry superintendent from Quincy, Mass., who performed the first repair work on the Old Man nearly a century ago.

Ronald Geddes, 71, was a toddler when the man he knew as

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## Player's coming out gets favorable re.

■ Continued from A1

ful," Griffin said. "I don't think I could have asked for a better description for why it's important for people to come out, particularly for athletes, and how much energy it takes to hide such an important part of yourself."

Collins' announcement came less than a month after a Baltimore Ravens safety said that multiple NFL players were considering coming out together to take the pressure off any one of them from shouldering the attention alone. Griffin said she thought other athletes will likely follow Collins.

"I'm sure there are athletes who are watching to see what happens," said Griffin, author of "Strong Women Deep Closets: Lesbians and Homophobia in Sports."

"I think it's going to be just fine and I think there will be other athletes that follow him out of the closet."

Anyone measuring the public reaction saw a largely positive initial response.

Los Angeles Lakers star Kobe

of the 2012-13 season, issued a statement of support on NBA.com.

"I am extremely happy and proud of Jason Collins. He's a pro's pro. He is the consummate professional and he is one of my favorite team players I have ever coached," Rivers wrote. "If you have learned anything from Jackie Robinson, it is that teammates are always the first to accept. It will be society who has to learn tolerance."

The Boston Red Sox tweeted an offer to have him throw out the first pitch at a game at Fenway to celebrate his announcement:

"We salute you, @jasoncollins34 for your courage and leadership. Any time you want to throw out a first pitch at Fenway Park, let us know."

Griffin wasn't surprised at the reaction.

"I really did expect it to be positive," she said. "I think this has been much less of a big deal, particularly among the players, than people thought it would be. The players themselves are ready for this.

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isal, however, has of the ground. The position abroad says hept anything less s departure, and dvised the president a political ploy, rebels fighting on - without a unified have also rejected ie government as l is in power.

to immediate claim ty for Monday's at- tributions like the one e prime minister's een a trademark of als fighting in the uch as the al-Qai- rat al-Nusra.

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or Edward "Ned" ed comment and ions to the city's es department. idard, Northamp- sources director, afternoon there range in Bouquint- ant status.

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consider other exemptions, including for items such as conservation and farmland.

Ford said that, in the end, the task force must strive to come up with a recommendation that is fair and equitable.

While the panel works out the details, one thing is certain — the new yearly fee is flying under the radar for many residents. Several task force members are surprised about that, given the impact the fee will have on a property owner's bottom line, especially when combined with other tax increases in recent years, including for sewer and water.

"It's a big deal," city engineer Jim Laurila said. "It's a new enterprise, potentially, for the city, yet the discussion about it has been pretty light."

While talk of a new fee may be news for some, DPW officials have been sounding the alarm for some time about the millions of dollars in looming upgrades to stormwater and flood control systems. A consultant's report last year put needed repairs at \$100 million over the next 20 years, though it remains unclear whether the city would actually undertake that much work.

One of the projects in the report is a recommendation to replace the city's flood control pumping station at the wastewater treatment plant on Hockanum Road.

The equipment in the current station, which diverts water under flood conditions, is antiquated and the parts obsolete, the task force learned during a recent tour. Plant failure could cause millions of dollars in damage to a wide section of the city, including downtown, during significant storm events.

"It's time for that to be rehabilitated for the safety of the people," said Jim Dostal, a one-time city councilor and former DPW worker who sits on the task force.

The estimates discussed Thursday were calculated to raise \$2 million a year, which Department of Public Works officials believe would cover the immediate obligations to the city's 70-year-old flood control systems on both the Mill and Connecticut rivers and a new stormwater permit from the Environmental Protection Agency with more stringent requirements.

Large capital projects, such as replacing the pump station building, would require additional funding.

Money for stormwater and flood control typically comes from the city's general fund, but given the scope of the repairs

slightly under the two plans. Single-family homes would pay about \$82 a year for lots less than half an acre, about \$93 on lots between a half-acre and 1 acre, and about \$120 for lots between 1 and 5 acres.

Two- and three-family homes would pay slightly higher fees under the plans.

The fee for large residential, commercial and institutional properties would be measured and billed individually based on the actual property size and amount of impervious surface.

Task force member Ruth McGrath proposed a fee structure that would charge residential properties a flat annual fee, shifting more of the tax burden onto commercial and other non-residential property owners.

Under this plan, single-family homeowners would pay \$30, two-family owners \$40 and three-family owners \$60.

The fee for non-residential properties would be based on square footage, with each property paying 5 cents per square foot of impervious surface. This could mean some considerable fees for commercial and other businesses.

The task force is also considering an alternative to McGrath's plan that calls for a higher flat fee of \$95 for single-family homeowners, \$110 for two-family and \$140 for three-family. This alternative would lower what non-residential properties pay by charging 3 cents per square foot of impervious surface.

Task force member Dan Felton pitched a plan that attempts to set fees by measuring the impervious surface on a property-by-property basis using GIS technology.

This plan would be similar to the way the city bills for water and sewer and is intended to provide "reasonable, rational estimates of each property to the city's overall stormwater runoff," Felton wrote in a memo to the task force.

Felton's plan also includes a charge for common areas.

Under this plan, single-family homeowners on less than half an acre would pay about \$60, those with 0.5 to 1 acre would pay \$98, 1 to 3 acres would pay \$182 and 1 to 5 acres would pay \$208.

The task force faces a May 31 deadline to present an official recommendation for the City Council's review. The council will likely hold public hearings on the issue and, if approved, bills would likely go out starting in fiscal 2015, or July 1, 2014, Laurila said at a meeting last Thursday.

The task force is scheduled to meet again on Thursday.

fine and I think there will be other athletes that follow him out of the closet."

Anyone measuring the public reaction saw a largely positive initial response.

Los Angeles Lakers star Kobe Bryant was among the first to tweet on Collins' behalf:

"Proud of @jasoncollins34. Don't suffocate who ur because of the ignorance of others."

A steady stream of tweets followed, including some from multiple current and former NBA players, as well as first lady Michelle Obama, Clinton, Ellen DeGeneres and Spike Lee.

Boston Celtics coach Doc Rivers, who coached Collins for part

"I really did expect it to be more of a surprise," she said. "I think been much less of a big deal particularly among the players people thought it would players themselves are not this."

"I think the changes broader culture have a huge difference. We've had an ongoing conversation same-sex marriage in the country," she continued. "I think be hard pressed to find in this country that does somebody who is gay. I two years have been at Things have happened thought would take a lot Change is coming at a qu

## Primary hopefuls stump before

Continued from A1

House delegation to vote against President Barack Obama's 2010 health care law, while Markey, who won his first elected office while in law school, has had to fend off efforts to portray him as a Washington insider.

Markey is better-funded, having raised \$4.8 million through the end of the last reporting period, compared with \$1.5 million for Lynch.

Markey, 66, has also benefited from outside spending. Of the more than \$2.2 million spent by outside groups, nearly 84 percent went to Markey, an Associated Press review of Federal Election Commission reports found.

Markey said he's hoping for a win today and is anticipating a flood of GOP money in the final election.

"I am going to fight against the coal industry. I am going to fight against the NRA. The Republicans are saying they'll welcome that undisclosed, unlimited money," Markey said as he greeted commuters at Boston's North Station.

Lynch had to call off most of his campaigning due to illness although he planned to attend an evening rally at an ironworkers' hall near his South Boston home.

The GOP primary race is pitting three candidates: former U.S. Attorney for Massachusetts Michael Sullivan, businessman Gabriel Gomez and state Rep. Daniel Winslow, former legal counsel for ex-governor and 2012 presidential nominee Mitt Romney.

Gomez, 47, has tried to portray himself as the new face of the Republican Party. The son of Colombian immigrants, Gomez learned English in kindergarten, then went on to become a Navy pilot and SEAL, earn an MBA at



Republican U.S. Sen. speaks with waitress campaign stop at a r

Harvard and launch a private career.

He's also staked out positions, including support for gay marriage, which is in Massachusetts.

Gomez, who ran the campaign and finished before the election, touted his outsider status as he shook hands with voters in Marshfield. He's also best-funded Republican, having collected nearly \$1.2 million including \$600,000 he loaned to his campaign.

Pointing to the combination of political experience of Winslow and Sullivan, Gomez said, "I have zero experience and I wear that with back honor."

Sullivan, 58, who has been in politics since he was in high school, said his experience is critical, including his own national security resume, which includes his investigation of the Sept. 11 attacks and the failed attempt to blow up an airliner with shoe bombs.

"Experience does matter



## **Exemptions, Credits and Incentives**

This is an overview of some of the issues that communities confront in addressing whether to or how to reduce the burden of storm water fees. Generally speaking, most communities the taskforce examined offer some sort of relief, but there is a very broad range of options used by communities to implement rate reductions. This is a sample, but by no means an exhaustive list, of some of the issues and options that are offered by various communities.

**Note:** Storm water rate relief falls into three general categories which reoccur in numerous communities – Exemptions, Credits and Incentives (ECI). The taskforce used the following specific definitions for our discussions, but it is unclear if there are any generally used or standardized definitions for these terms:

- Exemptions are permanent
- Credits are recurring
- Incentives tend to be one-time

As a result, credits will likely require some sort of certification, while in theory incentives would not require regular oversight, but might involve periodic recertification as part of their permitting/renewal process.

### **Definitions**

***Exemptions*** – Activities or entities that by definition within the fee structure are not subject to a storm water fee. Exemptions are generally given only to municipal and special use lands (i.e. agricultural, recreational).

***Credits*** – Recurring reductions in the annual storm water fee rate resulting from proactive measures that reduce the burden on the storm water system. Credits would target primarily multi-unit residential or non-residential properties.

***Incentives*** – One-time tax breaks, cash credits or rebates that encourage infrastructure improvements. They would promote the same goals as credits (rate, volume, quality) and would focus on creating “green” infrastructure. Incentives would target primarily small residential properties.

### **Categories of Eligible Properties**

Different communities use different definitions when discussing which properties are eligible for rate relief. As a rule they look primarily at size, primary use, permeable/impermeable surface either by percentage or size of property, or some calculation of runoff rate. How the fee rate is structured will impact how ECI eligibility will be defined.

## Exemptions

When offered, exemptions of storm water fees are usually granted for the following:

- Undeveloped properties
- Public streets and roadways
- Cemeteries
- Municipally owned properties
- Septic systems

## Credits

Credits are usually offered on a percentage of the annual rate and are most often capped (i.e. everyone pays something). Some communities also require a minimum payment, regardless of the credits to which a property might be entitled. Credited activities include:

- **Storm water Management Systems** (capturing and holding of runoff on-site) – credit is given for on-site treatment of runoff from impermeable services – roofs, driveways, parking lots – that reduces the burden on the public system.
- **Storm water Quality Treatment** – credit is given for on-site or secondary private service provider which improves the environmental quality of storm water before it enters the public system.
- **Education Credit** – credit is given for public and private schools that educate and inform students about the importance of local surface and groundwater resources and how they can be protected.

## Incentives

Can include tax credits, cash rebates, discounts, etc., related to the following:

- Rain gardens
- Green roofs
- Vegetated filter strips
- Lawn care pollution reduction
- Pollution prevention for runoff
- Pervious pavements
- Free “green” infrastructure assistance programs

NOTE: Some communities offer these incentives as recurring credits.

## **Other Issues for Consideration**

**New or Improved** – The Task Force discussed at some length how to treat property owners who as a result of either updated planning guidelines or at their own initiative had made improvements that would otherwise qualify for ECI fee reductions. Some communities have opted to only provide credits for new construction or to properties that require new permitting for only those upgrades that go beyond those already required by existing code. The argument is that the granting of the permit itself sufficiently compensates the property owner for the additional costs associated with the updated standards.

Other communities have adopted an approach that rewards any infrastructure improvements etc. that are in place and comply with the city's ECI standards, regardless of when or why they were made. In this case it's an equity issue (i.e. any remediation initiative that an entity might undertake that reduces the burden on the public storm water system should be acknowledged).

Further, should a property owner, who, as part of an upgrade that does not necessitate new permitting but opts to do exactly or less than what is required by statute, receive preferential treatment?

It can also be argued, depending on the credit system a city might adopt, that the benefit of granting a permit is a one-time benefit. Participation in a storm water control program has potentially recurring benefits (i.e. economic or systemic). The reduction of the burden on the public system extends over years.

**What's the Right System?** – As mentioned above, the type and complexity of the ECI programs offered by other communities is extremely broad and deciding what, if any programs the city may provide will require careful consideration. The type of fee structure adopted will help shape what ECI models are considered. In addition, determining what the goals of the ECI program are will play an important role. Is it intended simply to increase public support for the new fee? Generate a spirit of community by boosting public participation? Make meaningful reductions on either the quantitative and/or qualitative impact of runoff on the public storm water management system?

## **Resources**

The taskforce looked at numerous fee credit plans in preparing this report. Probably the most comprehensive is the "Northeast Ohio Regional Sewer District Storm Water Fee Credit Manual." It seems unlikely that the community developed this plan without expert assistance. Should the city opt to go with a fee credit plan that is this comprehensive, we would almost certainly have to go to the private sector, or adopt a program similar to one that's already in place elsewhere. Conversely, the program in place in Newton, MA, requires only one page.

Northeast Ohio Regional Sewer District Storm water Fee Credit Manual  
<http://www.neorsd.org/stormwatercreditmanual.php>

Newton, MA  
<http://www.newtonma.gov/civicax/filebank/documents/27363>

South Burlington, VT  
[http://www.sburlstormwater.com/wp-content/uploads/downloads/manuals/credit\\_manual.pdf](http://www.sburlstormwater.com/wp-content/uploads/downloads/manuals/credit_manual.pdf)

Philadelphia, PA  
[http://www.phila.gov/water/Stormwater/pdfs/SCAA\\_Manual.pdf](http://www.phila.gov/water/Stormwater/pdfs/SCAA_Manual.pdf)

Richmond, VA  
<http://www.richmondgov.com/dpu/StormwaterCredits.aspx>

Griffin, GA  
[http://www.cityofgriffin.com/Portals/1/COG%20SWU%20CREDIT%20MANUAL%202003\\_01\\_11.pdf](http://www.cityofgriffin.com/Portals/1/COG%20SWU%20CREDIT%20MANUAL%202003_01_11.pdf)

Champaign, IL  
<http://ci.champaign.il.us/departments/public-works/residents/stormwater-management/stormwater-utility-fee/stormwater-utility-fee-faq/>

Percentages of Areas, Property Tax, and Proposed Stormwater Fees by Property Types  
6/19/2013

|  | Total Area | Impervious | Pervious | Assessors Valuation | Property Tax | ERU (Plus Undeveloped Fee) | Hydraulic Acreage |
|--|------------|------------|----------|---------------------|--------------|----------------------------|-------------------|
| <b>Small Residential (1-3 Family)</b>                          | 38%        | 38%        | 38%      | 83%                 | 83%          | 37%                        | 47%               |
| <b>Large Residential (4+ Unit Apartments, Condos, Rooming)</b> | 5%         | 12%        | 4%       |                     |              | 12%                        | 10%               |
| <b>Commercial/Industrial</b>                                   | 12%        | 31%        | 10%      | 17%                 | 17%          | 30%                        | 24%               |
| <b>Tax Exempt</b>  | 11%        | 13%        | 11%      |                     |              | 13%                        | 11%               |
| <b>Other</b>   | 35%        | 6%         | 37%      |                     |              | 8%                         | 8%                |

**City of Northampton  
Sample Annual Stormwater Bill Comparison - City Property Excluded from Billing  
(Updated 6/19/2013 Supercedes Previous Summaries)**

| Sample Bills  | Property Areas               |                                   |                    |                                 | Fee Methods                |                     |
|---|------------------------------|-----------------------------------|--------------------|---------------------------------|----------------------------|---------------------|
|   | Total Area (SF) <sup>1</sup> | Impervious Area (SF) <sup>1</sup> |                    | Pervious Area (SF) <sup>1</sup> | ERU (Plus Undeveloped Fee) | Hydraulic Acreage   |
|   |                              | Total                             | Building Area (SF) |                                 |                            |                     |
| <b>Single Family House</b>                                    |                              |                                   |                    |                                 |                            |                     |
| Average (5,560 properties)                                    | 47,378                       | 3,682                             | 1,901              | 1,872                           | 43,696                     |                     |
| Clark ERU Plus  |                              | 3,682                             |                    |                                 |                            | 110                 |
| Felten 3-Hydraulic Acreage (Pervious average with 1 acre cap) |                              |                                   | 1,901              | 1,872                           | 17,701                     | \$ 144              |
| <b>Two Family House</b>                                       |                              |                                   |                    |                                 |                            |                     |
| Average (892 properties)                                      | 18,350                       | 3,916                             | 2,085              | 1,895                           | 14,438                     |                     |
| Clark ERU Plus  |                              | 3,916                             |                    |                                 |                            | 117                 |
| Felten 3-Hydraulic Acreage (Pervious average with 1 acre cap) |                              |                                   | 2,058              | 1,895                           | 9,393                      | \$ 125              |
| <b>Three Family House</b>                                     |                              |                                   |                    |                                 |                            |                     |
| Average (163 properties)                                      | 17,252                       | 4,985                             | 2,418              | 2,585                           | 12,267                     |                     |
| Clark ERU Plus  |                              | 4,985                             |                    |                                 |                            | 149                 |
| Felten 3-Hydraulic Acreage (Pervious average with 1 acre cap) |                              |                                   | 2,418              | 2,585                           | 9,381                      | \$ 149              |
| Undeveloped Land (1 acres)                                    | 43,560                       | -                                 | -                  | -                               | 43,560                     | \$ 11               |
| Undeveloped Land (10 acres)                                   | 435,600                      | -                                 | -                  | -                               | 435,600                    | \$ 110              |
| Undeveloped Land (50 acres)                                   | 2,178,000                    | -                                 | -                  | -                               | 2,178,000                  | \$ 550              |
| Arcadia (1 of 10 parcels)                                     | 14,704,497                   | 16,075                            | -                  | 16,075                          | 14,688,422                 | \$ 4,110            |
| Grow Food Northampton (Farm)                                  | 1,116,878                    | 92                                | -                  | 92                              | 1,116,786                  | \$ 223              |
| 1-Family Property (19.2 acre lot)                             | 837,581                      | 3,218                             | 2,728              | 490                             | 834,363                    | \$ 110              |
| Paradise Copies-21 Conz St                                    | 14,514                       | 11,853                            | 5,310              | 6,543                           | 2,661                      | \$ 354              |
| Coopers, 35 Main St, Florence                                 | 21,219                       | 16,550                            | 8,734              | 7,816                           | 4,669                      | \$ 494              |
| CVS, 366 King St  | 93,915                       | 63,734                            | 13,786             | 49,948                          | 30,181                     | \$ 1,904            |
| Hotel Northampton, 36 King St & 43 Gothic St                  | 79,330                       | 77,835                            | 21,070             | 56,765                          | 1,495                      | \$ 2,325            |
| 221 Pine Street   | 143,137                      | 79,838                            | 56,472             | 23,366                          | 63,299                     | \$ 2,385            |
| Clarion Hotel & Conference Center, 23 Atwood Dr               | 333,827                      | 190,319                           | 64,700             | 125,619                         | 143,509                    | \$ 5,686            |
| Lia Toyota, 246-280 King St                                   | 301,474                      | 233,375                           | 37,821             | 195,554                         | 68,099                     | \$ 6,972            |
| River Run Condominiums, Damon Rd (Condos)                     | 721,819                      | 242,688                           | 93,281             | 149,407                         | 479,131                    | \$ 7,250            |
| L-3 KEO, 50 Prince St   | 591,416                      | 265,805                           | 92,133             | 173,672                         | 325,611                    | \$ 7,941            |
| Hathaway Farms, Barrett St (207 Apartments)                   | 794,848                      | 380,421                           | 131,762            | 248,659                         | 414,427                    | \$ 11,365           |
| Walwart, 180 North King St                                    | 510,525                      | 423,020                           | 141,217            | 281,803                         | 87,505                     | \$ 12,638           |
| Coca-Cola, 45 Industrial Dr                                   | 908,923                      | 756,582                           | 484,200            | 272,382                         | 152,341                    | \$ 22,603           |
| Coolley Dickinson Hospital                                    | 1,914,472                    | 761,289                           | 167,858            | 593,431                         | 1,153,182                  | \$ 22,744           |
| Three County Fairgrounds                                      | 1,981,631                    | 842,349                           | 213,225            | 629,124                         | 1,139,281                  | \$ 25,165           |
| VA Medical Center, 421 North Main St                          | 4,548,200                    | 1,099,758                         | 288,260            | 811,498                         | 3,448,442                  | \$ 32,855           |
| Smith College   | 7,922,502                    | 2,761,304                         | n/a                | n/a                             | 5,161,198                  | \$ 82,494           |
| <b>Totals</b>   |                              |                                   |                    |                                 |                            |                     |
| Total Small Residential (1-3 Family)                          | 282,632,481                  | 24,779,381                        | 12,800,441         | 11,978,940                      | 257,853,100                | \$ 740,300          |
| Total Large Residential (4+ Unit Apartments, Condos, Rooming) | 35,982,905                   | 7,785,645                         | 3,032,854          | 4,752,791                       | 28,197,260                 | \$ 233,871          |
| Total Commercial/Industrial                                   | 87,164,792                   | 19,751,614                        | 5,525,103          | 14,226,511                      | 67,413,178                 | \$ 596,779          |
| Total Tax Exempt  | 80,207,047                   | 8,456,692                         | 2,108,690          | 6,348,001                       | 71,750,356                 | \$ 254,202          |
| Total Other   | 258,638,694                  | 3,835,188                         | 268,143            | 3,567,045                       | 254,803,496                | \$ 157,894          |
| <b>Grand Total</b>  | <b>744,625,910</b>           | <b>64,608,520</b>                 | <b>23,735,232</b>  | <b>40,873,288</b>               | <b>680,017,391</b>         | <b>\$ 1,983,046</b> |
|   |                              |                                   |                    |                                 |                            | <b>\$ 1,999,941</b> |

<sup>1</sup>Estimated areas based on 2005 MassGIS Impervious information and 2012 MassGIS Level 3 parcel data. All properties have been included except City Properties, City Roadways, and State Roadways.

## Hydraulic Acreage

### Proposed Stormwater Fee Billing Structure – Sample Calculations

The Hydraulic Acreage model uses three categories of surfaces and associated runoff coefficients to calculate the fees for each property. The combination of the three surfaces and runoff coefficients serves to create a “hydraulic acreage” for each property, which is then multiplied by a rate to calculate the fee for each property. The hydraulic area used for customer bills will consist of:

- 1) Building footprint area multiplied by a runoff coefficient of 0.95
- 2) Other (non-building) impervious surface area multiplied by a runoff coefficient of 0.7
- 3) Pervious surface for each property multiplied by a runoff coefficient of 0.1

Fees for residential properties are calculated using average building, other impervious and pervious areas for 1, 2 and 3 family houses and calculating hydraulic area and fees based on these averages.

Fees for larger residential properties and non-residential properties are calculated using actual building, other impervious and pervious areas for each property.

The pervious area portion of the hydraulic acreage for each property is a maximum of 1 acre.

Total Annual Revenue = \$2 Million

Total Hydraulic Area for the City = 67,748,688 SF

Total Annual Revenue (\$) / Total Hydraulic Area (SF) = rate per square foot

$\$2,000,000 / 67,748,688 \text{ SF} = \$0.02952 / \text{SF}$

### Sample Bills – Residential

#### Single-Family

Average Building Area = 1,901 SF

Average Other Impervious Area (non-building) = 1,872 SF

Average Pervious Area (after 1 acre cap applied) = 17,701

Hydraulic Building Area:  $1,901 \text{ SF} \times 0.95 = 1,806 \text{ SF}$

Hydraulic Other Impervious Area:  $1,872 \times 0.7 = 1,310 \text{ SF}$

Average Hydraulic Pervious Area:  $17,701 \times 0.1 = 1,770 \text{ SF}$

Total Hydraulic Area:  $1,806 + 1,310 + 1,770 = 4,886 \text{ SF}$

Total Fee =  $4,886 \text{ SF} \times 0.02952 = \$144$

## 2- Family

Average Building Area = 2,058 SF

Average Other Impervious Area (non-building) = 1,895 SF

Average Pervious Area (after 1 acre cap applied) = 9,393

Hydraulic Building Area:  $2,058 \text{ SF} \times 0.95 = 1,955 \text{ SF}$

Hydraulic Other Impervious Area:  $1,895 \times 0.7 = 1,327 \text{ SF}$

Hydraulic Pervious Area:  $9,393 \times 0.1 = 939 \text{ SF}$

Total Hydraulic Area:  $1,955 + 1,327 + 939 = 4,221 \text{ SF}$

Total Fee =  $4,221 \text{ SF} \times 0.02952 = \$125$

## 3- Family

Average Building Area = 2,418 SF

Average Other Impervious Area (non-building) = 2,585 SF

Average Pervious Area (after 1 acre cap applied) = 9,381

Hydraulic Building Area:  $2,418 \text{ SF} \times 0.95 = 2,297 \text{ SF}$

Hydraulic Other Impervious Area:  $2,585 \times 0.7 = 1,810 \text{ SF}$

Hydraulic Pervious Area:  $9,381 \times 0.1 = 938 \text{ SF}$

Total Hydraulic Area:  $2,297 + 1,810 + 938 = 5,045 \text{ SF}$

Total Fee =  $5,045 \text{ SF} \times 0.02952 = \$149$

## Sample Bills – Non-Residential

### Clarion Hotel

Hydraulic Building Area:  $64,700 \text{ SF} \times 0.95 = 61,465 \text{ SF}$

Hydraulic Other Impervious Area:  $125,619 \times 0.7 = 87,933 \text{ SF}$

Hydraulic Pervious Area:  $143,509 \text{ SF (max 1 acre)} = 43,560 \times 0.1 = 4,356 \text{ SF}$

Total Hydraulic Area:  $61,465 + 87,933 + 4,356 = 153,754 \text{ SF}$

Total Fee =  $153,754 \text{ SF} \times 0.02952 = \$4,539$

### Coopers Corner

Hydraulic Building Area:  $8,734 \text{ SF} \times 0.95 = 8,297 \text{ SF}$

Hydraulic Other Impervious Area:  $7,816 \times 0.7 = 5,471 \text{ SF}$

Hydraulic Pervious Area:  $4,669 \text{ SF} \times 0.1 = 467 \text{ SF}$

Total Hydraulic Area:  $8,297 + 5,471 + 467 = 14,235 \text{ SF}$

Total Fee =  $14,235 \text{ SF} \times 0.02952 = \$420$

### Cooley-Dickinson Hospital

Hydraulic Building Area:  $167,858 \text{ SF} \times 0.95 = 159,465 \text{ SF}$

Hydraulic Other Impervious Area:  $593,431 \times 0.7 = 415,402 \text{ SF}$

Hydraulic Pervious Area:  $1,153,182 \text{ SF (max 1 acre)} = 43,560 \times 0.1 = 4,356 \text{ SF}$

Total Hydraulic Area:  $159,465 + 415,402 + 4,356 = 579,223 \text{ SF}$

Total Fee =  $579,223 \text{ SF} \times 0.02952 = \$17,099$

### Lia Toyota

Hydraulic Building Area:  $37,821 \text{ SF} \times 0.95 = 35,930 \text{ SF}$

Hydraulic Other Impervious Area:  $195,554 \times 0.7 = 136,888 \text{ SF}$

Hydraulic Pervious Area: 68,099 SF (max 1 acre) = 43,560 x 0.1 = 4,356 SF

Total Hydraulic Area: 35,930 + 136,888 + 4,356 = 177,174 SF

Total Fee = 177,174 SF x 0.02952 = \$5,230

### Walmart

Hydraulic Building Area: 141,217 SF x 0.95 = 134,156 SF

Hydraulic Other Impervious Area: 281,803 x 0.7 = 197,262 SF

Hydraulic Pervious Area: 87,505 SF (max 1 acre) = 43,560 x 0.1 = 4,356 SF

Total Hydraulic Area: 134,156 + 197,262 + 4,356 = 335,774 SF

Total Fee = 335,774 SF x 0.02952 = \$9,912

### Paradise Copies

Hydraulic Building Area: 5,310 SF x 0.95 = 5,045 SF

Hydraulic Other Impervious Area: 6,543 x 0.7 = 4,580 SF

Hydraulic Pervious Area: 2,661 SF x 0.1 = 266 SF

Total Hydraulic Area: 5,045 + 4,580 + 266 = 9,891 SF

Total Fee = 9,891 SF x 0.02952 = \$292

## ERU (Equivalent Residential Unit) Plus Undeveloped Fee

### Proposed Stormwater Fee Billing Structure

Customer Bills will consist of: 1) ERU based average fees for small residential 2) ERU calculated based on impervious area for non-residential and larger residential 3) Fee for undeveloped and lightly developed properties

| Small Residential | Units | Impervious (SF) | Average Impervious (SF) |
|-------------------|-------|-----------------|-------------------------|
| Single-Family     | 5,560 | 20,473,955      | 3,682                   |
| Two-Family        | 892   | 3,492,902       | 3,916                   |
| Three-Family      | 163   | 812,524         | 4,985                   |
| Total             | 6,615 | 24,779,381      | 3,746                   |

Single-Family Average:  $20,473,955 \text{ SF} / 5,560 = 3,682 \text{ SF}$

#### 1 Equivalent Residential Unit (ERU) = 3,682 SF

Single-Family House = 1 ERU

2-Family House  $3,492,902 / 3,682 = 949 \text{ ERUs Total}$

$3,916 / 3,682 = 1.06 \text{ ERU}$

Average 2-Family = 1.06 ERU

3-Family House  $812,524 / 3,682 = 221 \text{ ERUs Total}$

$4,985 / 3,682 = 1.35 \text{ ERU}$

Average 3-Family = 1.35 ERU

Larger Residential and Non-Residential properties = 39,829,139 SF Impervious

$39,829,139 / 3,682 = 10,817 \text{ ERUs}$

Area of Impervious for property / 3,682 = # ERUs

Total Number of ERU's:

$5,560 + 949 + 221 + 10,817 = 17,547 \text{ ERUs (Total)}$

## Calculate the Rate – Fee per ERU

Assume Total Annual Revenue = \$2 Million

Undeveloped and Lightly Developed Properties = 1,332 Parcels with 2% of the impervious area and 35% of the pervious area. Properties have less than 3,682 sf impervious area and are not 1-3 Family houses.

Assume that fee revenue from pervious area is 10% and undeveloped parcels represent 35% of the pervious area = 3.5% of total revenue or \$70,000

Total Revenue from undeveloped properties including ERU and pervious charge = \$29,000 (ERU Fees) + \$52,813 (Pervious Fees) = \$81,813 or 4% of total revenue

Revenue from Impervious = 96.5% = \$1,930,000

$\$1,930,000 / 17,547 \text{ ERUs} = \$110 \text{ per ERU}$

Fee for 10 acres of undeveloped pervious area = 1 ERU = \$110

Fee for undeveloped properties less than 10 acres = (Pervious Area / 10 Acres) x \$110

## Sample Bills – Residential

Single-Family: 1 ERU x \$110 = \$110

2- Family: 1.06 ERU x \$110 = \$117

3- Family: 1.35 ERU x \$110 = \$149

## Sample Bills – Non Residential

Clarion Hotel 190,319 SF Impervious / 3,682 SF = 51.7 ERUs

$51.7 \times \$110 = \$5,687$

Coopers Corner 16,550 SF Impervious / 3,682 SF = 4.5 ERUs

$4.5 \times \$110 = \$495$

|                                  |   |
|----------------------------------|---|
| <u>Cooley-Dickinson Hospital</u> | 761,289 SF Impervious / 3,682 SF = 206.8 ERUs<br>206.8 x \$110 = \$22,748 |
| <u>Lia Toyota</u>                | 233,375 SF Impervious / 3,682 SF = 63.4 ERUs<br>63.4 x \$110 = \$6,974    |
| <u>Walmart</u>                   | 423,020 SF Impervious / 3,682 SF = 114.9 ERUs<br>114.9 x \$110 = \$12,639 |
| <u>Paradise Copies</u>           | 11,853 SF Impervious / 3,682 SF = 3.2 ERUs<br>3.2 x \$110 = \$352         |
| <u>Undeveloped (1 acre)</u>      | 43,560 SF Pervious / 435,600 SF = 0.1<br>0.1 x \$110 = \$11               |
| <u>Undeveloped (50 acres)</u>    | 2,178,000 SF Pervious / 435,600 SF = 5<br>5 x \$110 = \$550               |

City Properties and City, State and Federal Roadways Excluded From Stormwater Billing

| Owner                      | Property Description                     | Parcel ID   | Total Area (sf) | Impervious (sf) | Street           |
|----------------------------|--|-------------|-----------------|-----------------|------------------|
| <b>Municipal Buildings</b> |  |             |                 |                 |                  |
| NORTHAMPTON, CITY OF       | Academy of Music/Pulaski Park            | 31D-166-001 | 75,487          | 39,610          | 274 MAIN ST      |
| NORTHAMPTON, CITY OF       | City Hall                                | 31D-163-001 | 25,405          | 19,163          | 210 MAIN ST      |
| NORTHAMPTON, CITY OF       | Florence Community Center                | 23A-145-001 | 94,473          | 57,037          | 140 PINE ST      |
| NORTHAMPTON, CITY OF       | Florence Fire Station                    | 23A-063-001 | 25,743          | 20,398          | 69 MAPLE ST      |
| NORTHAMPTON, CITY OF       | Forbes Library                           | 31D-096-001 | 151,369         | 87,331          | WEST ST          |
| NORTHAMPTON, CITY OF       | James House                              | 31B-311-001 | 15,271          | 9,813           | 42 GOTHIC ST     |
| NORTHAMPTON, CITY OF       | Lilly Library                            | 17C-278-001 | 26,880          | 7,421           | 19 MEADOW ST     |
| NORTHAMPTON, CITY OF       | Memorial Hall                            | 31D-165-001 | 23,728          | 16,036          | 240 MAIN ST      |
| NORTHAMPTON, CITY OF       | Northampton Fire Station                 | 24B-086-001 | 82,710          | 44,468          | 26 CARLON DR     |
| NORTHAMPTON, CITY OF       | Peoples Institute                        | 31B-261-001 | 29,663          | 12,608          | 38 GOTHIC ST     |
| NORTHAMPTON, CITY OF       | Police Department                        | 31B-271-001 | 15,039          | 15,039          | CENTER ST        |
| NORTHAMPTON, CITY OF       | Police Department                        | 31B-282-001 | 10,021          | 9,847           | 29 CENTER ST     |
| NORTHAMPTON, CITY OF       | Public Works Garage/Transfer Station     | 23B-014-001 | 469,209         | 314,205         | 125 LOCUST ST    |
| NORTHAMPTON, CITY OF       | Recreation Department Building/Survival  | 24C-013-001 | 42,668          | 25,612          | 265 PROSPECT ST  |
| <b>Schools</b>             |  |             |                 |                 |                  |
| NORTHAMPTON, CITY OF       | Feiker School                            | 30B-022-001 | 43,383          | 23,022          | 221 RIVERSIDE DR |
| NORTHAMPTON, CITY OF       | Forestry Land-Smith School               | 11-002-001  | 7,695,649       | 65,469          | HAYDENVILLE RD   |
| NORTHAMPTON, CITY OF       | Jackson St School                        | 18C-112-001 | 155,811         | 51,425          | 174 JACKSON ST   |
| NORTHAMPTON, CITY OF       | Jackson St School                        | 24A-040-001 | 5,755           | 136             | BLACKBERRY LANE  |
| NORTHAMPTON, CITY OF       | Jackson St School                        | 24A-041-001 | 135,692         | 28,586          | JACKSON ST       |
| NORTHAMPTON, CITY OF       | Jackson St School                        | 24A-042-001 | 321,987         | 149,485         | 120 JACKSON ST   |
| NORTHAMPTON, CITY OF       | JFK Middle School                        | 16B-003-001 | 943,475         | 372,604         | 100 BRIDGE RD    |
| NORTHAMPTON, CITY OF       | Leeds School                             | 10B-094-001 | 203,380         | 103,683         | FLORENCE ST      |
| NORTHAMPTON, CITY OF       | Leeds School                             | 11C-059-001 | 218,248         | 69,115          | FLORENCE ST      |
| NORTHAMPTON, CITY OF       | Northampton High School                  | 24C-042-001 | 1,134,934       | 398,788         | ELM ST           |
| NORTHAMPTON, CITY OF       | Northampton High School                  | 30B-115-001 | 85,580          | 8,122           | FEDERAL ST       |
| NORTHAMPTON, CITY OF       | Northampton High School                  | 31A-104-001 | 9,516           | 7               | 45 FEDERAL ST    |
| NORTHAMPTON, CITY OF       | Ryan Road School                         | 29-104-001  | 811,813         | 194,058         | 498 RYAN RD      |
| NORTHAMPTON, CITY OF       | Smith Vocational and Agricultural High S | 23B-047-001 | 3,163,672       | 584,025         | 80 LOCUST ST     |
| NORTHAMPTON, CITY OF       | South St School/Northampton Communi      | 38B-032-001 | 49,073          | 20,193          | SOUTH ST         |
| NORTHAMPTON, CITY OF       | Vernon Street School                     | 31A-112-001 | 54,121          | 33,328          | VERNON ST        |
| <b>DPW</b>                 |  |             |                 |                 |                  |
| NORTHAMPTON, CITY OF       | Bridge Street Cemetery                   | 25C-260-001 | 817,021         | 126,258         | BRIDGE ST        |
| NORTHAMPTON, CITY OF       | Cemetery-DPW                             | 12C-010-001 | 1,338,809       | 188,153         | NORTH MAPLE ST   |

**City of Northampton  
City Properties and City, State and Federal Roadways Excluded From Stormwater Billing**

|                      |                                       |             |           |           |                        |
|----------------------|---------------------------------------|-------------|-----------|-----------|------------------------|
| NORTHAMPTON, CITY OF | Cemetery-DPW                          | 23A-006-001 | 93,371    | 20,514    | PARK ST                |
| NORTHAMPTON, CITY OF | Flood Control System                  | 31D-238-001 | 164,330   | 16,717    | WEST ST                |
| NORTHAMPTON, CITY OF | Flood Control System                  | 32C-323-001 | 511,590   | 34,043    | EASTERN AVE            |
| NORTHAMPTON, CITY OF | Flood Control System                  | 38B-003-001 | 126,014   | 2,243     | WEST ST                |
| NORTHAMPTON, CITY OF | Flood Control System                  | 38B-053-001 | 792,722   | 11,283    | TEXAS RD               |
| NORTHAMPTON, CITY OF | Flood Control System                  | 38C-016-001 | 428,293   | 13,371    | EARLE ST               |
| NORTHAMPTON, CITY OF | Flood Control System                  | 39A-038-001 | 49,631    | 2,179     | MOUNT TOM RD           |
| NORTHAMPTON, CITY OF | Flood Control System                  | 39A-069-001 | 15,843    | 950       | MOUNT TOM RD           |
| NORTHAMPTON, CITY OF | Landfill                              | 42-079-001  | 2,574,966 | 490,194   | GLENDALE RD            |
| NORTHAMPTON, CITY OF | Landfill                              | 42-089-001  | 2,335,164 | 1,247,248 | 170 GLENDALE RD        |
| NORTHAMPTON, CITY OF | Verona St Landfill                    | 17D-071-001 | 178,056   | 53        | GARFIELD AVE           |
| NORTHAMPTON, CITY OF | Wastewater System                     | 12C-125-001 | 1,120     | <Null>    | 44 RICK DR             |
| NORTHAMPTON, CITY OF | Wastewater System                     | 36-198-001  | 3,330     | 3         | BURTS PIT RD           |
| NORTHAMPTON, CITY OF | Wastewater System                     | 46-063-001  | 112,238   | 29        | MOUNT TOM RD           |
| NORTHAMPTON, CITY OF | Wastewater System                     | 53-006-001  | 8,423     | 1,575     | MOUNT TOM RD           |
| NORTHAMPTON, CITY OF | Wastewater System Treatment Plant/Flo | 39A-039-001 | 713,704   | 194,472   | HOCKANUM RD            |
| NORTHAMPTON, CITY OF | Water Department                      | 06-060-001  | 27,506    | 8,416     | HAYDENVILLE RD         |
| NORTHAMPTON, CITY OF | Water Department                      | 10-006-001  | 2,443,726 | 13,511    | RESERVOIR RD           |
| NORTHAMPTON, CITY OF | Water Department                      | 10B-059-001 | 15,130    | 2,084     | 6 WATER ST             |
| NORTHAMPTON, CITY OF | Water Department                      | 10B-085-001 | 40,884    | 3,431     | 243 MAIN ST            |
| NORTHAMPTON, CITY OF | Water Department                      | 14-005-001  | 3,739,279 | 862       | CHESTERFIELD RD        |
| NORTHAMPTON, CITY OF | Water Department                      | 14-010-001  | 1,012,689 | 413       | CHESTERFIELD RD        |
| NORTHAMPTON, CITY OF | Water Department                      | 14-011-001  | 5,998,652 | 3,111     | CHESTERFIELD RD        |
| NORTHAMPTON, CITY OF | Water Department                      | 14-012-001  | 4,618,510 | 2,999     | CHESTERFIELD RD        |
| NORTHAMPTON, CITY OF | Water Department                      | 15-001-001  | 3,105,915 | 24,490    | RESERVOIR RD           |
| NORTHAMPTON, CITY OF | Water Department                      | 22D-001-001 | 616,697   | 34,841    | 88 SPRING ST EXTENSION |
| NORTHAMPTON, CITY OF | Water Department                      | 24D-002-001 | 62,620    | 47,693    | 237 PROSPECT ST        |
| NORTHAMPTON, CITY OF | Water Department                      | 29-037-001  | 347,269   | 7,666     | 54 CLARK ST            |
| NORTHAMPTON, CITY OF | Water Department                      | 35-255-001  | 25,593    | 5,373     | TURKEY HILL RD         |

**Recreation**

|                      |                                |             |         |         |                  |
|----------------------|--------------------------------|-------------|---------|---------|------------------|
| NORTHAMPTON, CITY OF | Agnes Fox Playground           | 24D-120-001 | 69,522  | 6,780   | STATE ST         |
| NORTHAMPTON, CITY OF | Arcanum Field                  | 12C-019-001 | 373,901 | 65,300  | NORTH MAPLE ST   |
| NORTHAMPTON, CITY OF | Bridge Street School           | 32A-063-001 | 94,191  | 77,693  | BRIDGE ST        |
| NORTHAMPTON, CITY OF | Community Garden               | 38A-088-001 | 353,325 | 20,044  | BURST PIT RD     |
| NORTHAMPTON, CITY OF | Eller brook Field              | 38A-030-001 | 673,898 | 40,359  | 50 BURST PIT RD  |
| NORTHAMPTON, CITY OF | Halligan-Daley Historical Park | 38A-058-001 | 18,001  | <Null>  | PRINCE ST LOT B1 |
| NORTHAMPTON, CITY OF | Lampron Memorial Park          | 32A-246-001 | 50,925  | 5,206   | BRIDGE ST        |
| NORTHAMPTON, CITY OF | Maines Field                   | 23C-031-001 | 853,643 | 112,715 | RIVERSIDE DR     |
| NORTHAMPTON, CITY OF | Nagle Walkway                  | 32C-333-001 | 31,354  | 10,696  | PLEASANT ST      |
| NORTHAMPTON, CITY OF | Nagle Walkway                  | 32C-335-001 | 56,927  | 45,494  | 160 PLEASANT ST  |

City of Northampton  
 City Properties and City, State and Federal Roadways Excluded From Stormwater Billing

|                              |                  |             |         |        |                   |
|------------------------------|------------------|-------------|---------|--------|-------------------|
| NORTHAMPTON, CITY OF         | Park/Recreation  | 42 -166-001 | 23,911  | 77     | WESTHAMPTON RD    |
| NORTHAMPTON, CITY OF         | Park/Recreation  | 10D-022-001 | 57,594  | 2,382  | FLORENCE ST       |
| NORTHAMPTON, CITY OF         | Park/Recreation  | 16B-041-001 | 52,677  | 501    | NORTH MAIN ST     |
| NORTHAMPTON, CITY OF         | Park/Recreation  | 23A-153-001 | 2,474   | <Null> | PINE ST           |
| NORTHAMPTON RECREATION DEPT. | Sheldon Field    | 25C-084-001 | 624,726 | 64,605 | BRIDGE ST         |
| NORTHAMPTON, CITY OF         | Trinity Row Park | 23A-109-001 | 23,028  | 418    | MAIN ST           |
| NORTHAMPTON, CITY OF         | Veteran's Field  | 31D-170-001 | 65,629  | 5,608  | SOUTH ST          |
| NORTHAMPTON, CITY OF         | Veteran's Field  | 31D-171-001 | 320,917 | 38,072 | 90 WEST ST        |
| NORTHAMPTON, CITY OF         | Veteran's Field  | 31D-173-001 | 17,324  | <Null> | FORT HILL TERRACE |

**Housing Authority**

|                                     |                               |             |         |         |                    |
|-------------------------------------|-------------------------------|-------------|---------|---------|--------------------|
| NORTHAMPTON HOUSING AUTHORITY       | Florence Heights              | 29 -001-001 | 240,804 | 108,110 | FLORENCE RD        |
| NORTHAMPTON HOUSING AUTHORITY       | Forsander Apartments          | 17C-129-001 | 132,771 | 51,622  | HIGH ST            |
| NORTHAMPTON HOUSING AUTHORITY       | Hampshire Heights             | 18D-038-001 | 436,861 | 138,569 | 241 JACKSON ST     |
| NORTHAMPTON HOUSING AUTHORITY       | McDonald House                | 31D-226-001 | 57,786  | 39,414  | 49 OLD SOUTH ST    |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 22B-035-001 | 5,888   | 929     | 18 CORTICELLI ST   |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 22B-105-001 | 6,882   | 1,709   | 145 SPRING ST      |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 22B-106-001 | 7,992   | 1,493   | 151 SPRING ST      |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 22B-107-001 | 8,541   | 1,221   | 163 SPRING ST      |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 23C-046-001 | 27,017  | 1,850   | 28 WILLOW ST       |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 24D-212-001 | 58,848  | 20,819  | 256 STATE ST       |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 29 -287-001 | 12,392  | 1,814   | 36 PENCASAL DR     |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 30D-016-001 | 74,907  | 1,302   | 278 BURST PIT RD   |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 32A-111-001 | 4,545   | 3,103   | 66 MARKET ST       |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 32A-180-001 | 29,839  | 15,847  | 96 BRIDGE ST       |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 38A-049-001 | 72,874  | 1,322   | 23 LAUREL ST       |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 38C-009-001 | 49,600  | 17,563  | 122 GROVE ST       |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 38C-028-001 | 16,533  | 4,792   | 319 SOUTH ST       |
| NORTHAMPTON HOUSING AUTHORITY       | Northampton Housing Authority | 39A-075-001 | 98,518  | 50,553  | FRUIT ST           |
| NORTHAMPTON HOUSING AUTHORITY       | Salvo House & Senior Center   | 39A-001-001 | 231,896 | 82,489  | 67&81 CONZ ST      |
| NORTHAMPTON HOUSING AUTHORITY       | Tobin Manor                   | 23A-039-001 | 65,215  | 40,686  | 56 MAPLE ST        |
| PIONEER VALLEY HABITAT FOR HUMANITI | Garfield Ave Extension        | 17D-083-001 | 3,082   | <Null>  | GARFIELD AVE LOT G |

**Conservation**

|                      |                   |             |            |         |                    |
|----------------------|-------------------|-------------|------------|---------|--------------------|
| NORTHAMPTON, CITY OF | Conservation Land | 07 -035-001 | 22,310,709 | 11,975  | NORTH FARMS RD     |
| NORTHAMPTON, CITY OF | Conservation Land | 22 -007-001 | 13,387,295 | 217     | SAW MILL HILL      |
| NORTHAMPTON, CITY OF | Conservation Land | 34 -002-001 | 10,965,895 | 331,319 | TURKEY HILL RD     |
| NORTHAMPTON, CITY OF | Conservation Land | 10D-001-001 | 4,823,390  | 484     | CHESTERFIELD RD    |
| NORTHAMPTON, CITY OF | Conservation Land | 06 -013-001 | 4,296,847  | <Null>  | 493 HAYDENVILLE RD |
| NORTHAMPTON, CITY OF | Conservation Land | 20 -003-001 | 3,956,295  | 7,536   | CHESTERFIELD RD    |

## City Properties and City, State and Federal Roadways Excluded From Stormwater Billing

|                                |                   |             |           |        |                    |
|--------------------------------|-------------------|-------------|-----------|--------|--------------------|
| NORTHAMPTON, CITY OF           | Conservation Land | 19 -010-001 | 3,889,877 | 110    | ELWELLS ISLAND     |
| NORTHAMPTON, CITY OF           | Conservation Land | 45 -031-001 | 2,290,659 | 27,782 | OLD SPRINGFIELD RD |
| NORTHAMPTON CONSERVATION COMM. | Conservation Land | 03 -022-001 | 2,253,483 | <Null> | COLES MEADOW RD    |
| NORTHAMPTON, CITY OF           | Conservation Land | 33 -027-001 | 2,103,207 | <Null> | RAINBOW RD         |
| NORTHAMPTON, CITY OF           | Conservation Land | 21 -002-001 | 1,984,006 | <Null> | SYLVESTER RD       |
| NORTHAMPTON, CITY OF           | Conservation Land | 02 -014-001 | 1,743,598 | <Null> | COLES MEADOW RD    |
| NORTHAMPTON, CITY OF           | Conservation Land | 19 -001-001 | 1,681,825 | 836    | DAMON RD           |
| NORTHAMPTON, CITY OF           | Conservation Land | 41 -066-001 | 1,589,734 | 527    | RIDGE VIEW RD      |
| NORTHAMPTON, CITY OF           | Conservation Land | 15 -019-001 | 1,396,078 | <Null> | SPRING ST          |
| NORTHAMPTON, CITY OF           | Conservation Land | 28 -055-001 | 1,385,716 | 7,042  | SYLVESTER RD       |
| NORTHAMPTON, CITY OF           | Conservation Land | 45 -032-001 | 1,159,641 | 2,769  | OLD SPRINGFIELD RD |
| NORTHAMPTON, CITY OF           | Conservation Land | 24B-042-001 | 1,130,453 | 12,490 | BARRETT ST         |
| NORTHAMPTON, CITY OF           | Conservation Land | 05 -006-001 | 1,108,158 | <Null> | HAYDENVILLE RD     |
| NORTHAMPTON, CITY OF           | Conservation Land | 37 -120-001 | 852,291   | 1,806  | ICE POND DR        |
| NORTHAMPTON, CITY OF           | Conservation Land | 36 -336-001 | 782,661   | 226    | CARDINAL WAY       |
| NORTHAMPTON, CITY OF           | Conservation Land | 15 -018-001 | 700,342   | <Null> | ROBERTS HILL       |
| NORTHAMPTON, CITY OF           | Conservation Land | 45 -018-001 | 658,575   | 7,951  | CURTIS NOOK RD     |
| NORTHAMPTON, CITY OF           | Conservation Land | 05 -054-001 | 546,795   | <Null> | KENNEDY RD         |
| NORTHAMPTON, CITY OF           | Conservation Land | 11 -006-001 | 497,842   | <Null> | BRIDGE RD          |
| NORTHAMPTON, CITY OF           | Conservation Land | 39 -046-001 | 428,354   | 489    | POTASH RD          |
| NORTHAMPTON, CITY OF           | Conservation Land | 29 -484-001 | 426,829   | 648    | ELLINGTON RD       |
| NORTHAMPTON, CITY OF           | Conservation Land | 36 -335-001 | 419,638   | 36,830 | CARDINAL WAY       |
| NORTHAMPTON, CITY OF           | Conservation Land | 22 -005-001 | 364,985   | 29     | SAW MILL HILL      |
| NORTHAMPTON, CITY OF           | Conservation Land | 29 -550-001 | 312,320   | 98     | FLORENCE RD        |
| NORTHAMPTON, CITY OF           | Conservation Land | 39 -028-001 | 288,728   | 35,697 | 334 HOCKANUM RD    |
| NORTHAMPTON, CITY OF           | Conservation Land | 12C-093-001 | 258,036   | 1,043  | NORTH FARMS RD     |
| NORTHAMPTON, CITY OF           | Conservation Land | 13 -051-001 | 244,904   | <Null> | HATFIELD LINE      |
| NORTHAMPTON, CITY OF           | Conservation Land | 22D-094-001 | 222,903   | <Null> | RYAN RD            |
| NORTHAMPTON, CITY OF           | Conservation Land | 11 -009-001 | 204,637   | 15     | MORNINGSIDE DR     |
| NORTHAMPTON CONSERVATION COMM. | Conservation Land | 30C-048-001 | 195,425   | 7      | FLORENCE RD        |
| NORTHAMPTON, CITY OF           | Conservation Land | 30D-002-001 | 185,676   | <Null> | BURST PIT RD       |
| NORTHAMPTON, CITY OF           | Conservation Land | 17B-029-001 | 152,382   | <Null> | BRIDGE RD          |
| NORTHAMPTON, CITY OF           | Conservation Land | 45 -038-001 | 151,802   | 17,842 | OLD SPRINGFIELD RD |
| NORTHAMPTON CONSERVATION COMM. | Conservation Land | 32C-352-001 | 139,901   | 141    | MONTVIEW AVE       |
| NORTHAMPTON, CITY OF           | Conservation Land | 45 -016-001 | 130,103   | <Null> | PYNCHON MEADOW RD  |
| NORTHAMPTON, CITY OF           | Conservation Land | 32A-252-001 | 127,431   | <Null> | POWEROY TERRACE    |
| NORTHAMPTON, CITY OF           | Conservation Land | 37 -029-001 | 117,995   | <Null> | ICE POND DR        |
| NORTHAMPTON CONSERVATION COMM. | Conservation Land | 30A-092-001 | 82,485    | 742    | RIVERSIDE DR       |
| NORTHAMPTON, CITY OF           | Conservation Land | 39 -018-001 | 73,257    | 355    | HOCKANUM RD        |
| NORTHAMPTON, CITY OF           | Conservation Land | 24D-334-001 | 67,208    | <Null> | CRESCENT ST        |
| NORTHAMPTON, CITY OF           | Conservation Land | 10D-048-001 | 61,559    | 4,404  | MAIN ST            |
| NORTHAMPTON, CITY OF           | Conservation Land | 38B-316-001 | 60,821    | <Null> | WEST ST            |

City Properties and City, State and Federal Roadways Excluded From Stormwater Billing

|                                |                   |             |        |        |                   |
|--------------------------------|-------------------|-------------|--------|--------|-------------------|
| NORTHAMPTON, CITY OF           | Conservation Land | 18D-052-001 | 54,577 | 2,005  | DAMON RD          |
| NORTHAMPTON CONSERVATION COMM. | Conservation Land | 44 -039-001 | 44,233 | <Null> | EASTHAMPTON RD    |
| NORTHAMPTON, CITY OF           | Conservation Land | 39 -055-001 | 26,090 | 15,307 | HOCKANUM RD       |
| NORTHAMPTON, CITY OF           | Conservation Land | 36 -334-001 | 23,981 | 4,532  | CARDINAL WAY      |
| NORTHAMPTON, CITY OF           | Conservation Land | 23C-090-001 | 22,974 | 1,129  | RIVERSIDE DR      |
| NORTHAMPTON, CITY OF           | Conservation Land | 29 -414-001 | 18,103 | 164    | 137 SANDY HILL RD |
| NORTHAMPTON, CITY OF           | Conservation Land | 29 -418-001 | 11,969 | 346    | 74 BROOKWOOD DR   |
| NORTHAMPTON, CITY OF           | Conservation Land | 30B-069-001 | 11,350 | <Null> | RIVERSIDE DR      |

Parking Commission

|                      |             |             |         |         |              |
|----------------------|-------------|-------------|---------|---------|--------------|
| NORTHAMPTON, CITY OF | Parking Lot | 32C-024-001 | 130,747 | 124,470 | ARMORY ST    |
| NORTHAMPTON, CITY OF | Parking Lot | 32C-345-001 | 91,611  | 71,322  | HAMPTON AVE  |
| NORTHAMPTON, CITY OF | Parking Lot | 31D-167-001 | 61,387  | 55,944  | 212 MAIN ST  |
| NORTHAMPTON, CITY OF | Parking Lot | 31D-246-001 | 60,846  | 49,847  | OLD SOUTH ST |
| NORTHAMPTON, CITY OF | Parking Lot | 32A-149-001 | 34,478  | 34,478  | STRONG AVE   |
| NORTHAMPTON, CITY OF | Parking Lot | 31D-237-001 | 31,409  | 30,584  | OLD SOUTH ST |
| NORTHAMPTON, CITY OF | Parking Lot | 31B-308-001 | 30,768  | 26,370  | GOTHIC ST    |
| NORTHAMPTON, CITY OF | Parking Lot | 31D-247-001 | 29,024  | 29,024  | MASONIC ST   |
| NORTHAMPTON, CITY OF | Parking Lot | 31D-153-001 | 3,277   | 2,552   | OLD SOUTH ST |

Miscellaneous

|                      |            |             |         |        |                 |
|----------------------|------------|-------------|---------|--------|-----------------|
| NORTHAMPTON, CITY OF | Vacant Lot | 49 -003-001 | 728,340 | 33,588 | 238 GLENDALE RD |
| NORTHAMPTON, CITY OF | Vacant Lot | 42 -165-001 | 527,388 | 25     | WESTHAMPTON RD  |
| NORTHAMPTON, CITY OF | Vacant Lot | 17C-001-001 | 229,123 | 200    | OAK ST          |
| NORTHAMPTON, CITY OF | Vacant Lot | 42 -167-001 | 69,131  | 498    | WESTHAMPTON RD  |
| NORTHAMPTON, CITY OF | Vacant Lot | 38C-011-001 | 39,662  | <Null> | GROVE ST LOT B5 |
| NORTHAMPTON, CITY OF | Vacant Lot | 25A-193-001 | 35,172  | 1,190  | INDUSTRIAL DR   |
| NORTHAMPTON, CITY OF | Vacant Lot | 38A-066-001 | 22,651  | 767    | EARLE ST LOT B4 |
| NORTHAMPTON, CITY OF | Vacant Lot | 32C-307-001 | 15,461  | 2,700  | PLEASANT ST     |
| NORTHAMPTON, CITY OF | Vacant Lot | 38C-062-001 | 7,094   | <Null> | SOUTH ST        |
| NORTHAMPTON, CITY OF | Vacant Lot | 10B-112-001 | 6,274   | 0      | MAIN ST, LEEDS  |
| NORTHAMPTON, CITY OF | Vacant Lot | 11A-011-001 | 5,352   | <Null> | EVERGREEN RD    |
| NORTHAMPTON, CITY OF | Vacant Lot | 11A-002-001 | 4,876   | <Null> | EVERGREEN RD    |
| NORTHAMPTON, CITY OF | Vacant Lot | 24D-100-001 | 2,255   | 578    | WOODMONT RD     |
| NORTHAMPTON, CITY OF | Vacant Lot | 18D-057-001 | 2,201   | 1,262  | DAMON RD        |

City Properties and City, State and Federal Roadways Excluded From Stormwater Billing

|   | Total Area  | Impervious  |
|---|-------------|-------------|
| Sub Total – City Properties   | 148,440,104 | 7,366,260   |
| Sub Total –<br>City, State, and Federal<br>Roadways, Sidewalks, and<br>Right of Ways ** | 61,078,350  | 30,657,418  |
| Total Exempt Property   | 209,518,454 | 38,023,678  |
| City Total Gross Area   | 979,625,289 | 103,285,537 |

\*\* Includes City roadways, sidewalks, and right of ways,  
State roadways and right of ways (portions of Routes 5, 9 & 10),  
Federal roadways and right of ways (I-91)

# Funding Stormwater Programs

EPA 901-F-09-004

April 2009

## Executive Summary

This document is intended to assist local stormwater managers to alleviate the significant expense of construction, operation and maintenance of a municipal separate storm sewer system (MS4). The costs of stormwater programs, increased by regulatory requirements (stormwater Phase I or Phase II), flooding concerns, water quality issues (including total maximum daily loads, or TMDLs) and population growth, may be subsidized through a stormwater utility or various other methods detailed in this document.

Stormwater management can be costly, but it is a good investment. There are new stormwater management techniques, referred to as low impact development (LID), that infiltrate, evapotranspire and reuse stormwater, thereby, *preventing* polluted runoff from happening. This helps to reduce the high costs of cleaning up the water quality impairments from the polluted runoff. Additional benefits from these techniques include increased ground water recharge, flood control, and healthy aquatic ecosystems through maintenance of base flow for streams. LID techniques need to be sited and designed carefully, and used in conjunction with traditional stormwater management techniques.

This fact sheet includes information on various stormwater funding mechanisms and types of stormwater utilities; it also describes how to create a stormwater utility and provides a list of resources.

## New England Case Studies

More than 800 communities or districts across the country have adopted a stormwater utility to help fund the costs of stormwater programs, including the costs of regulatory compliance, planning, maintenance, capital improvements, and repair or replacement of infrastructure. Examples of utilities from two New England cities are discussed below.

### South Burlington, Vermont

<http://www.sburlstormwater.com>

The South Burlington Stormwater Utility is the first of its kind in Vermont. Six streams in and around South Burlington are impaired from stormwater, resulting in water pollution, erosion, flooding, and unstable streambanks. The utility was established in 2006 to help mitigate the increasingly complex issues associated with stormwater management, including failing septic systems in older developments and phosphorus runoff polluting Lake Champlain, which is the primary source of drinking water for the Burlington area.

The municipal Stormwater Services Division administers the utility, which pays for system maintenance, capital project construction, enforcement, and customer outreach and assistance.



*An example of a capital project construction (a gravel wetland) that was paid for by the stormwater utility in South Burlington, Vermont.*

User fees are based on the amount of impervious area on a property. The monthly fee per equivalent residential unit (ERU) was set using a scientific process. This process determined that a typical single-family home in South Burlington had 2,700 square feet of impervious surface. A single-family home is assessed a fee of \$4.50 per month, whereas duplexes and triplexes are assessed fees of \$2.25 and \$1.50 per month, respectively. All other properties are assessed a fee depending on the amount of impervious surface. The utility funds a comprehensive program bringing in more than \$1 million annually.

### Cities in New England with Stormwater Utilities

- ◆ Chicopee, Massachusetts
- ◆ Lewiston, Maine
- ◆ Newton, Massachusetts
- ◆ Reading, Massachusetts
- ◆ South Burlington, Vermont

(as of December 2008)

## Funding Stormwater Programs

### **Newton, Massachusetts**

<http://www.ci.newton.ma.us/dpw/engin/stormwater.htm>

A Stormwater Drain Fee was established in 2006. The utility enables the city to manage and upgrade stormwater infrastructure, protect nearby natural waterbodies (e.g., Charles River and Crystal Lake), provide technical assistance with stormwater management issues, and provide educational programs for residents and schools.

User fees are based on a flat rate. Residential properties are assessed a fee of \$6.25 per quarter, and all other properties are assessed a fee of \$37.50 per quarter. The Board of Aldermen debated using a different fee structure but found that the program's operating costs would triple if the city had to determine the rates on the basis of individual lot sizes.



*Two hydraulically connected bioretention cells paid for by the stormwater utility on Hammond Pond in Newton, Massachusetts*

## Stormwater Funding Mechanisms

The most common funding options for municipal stormwater programs are discussed below.

### **Service Fees (including stormwater utilities)**

Some communities include stormwater management costs within their water or sanitary sewer system budgets, often basing fees on metered water flow. However, a property's metered water flow usually bears no relationship to the stormwater runoff it generates. For example, the stormwater runoff from the impervious area of a shopping center's buildings and parking lots is significant, but its use of metered water is relatively small.

Stormwater fees, which are typically based on property type or area, provide for regulatory compliance and operation and maintenance costs, and are charged to both tax-paying and tax-exempt properties. The average quarterly fee for a single-family home is \$11, though some communities charge as little as \$2 or as much as \$40 per quarter to a single-family home.

### **Property Taxes/General Fund**

Many communities fund stormwater management through property taxes paid into their general funds, but in the competition for general fund dollars, stormwater management improvements are typically considered low priority unless the municipality is reacting to a recent major storm or regulatory action. This system is also not equitable, because the basis for determining property taxes, assessed property value, is irrelevant to the cost of stormwater management for that property. Additionally, tax-exempt properties, such as governmental properties, schools, colleges, and universities, do not support any of the cost of stormwater management, even though many of them are major contributors of stormwater runoff.

### **Special Assessment Districts or Regional Funding Mechanisms**

If a stormwater construction project benefits only a portion of a municipality, it can be funded by fees assessed only to those properties within that area, which is called a *special assessment district*. Separate stormwater utility districts can also be formed within a town or by bringing several towns together to form a district.

There might be some cases where regional or multiple-jurisdictional funding mechanisms would be useful. For example, if an impaired stream has a fairly small watershed, spanning parts of several municipalities, costs of stormwater implementation could be shared among the municipalities and the funding could be managed by an existing regional authority such as a soil and water conservation district. Funding could involve fees, as well as credits, for existing best management practices (BMPs) or retrofits. The regulatory authority could choose to issue conditions or a general permit for discharges in the watershed, especially if a watershed stormwater management plan has been prepared (with specific nonstructural and structural BMPs). Parcel owners, developers or permittees could be required to fulfill their requirements by implementing the watershed plan.

### **System Development Charges (SDCs)**

SDCs (also known as *connection fees* or *tie-in charges*) are one-time fees commonly charged to new customers connecting to a water or sanitary sewer system. In this way, new customers *buy into* the existing infrastructure, and/or the infrastructure expansion necessary to serve them. The amount of the new customer's SDC is typically based on an estimated water demand of the new customer. Municipalities could develop stormwater SDCs tied to the area of the customer's property.

### **Grants and Low-Interest Loans**

Stormwater management grants might be available for various types of projects on a state-by-state basis. Clean Water or Drinking Water State Revolving Fund (SRF) dollars could be used to fund development of a utility or related capital projects. State environmental programs could consider working with the legislature to set up a pool of funds for towns to help set up districts, which could then be repaid

once the fees are established. Connecticut directed its Department of Environmental Protection to use \$1 million of state grant funds that the legislature provided for wastewater facility construction to be used by three communities to develop stormwater utilities as pilot programs. The Maine Department of Environmental Protection has provided a small amount of grant money, to be matched by the community, to help establish stormwater utility districts. Stormwater projects that are not required as part of a National Pollution Discharge elimination system (NPDES) permit can be funded through the Clean Water Act section 319 nonpoint source grant program administered by states.

## Types of Stormwater Utilities

There are three basic methods that stormwater utilities use to calculate service fees. These are sometimes modified slightly to meet unique billing requirements. Impervious area is the most important factor influencing stormwater runoff and is therefore a major element in each method.

### Equivalent Residential Unit (ERU)

The ERU method (also known as the Equivalent Service Unit (ESU) method) is used by more than 80 percent of all stormwater utilities. It bills an amount proportional to the impervious area on a parcel, regardless of the parcel's total area. It is therefore based on the effect of a typical single-family residential (SFR) home's impervious area footprint. A representative sample of SFR parcels is reviewed to determine the impervious area of a typical SFR parcel. This amount is called one *ERU*. In most cases, all SFRs up to a defined maximum total area are billed a flat rate for one ERU. In some cases, several *tiers* of SFR flat rates are established on the basis of an analysis of SFR parcels within defined total area groups. A tiered SFR flat rate approach improves the equitability of the bills sent to homeowners. The impervious areas of non-SFR parcels are usually individually measured. Each non-SFR impervious area is divided by the impervious area of a typical SFR parcel to determine the number of ERUs to be billed to the parcel.

#### Advantages

The relationship (or nexus) between impervious area and stormwater impact is relatively easy to explain to the public—you pave, you pay. The number of billable ERUs can be determined by limiting the parcel area review to impervious area only. Because pervious area analysis is not required, this approach requires the least amount of time to determine the total number of billing units.

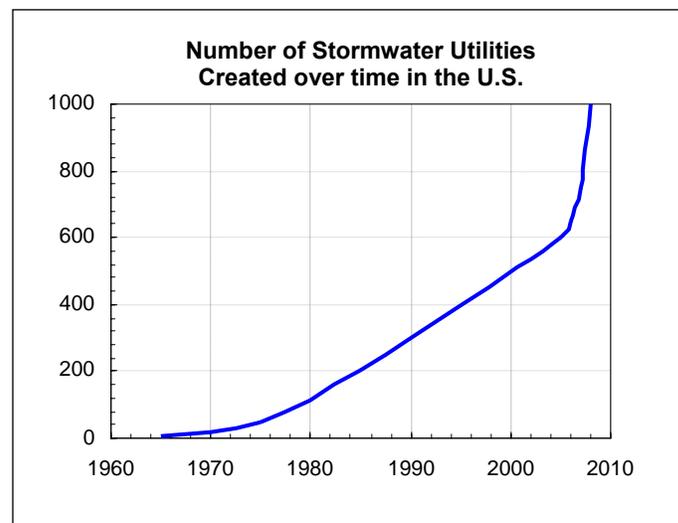
#### Disadvantages

Because the potential effect of stormwater runoff from the pervious area of a parcel is not reviewed, this method is sometimes considered to be less equitable than the Intensity of Development (ID) or Equivalent Hydraulic Area (EHA) methods (discussed below) because runoff-related expenses are recovered from a

smaller area base. This method could still be used to charge a fee to all parcels - pervious as well as impervious - to cover expenses, such as administration and regulatory compliance unrelated to impervious area.

### What is a stormwater utility?

A stormwater utility, operating much like an electric or water utility, may collect fees related to the control and treatment of stormwater that can be used to fund a municipal stormwater management program.



### Intensity of Development (ID)

This stormwater cost allocation system is based on the percentage of impervious area relative to an entire parcel's size. All parcels, including vacant/undeveloped parcels, are charged a fee. For developed parcels, fees are based on their *intensity of development*, which is defined as the percentage of impervious area of the parcel. Vacant or undeveloped parcels contribute to runoff and are assigned a lower fee. Rates are calculated for several ID categories and are billed at a sliding scale, as shown in the table below. For example, an SFR parcel, which is categorized as *moderate development*, would pay \$0.16/month/1,000 square foot (ft<sup>2</sup>) (or \$1.60 for a 10,000 ft<sup>2</sup> lot).

| Category (impervious percentage range) | Rate per month per 1,000 square feet of total served area (impervious plus pervious) |
|--|--|
| Vacant/Undeveloped (0%)                | \$0.08   |
| Light development (1% to 20%)          | \$0.12   |
| Moderate development (21% to 40%)      | \$0.16   |
| Heavy development (41% to 70%)         | \$0.24   |
| Very heavy development (71% to 100%)   | \$0.32   |

## Funding Stormwater Programs

### Advantages

The ID method accounts for stormwater from the pervious portion of parcels. Therefore, it can be more equitable than the ERU method. If a parcel's impervious area is increased slightly because of minor construction modification, it probably would not be bounced up into the next higher ID category. This reduces the time required for staff to maintain the billable unit master file.

### Disadvantages

The ID categories are broad, and parcels are not billed in direct proportion to their relative stormwater discharges. This method can be more difficult to implement than the ERU method because parcel pervious and impervious areas need to be reviewed. It is also more complicated to explain to customers than the ERU method. This method might also discourage urban infill and inadvertently encourage sprawl.

### Equivalent Hydraulic Area (EHA)

Parcels are billed on the basis of the stormwater runoff generated by their impervious and pervious areas, charging impervious area a much higher rate than the pervious area.

### Advantages

The EHA method accounts for flow from the pervious portion of parcels. Therefore, it might be more equitable than the ERU method. Like the ID method, it accounts for undeveloped/vacant parcels and allows them to be billed, but it is fairer than the ID method because parcels are billed on the basis of individual measurements of pervious and impervious areas.

### Disadvantages

Because pervious area analysis is required in addition to impervious area, this approach requires more time to determine the total number of billing units. It is also more complicated to explain to customers than the ERU method.

These are three basic methods that utilities can use to calculate fees, but it is becoming clear that municipalities will need to be creative to find what will work for their community. In San Mateo County in California vehicle registration fees were increased to address stormwater pollution issues associated with vehicles and transportation infrastructure.

## Creating a Stormwater Utility

The following are the typical steps involved in creating a stormwater utility.

### Develop a Feasibility Study

The first step is to develop a study that provides the community with enough information to decide if implementing the utility is sensible. The feasibility study will typically address preliminary revenue requirements (usually from

current stormwater budgets) and assess the billing area to determine the SFR billing rate, the service fee method to use and credits to provide, the preliminary rate charge for each ERU, and the responsible party for billing.

### Create a Billing System

If the municipality decides after the feasibility study to develop a stormwater utility, it will then collect user and parcel area data (such as ownership and impervious area for each parcel) and develop a system to bill property owners. The two most common stormwater billing systems are (1) adding a stormwater utility fee onto an existing water/sewer fee bill, or, (2) non-ad valorem assessments. Approximately 80 percent of stormwater utilities use the first approach because it is inexpensive and simple to add on to the existing billing system.



*An example of a public meeting.*

### Roll Out a Public Information Program

A strong public education program is critical throughout the stormwater utility development process. Many people are unaware of the increasing cost of stormwater management and the options to fund it. A well-funded stormwater program can help reduce flooding, improve drought conditions, create better fishing and recreation, and improve water quality. An organized public information and education effort, which typically involves the following components, is essential to the success of a stormwater utility:

- ◆ **Identify key users and groups.** Two potential groups to target include (1) properties that generate a significant amount of runoff and often receive high stormwater bills (i.e., shopping malls) and (2) tax-exempt properties (i.e., schools and churches) that do not contribute property taxes into the general fund (which has traditionally been the source of stormwater management funding).
- ◆ **Establish an advisory committee.** Include a cross-section of the community including representation from universities, businesses, non-profit organizations, churches, developers, and shopping center owners.
- ◆ **Create a stormwater utility website.** The website should post appropriate progress documents and develop a *frequently asked questions* page.

- ◆ **Prepare pamphlets and presentations.** Prepare a brochure and an electronic presentation describing the need for the stormwater utility, the rate method, and the projected rates.
- ◆ **Meet with key user groups and the media.** Give presentations to civic groups and the media, and schedule one-on-one meetings with customers projected to receive the highest bills.
- ◆ **Distribute information before the initial billing.** The stormwater utility brochure should be sent to all customers before billing. Include the customer's actual projected bill, if possible.

### Adopt an Ordinance

An ordinance will provide legal authority for establishing the utility. An example stormwater utility ordinance from Maine is at <http://www.maine.gov/spo/landuse/docs/publications.htm>

### Provide Credits/Exemptions

Credits or exemptions built into the ordinance can be used to provide incentives for certain practices or relief from utility fees to certain types of land uses. Credits should be clearly described and can include installation of approved BMPs such as retention/detention basins, rainspout disconnections or porous pavers, and educational programs for residents, businesses and municipal employees. Municipalities that calculate the utility using impervious area could offer an exemption to undeveloped (100 percent pervious) land.

### Implement the Utility

The first utility bill is the most important because many customers do not focus on the new stormwater fee until they actually receive their first bill. The municipality should notify customers of their estimated fee several months before billing begins. It should create a telephone hot line, e-mail service and website to address questions and concerns. In addition, the municipality should be prepared to address legal challenges to its stormwater fee. The municipality should be prepared to develop a process to update the billing unit data for an existing customer or to enter the data for a new customer.

## Barriers to Creating a Stormwater Utility

There are typically two barriers to creating a stormwater utility: legal and political.

### Legal Barriers

In EPA Region 1, all states provide legal authority to establish stormwater utilities. A summary of the current or proposed legal authority within EPA Region 1 states is presented below:

### ◆ Connecticut

In 2007, the Connecticut General Assembly authorized three towns (New Haven, New London, and Norwalk) to conduct pilot studies to explore the feasibility and framework of stormwater utilities.

### ◆ Maine

Stormwater utilities are authorized in the Maine Constitution, Article VIII, and Title 30-A Maine Revised Statutes Annotated §3001.

### ◆ Massachusetts

MGL Chapter 83, Section 1 was amended in 2006 to include the ability to establish stormwater utilities.

### ◆ New Hampshire

Manchester was given special authority to form a utility in 2007. All municipalities were given the authority to establish a stormwater utility in 2008 under amendments to RSA 149-I.

### ◆ Rhode Island

Chapter 45-61 of the Rhode Island Stormwater Management and Utility District Act of 2002.

### ◆ Vermont

In 2003, 24 V.S.A. Section 3501(6) gave cities the ability to establish *sewage disposal charges* for treatment and disposal of stormwater. Also, 24 V.S.A. 1264 and 4407 have been amended to encourage the formation of utilities.

### Political Barriers

It usually takes at least one *champion*, often the mayor or another senior local official, to create a stormwater utility, especially in the face of local political opposition. A public information program is needed to visually present the inadequacies of the community's current stormwater management program and the benefits from stormwater utilities in other communities to garner public support and offset opposition to the fee. It is important to explain the benefit of implementing a stormwater utility to the press, because opposition from local news outlets sometimes can turn public opinion against the utility, often by using inaccurate terms such as a *rain tax*. When clearly informed of the financial and environmental benefits (such as improved flood control, fishing, recreation, and enhancement of future drinking water supplies through increased recharge) of a stormwater utility, the community will be more likely to support its implementation.

## Additional Resources

This fact sheet is one of a series of four prepared by EPA Region 1. The others are listed below and are available on the EPA Region 1 website. <http://www.epa.gov/region1/npdes/stormwater>

## Funding Stormwater Programs

- ♦ *Managing Stormwater with Low Impact Development Practices: Addressing Barriers to LID*
- ♦ *Incorporating Low Impact Development Into Municipal Stormwater Programs*
- ♦ *Restoring Impaired Waters: Total Maximum Daily Loads (TMDLs) and Municipal Stormwater Programs*

Charles River Watershed Association. *Assessment of Stormwater Financing Mechanisms in New England*  
<http://www.crrwa.org/projects/stormwater/swutility.html>

Connecticut Department of Environmental Protection. *The 2004 Connecticut Stormwater Quality Manual*  
<http://www.ct.gov/dep/cwp/view.asp?a=2721&q=325704>

Connecticut Department of Environmental Protection, Stormwater Management.  
<http://www.ct.gov/dep/stormwater>

Green Infrastructure Approaches to Managing Wet Weather with Clean Water State Revolving Funds  
[http://www.epa.gov/OWM/cwfinance/cwsrf/green\\_if.pdf](http://www.epa.gov/OWM/cwfinance/cwsrf/green_if.pdf)

Indiana University-Purdue University Indianapolis. *An Internet Guide to Financing Stormwater Management*  
<http://stormwaterfinance.urbancenter.iupui.edu>

Maine Department of Environmental Protection. *Bureau of Land and Water Quality*  
<http://www.state.me.us/dep/blwq/docstand/stormwater/index.htm>

Massachusetts Department of Environmental Protection. *Water, Wastewater and Wetlands*  
<http://www.mass.gov/dep/water/wastewater/stormwat.htm>

National Association of Flood and Stormwater Management Agencies. *Guidance for Municipal Stormwater Funding*  
<http://www.nafsma.org>

Natural Resources Defense Council. *Funding and Gaining Support for Stormwater Programs*  
<http://www.nrdc.org/water/pollution/storm/chap4.asp>

New England Environmental Finance Center. *Stormwater Utility Fees: Considerations and Options*  
<http://efc.muskie.usm.maine.edu/docs/StormwaterUtilityFeeReport.pdf>

Pioneer Valley Commission. *How to Create a Stormwater Utility*  
[http://www.pvpc.org/resources/landuse/storm\\_util.pdf](http://www.pvpc.org/resources/landuse/storm_util.pdf)

Rhode Island Department of Environmental Management. *Office of Water Resources*  
<http://www.dem.ri.gov/programs/benviron/water/permits/ripdes/stwater/index.htm>

University of Maryland, Environmental Finance Center.  
<http://www.efc.umd.edu>

U.S. Environmental Protection Agency, Watershed Academy. *Catalog of Federal Funding Sources for Watershed Protection*  
<http://cfpub.epa.gov/fedfund>

U.S. Environmental Protection Agency, Watershed Academy. *NPDES Permits in New England*  
<http://www.epa.gov/region1/npdes/stormwater/administration.html>

U.S. Environmental Protection Agency, Watershed Academy. *NPDES Storm Water Program*  
<http://www.epa.gov/region1/npdes/stormwater/index.html>

Vermont Agency of Natural Resources. *The Vermont Stormwater Management Manual*  
[http://www.anr.state.vt.us/dec/waterq/stormwater/docs/sw\\_manual-vol1.pdf](http://www.anr.state.vt.us/dec/waterq/stormwater/docs/sw_manual-vol1.pdf)

Vermont Agency of Natural Resources, *Water Quality Division*  
<http://www.anr.state.vt.us/dec/waterq/stormwater.htm>

## Contacts

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[murphy.thelma@epa.gov](mailto:murphy.thelma@epa.gov)  
 617-918-1615

Rob Adler  
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 617-918-1396

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Vermont—James Pease  
[jim.pease@state.vt.us](mailto:jim.pease@state.vt.us)

**NOTE:** This document is not law or regulation; it provides recommendations and explanations that MS4s can consider in determining how to comply with requirements of the Clean Water Act and National Pollutant Discharge Elimination System permit requirements.

**General Disclaimer:** References in this fact sheet to any non-federal product, service, or enterprise do not constitute an endorsement or recommendation by the EPA.

**Information Disclaimer:** The information provided in this fact sheet is only intended to be general summary information to the public. It is not intended to take the place of written laws, regulations, permits, or EPA policies.

**Website Endorsement Disclaimer:** This fact sheet provides links to non-EPA websites which contain additional information that may be useful or interesting and are consistent with the intended purpose of this fact sheet. References in these websites to any specific commercial product, process, service, manufacturer, or company does not constitute its endorsement or recommendation by the EPA. The EPA is not responsible for the contents of non-EPA websites, and cannot attest to the accuracy of these websites.



## CITY OF NORTHAMPTON

**Mayor Mary Clare Higgins**

City Hall  
210 Main Street Room 12  
Northampton, MA 01060-3199  
(413) 587-1249 Fax: (413) 587-1275  
mayor@northamptonma.gov

March 10, 2011

Ms. Kate Renahan  
Office of the Regional Administrator  
EPA  
5 Post Office Square – Suite 100  
Mail Code: ORA01-1  
Boston, MA 02109-3912

**RE: FINANCIAL CONCERNS: Draft Massachusetts Interstate, Merrimack, and South Coastal Small MS4 General Permit**

Dear Ms. Renahan:

The City of Northampton (City) has reviewed the draft Massachusetts Interstate, Merrimack, and South Coastal Small MS4 General Permit (Draft Permit) for stormwater. The City has many concerns about the Draft permit that include financial and technical concerns about the wide ranging program requirements contained in the Draft Permit. This correspondence details the financial concerns the City has about this proposed Draft Permit. A separate letter from the City Department of Public Works will be submitted with technical comments.

To date the City has focused on complying with all requirements of the 2003 National Pollutant Discharge Elimination System (NPDES) Phase II stormwater permit. This work has included hiring a staff person to manage the NPDES permit compliance as well as spending in excess of \$100,000 annually on programmatic costs for permit activities including GIS mapping, street sweeping and catch basin cleaning. The City has also implemented various new programs, inspected a large number of outfalls, established and enforced new City Ordinances, and provided a wealth of public education information related to stormwater in the community.

Knowing that the NPDES permit requirements would be changing, the City proactively commissioned a \$179,000 stormwater system assessment and utility feasibility study with Camp Dresser & McKee (CDM). This study will present a 20-year capital improvement plan as well as cost estimates to comply with the Draft permit. This study is anticipated to be completed by the end of this fiscal year. Given the financial burdens on the City including several consecutive years of reduced state aid, rising City healthcare costs and many other competing needs such as public safety, school systems and other primary functions of City government it is clear that funding to comply with the Draft Permit is not available from the City General Fund. Like the vast majority of communities in Massachusetts, the City has no available revenue to take on new financial burdens like those required by the Draft Permit. EPA has suggested that communities consider implementing fee-based utility systems to raise revenue to meet these regulatory requirements, yet less than 5 stormwater utilities exist in the state at this time.

With the completion of the CDM report a public discussion will begin in this City about the need for a Stormwater Utility to comply with this new regulatory burden. This public process and discussion about a new stormwater utility is expected to take several months. If the City decides to move forward with a stormwater utility, new City Ordinances must be drafted and implemented through City Council. The City has considered itself being proactive in having the CDM study done now so that a utility can be considered, all before the approval of new EPA stormwater regulations. However, it is now clearly evident that the EPA is not providing communities adequate time to find and implement funding mechanisms for this regulatory mandate.

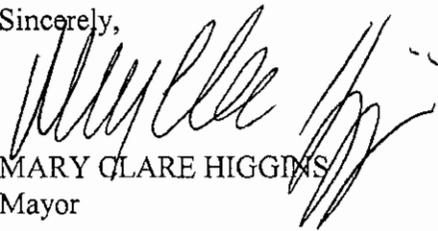
The Draft Permit requires immediate actions by MS4 communities in year 1. Within 120 days the City must complete a written Stormwater Management Program that includes many items including a description of practices to achieve stormwater control to the maximum extent practicable, best management practices and measurable goals for each BMP. Year 1 permit requirements also require a complete inventory of all City-owned facilities, educational campaigns, completion of illicit discharge potential assessment and ranking, written procedures for locating and removing illicit connections, protocols for fixing illicit connections and discharges (including funding requirements to complete these construction related activities), impervious cover estimates for the entire City by sub-watershed, written and implementation of operation and maintenance procedures for public works facilities and vehicle maintenance facilities including all vehicles to be stored under cover or within a contained area (requiring additional capital expenditures to provide mandatory improvements), and other requirements.

The City understands that the cost for Northampton to comply with this Draft Permit is estimated to be \$300,000 to \$450,000 per year based on estimates provided by the U.S. EPA and other Massachusetts communities including Leominster and Shrewsbury at the Public Meeting on March 9th.

Without allowing communities adequate time to determine how to fund a program of this enormity the EPA is setting this program up for failure and putting most communities in a position for immediate non-compliance. The City suggests that the EPA strongly consider the practical aspects of how communities are expected to fund a program like this and what a reasonable time frame would be to implement this funding program. Lastly, EPA should understand that communities are currently determining budgets for the next Fiscal Year and enacting a regulation of this magnitude now means that no community will have time to determine cost implications and to budget appropriately (assuming a funding source is even available.)

Thank you for the opportunity to submit comments on the Draft Permit.

Sincerely,



MARY CLARE HIGGINS  
Mayor

CC: Senator John Kerry  
Senator Scott Brown  
Representative Richard Neal, 2<sup>nd</sup> Congressional District  
State Senator Stanley Rosenberg  
State Representative Peter Kocot  
Edward S. Huntley, P.E. Director of Public Works



CITY OF NORTHAMPTON, MASSACHUSETTS  
DEPARTMENT OF PUBLIC WORKS

125 Locust Street  
Northampton, MA 01060

413-587-1570  
Fax 413-587-1576

Edward S. Huntley, P.E.  
Director

March 11, 2011

Ms. Kate Renahan  
Office of the Regional Administrator  
5 Post Office Square – Suite 100  
Mail Code: ORA01-1  
Boston, Massachusetts, 02109-3912

**Subject: Comments on the Draft Massachusetts Interstate, Merrimack,  
and South Coastal Small MS4 General Permit**

Dear Ms. Renahan:

The City of Northampton (City) has reviewed the Draft Massachusetts Interstate, Merrimack, and South Coastal Small MS4 General Permit (Draft Permit) for stormwater management and offers the following technical comments. City Mayor Clare Higgins has submitted comments about the financial requirements of the draft permit in a separate correspondence.

To date, the City of Northampton has made considerable progress toward meeting and exceeding the requirements of the 2003 National Pollutant Discharge Elimination System (NPDES) Phase II stormwater permit. As part of this effort, the City has expended both significant funds and considerable time and effort. As indicated on the 2010 MS4 Annual Report, approximately \$24,000 is spent annually on programmatic costs related to the stormwater permit, along with an additional \$20,000 for catch basin cleaning and \$33,000 for street sweeping. Currently, if additional staff time (GIS, City Engineer, Planning Department, Health Department, and other workers) and equipment costs for permit related activities are factored in, the City expends well over \$100,000 per year on compliance costs. The City has implemented various new programs, inspected a large percentage of outfalls, established and enforced new City ordinances, and provided a wealth of public education information related to stormwater to the community. Currently, the City and Camp Dresser & McKee Inc. (CDM) are conducting a master planning study of the drainage system to plan improvements over the next 20 years. While the City has demonstrated a clear and proactive interest in protecting its natural resources through stormwater mitigation and proactive land use planning since the 2003 permit was issued, we are concerned that the new Draft Permit does not recognize and build upon those efforts. Furthermore, the Draft Permit, as presently written, imposes requirements that are beyond the means of the City both in terms of financial and staffing resources. The following items present significant challenges to our community and are not deemed feasible for guaranteed compliance, even with significant effort:

**Catch Basin Inspection and Cleaning:** Based on experience with drainage system operations and maintenance, cleaning every catch basin in the City at a specified interval is more realistic than having crews inspect catch basins to measure sediment depths. Communities should have the option of setting up cleaning on a regular schedule rather than performing inspections. Additional guidance and assistance is also necessary to help communities and private contractors find feasible ways to dispose of the catch basin material in accordance with all requirements.

**Floor Drain Inspections:** Identifying and determining the outlet of every floor drain in every municipal building within one year of the effective date of the permit is an unrealistic requirement. In older cities like Northampton, plumbing plans are not available for many municipal buildings, and dye testing would be required to understand the plumbing configuration and outlet location of every floor drain. Communities should be required to inspect a certain percentage of municipal buildings each year during the permit cycle, in order to have more time to comply with this requirement.

The costs to maintain compliance with the Draft permit may require spending 3 to 4 times the current budget or approximately \$300,000 to \$450,000 per year for the City of Northampton. It has become very difficult to use Section 319 grant funding for any projects in NPDES MS4 regulated areas and we are not aware of any other funding source for stormwater related projects. The lack of any funding assistance puts the entire burden on local communities and we request that the EPA consider establishing a grant program for innovative MS4 stormwater initiatives so that communities are encouraged and supported to try new things.

The City of Northampton has a strong record of compliance with the 2003 stormwater permit. We are amenable to continuing our progress toward significant receiving water quality improvements, but the Draft Permit does not adequately recognize our efforts to date or provide a feasible means of achieving full compliance in the future. We hope the regulatory agencies give serious consideration to the comments provided by municipalities who have intimate, hands-on knowledge of the feasibility of implementation of all of the Draft Permit's requirements.

Thank you for your consideration of these matters. Please contact me at 413-587-1570 x4307 if you have any questions or would like to discuss these comments further.

Very truly yours,



James R. Laurila, P.E.  
City Engineer



DEPARTMENT OF THE ARMY  
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS  
696 VIRGINIA ROAD  
CONCORD, MASSACHUSETTS 01742-2751

February 9, 2012

Engineering/ Planning Division  
Geotechnical and Water Resources Branch

Mr. James R. Laurila, P.E.  
City Engineer  
Department of Public Works  
125 Locust Street  
Northampton, Massachusetts 01060

Dear Mr. Laurila:

The periodic inspection (PI) of the Federally constructed Connecticut River Right Bank - Northampton, MA, Flood Damage Reduction (FDR) System was conducted on December 9, 2010 and January 14, 2011. The city of Northampton is responsible for operating and maintaining the FDR.

This PI is an element of the U.S. Army Corps of Engineers (USACE) Levee Safety Program, the primary objective of which is to assure that levee systems are reliable and do not present unacceptable risks to the public, property, or the environment. Two important principles that guide our program are the shared responsibility among partners at all levels for levee safety and the need for continuous and periodic inspections and assessments.

With the assistance of appropriations from the American Recovery and Reinvestment Act of 2009 (ARRA), these PIs were introduced nationally to supplement the annual routine inspection program. The PI examines a full complement of structural, electro-mechanical, geotechnical, and hydrological factors, that potentially affect the integrity and functionality of the FDR. The general scope of this effort consists of a three step process of compiling data in a pre-inspection packet, performing the inspection utilizing a multidisciplinary team, and developing a final report. This particular inspection was conducted by Architect Engineering (AE) firms under contract with USACE. Their preliminary findings were discussed with members of the City on August 26, 2011. Enclosed is the final report, which is also being distributed to the Department of Homeland Security Federal Emergency Management Agency (FEMA).

You will note in the report that the FDR is evaluated on the basis of several general criteria (e.g. floodwalls, levee embankments) and associated items (e.g. concrete surfaces, rutting). Each of these items is rated "acceptable", "minimally acceptable", or "unacceptable". At the end of the report the system as a whole is similarly rated. This FDR system has an overall rating of minimally acceptable.

The minimally acceptable rating means that deficiencies were identified that require attention, none of which would prevent the system from performing as intended during the next flood event. However, if these deficiencies are not addressed within the indicated timeframe, the project could fail to operate as intended. Systems rated minimally acceptable are considered “Active” in the Rehabilitation Inspection Program (RIP) and eligible for Public Law (PL) 84-99 post flood damage rehabilitation assistance from the USACE.

The deficiencies pertaining to the FDR are briefly summarized in the proceeding paragraphs. Note that remedial action deadlines are assigned to the deficiencies. These deadlines must be met to assure that the project remains “Active” in the RIP. Please note that the deficiencies are described very succinctly. The City must review the report in its entirety to gain a proper appreciation of the required work effort in order to formulate a realistic labor and cost schedule.

Levee Embankments: Remove all excess vegetation on and within 15-ft. of all dikes and maintain to proper standard thereafter in accordance with ETL 1110-2-571. In particular, assure that root systems are removed within areas where the dike ties into high ground. Restore areas damaged by borrowing animals, adopt a control program to minimize future activity, and keep pace in the repair of subsequent damaged areas. Address all encroachments summarized on page 33 of the Inspection Report to assure that levee access and integrity are no longer compromised. Remove pavement from the frame slots of the stop-log structure at Route 5 and replace all missing components. Remove graffiti from the B&M Railroad stop-log walls so that a more detailed visual inspection of the wall can be undertaken. Repair the eroded area along the dike crest between Sta. 0+30 and 1+30. Repair the eroded area on the top of the dike at the intersection of Venturers Field Road at Sta. 15+20. Assess and repair the four-foot diameter hole located adjacent to the dike toe near Sta. 4+00. Monitor small depressions on the dike crest near the farm access road at Sta. 6+15 and on the dike landside toe near Sta. 8+50. Repair major tire ruts caused by ATVs or mower equipment along the dike’s landside slope between Sta. 42+80 and 44+10. Video inspect the toe drain system and re-inspect at five-year intervals. Clear the vegetation obscuring the eleven crushed stone relief drains and inspect them every 90 days in accordance with the O&M Manual.

Remediation Schedule: All of the above items should be addressed by January 2014 and status reports on each item should be included in the semi-annual reports due each February and August.

Floodwalls: Repair the spalled section of floodwall on the counter-fort near Sta. 38+37. Remove graffiti from the concrete surface between Sta. 38+30 and 39+00 so that a more detailed visual inspection can be undertaken. Monitor the slight vertical movement of the wall near Stations 37+00, 37+20, and 38+57, and create a log documenting any changes. Monitor cracking on the counter-fort near Sta. 38+50. Repair the deteriorated horizontal construction joint on the riverside floodwall between Sta. 38+30 and 39+00.

Remediation Schedule: All of the above items should be addressed by January 2014 and status reports (including monitoring results) on each item should be included in the semi-annual reports due each February and August.

Interior Drainage System: Remove accumulated sediment in the manhole connecting the toe-drain to the 24-in. sewer line located near Sta. 4+75. Repair the gate house structure housing the 24-in. sewer line at Sta. 2+70. Request a complete report of the video survey of the 24-in. sewer line conducted during July 2008. Conduct a video survey of the 12-in. sewer line passing under the dike near Sta. 44+95. Clean, paint, and lubricate, the 24-in. sluice gate in the gate house at Sta. 2+70. Investigate if the 12-in. sewer line under the levee near Sta. 44+95 (Route 5) is still required; if not develop a formal abandonment plan. If it is still required, repair the 12-in. sluice gate and locate the missing manhole on the dike slope.

Remediation Schedule: Address the above items by January 2014 and provide status reports on each item in the semi-annual reports due each February and August.

Pump Station: Maintain an updated version of the O&M Manual in the pump station and assure all equipment is maintained according to applicable standards. Consider replacing the gasoline engines with natural gas fired units. Evaluate the condition of the gravity conduit sump pump motor and install an automatic float system. Consider installing automated sump pumps in the basement and heating basement areas to reduce humidity and protect the equipment. Replace the operating floor and wet-well ventilation fans to meet current standards. Consider upgrading the station with centralized controls and equipment to monitor all critical parameters. Reseal exterior precast joints. Repair interior and exterior brickwork. Strip and re-paint interior walls. Clean and re-grout pipe bases and re-paint the stair column and stringer bases where corroded after the groundwater intrusion issue has been resolved. Repair/replace broken glass blocks. Test and certify the crane. Replace the manually operated trash racks. Consider replacing the aging electrical equipment. Consider undertaking an arc flash study. Consider installing lightning protection. Remove corrosion from all pipes and once cleaned inspect and replace any section with significant material loss.

Remediation Schedule: All of the non-optional items should be addressed by January 2014 and status reports on each item included in the semi-annual reports due each February and August.

Data Gaps: Address the data gaps listed on page 35 of the inspection report. Note that the recommendation to evaluate the system's current freeboard availability is at the discretion of the City, however, this information would be required for a FEMA accreditation review.

Remediation Schedule: All of the non-optional data gaps should be resolved by January 2014. Status reports should be included in the semi-annual reports due each February and August.

As noted above, failure to correct the items in the inspection report within the indicated timeframe could lead to the system being rated "Unacceptable", potentially leading to the FDR being placed in an "Inactive" status and therefore ineligible for PL 84-99 assistance until such time that the deficiencies have been corrected by the City and subsequently accepted by USACE.

The importance of submitting semi-annual reports and incorporating within them the maintenance progress summaries requested above cannot be overemphasized. We will use the

reports in part to gauge the progress of your O&M efforts and the information provided may weigh heavily on the future status of the FDR.

I am pleased to report that the system should perform as intended; however, the longer the identified items go unresolved the greater the risk to public safety. Throughout the inspection your staff demonstrated a strong knowledge of the system and a willingness to maintain the project to the original intended standards.

I wish to thank your staff for their cooperation during the inspection. If you have any questions concerning the inspection, or other matters pertaining to the FDR please call me at (978) 318-8722 or Scott Michalak, Chief, Geotechnical/Water Resources Branch, at (978) 318-8350.

Sincerely,

A handwritten signature in black ink that reads "H. Farrell McMillan" followed by a horizontal flourish line.

H. Farrell McMillan, P.E.  
Chief, Engineering/Planning Division  
Levee Safety Officer

Enclosure



**DEPARTMENT OF THE ARMY**  
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS  
696 VIRGINIA ROAD  
CONCORD, MASSACHUSETTS 01742-2751

February 9, 2012

Engineering/ Planning Division  
Geotechnical and Water Resources Branch

Mr. Ned Huntley, P.E.  
Director of Public Works  
Department of Public Works  
125 Locust Street  
Northampton, Massachusetts 01060

Dear Mr. Huntley:

The Periodic Inspection (PI) of the Federally constructed Mill River Left Bank - Mill River Diversion, Smith College - Northampton, MA, Flood Damage Reduction (FDR) System was conducted on December 10, 2010 and January 14, 2011. The city of Northampton is responsible for operating and maintaining the FDR.

This PI is an element of the U.S. Army Corps of Engineers (USACE) Levee Safety Program, the primary objective of which is to assure that levee systems are reliable and do not present unacceptable risks to the public, property, or the environment. Two important principles that guide our program are the shared responsibility among partners at all levels for levee safety and the need for continuous and periodic inspections and assessments.

With the assistance of appropriations from the American Recovery and Reinvestment Act of 2009 (ARRA), these PIs were introduced nationally to supplement the annual routine inspection program. The PI examines a full complement of structural, electro-mechanical, geotechnical and hydrological factors that potentially affect the integrity and functionality of the FDR. The general scope of this effort consists of a three step process of compiling data in a pre-inspection packet, performing the inspection utilizing a multidisciplinary team, and developing a final report. This particular inspection was conducted by Architect Engineering (AE) firms under contract with USACE. Their preliminary findings were discussed with members of the City on August 26, 2011. Enclosed is the final report, which is also being distributed to the Department of Homeland Security Federal Emergency Management Agency.

You will note in the report that the FDR is evaluated on the basis of several general criteria (e.g. floodwalls, levee embankments) and associated items (e.g. concrete surfaces, rutting). Each of these items is rated "acceptable", "minimally acceptable", or "unacceptable". At the end of the report the system as a whole is similarly rated. This FDR system has an overall rating of minimally acceptable. The minimally acceptable rating means that deficiencies were identified that require attention, none of which would prevent the system from performing as intended during the next flood event. However, if these deficiencies are not addressed within the

indicated timeframe, the project could fail to operate as intended. Systems rated minimally acceptable are considered "Active" in the Rehabilitation Inspection Program (RIP) and eligible for Public Law (PL) 84-99 post flood damage rehabilitation assistance from the USACE.

The deficiencies pertaining to the FDR are briefly summarized in the proceeding paragraphs. Note that remedial action deadlines are assigned to the deficiencies. These deadlines must be met to assure that the project remains "Active" in the RIP. Please note that the deficiencies are described very succinctly. The City must review the report in its entirety to gain a proper appreciation of the required work effort in order to formulate a realistic labor and cost schedule.

Levee Embankments: Remove all excess vegetation on and within 15-ft. of all dikes and maintain to proper standard thereafter in accordance with ETL 1110-2-571. Restore areas damaged by borrowing animals, and adopt a control program to minimize future activity, and keep pace in the repair of subsequent damaged areas. Address all encroachments including utility poles and a fire hydrant on the diversion dike to assure that levee access and integrity are not compromised. Repair the eroded area along the toe of the diversion dike between Sta. 18+30 and 19+30. Repair the sod cover on the Smith College dike, landside slope between Sta. 4+20 and 5+40 and the diversion dike between Sta. 18+50 and 20+00. Restore the displaced riprap on the diversion dike at Sta. 18+70 (done). Clean all toe-drain manholes at 90-day intervals. Video inspect the toe drain system and re-inspect at five-year intervals. Inspect the stop-logs and associated hardware for the West Street closure structure. Replace all damaged components.

Remediation Schedule: All of the above items should be addressed by January 2014 and status reports on each item should be included in the semi-annual reports due each February and August.

Floodwalls: Remove all excess vegetation on and within 15-ft. of the floodwall and maintain to proper standard thereafter in accordance with ETL 1110-2-571. Relocate the shed and sand/salt pile away from the floodwall at Sta. 14+80. Repair a spalled area near Sta. 38+37. Remove or modify the wood rail associated with the Rail Trail to provide access along the floodwall. Repair spalled areas along the floodwall at Sta. 12+70, 13+05, 15+55 and 15+30. Replace the missing joint filler at Sta. 16+10 and other locations as necessary. Locate/confirm the outlet for the toe-drain system and inspect at 90-day intervals. Video inspect the toe drain system and re-inspect at five-year intervals.

Remediation Schedule: All of the above items should be addressed by January 2014 and status reports (including monitoring results) on each item should be included in the semi-annual reports due each February and August.

Interior Drainage System: Submit hydraulic plans for the West Street Pump Station. Repair the deteriorated concrete along the edge of the two flap valves at the West Street Bridge. Investigate the shut flap-gate associated with the 24-in. storm sewer at the West Street Bridge to determine if and how it should be permanently closed. Also, submit plans for the permanent closure of the 8-in. storm sewer at the Smith College power plant. Submit the report for the 20-in. storm sewer inspection recently completed and undertake similar inspections for the 12-in. sewer below the

Smith College Dike, the 10-in. sanitary sewer below the West Street closure structure, and the storm sewer below the floodwall near the Smith College power plant.

Remediation Schedule: Address the above items by January 2013 and provide status reports on each item in the semi-annual reports are due each February and August.

West Street Pump Station: Provide an operating protocol for the pump station as an addendum to the O&M Manual and maintain a copy in the station. Evaluate the consequences of a loss of pump power and use this information determine if the engine/fuel type, sizing and capacity, are compatible with the level of risk. Consider improving the physical security at the pump station by installing fencing or by other means. Repair the cracked masonry block wall and stabilize the sill plate at the gable ends. Remove corrosion on the discharge pipe. Consider providing lightning protection, performing an arc flash study, and providing emergency lighting.

Remediation Schedule: All of the non-optional items should be addressed by January 2013 and status reports on each item included in the semi-annual reports are due each February and August.

Flood Damage Reduction Channels: Remove tree limbs from the banks of the diversion canal and continue to remove any additional debris at 90-day intervals. Remove brush and trees from riprapped embankments upstream and downstream of the Route 10 drop structure. Restore the displaced riprap on the diversion canal near Sta. 2+00 and downstream of the drop structure. Inspect the portion of the diversion canal between Sta. 33+00 and 109+00 that was not accessible during the inspection. Investigate the meandering section of the diversion canal between Sta. 56+00 and 78+00 to determine if adequate hydrologic capacity is available. Remove logs and other woody debris from within the channel at Sta. 32+80. Remove shoaling at the locations specified on page 36 of the Inspection Report. Monitor the island/shoal immediately downstream of the West Street Bridge; if the shoal's size increases, it may become a significant flow restriction. Investigate the South Street Bridge masonry wall as a possible encroachment. Perform a detailed underwater inspection of the drop structure to observe the drain slots and confirm that the under-slab drainage system is still functional. Conduct a detailed underwater inspection of the Oxbow Bridge and evaluate repair and replacement alternatives. Consider removing the trees and brush from the crest of the Bridle Path Bridge closure structure to facilitate access. Evaluate the degree to which woody growth on the side slopes of the overflow section at Bridle Path restricts flow; remove the vegetation if the restriction is significant.

Remediation Schedule: All of the non-optional items should be addressed by January 2014 and status reports on each item included in the semi-annual reports are due each February and August.

Data Gaps: Address the data gaps listed on page 37 of the Inspection Report.

Remediation Schedule: Document and resolve all items by January 2013.

As noted above, failure to correct the items in the Inspection Report within the indicated timeframe could lead to the system being rated "Unacceptable", potentially leading to the FDR

being placed in an "Inactive" status and therefore ineligible for PL 84-99 assistance until such time that the deficiencies have been corrected by the City and subsequently accepted by USACE.

The importance of submitting semi-annual reports and incorporating within them maintenance progress summaries requested above cannot be overemphasized. We will use the reports in part to gage the progress of your O&M efforts and the information provided may weigh heavily on the future status of the FDR.

I am pleased to report that the system should perform as intended; however, the longer the identified items go unresolved the greater the risk to public safety. Throughout the inspection your staff demonstrated a strong knowledge of the system and a willingness to maintain the project to the original intended standards.

I wish to thank your staff for their cooperation during the inspection. If you have any questions concerning the inspection, or other matters pertaining to the FDR please call me at (978) 318-8722 or Scott Michalak, Chief, Geotechnical/Water Resources Branch, at (978) 318-8350.

Sincerely,



H. Farrell McMillan, P.E.  
Chief, Engineering/Planning Division  
Levee Safety Officer

Enclosure

Copy Furnished:

Mr. James R. Laurila, P.E.  
City Engineer  
Department of Public Works  
125 Locust Street  
Northampton, Massachusetts 01060

Statement of David Teece, member of the ad-hoc committee on storm water and flood control expense.

The charge to the committee will be part of the report, so I do not think you need to repeat it.

Beginning of statement:

I am a graduate of Williston Academy and have lived in Florence for 38 years. I have been a journeyman plumber for 34 years and a master plumber for 22 years. I have owned Northampton Plumbing Supply for 27 years. My wife Kathy and I have been married for 34 years and have three adult children.

### YOU AND ME AND RAIN ON THE ROOF

It started with a call to serve on a task force to talk about storm water and flood control. At this time there was no final charge yet from the Northampton City Council. Meeting with a group of interested citizens for a task force discussion normally would raise a red flag for me because of the fear of meandering conversations and lack of clarity to an end result. Usually I take a cynical view of what or whose end goals are to be the final objective. Unfortunately, such fears and cynicism often lead to a negative start with negative energy, and I quickly found myself in this mindset during the first few meetings.

The charge was not initially presented and the timeline for due diligence not realistically set. There was an initial sidetracking of any progress towards a common end. Since we were a task force with no history this was not surprising, but was very frustrating to me and other members of the task force. My frustration left me in disagreement with many ideas. These frustrations hindered me from seeing progress towards our goals as they developed.

As the group matured, I noticed the lack of ego from others in the meetings and quickly realized that once I, too, checked my ego at the door, all ego ceased to exist during the meetings. There was talk of common area, common use, and common good. There was also talk of facts, figures, pervious and impervious surface, runoff coefficients, budgets, non-profits, and tax exempt status. It was a tsunami of critical information.

Upon first reviewing what the cost of this "rain tax" would be to my business, research was directed at how this would affect profit as I manage over 200,000 sq. ft. of building and more than 6 acres of land and or paved parking. How would this "rain tax" be funded through business activities?

The charge was that the funds needed should be raised using a formula that was transparent, fair, and equitable. I was all for all of these parameters unless I had to pay for them. Then our field trip to the flood control pumping station, and the magnitude of what we have to deal with in real time, became clear to me. Once the task force

became focused on formulas and methodology, our efforts became more fluid and our group prospered.

There are many parts of our presentation that will make some citizens unhappy. Unfortunately, the process has just started.. The City Council will need help as they struggle with our methodology and the reasoning behind our recommendations. Our reasoning, however, is sound and thorough. We did a job and we reached consensus. While consensus is not always perfect it aims to be fair.

We will demand caps, oversight, and accountability on this additional fee for both ourselves and our fellow residents. These are technical terms and they are all in our report. For the task force our "demands" should be spoken of as recommendations or wishes. We wish that education on these issues becomes the highest priority. We wish there are some credits extended for storm management to increase education in this area. We wish that the common area is connected to the common good for the good of all. No person is an island. We are all far from that.

No business can survive without the common good. No employees or customers will be able to get to work, to bank, to shop, or to eat at restaurants without this good. Our public safety personnel will not be able to help anyone as they also will be stranded. Storm water, and the rain you and I have on our roofs, is all part of it.

There are EPA rules, laws, and budgets to deal with. There are financial struggles that will create hardship for many families, residents, and property owners. There is also the catastrophic failure of our infrastructure that will happen if we are not prepared. We need to raise money to pay for these preventative measures.

What we are recommending is not a "rain tax" or fee. It is a common betterment for the common good. I will watch, ask questions, and demand oversight. I do believe that it needs to be supported for our collective benefit and I will support it.

David F. Teece  
6/9/13



# Storm Water Task Force Committee

## Meeting Minutes

Thursday, March 7, 2013

7:00 pm – 9:00 pm

Hearing Room 18, City Hall

210 Main Street, Northampton, MA

**1. Members present:** Emory Ford, Alex Ghiselin, Chris Hellman, David Teece, John Shenette, Megan Murphy Wolf, Norma Roche, Rick Clarke, Robert Reckman, Ruth McGrath, Dan Felton

**Members absent:** James Dostal

**Other Attendees:** Terry Culhane Board of Public Works Chairman; Jim Laurila, City Engineer; Ned Huntley, Director of Public Works; Doug McDonald Stormwater Coordinator; Fred Zimnoch, resident

## 2. Meeting Called to Order

The meeting was called to order at 7:00 pm by Emory Ford.

## 3. Announcement of Audio/Video Recording of Meeting

The meeting was video recorded by North Street Association, Ruth McGrath. Videos of these meetings will be posted on youtube and a link will be placed on the DPW website.

## 4. Committee Member Introduction

Each member briefly described their background and appointment to the Task Force.

## 5. Election of Committee Chair

Committee decided to elect a Chairman at the end of the meeting.

## 6. Reading of the Charge to the Committee

The Charge of the Committee was read aloud and discussed. The question was asked who the Task Force reports to and Terry Culhane explained that the Task Force will make recommendations to the Joint Committee of the City Council and Board of Public Works. The committee agreed that the charge should be broadened to include both the stormwater system and the flood control system and that the charge should include a timeline for the Task Force to complete their work. Emory Ford will discuss making these changes to the Charge with City Councilor Paul Spector.

## 7. Discussion of the Committee Operating Procedures

Discussion moved to the end of the meeting.

## **8. Presentation by Terry Culhane, BPW**

Terry Culhane made a presentation to the Task Force which was titled “Flood Control and Stormwater Infrastructure Challenges”. Terry presented the following information and general discussion occurred through-out his presentation.

- The City’s flood control system and its condition was described. Army Corps of Engineers mandated assessments and improvements were discussed.
- The City’s stormwater drainage system and its condition was described. Pending EPA permit requirements and the associated increase in operating costs were reviewed. The need to replace aging drainage system was also reviewed.
- Areas within the City that have brook and erosion problems that threaten public and/or private property were reviewed.
- Preliminary budget estimates were discussed from FY2013 through 2016. Ways to meet the City’s revenue needs were reviewed including the General Fund, Over-rides, a new fee or a combination of funding sources.
- Fee structures, rate methods, and possible credit systems were introduced.
- The presentation will be posted on the Public Works website. See <http://www.northamptonma.gov/dpw/engineering/floodctrl/>

## **9. Discussion of Presentation**

There was some discussion about the budget numbers presented. It was discussed by the Task Force that they were not charged with developing a specific budget but responsible with determining an equitable way to meet the City revenue needs to meet its obligations for flood control and stormwater systems. It was also discussed that the City would require an annual budget on the order of \$2 million to meet the obligations as presented by Terry Culhane. The Task Force discussed that a new source of revenue would be needed and that the General Fund would be unable to fund these City obligations. There was discussion about various fee systems and the need to consider making credits available. It was suggested and discussed that the Task Force should consider the cost of stormwater management off of City streets and that each property owner should pay for a portion of these costs.

## **10. Election of Committee Chair and Committee Operating Procedures**

The Task Force elected Emory Ford Chairman and Dan Felton Vice-Chairman. The Task Force discussed the need for meeting minutes. Jim Laurila agreed to take minutes for Task Force review. Approved Task Force minutes will be posted on the DPW web site. The Task Force agreed that a public comment period would be provided at each meeting. The Task Force also requested that web-site with other applicable resources should be established. The Task Force agreed to follow the Best Practices that were developed by the City. The need for public meetings in the City to discuss Task Force progress was discussed.

**The meeting adjourned at 9:00 p.m.**



# Storm Water Advisory Task Force

*Emory Ford, Chair*  
*Dan Felten, Vice-Chair*

## Meeting Minutes

Thursday, March 14, 2013

5:30 pm – 7:30 pm

Community Meeting Room, Northampton Police Department  
29 Center Street, Northampton, MA

- Members present:** Emory Ford, Alex Ghiselin, Chris Hellman, David Teece, John Shenette, Megan Murphy Wolf, Norma Roche, Rick Clarke, Robert Reckman, Ruth McGrath, Dan Felten  
**Members absent:** James Dostal  
**City Staff Attendees:** James R. Laurila, P.E. City Engineer; Ned Huntley, P.E. Director of Public Works; Doug McDonald, Stormwater Coordinator  
**City Councilor Attendees:** Marianne LaBarge, Paul Spector  
**Other Attendees:** See attached sign-in sheet

### 2. Meeting Called to Order

The meeting was called to order at 5:30 pm by Emory Ford.

### 3. Announcement of Audio/Video Recording of Meeting

The meeting was video recorded by North Street Association, Ruth McGrath. Videos of these meetings will be posted on youtube and a link will be placed on the DPW website.

### 4. Approval of Minutes of March 7, 2013

*Who is on the Task Force:* There was some confusion expressed by Task Force members in regard to who is on the Task Force and if any votes are taken, who is empowered to vote. At the first meeting both Task Force members and others were sitting at the table. It was discussed that consideration should be given to only having Task Force members at the table. The option of different name plates for people not on the Task Force, but are integral to the Task Force discussions, was mentioned. Councilor Spector suggested an informal arrangement where others are allowed to sit at the table might be appropriate.

*Email distribution of Task Force information:* It was noted that the Draft Meeting Minutes and other Task Force related information had been distributed by email to some people not on the Task Force. There was discussion about who should be receiving Task Force information. Staff mentioned that some Task Force information had been sent to some City Council members and Board of Public Works members. It was noted that all Meeting Agendas and Minutes, as well as technical resources available for the Task Force were being posted on the DPW web-site so that the public would have access to this information. For future meetings a sign-in sheet will be available for the public to sign and provide an email address. Staff will send Task Force information by email to anyone that requests it.

*Changes to Draft Meeting Minutes:* On a motion made and seconded edits to the meeting minutes were made and approved. Staff will make the approved changes and prepare final minutes.

## **5. Public Comments (At several points during the Meeting)**

Councilor Spector offered suggestions to the Task Force. He suggested:

- arranging the room such that all Task Force members are facing the public
- not placing a time limit during public comment
- allowing the public to ask questions
- Task Force members should review state ethics laws related to public committees
- The Task Force should try and conclude by May 1<sup>st</sup>.

Councilor Spector also stated that the Task Force recommendations would be made to the Joint Committee of the City Council and Board of Public Works. He said that community outreach would be done by the BPW and the City Council as it related to the Task Force recommendations.

Ward 3 Resident Fred Zimnoch read from a prepared statement and submitted the document to the Task Force. He expressed concern about the City's flood control system if it is not maintained and is downgraded by FEMA. He is also concerned about rapidly escalating rates for a stormwater utility that were shown in the CDM Report. Other details are contained in the submitted document.

Mike Kirby stated that there are real problem issues and hazards with the levee systems, such as large trees growing in some locations. He also stated that the proposed budget discussed at the last meeting is opaque since it did not have any descriptive narrative.

Councilor LaBarge expressed concern about more costs and fees that residents will have to pay. She asked how other towns are dealing with these mandates. She also asked what will happen to rates in 5 and 10 years if a new utility is established.

## **6. Presentation of Approaches Taken by Comparable Towns and Cities**

This item was tabled due to time limitations.

## **7. Discussion of the Presentation**

This item was tabled due to time limitations.

## **8. Public Outreach Plans**

This item was tabled due to time limitations.

## **9. Discussion of the Path Forward**

*Overall Schedule:* Some concerns were expressed about the suggested Task Force completion date of May 1, since some feel that this will be too fast and rushed. It was discussed that it is more important to do a thorough evaluation and make sound recommendations to the City. It was stated that EPA may be delaying issuing and implementing the new stormwater MS4 permit and that may buy the City some time.

*Proposed Budget:* There were a number of questions about the budget numbers presented by Terry Culhane at the last meeting. Concern was expressed about how an equitable fee system could be derived at if the overall budget was not clearly understood. Staff offered to spend time going through the budget on a line by line basis. Staff also stated that it was expected that they would need to produce sample bills based on the budget for whatever types of fee structures the Task Force decides to explore. Several Task Force members wanted to see a longer term budget plan, maybe for a 10-year planning period.

*CDM Report:* During the discussion about the budget there were several questions about how the capital projects would be fit into the future budget and rate structure. Also, the CDM report depicted a rapidly rising rate if all the projects they described were undertaken. Staff replied that the flood control related projects described in the CDM report were the projects that were a priority. The large capital plan laid out in the CDM report for problem drainage areas in the City is not being considered by Public Works for implementation. The drainage projects being considered are related to flood control, street drainage reconstruction, like North Street, and for stream erosion projects as described by Terry Culhane in the first task meeting. The Task Force requested more information about the CDM report and how the Public Works Department is using that information in planning. This will be discussed at the next Task Force meeting.

*Funding of Flood Control and Stormwater:* There was discussion about paying for large, flood control projects using a Proposition 2 ½ override ballot question. A new utility could be used to fund stormwater system costs. Statements were made that the EPA may be backing off on the requirements and implementation dates for stormwater management issues. Using an override for flood control and the thought that EPA was delaying their requirements might provide more time for the City to fully determine if a utility is needed and what form it might take. The prospect of grants and other regulatory relief was also discussed by Task Force members. There were questions about why the City was exploring a new utility when there are only a few of these in existence in MA. It was explained that a fee system was more equitable to homeowners than using an override question or monies from the General Fund, since a fee would be paid by everyone including non-profit organizations that do not pay real estate taxes. The fee would also have some basis on impervious area on properties so the size of a bill is based on impacts to the stormwater system rather the real estate value of a property.

## **10. Review of Action Items**

Action items considered for the next meeting included a summary of other stormwater utilities, an update on the CDM report, a 10-year budget scenario, and more about enterprise funds. Several task force members requested data about acreage of impervious surfaces, numbers of residential lots and other Northampton statistics.

## **11. Next Meeting Date and Time**

The next meeting was scheduled for April 4<sup>th</sup> at 5:30 p.m. at a location to be determined.

## **12. New Business**

No new business items were introduced.

## **13. Adjourn**

The meeting adjourned at 7:30 p.m.



# Storm Water Advisory Task Force

*Emory Ford, Chair*  
*Dan Felten, Vice-Chair*

## Meeting Minutes

Thursday, April 4, 2013

5:30 pm – 7:30 pm

Hearing Room 18, City Hall

210 Main Street, Northampton, MA

- 1. Members present:** Alex Ghiselin, Chris Hellman, David Teece, Rick Clarke, Robert Reckman, Ruth McGrath, Dan Felten, James Dostal  
**Members absent:** John Shenette, Megan Murphy Wolf, Emory Ford, Norma Roche (resigned from the Task Force)  
**City Staff Attendees:** James R. Laurila, P.E. City Engineer; Ned Huntley, P.E. Director of Public Works; Doug McDonald, Stormwater Coordinator  
**City Councilor Attendees:** Marianne LaBarge  
**Other Attendees:** See attached sign-in sheet

### 2. Meeting Called to Order

The meeting was called to order at 5:30 pm by Dan Felten Vice-Chair.

### 3. Announcement of Audio/Video Recording of Meeting

The meeting was video recorded by North Street Association, Ruth McGrath. Videos of these meetings will be posted on youtube and a link will be placed on the DPW website.

### 4. Discussion and Approval of Minutes from March 14, 2013 Meeting

On a motion made and seconded the draft meeting minutes were approved.

### 5. Public Comments (At several points during the Meeting)

Resident Paul Walker said they he's has read articles where it was found that the Environmental Protection Agency (EPA) overstepped their authority in implementing programs under their Clean Water Act Authority. He believes that it is premature for the City to be considering paying for programs to comply with questionable EPA requirements. He said the City needs help from its congressmen to fight the over-reaching of EPA. Dan Felten pointed out that while the pending EPA stormwater permit is part of the task force discussion it is the requirements of the Army Corps of Engineers (ACOE) for improvements to the flood control system that is a major part of the revenue discussion. Chris Hellman stated the charge of the task force is narrow and about meeting the City's financial obligations for stormwater and flood control in an equitable manner. Mr. Walker asked what the program expenses will be in the future. Mr. Felten said that the Task Force would be recommending to the City Council on an equitable way to set the fees but not what the actual revenue and fee would be. Councilor LaBarge expressed concern about the costs of the program and what the future public process would be. Bob Reckman indicated that the Task Force was to determine a formula for billing and that the actual budget was not relevant to the Task Force discussion. Mr. Felten indicated that the revenue needs were discussed in the first Task Force Meeting and mentioned the possibility of a cap on bills or revenues. Resident Fred Zimnoch asked if the CDM report was being relied on to determine future revenue needs and was told that the CDM report is not being used as a basis for future financial planning. Alex Ghiselin agreed that a formula is to be developed and that future budgets would be reviewed

by the Mayor and City Council. Jim Laurila indicated that a preliminary budget of about \$2 million per year was discussed in the first meeting. Rick Clark stated that he did not want the Task Force to get bogged down on non-Task Force issues and that when the task force work is complete the members are free as residents to be engaged in the future public process with the City Council. Mr. Zimnoch asked of the Task Force deliverable was to calculate a formula to split up the \$2 million into bills. Mr. Felten said yes and the samples of bills would be produced for various formula options.

David Teece said that he felt that the Task Force had not addressed the three key items in the charge. He said the 3<sup>rd</sup> part of the charge was related to a recommendation for a fee formula. The first part of the charge was to examine ways to fund program costs and what other communities have done. The second part of the charge was to look at the new funding in a transparent and equitable way. The third part is to look at actual formulas that could be considered. He said the task force should focus on the first part of the charge and proceed in order as described. Dan Felten stated that in prior meetings there were discussions about the possible use of general fund money and proposition 2 ½ overrides, as well as the possibility of a new fee. The City Council could consider the use of overrides – but the task force needs to determine what a fee structure would be, if the City Council determined that a fee system should be used. Mr. Felten added that on the agenda for tonight was a presentation by Jim Laurila about the experiences of other communities with fee-based systems.

## **6. Reading of the Final Council Charge to the Committee**

This final council charge to the Committee was read aloud.

## **7. Presentation By James Laurila, City Engineer – Stormwater Utilities in other Communities**

Jim Laurila provided an overview of the number and history stormwater utilities across the country. Stormwater utilities have been in-place since the 1970's. Proliferation of utilities across the country can be tied to the flooding effects of Hurricane Andrew and Midwest flooding in 1992. Another jump in the formation of stormwater utilities was connected with the new National Pollutant Discharge Elimination System (NPDES) stormwater rule in 2003. After Hurricane Katrina in 2005, further increases in stormwater utilities can be seen as the ACOE increased requirements for flood control maintenance and certification. Before focusing on New England area utilities, Mr. Laurila said that reviewing what other communities have done is driven by the unique circumstances in each community, such as regulatory drivers, political drivers, revenue needs, data management factors and the overall schedule for a community to meet a new revenue obligation. An overview was provided for stormwater utilities in Reading, MA; Newton, MA; Chicopee, MA; Fall River, MA; Westfield, MA, South Burlington, VT; and Lewiston, ME. The population of each City, the reason for the utility, the year the utility was started, the fee structure, and the approximate budget was discussed for each community.

## **8. Discussion of the Presentation**

At the completion of the presentation Terry Culhane asked to return to Mr. Teece's comments about needing to address the Task Force charge in a systematic way. He explained that the Board of Public Works thought that a fee system would be best way to meet the City's financial obligations for flood control and stormwater. He said these costs should be a shared expense and that using general fund tax revenue is not equitable and is a poor distribution between residential and commercial property and that non-profits do not contribute at all to stormwater/flood control facilities since they do not pay real estate taxes. Churches, Smith College, Cooley-Dickinson Hospital for example do not contribute at all. He said about 25% of the City does not contribute to the General Fund. A new fee system would make everyone contribute to these systems. Mr. Felten asked the Task Force what is the most equitable way to pay for these obligations, a fee, override or another idea? Rick Clark stated that the list of non-profits organizations in the City may not be that long and can the City ask them to pay a Payment in Lieu of Taxes (PILOT) so that they would contribute to the costs of flood control and stormwater. Mr. Teece suggested that the Task Force could recommend to the City Council that non-profits should pay a fee and that everyone should pay a fee. Alex Ghiselin said that Smith College has a long history of being unwilling to pay the City any kind of PILOT. He feels

that Smith would need to pay a fee like they pay for water and sewer use. He added that the residential population pays more now than non-profits and the commercial property owners for the cost of stormwater and flood control facilities. (At this time attention was brought to a table that was handed out entitled "Northampton Impervious Area & Gross Area by Property Types). Bob Reckman stated that 30% of the impervious area in the City was City rights of way. Jim Dostal asked if the City needed to pay a fee. Chris Hellman said that the City departments do pay water and sewer bills and to be consistent it might make sense for the City to pay a stormwater fee if enacted. He added that every property should pay. Mr. Teece made a motion that: "We ask that every property owner participate in whatever our formula is". Mr. Hellman seconded the motion and the motion passed by a vote of 6-1, with Bob Reckman opposed and the meeting chair not voting. Mr. Reckman voted no because he was unsure at this time if the City should receive a bill and pay a fee. After the vote Mr. Felten asked if a fee should be based on impervious area or property value. Jim Laurila stated that he thought the basis of the Massachusetts General Law that allows fee to be charged states that the fee should be a fee for service and not be based on property value. For example, a fee could be based on the gross area of a lot or impervious area on a lot. Flat fees that are charged by some utilities may be based on an average of impervious area for a certain class of property, such as residential.

Resident Mike Kirby commented that there will be a need for incentives and credits if a fee system is used. Mr. Ghiselin agreed that credits are a needed to change behavior and reduce a property's impact on the stormwater system. Mr. Teece said for new development the Planning Board requires stormwater mitigation systems and asked if these owners with new system should pay the same fee as others. He added that a credit would be a good way for social reasons so that people would have an alternative way to take action other than just paying the fee. Jim Laurila stated that the Task Force should think about whether a stormwater system that is built to comply with a Planning Board should be eligible for a credit. Mr. Culhane stated that he thought it might be appropriate for a credit to be issued to an owner that built a stormwater system as part of a regulatory requirement. Mr. Felten reminded the Task Force members that the flood control cost obligations were the greatest part of the budget needs and that any credits for stormwater system should be considered in that light. He added that the Task Force may not have time to develop all the details of what a credit system would look like. Mr. Culhane suggested that the Task Force consider a cap or limit on the amount of credits to be issued and that the details could be worked out later. Ruth McGrath suggested that the credits in Westfield be reviewed.

Bob Reckman suggested that Task Force members come up with actual formulas for fees to be discussed at the next Task Force meeting. Jim Laurila offered to distribute to all task force members sample fee formulas that they develop.

Mr. Ghiselin asked if the Task Force reached consensus about anything? There was discussion about the earlier motion made and approved. A re-vote was made to add clarity to the earlier vote. The motion: "Every property owner, including the City, would participate" was made and seconded and agreed to by a vote of 6-1.

## **9. Plans to encourage outside participation in the Committee's work**

Resident Paul Walker suggested publication of in the newspaper of a question to the community to get their opinion about funding options. Mr. Felten said it was a good idea to get public input on the work of the Task Force. Ms. McGrath said sending fee formula suggestions to Mr. Laurila for discussion at the next meeting was a good idea and added that maybe the fee options could be discussed in the newspaper. Mr. Clark added that showing actual bills for the various formulas and getting that information to the public would be a good idea. Mr. Teece said that the businesses that will be getting a large bill should be given advance warning about their future bills. Mr. Hellman added that the Task Force should not be afraid of a formula that would result in sending a large bill to a large company that can afford to pay for the service. Mr. Teece said transparency in any bill is needed and that another way of educating the public would be to use an insert in current water and sewer bills or some other similar outreach means.

There was a general discussion about gross area factors and impervious area factors and how they might be applied. There is some common good issues to be considered related to public ways. It was discussed that if every property

is to receive a bill, gross area will need to be a factor. It was also discussed that pervious surfaces are part of stormwater solution because there is less run-off from these areas. A discussion of possibly using a tiered rate system for residential units was discussed as a means to be more equitable given the diversity in the size and configuration of residential properties. The available lot data was discussed and the cost of determining specific impervious area for every property was discussed.

#### **10. Action Item Review**

The meeting was summarized that the Task Force had examined ways to meet funding requirements; that a review and discussion had occurred regarding the approach used by other communities to meet funding needs; that as a general principle every property owner should participate, including the City; that impervious area and total property area are factors to be considered for a fee formula; and that credits should be considered.

#### **11. New Business**

Bob Reckman suggested that the Task Force meet to get a tour of the Hockanum Road flood control pump station. The next meeting was scheduled for April 18<sup>th</sup> at 5:30 p.m. at a location to be determined.

#### **12. Adjourn**

No new business items were introduced.



# Storm Water Advisory Task Force

*Emory Ford, Chair*  
*Dan Felten, Vice-Chair*

## Meeting Minutes

Thursday, April 18, 2013

5:30 pm – 7:30 pm

JFK Middle School – Community Room

100 Bridge Road, Northampton, MA

- Members present:** Alex Ghiselin, Chris Hellman, David Teece, Robert Reckman, Ruth McGrath, Dan Felten, James Dostal, Emory Ford, John Shennette, Megan Murphy Wolf  
**Members absent:** Rick Clarke  
**City Staff Attendees:** James R. Laurila, P.E. City Engineer; Ned Huntley, P.E. Director of Public Works; Doug McDonald, Stormwater Coordinator  
**City Councilor Attendees:** None  
**Other Attendees:** See attached sign-in sheet

### 2. Meeting Called to Order

The meeting was called to order at 5:30 pm by Emory Ford, Chair.

### 3. Announcement of Audio/Video Recording of Meeting

The meeting was video recorded by North Street Association, Ruth McGrath. Videos of these meetings will be posted on youtube and a link will be placed on the DPW website.

### 4. Discussion and Approval of Minutes from April 4, 2013 Meeting

On a motion made and seconded the draft meeting minutes were approved.

### 5. Public Comments (At this point and at several points during the Meeting)

Resident Paul Walker said that the stormwater regulations are an unfunded mandate from the federal government and said the requirements have been found to be totally illegal. He said several Cities and towns in different states are appealing the decision about the regulations and that Northampton should too. He said that asking residents about an override and now a rain tax is not right and a better solution is needed. He also said that he thought this meeting was going to be at City Hall based on statements at the last meeting. Dan Felten replied that the comments are appreciated and that the Army Corps of Engineers flood control mandates are much larger financial obligations than the pending EPA stormwater regulations. He said one focus of the task force is to determine how to equitably calculate a fee if the City decides to use a fee system. He encouraged Mr. Walker to bring his specific concerns to the City Council as the process progresses. Resident Fred Zimnoch said he had reviewed the tables of impervious and gross areas for the City and asked how impervious area on a parcel is calculated. He also asked about the accuracy of this measurement and indicated that there is a large variation in parcel sizes across the city and this can impact the fairness of a fee system. He suggested that a histogram be developed to group parcels by size and look at how many parcels in each group. That information would help in determining breakpoints for a tiered fee system. Bob Reckman said that several of the fee proposal to be discuss later in the meeting have tiered systems. Resident Mike Kirby said that lawyers may become involved in this is the fee if implemented by a City Council decision and not by the voters. This could be viewed as a way to go around the public. Resident Mitch Bolotin asked about the

rules for the public to speak. Mr. Felten stated that the Task Force would be accepting comments through-out the meeting and that one of the primary focuses of the Task Force is to determine an equitable way to set stormwater fees. David Teece stated that the algorithm was only one part in the four parts of the task force change. Suzanne Beck introduced herself as a resident and as the Executive Director of the Chamber of Commerce. She stated that the membership of the Chamber of Commerce is interested in the work of the Task Force and that the Chamber could be a valuable source of feedback and input on the fee proposals. She said the Chamber does not question the need to invest in public infrastructure and has seen the need first hand on projects like the redevelopment of the Three County Fairgrounds. She said that poor infrastructure adversely impacts residents and businesses. She said that the principal that the shared responsibility for public streets and sidewalks is a good one. She stressed the need for public education about the work of the Task Force. She said this issue is not on anyone's radar, yet this will impact every property-owner. A thoughtful plan for education is needed and she offered the Chambers help. Mr. Felten said that the Task Force realizes the importance of public education and stated that it is also the responsibility of the City Council and Board of Public Works to get the word out about the issues.

## **6. Reading of the Final Council Charge to the Committee**

Dan Felten read the final council charge to the Committee. He added that he believed that the Task Force had considered ways to meet the cost obligations of the City, had reviewed the approaches taken by other communities and decided that a working on an equitable funding formula was where the Task Force is currently. He stated that several draft fee proposals were to be discussed at this meeting.

## **7. Task Force Deadline – May 31, 2013**

Mr. Felten said that he and Emory Ford had been informed that the City Council/Board of Public Works Conference Committee decided that the Task Force work should be completed by May 31, 2013. Mr. Teece said establishing a new deadline several weeks into the Task Force work was disrespectful to the Task Force and out of order. He added that it was also not following any sense of best practices and was not transparent. He asked who informed the Task Force of this new deadline and how was the decision made. Mr. Felten said that he and Mr. Ford had received an email from Jim Laurila about the new deadline date. Jim Laurila confirmed that at the recent (April 10) Conference Committee meeting they had decided that the Task Force recommendation would be needed by the end of May to provide the time necessary for the City Council and subcommittees to work on the flood control/stormwater ordinance issues though the summer. An important factor is the October deadline for the City to notify the state that they will be starting a new enterprise fund which may also have an impact on the City tax rate. Resident Mitch Bolotin said that many investors in Northampton properties and business have no idea about the work of the Task Force. He questioned if the Task Force wanted input from these people? Would it help the Task Force make a more informed decision? Mr. Reckman said the Task Force was open to ideas for getting the word out to the public. He thought after the Task Force recommendations were made to the City Council that the press coverage would increase. Ms. McGrath added that the Task Force meetings were being recorded and posted on the internet and that the City web-site had all the meeting minutes and other information related to the Task Force work. At the request of the Task Force, Jim Laurila described the process after the Task Force work is complete. Recommendations will be sent to the City Council/Board of Public Works Conference Committee. From there the City Council and the various subcommittees will work with the recommendations and consider and ordinance. Subcommittees may include the finance committee; ordinance committee; and the economic development, housing, and land use committee with the final subcommittee referral to be determined by the City Council. Mr. Ford suggested that if the May 31<sup>st</sup> deadline was an issue for the Task Force members they could consider resigning, or tell the City Council that the charge can not be completed in that time frame. Mr. Teece said that forcing a decision by the Task Force seven weeks into the work is inappropriate and it looks like the Council is trying to ram-rod this fee through. Mr. Shennette said that the Task Force work needs to be cohesive, consistent, and comprehensive and that May 31<sup>st</sup> does not provide time to do the job thoroughly. Resident Alan Sharpe told the Task Force to tell the City Council that the deadline cannot be met and that the citizens have a right to due process. He added that any decision of the Task Force will fail and the City will have to live with the liability of that failure. He said that decisions that negatively impact property values are unconstitutional. He thinks that the City Council will accept all

recommendations of the Task Force and that the City will suffer in the long run. He added that the Task Force work is unfair to residents and they have a right to be heard. Mr. Dostal said he agreed with many of the comments made tonight. He added that the Task Force needs to decide what an equitable fee structure would be if the City Council decides to do a new fee. He said based on his experience the City Council would have at least three public hearings about this issue when the Task Force is done. Mr. Felten added that the Task Force could provide multiple alternatives for the City Council to consider. Mr. Hellman said that there was nothing wrong with multiple options. He said that he expects the Task Force recommendations to carry some weight. He mentioned that at an earlier meeting the Task Force was told that the deadline was May 1<sup>st</sup>, so May 31<sup>st</sup> provides more time. He felt that the development of fee models could be done in this time-frame and that fee proposals were on the agenda for discussion tonight. He added that the deadline was arrived at logically by working back from the October date to notify the state about a new enterprise fund. He added that the Board of Public Works has had many public meetings and public presentations about the issues surrounding flood control and stormwater issues and he would not apologize for the fact that the public turn-out for those presentations was low.

Mr. Ford made a motion to accept the May 31<sup>st</sup> deadline. Mr. Dostal asked if this meant the date to complete written recommendations and was told yes. Ms. McGrath asked what if the work was not done. Mr. Felten said the committee would submit whatever work they had completed. Six votes in favor with Mr. Teece voting no and Mr. Ghiselin and Mr. Shennette abstaining. Upon further discussion Mr. Ford withdrew his original motion. Mr. Hellman followed with a motion for the Task Force to use May 31 as a target for completion and that if by May 14<sup>th</sup> the Task Force needs more time then they will ask the City Council for more time. On a vote of 9-1 the motion passed, with Mr. Teece opposed.

**8. Presentation of Stormwater Utility Fee examples by SWTFC members and**  
**9. Discussion of Examples**

Terry Culhane's proposed fee structure was distributed to the Task Force and the public. Mr. Culhane walked through his fee proposal and how fees would be calculated. Mr. Hellman asked about undeveloped land and the fact that it may be basically pervious. Mr. Culhane replied that all properties would get a bill as part of their contribution to paying for the "common" impervious across the City. Mr. Ghiselin asked why there were tiers of residential fees and what about lots greater than 5 acres in size. Mr. Culhane replied that lots greater than 5 acres in size would be calculated individually. Mr. Ghiselin said that the City encourages open space preservation and that the cost seems like a lot for open space. Resident Konstantine Sierros said that for new development that results in greater than one acre of disturbance needs to get approval from the City and the permit requires that runoff be addressed. He asked why the fees were being considered. Mr. Culhane described the City's obligations to maintain the flood control and stormwater drainage systems. He added that regulatory rules apply to the discharge of stormwater to rivers and streams. Mr. Teece said Mr. Culhane's proposal is a great first look at a possible framework. He added that there was not time to explore all the details of each proposal tonight. Mr. Dostal added that the City planning office requires stormwater mitigation for new developments and that it is a factor that could be considered in fee structures. Mr. Felten stated that the majority of funding needed is for flood control systems and that the stormwater issue is a smaller part of the funding need. He said that the concept of credits was discussed in previous meetings. He asked Mr. Culhane if his proposal included any credits. Mr. Culhane briefly described his thoughts on credits (refer to the handout).

Bob Reckman's proposed fee structure was distributed to the Task Force and the public. Mr. Reckman provided an overview of his fee proposed fee structure. He indicated that his approach was similar to Mr. Culhane proposal with residential bills being based on tiered system and all properties contributing to the common expense of public infrastructure. He spoke about the importance of getting the word out about the work of the Task Force. He mentioned that a tour of the Hockanum Road Pump Station was scheduled for Monday April 22 at 4 p.m. He briefly discussed having fees set by an elected body (the City Council). Mr. Ghiselin stated that a predictable source of revenue is needed to pay for bonds and City financial obligations. Mr. Reckman said that perhaps the City Council would set the fee based on a Board of Public Works (BPW) recommendation. He added that another option would be for the City Council to set the fee for 5 years and then fee setting would be done by the BPW.

Ruth McGrath's proposed fee structure was distributed to the Task Force and the public. Ms. McGrath described her fee proposal and said it was based on what the City of Westfield had implemented. She indicated that all the details had not been worked out yet, but added that she favored credits, and assistance for low income residents. Mr. Felten mentioned that Westfield has a cap on commercial bills and that Ms. McGrath's did not mention a cap. Without a cap Mr. Felten said that the Veterans Affairs Medical Center would get bill of about \$50,000. Mr. Teece said that more work needed to be done in order to illustrate what the \$0.05 per square foot of impervious area would mean for various properties. Mr. Laurila offered to work with Ms. McGrath to determine some example bills for properties of various sizes.

Dan Felten's proposed fee structure was distributed to the Task Force and the public. Mr. Felten provided an overview of his proposed fee structure. The fee structure included payment by the City for bills, with bill payment coming from general fund revenue. Mr. Felten proposes to use runoff coefficients for impervious and pervious surfaces in order to calculate bills. He also said that his fee is based on a parcel by parcel determination of impervious area. Mr. Felten discussed the concept of the "commons" and that the Task Force should consider how this is best defined. Mr. Reckman said he thought the "commons" should include sidewalks, roads, buildings and parking lots owned by the City. Mr. Ghiselin agreed the City should pay although many Cities exempt City roads. He added that General Fund revenue only comes from taxpayers and that a fee system spreads the cost across all properties in the City. Mr. Reckman requested that a side by side comparison of the fee structures be prepared before the next meeting.

#### **10. Action Item Review**

Mr. Laurila agreed to prepare a side by side comparison of fee structures for Task Force use.

#### **11. New Business**

The next meeting was scheduled for April 25<sup>th</sup> at 5:30 p.m. at a location to be determined.

#### **12. Adjourn**

The meeting adjourned at 7:40 p.m.



# Storm Water Advisory Task Force

*Emory Ford, Chair*  
*Dan Felten, Vice-Chair*

**Meeting Minutes**  
**Thursday, April 25, 2013**  
**5:30 pm – 7:30 pm**  
**Public Works Board Room**  
**125 Locust Street, Northampton, MA**

**1. Members present:** Alex Ghiselin, Chris Hellman, David Teece, Robert Reckman, Ruth McGrath, Dan Felten, Emory Ford, John Shennette, Megan Murphy Wolf, Rick Clark, James Dostal

**Members absent:** None.

**City Staff Attendees:** James R. Laurila, P.E. City Engineer; Doug McDonald, Stormwater Coordinator

**City Councilor Attendees:** Marianne Labarge

**Other Attendees:** See attached sign-in sheet

**2. Meeting Called to Order**

The meeting was called to order at 5:30 pm by Emory Ford, Chair.

**3. Announcement of Audio/Video Recording of Meeting**

The meeting was video recorded by North Street Association, Ruth McGrath. Videos of these meetings will be posted on youtube and a link will be placed on the DPW website.

**4. Public Comment**

Resident Fred Zimnoch questioned why some of the City data did not match data on Wikipedia. Resident Mitch Bolotin asked when would a new system be effective? Mr. Ghiselin said that any new fee system would require City Council approval. Councilor Labarge said that the Task Force recommendation would be issued to the Conference Committee and then on to the City Council. She said she expected there to be a public process at the Board of Public Works and at the City Council. Mr. Bolotin asked if there was an estimated budget. Mr. Laurila said that a budget of about \$2 million per year had been discussed. Mr. Bolotin said that he wanted to see fee proposals. Mr. Felten indicated that specific fee proposals would be discussed tonight. Mr. Teece asked if there was a deadline to submit fee proposals. Mr. Hellman said he thought more models could be anticipated. Mr. Teece added that is new models keep coming in it may make it more difficult for the Task Force to complete their work by May 31. Mr. Reckman said it's an evolving process and there may be more ideas. Mr. Bolotin asked who could submit a fee model and how it should be submitted. Mr. Ford said any new models could be submitted to the Task Force directly or to Jim Laurila.

**5. Discussion and Approval of Minutes from April 18<sup>th</sup> Meeting**

On a motion made and seconded the draft meeting minutes were approved.

**6. Review of visit to pump station**

On April 22<sup>nd</sup> there was a tour of the Hockanum Road flood control pump station that was given by Public Works Director Ned Huntley. Mr. Clark said it's amazing that the pump station still works and that it's well taken care of.

Mr. Felten asked if the consequences of the engines failing was discussed. Mr. Reckman said not specifically. Mr. Shennette asked what would happen if the pump station does not work. What is the timeframe for flooding and what would be impacts be. Mr. Dostal said that the equipment in the flood control station is 70 years old and that it has been well maintained. He said that the engines are so old that replacement parts are no longer available. He said the station needs rehabilitating. If the station fails water could flood up to Pleasant Street and Pearl Street, with many millions of dollars worth of property damage resulting. Mr. Hellman asked if full or partial replacement of the station is needed. Mr. Ghiselin asked what if the pumps didn't start the first or second time. Mr. Teece added that it would be catastrophic with \$100's of millions in damage and that it's a very high risk. Mr. Hellman said the cost of rehabilitation and full station replacement needs to be considered and that a new station could cost \$15-\$20 million to replace.

**7. Presentation of any new fee algorithms from committee members**

**8. Discussion by committee of new algorithms**

Rick Clark proposed a new model based on the equivalent residential unit (ERU) method. Sample calculations were distributed. Jim Laurila said that the ERU method is based on impervious area and that CDM had recommended this method for determining fees. Mr. Felten asked the task force what is the fairness standard that should be considered? Mr. Reckman asked if agricultural and conservation areas should get a bill? Mr. Dostal questioned if it made sense for land not protected by the levees to pay a bill. Mr. Felten asked if the levees did not exist how much land would be under water? Mr. Dostal said that elevation 121 is the Connecticut River highest flood level. Mr. Ghiselin asked what the cost would be to determine the impervious area for every property in the City as proposed in the Felten method. Mr. Laurila said the cost would be on the order of about \$100,000. Mr. Hellman said there is an elegance to the Felten Method and that data management considerations are important. Mr. Dostal said that lot size could be used and that could be used. Mr. Teece said the City assessor has building size information that should be available.

**9. Report from Jim Laurila on Test Case Bills from the Proposed Fee Algorithms**

Mr. Laurila distributed a sheet of "discussion factors" for each of the proposed methods, a summary table that compared sample bills using each proposed fee method, and sample bill calculation pages for each method. These handouts were discussed.

**10. Discussion by Committee of test case bills**

General discussion about whether the City should receive stormwater bills ensued. Mr. Felten indicated that the City pays other utility bills now and it may be the most equitable if the City pays any new stormwater fees. Mr. Ghiselin said that we all benefit from City roads and said it might be ok to exempt City roads from fee calculations. Mr. Hellman said that he had just completed a summary of credits and exemptions to fees that would be distributed to the Task Force to read. He thought that it might make sense to exempt property that is not protected by levees and that conservation lands might also be exempt from fees. Mr. Clarke stated he has been reviewing various credit manuals used in other communities. He said streets are part of stormwater conveyance but that not all streets have catch basins. He indicated have some problems with the concept of the commons fee. He said that he thought that the City should not pay a stormwater fee out of the general fund. Ms. Murphy expressed an interest in considering if there should be a cap on the overall fee or other types of caps. She asked if properties outside the levees were subject to MS4 permit requirements. Mr. Reckman said he was not supportive of the Felten method. He said exemptions for conservation lands should be considered. He added that he liked the idea of the "commons" fee. Mr. Laurila suggested that the Task Force may want to consider the information in Table 1 from the New England Environmental Finance Center which discusses options for the various fee setting factors. Mr. Teece inquired if it was up to the Task Force to determine exemptions. Mr. Hellman said that exemptions should be considered since they will impact fee setting. Mr. Ghiselin said he liked the Felten method, it is fact based and detailed in fee setting. Mr. Felten suggested that the Task Force needs to resolve if a "commons" fee should be used and if the City should receive a bill. He added that the issue of cap alternatives needs to be discussed in more detail. Bob Reckman made

a motion that the City not get stormwater bills. The motion was seconded by Ruth McGrath. Ms. McGrath expressed concern about City overhead costs if the City does receive bills and that it might be more cost-effective overall if the City does not bill itself. Mr. Dostal agreed that administrative fees would end up being included in the bills issued to the residents. Mr. Hellman agreed that there was no need to bill the City. On a vote of 8-2 the motion passed. Mr. Felten and Mr. Teece were opposed and Mr. Ford abstained from the vote. Mr. Ghiselin said he wanted to see the impact of the bills now that the City will not be billed. Mr. Felten said that all the fees would go up proportionally. Mr. Teece made a motion to exclude all non-profit organizations from any new stormwater fees. Mr. Ghiselin seconded the motion. Mr. Teece said that at an earlier task force meeting a vote was taken to bill everyone including the City and the vote just taken reversed that decision. For this reason he wanted to have a discussion about an exclusion for non-profits. Mr. Ghiselin said he opposes an exemption for non-profits and that the City is a unique situation. He added that specific exemptions might be considered but that a blanket exemption was not appropriate. Mr. Reckman said he was open to considering credits but he was not in favor of exempting non-profits. Ms. McGrath, Mr. Shennette and Mr. Clark all agreed that case by case credits or exemptions could be considered but they did not favor a blanket exemption. The vote to exempt non-profits unanimously failed.

#### **11. Discussion of Path Forward**

#### **12. Action Item Review**

#### **13. New Business**

Items for discussion at the next meeting include whether to include a “commons” fee, issues and options with possible caps, and further discussion of fee algorithms.

#### **14. Next Meeting**

The next meeting was scheduled for May 2<sup>nd</sup> at 5:30 p.m. at a location to be determined.

#### **15. Adjourn**

The meeting adjourned at 7:40 p.m.



# Storm Water Advisory Task Force

*Emory Ford, Chair*  
*Dan Felten, Vice-Chair*

## Meeting Minutes

Thursday, May 2, 2013

5:30 pm – 7:30 pm

City Hall – Hearing Room 18

210 Main Street, Northampton, MA

- 1. Members present:** Alex Ghiselin, Chris Hellman, David Teece, Robert Reckman, Ruth McGrath, Dan Felten, Emory Ford, John Shennette, Megan Murphy Wolf, Rick Clark, James Dostal

**Members absent:**

**City Staff Attendees:** James R. Laurila, P.E. City Engineer; Doug McDonald, Stormwater Coordinator, Ned Huntley, Director of Public Works, Wayne Feiden, Director of the Office of Planning and Sustainability

**Other Attendees:** See attached sign-in sheet

- 2. Meeting Called to Order**

The meeting was called to order at 5:30 pm by Emory Ford, Chair.

- 3. Announcement of Audio/Video Recording of Meeting**

The meeting was video recorded by North Street Association, Ruth McGrath. Videos of these meetings will be posted on youtube and a link will be placed on the DPW website.

- 4. Public Comment**

Resident Fred Zimnoch said he compared various tables distributed at past meetings and found some discrepancies in the numbers. Resident David Herships said Philadelphia and other cities have allowed various credits for things such as permeable pavers and that the task force should consider credits like those. Mr. Felten responded that the task force will discuss these as part of any fee structure. Resident Jack Fortier said he was former City Finance Director, former Chair of the Board of Public Works, and chief financial officer at Hampshire College and that he has been closely following the work of the task force. He said he understands the need for a new revenue source but that he is concerned about equity. He said the implementation of a new fee system will feel like a tax and that it will be a condition of the property that you own. He said that there is some appeal to the concept of the “commons” since no one wants to see the City under flood waters. Everyone is responsible for protection of the City. A fee structure will bring some relief to residential tax payers and that sharing the cost burden equitably is very important. He suggested that the task force carefully consider fee limitations by exclusions and suggested that latitude of the fee recommendations will be important so that the debate about the fee system can continue after the task force work is done. Resident Mike Kirby said the largest violator of green infrastructure is the City and he urged that the City be required to pay the fees as an educational and equity issue. He said that it is not right to exclude properties from property beyond the dike, such as the fairgrounds, since stormwater costs apply to those properties.

- 5. Discussion and Approval of Minutes from April 25<sup>th</sup> Meeting**

Approval of the minutes was postponed since they were not yet prepared.

- 6. Presentation of any new fee algorithms from committee members**

Mr. Hellman asked what the format for the recommendation of a fee algorithm was going to look like? What is the recommendation to contain? Will there be dissenting opinion(s)? Mr. Ford said that at the meeting tonight caps, exclusions, and credits were to be discussed and that opinions about these would be considered. He said there may not be one single recommendation. Mr. Dostal said that a discussion about the flood plain was also an important topic tonight. A new fee method was proposed by Rick Clark. He proposed using an equivalent residential unit (ERU) method. Sample calculations were distributed for the Clark ERU method. Mr. Felten described some of the features of his approach to fee calculations. Mr. Reckman said all models except for the McGrath method uses some form of “commons” fee. Mr. Clark said the ERU does not include a “commons” fee and that it would be helpful to see a comparison of the various fee methods. Mr. Felten discussed possible sources of data for fee calculations including GIS and assessors data. He suggested that the largest square footage of impervious area for a residential property is the building footprint and that data is available at the assessors office. He said that GIS could be used to determine the impervious area of parking lots. Mr. Ghiselin said that there is a problem with the commons fee and that it should be borne equally by the population and that it should be split evenly. Mr. Felten asked how that could be done with various property types like Cooley-Dickinson Hospital and a residential property? Mr. Clark said the majority of the fee could be parcel specific. Mr. Felten discussed some of the contents of a matrix he prepared and distributed entitled “Fair and Equitable Matrix”. Mr. Culhane said that the City currently uses one billing rate for all water customers and one billing rate for all sewer customers. Residents and commercial customers are evenly charged. He suggested that this would make sense for a new stormwater fee.

#### **7. Report from Jim Laurila – DPW – Discussion of potential impacts of exclusions and credits**

Mr. Laurila distributed two summary spreadsheets. These showed Proposed Fee Structures and Sample Bill Comparisons. One table had no exemptions to the fee and the other included certain land exemptions, such that the Task Force could see the impact of exemptions on the remaining fee payers. A third table detailed which properties were assumed to be exempt from the fee.

#### **8. Report from Northampton planning department**

A presentation was made by Wayne Feiden, Director of Planning and Sustainability. A summary table entitled “Stormwater Utility and Open Space” was distributed. Mr. Feiden described the contents of the summary and offered his opinion about categories of land that he felt should be exempt from proposed stormwater fees. A general discussion was held about runoff from the categories of property that Mr. Feiden discussed in terms of stormwater runoff and contributions to flooding. Mr. Teece questioned if a certain type of property is exempt from the fee could another property owner use that basis to dispute their bill? Mr. Ford described that the Felten method relied on runoff factors and that if those factors are applied to a large conservation area that amount of runoff could be determined and that it would create a lot of runoff. The amount could be as much as a parking lot and that the physical facts need to be considered. Mr. Feiden said that conservation and other areas do not require any services. Mr. Ghiselin said that they did not – but that buildings and developments at lower elevations or near wetland areas require flood protection. Mr. Felten added that since every property contributes runoff to a watershed every property should contribute to the fee system. Mr. Dostal asked what is considered the flood plain and what about properties on Island Road or in the area of the Fairgrounds which are not protected by flood control. Should these properties be exempt from a fee since they receive no flood control protection? Mr. Feiden discussed the differences between the more “flashy” floods that would occur along the Mill River versus the larger more slow moving floods that would occur along the Connecticut River. Mr. Clark said doesn’t everyone benefit from flood control protection?

#### **9. Discussion by committee on credits and exemptions**

Mr. Dostal said he wanted to discuss ideas for credits and exemptions. Mr. Hellman distributed a document he prepared entitled “Stormwater Fee Credits/Incentives”. Mr. Hellman presented information on various credits and exemptions used by Newton, MA, South Burlington, VT, Philadelphia, PA, Richmond, VA, Griffin, GA, and

Champaign, IL. Mr. Hellman offered to do more research on the integration of credits and exemptions in to the various plans, the value of these and impacts on revenue needs.

#### **10. Discussion of the inclusion of “the commons”**

Ms. McGrath said she does not agree with the idea of the “commons” fee and that her proposed method does not use it. Mr. Felten said that the fee needs to include a baseline charge for a shared responsibility for flood control and common stormwater expenses. Mr. Ford said that if the Task Force cannot agree on a “commons” fee that this lack of consensus could be communicated to the City Council. Mr. Reckman is also concerned about the “commons” fee and if it’s not included where will the money come from for the City to pay for this responsibility? Ms. Murphy suggested that some residents could say that if the City does not get a bill why should the residents pay a “commons” fee? Mr. Clark said the fee would be simpler if the commons was not included in the calculations. Mr. Felten suggested that possible exemptions could total up to the amount of a “commons” fee. Ms. Murphy said that properties should not be exempt from everything and that bills should not be allowed to be reduced to zero. Mr. Felten said that the “commons” fee could be for all properties and that it can not be split for residential, commercial and open space categories, etc. Mr. Clark asked if the fees could be determined with out a “commons” fee? Don’t separate the “commons” fee out – but it would be spread out within other fee calculations. Mr. Shennette said it is a factor in the fee setting formula and what do you call it?

#### **11. Discussion on “caps”**

The concept of various types of caps was introduced and discussed. Possible caps include: cap for a fee paid by a property owner, a cap on the rate used to calculate fees, a cap on the overall system budget. Mr. Ford asked if someone could research information about caps. Mr. Hellman offered to look into this. Mr. Felten said that caps were used in Westfield and that ultimately a cap did not work because it resulted in inadequate funding for the City’s needs. He added that a transitional type of cap might be an option. Mr. Clark asked if the estimated \$2 million per year budget would change. Mr. Culhane said that the budget was accurate but that one wildcard would be the extent of improvements or replacement of the Hockanum road flood control pump station. Mr. Teece said that the state of the economy will impact the budget as time goes on.

#### **12. Action Item Review**

#### **13. New Business**

Mr. Hellman offered to do more research on credits and exemptions. Mr. Ford said the Task Force has only a limited time to complete its work. Mr. Shennette expressed concern about the Task Force being able to complete the work by May 31<sup>st</sup>. Mr. Teece agreed with Mr. Shennette and that the deadline could not be met. Ms. Murphy said she wanted to keep the deadline and provide the City Council the information they need. Mr. Felten agree with Mr. Teece and Mr. Shennette about the concern of limited time and added that ideally consensus should be arrived at but that it may be necessary to provide the City Council with more than one option. Mr. Dostal agreed and said that they multiple options could be provided and that the Council will have all of the work done by the Task Force as they move forward. Recommendations could include information about exemptions and how to raise the fee. Mr. Clark said the work is important and that the Task Force needs to go through the information being considered and see where they are at the end of the month. Mr. Reckman said there may not be enough time but by the deadline the task Force should provide whatever decisions it can to the Council. Mr. Ghiselin said he agreed with Mr. Clark and that he still did not understand all the basic fee setting concepts and that maybe an option or two could be recommended to the Council. Ms. McGrath agreed and said all the fee factors are on the table and that they have until the end of May to provide ideas and recommendations to the Joint Committee. Mr. Shenette asked if there was any harm in asking for more time? Mr. Hellman agreed with Mr. Ghiselin and Mr. Reckman that there were still questions about fundamental issues, but that progress has been made, and that usable results are apparent. He wants to meet the deadline and provide usable information to the Council. Mr. Ghiselin said based on his experience on the Council they will not deliberate about fee structure options after the task force is done and that they would refer to the Public Works Department to determine the fee structure details if the details are not provided. Ms. Murphy questioned

what needed to be done to get to the end? Mr. Clark said it was like what Mr. Hellman had asked which was what will be turned over to the Council? Should an extension be requested or should something be provided by May 31<sup>st</sup>? Mr. Felten said there are several proposals and a good starting point. There are still issues that need to be worked out including “commons” fee, caps and exemptions. He said it’s important to focus on a fair and equitable structure. Mr. Ford said the Council meets tonight and on May 16 and then their next meeting will be in June. The Task Force is obligated after May 16<sup>th</sup> to update the Council on the status of the work. Mr. Clark asked if Councilor Spector should be invited to the next meeting. Mr. Dostal added that the next Joint Committee meeting is May 13<sup>th</sup>. Mr. Teece said that the Task Force needs to develop a clear, concise and consistent recommendation. He added that if there is confusion about the Task Force conclusions the public will not understand it. He agreed with Mr. Ghiselin that the fee structure determination will become a DPW issue if the Task Force does not reach a clear conclusion. He said determining a fair and equitable structure is a struggle and that there are many factors to consider, such as caps and exemptions. He said the deadline was incorrectly given. Ms Murphy said she felt that her expectation was that the work could be done in the time frame given. Mr. Reckman said the final report could include individual concerns. Mr. Clark said the task force was asked to prepare a fair and transparent system and that if they do not achieve that goal if one cannot be arrived at. Mr. Felten said that the Task Force report may not be perfect and that maybe it ends up being more of a status of work completed.

Mr. Reckman offered to prepare information about possible definitions for the “commons” for discussion at the next meeting. Possible factors include gross areas and impervious areas of City land.

#### **14. Public Comments**

Resident Mike Kirby said that members or former members of the Board of Public works should bow out of any votes regarding exempting the City, because it is a conflict of interest. He said everyone should read the CDM report because it describes millions of dollars in capital projects and that the \$2 million budget is not reflected in that report. Mr. Teece asked if the CDM report was being used by DPW for planning. Mr. Laurila said that the DPW is not referring to the CDM report for establishing budgets. Resident Fred Zimnoch expressed concern about the task force finishing too fast and he wants to make sure that any fees are fair and equitable.

#### **15. Setting the Next Meeting date**

The next meeting was scheduled for May 9<sup>nd</sup> at 5:00 p.m. at a location to be determined.

#### **16. Adjourn**

The meeting adjourned at 7:35 p.m.



# Storm Water Advisory Task Force

*Emory Ford, Chair*  
*Dan Felten, Vice-Chair*

**Meeting Minutes**  
**Thursday, May 9, 2013**  
**5:00 pm – 7:00 pm**  
**Public Works Conference Room**  
**125 Locust Street, Northampton, MA**

**1. Members present:** Alex Ghiselin, Chris Hellman, David Teece, Robert Reckman, Ruth McGrath, Dan Felten, Emory Ford, John Shennette, Megan Murphy Wolf, Rick Clark, James Dostal

**Members absent:** None.

**City Staff Attendees:** James R. Laurila, P.E. City Engineer; Doug McDonald, Stormwater Coordinator, Ned Huntley, Director of Public Works

**Other Attendees:** Terry Culhane, Board of Public Works, Chair.

**2. Meeting Called to Order**

The meeting was called to order at 5:00 pm by Emory Ford, Chair.

**3. Announcement of Audio/Video Recording of Meeting**

The meeting was video recorded by North Street Association, Ruth McGrath. Videos of these meetings will be posted on youtube and a link will be placed on the DPW website.

**4. Public Comment**

Councilor Paul Spector thanked the Task Force for all the work completed to date. He said it would be helpful if the Task Force took a formal vote on whether or not an enterprise is recommended. He said a recommendation will be useful even if all the details cannot be worked out by the Task Force. He said that if the Task Force can make a detailed recommendation that it would be fantastic. Mr. Dostal said the task force can work on a recommended plan but that ultimately it will be up to the City Council to enact any plan and that several public hearings will be needed. Ms. McGrath added that it may be necessary to recommend two plans to encompass all the work that's been done. Mr. Hellman said the final recommendation should include a narrative describing the Task Force process and the issues that were considered and that any unresolved issues should be described. Mr. Ford asked Mr. Spector that the Task Force be provided with information about what format the City Council wants the recommendation to be in. Mr. Spector said it's up to the task force to decide what the format should be but that he felt the idea of a narrative was good. Mr. Spector said he would ask the Joint Committee at their next meeting if they had ideas about the format for recommendations.

**5. Discussion and Approval of Minutes from April 25<sup>th</sup> Meeting and May 2, 2013 meeting**

Approval of the minutes was postponed since they were not yet prepared.

**6. Presentation of any new fee algorithms from committee members**

No new fee algorithms were presented.

## **7. Format for Committee Report to the City Council and DPW Joint Committee**

This was discussed under Item 4.

## **8. Report from Northampton planning department**

The planning department was not present at the meeting and had not been invited to follow-up on their presentation from the previous meeting.

## **9. Discussion by committee on credits and exemptions**

Mr. Hellman presented information about stormwater credits and incentives based on research he completed and was described in his handout. Mr. Ghiselin asked a question about monitoring and maintenance of private stormwater systems that are constructed. Mr. Laurila said that projects that disturb more than one acre of land are required to apply for a City stormwater permit and that the permit requires that a stormwater operation and maintenance agreement be prepared which dictates the needed inspection and operation and maintenance requirements. Mr. Reckman said that a modest credit for residents would be a good idea. He also suggested that certain “big projects” could apply for substantial credits. Non-residential properties could apply for a 20-25% reduction in their fee. He suggested that credits would be for what has been done and incentives would be for forward looking things. Mr. Hellman added that credits would be ongoing and incentives would be one time. Mr. Teece asked how developed and undeveloped property would be defined? Mr. Hellman said more research would be needed to determine that. Mr. Dostal suggested that the City planning office should have definitions that could be used and suggested that Mr. Hellman contact that office. Mr. Felten said that credits and exemptions need to be considered carefully because the these will reduce the overall revenue raised and that more money would need to be raised by property owners that will be fee-paying. He added that incentives and credits could be developed down the road. Ms. Murphy said that credits should be limited to the portion of fees that are related to EPA and drain infrastructure issues and not for flood control. She added that creating credits won’t help with the funding issue. Mr. Hellman said that an option would be to establish a floor for the lowest bill and that no bill could be reduced to zero. Ms. McGrath agreed with credits for residential properties and added that residents should be able to do something to improve stormwater and reduce their bill. She added that a floor would be good idea. Mr. Hellman offered to look at incentives and credits in more detail. Mr. Ford requested that Mr. Hellman be prepared to discuss his findings at the next meeting. Mr. Ghiselin asked how far back credits should go. For example, Cooley-Dickinson constructed stormwater improvements a few years ago, would they be eligible for a credit? Mr. Hellman said it was not clear about past actions. Mr. Shennette suggested that there should be no credits issued for past actions. Mr. Clark said that one type of credit offered by some utilities is a free distribution of rain barrels and that this was a good, visible benefit for residents. Mr. Dostal said that the City offers low cost rainbarrels now. Mr. Ghiselin added that projects that build systems to meet the building code or planning department requirements should not get a credit. Mr. Clark said property owners can always do more than what’s required by codes and permits.

## **10. Discussion of the inclusion of “the commons” in fee structure**

Three handouts were distributed related to possible definition of the “commons”. One was entitled “The Commons-Definition Possibilities’; and the other two handouts were tables that provided a detailed breakdown of City Properties and Roadways and the other detailed State and Federal properties. Mr. Reckman proposed a fee system where the City would pay the “commons” fee using General Fund money. Mr. Felten said that the Task Force had previously voted against the City paying. He added that fundamentally city money comes from property owners and that using the general fund relies on property taxes to pay the bills as Mr. Reckman is suggesting. Mr. Reckman said that people may ask about the \$400,000 in general fund money that is used now for stormwater related expenses. Mr. Clark suggested that the City Council should be asked what will happen to the \$400,000. Ms. McGrath added that the City will decide what happens to the money in the general fund and that she does not believe in charging a “commons” fee. Mr. Teece said that Mr. Reckman’s comments are confusing the issue and that what happens to the

\$400,000 will be a good discussion for the City Council not the Task Force. He said the task force should stick to the \$2million revenue goal plus an amount for possible caps and credits.

Mr. Shennette expressed concern about the lack of public awareness of the task force work and the decisions that they are working on. Mr. Ford said that determining a fair and equitable fee structure is an important part of the Task Force charge. He said the citizen acceptance is beyond the control of the Task Force and he is also frustrated about the lack of outreach. Ms. Murphy said that the appointment of the Task Force, which is composed of City residents, is the first step in public outreach. She added that the City Council and Board of Public Works will need to do more outreach as the process proceeds. Mr. Ghiselin agreed with Mr. Shennette and added that more unanimity in any Task Force recommendations is important, otherwise the recommendation will not be as effective. Mr. Dostal said he expects some dissent among the members. Mr. Hellman agreed with Mr. Ghiselin and said he does not want a lot of dissent and hopes that a program can generally be agreed on. He said options could be presented with the force of recommendation. Mr. Ford said the Task Force will decide how much dissent there will be at the end. Ms. Murphy said she is hoping for an agreement on one of the plans and a basic construct of the key issues. Mr. Reckman said that the public process is important and that the Chamber of Commerce has offered to help with public education and to help people anticipate the new program. Mr. Clark said that the Task Force seems to agree that there is a need to build a new fund to pay for these problems. He added that the Task Force is part of the public education process and that he wants to see consensus on at least two plans.

Ms. McGrath asked if she is the only plan not charging for the “commons”. She offered to change her opinion on this matter. Mr. Laurila said that the Clark Method does not use a “commons” fee. Mr. Felten said that there are several principles that need to be decided including whether there should be a “commons” fee or not. Should there be a simple flat fee? A tiered fee? He said the Task Force needs to build a structure for a fee system without looking at the detailed numbers and then evaluate how to make the final fee system fair. Mr. Clark said exempting the “commons” simplifies fee setting. Mr. Culhane said he was working on a new fee proposal for this meeting but was not ready to present it yet. He said if municipal property is exempt then there should be no municipal shared expense. Fees can be fairly determined without the “commons” fee. The “commons” is a philosophical construct and is unnecessary. Mr. Felten said the commons could be used to develop the floor for a fee system. Ms. Murphy said that it could be possible to use a fee with a portion related to the EPA permit and another portion that would be an infrastructure fee. Mr. Felten said this could be a good idea and that the EPA related budget is about 20% and it could be useful to determine credits and their value.

## **11. Discussion on “caps”**

Ms. McGrath asked if the discussion of caps would also include a discussion of a floor, or bottom fee value. Mr. Ford indicated that both could be discussed. Mr. Clark said he did not favor an overall cap for revenue which is estimated to be about \$2 million. Mr. Hellman said one possibility would be to cap the amount of any increase in the rate for a 3 or 5 year period. Mr. Felten said that caps help ease the implementation of the system in the first few years, this could help with public acceptance, and ease the roll-out. Mr. Teece said Westford and Reading both decided to cap revenue only to find out that they undershot their actual needs. He said the system costs should not be underestimated in order to get a new fee system accepted by the public. The budgets need to be realistic.

Mr. Dostal said that it is important to understand what the impacts of caps would be on an enterprise fund. There was discussion about the amount of general fund money that is spent on stormwater and flood control expense currently. At the first meeting in March, Terry Culhane presented actual and proposed budgets for these expenses. Mr. Ford indicated that earlier in the meeting Mr. Spector had requested that the Task Force vote on whether the City should use an enterprise fund to meet funding requirements for stormwater and flood control. Is an enterprise fund a fair and equitable way to raise the needed funds? Mr. Felten indicated that he needed to check the minutes but he recalled that a discussion of various funding mechanisms had been discussed and the task force had settled on a fee system as the most viable means. Mr. Clark asked if the City would need to hire more staff to comply with forthcoming regulatory requirements. Mr. Laurila said additional staff would be needed and those costs were

reflected in the budget table previously presented by Mr. Culhane. Mr. Culhane added that the General Fund allowance is not sufficient for the required staffing needs. Mr. Ghiselin added that the General Fund is also inequitable.

## **12. Action Item Review**

Mr. Ford said that additional discussion was needed on commons, exclusions, credits and caps. Mr. Hellman said he supported a tiered system for residential fees. Mr. Clark said he likes the idea of caps but needs to make a decision based on how much and what the impact is on revenues. He suggested that limiting the budget increases each year may be one option. (At this point Mr. Laurila distributed and updated table of all proposed fee structures and sample bill amounts.) Mr. Ghiselin said he like the tiers and also lot size as fee factors. Mr. Laurila spoke for a few minutes about the use of runoff factors in fee setting. He said that he had worked with Mr. Culhane during the week with a new fee proposal based on tiered system for residential properties and the use of runoff coefficients for pervious and impervious land. He said one reason that the new fee structure was not presented was that the fees generated using runoff coefficients resulted in fees being higher for undeveloped land and that under this scenario using runoff coefficients impervious land only accounted for 37% of the revenue needs. He added that the EPA (Guidance for Municipal Stormwater Funding) has indicated that fees that rely on runoff coefficients may need to be adjusted if a community wants a higher percentage of revenue coming from developed land. For example, DPW research has found where several communities have split revenues with 80% coming from impervious land and 20% coming from pervious land. EPA has documented that this split has been used and that other splits or adjustment can be made. Mr. Laurila added that an ERU fee like Mr. Clarks relies on 100% of revenue from impervious surface.

Mr. Teece said that getting at the possible use of a commons fee was important. Mr. Ghiselin said he wanted to know what factors could be agreed on in the next meeting. Mr. Teece said some of the factors to be discussed include the use of an enterprise fund, caps and floors on fee among others. Mr. Shennette suggested that the Task Force members review Table 1 that was distributed by Mr. Laurila at the March 13<sup>th</sup> meeting which describes the various fee setting factors. Mr. Felten suggested that Table 1 be posted as a google document so that each Task Force member could include their thoughts about the factors. Mr. Shennette offered to post Table 1 on google.

## **13. New Business**

There was a brief discussion led by Mr. Ford regarding a public comment at the last meeting about a possible conflict of interest by having former and current Board of Public Works members voting on decisions related to a proposed fee structure. It was generally discussed that there was no conflict of interest by having these appointed members of the task force vote on task force matters.

## **14. Public Comments**

Mr. Clark asked Mr. Zimnoch for specifics about an upcoming public presentation by the Army Corps of Engineers about the City's levee system. Mr. Zimnoch said the representatives of the Army Corps would be presenting information about the City's flood control system on Wednesday May 29<sup>th</sup> at 7 p.m. at the Bridge Street School. He said all are invited to attend.

## **15. Setting the Next Meeting date**

The next meeting was scheduled for May 16<sup>th</sup> at 5:00 p.m. at the Public Works Conference Room

## **16. Adjourn**

The meeting adjourned at 7:05 p.m.



# Storm Water Advisory Task Force

*Emory Ford, Chair*  
*Dan Felten, Vice-Chair*

## Meeting Minutes

Thursday, May 16, 2013

5:00 pm – 7:00 pm

Public Works Conference Room  
125 Locust Street, Northampton, MA

- 1. Members present:** Alex Ghiselin, Chris Hellman, David Teece, Robert Reckman, Ruth McGrath, Dan Felten, Emory Ford, John Shennette, Rick Clark, James Dostal  
**Members absent:** Megan Murphy Wolf  
**City Staff Attendees:** James R. Laurila, P.E. City Engineer; Doug McDonald, Stormwater Coordinator, Ned Huntley, Director of Public Works  
**Other Attendees:** Terry Culhane, Board of Public Works, Chair.

### 2. Meeting Called to Order

The meeting was called to order at 5:00 pm by Emory Ford, Chair.

### 3. Announcement of Audio/Video Recording of Meeting

The meeting was video recorded by North Street Association, Ruth McGrath. Videos of these meetings will be posted on youtube and a link will be placed on the DPW website.

### 4. Public Comment

Resident Fred Zimnoch questioned how an enterprise fee system would work as related to possible credits that have been discussed. He added that the task force charge of determining a fair fee is important. He said he calculated his tax contribution through real estate tax to pay for the \$2.5 million proposition 2 ½ override that is proposed and compared that to his stormwater fee as proposed under the various fee structures and found that in some cases his fee would be more than his tax bill. Lastly, he questioned why state and federal land should be excluded from a “commons” definition.

### 5. Discussion and Approval of Minutes from April 25<sup>th</sup> Meeting, May 2, 2013, and May 9, 2013 meetings

Mr. Dostal indicated he had minor scrivener’s errors to tell Mr. Laurila. The minutes were approved from the April 25<sup>th</sup> and May 2<sup>nd</sup> meetings. Approval of the Minutes from the May 9<sup>th</sup> meeting was postponed since they were not yet prepared.

### 6. Presentation of any new fee algorithms from committee members

Mr. Reckman introduced a new fee algorithm that he has been working on with Mr. Culhane. A summary table was distributed along with a sample fee calculation sheet. Mr. Reckman indicated that the bill would consist of a shared commons fee and an impervious area fee. The shared commons fee was based on a commons area of 20% which includes City, State and Federal Roadways, rights-of ways and sidewalks. He said that this method was devised to give a break to undeveloped land and agricultural land and place most of the financial burden on developed impervious surface. The proposed model has a tiered system for residential fees for categories of 1-3 family homes

with lot sizes in groups: 1/2 acre, between 1/2 acre and 1 acres, between 1 acre and 3 acres. Mr. Ford asked why Mr. Reckman had changed his mind and now endorses a method that uses a commons fee. Mr. Reckman said that he was trying to balance the value of a bill for undeveloped property and developed property. He said that large commercial properties with a lot of blacktop are the worst and create the most runoff and that under the new method impervious land accounts for 80% of the revenue requirements. Mr. Dostal asked what about the case for a 40-50 acre parcel in preservation. Mr. Reckman said they would just pay the commons fee. He added that credits and exemptions still need consideration, but that the model does build in consideration for undeveloped land. Ms. McGrath asked if the Office of Planning and Sustainability proposed changes to UR-B and UR-C districts had been considered and would more densely developed lots impact the proposal. Mr. Reckman said that the commons fee was a good idea since it allows a way to bill for things that we all benefit from in our city. The commons fee in this new model is 20% of total revenue needed and the cost is shared equally. He said having the City pay for the commons fee using General Fund money is a bad idea because only tax payers contribute to the General Fund. Mr. Culhane said that the 20/80 revenue split is based on the commons area as Mr. Reckman had defined. He indicated that other towns have also used a 20/80 split because it works and the fees come out in an acceptable manner, where everyone makes a contribution. He suggested that exemptions may not be needed if the commons fee is modest. Mr. Dostal questioned the need to raise more revenue to account for possible credits. Mr. Clark suggests another 20-25%. Mr. Reckman indicated that 5-10% is his preference. Mr. Dostal said he wanted to hear a report from Mr. Hellman about credits. Ms. McGrath asked if the commons fee was included in the residential bills. Mr. Reckman said it was and that the commons fee totaled \$400,000 and that if the City paid the commons fee each fee would go down. Mr. Clark asked if the commons portion only is what the City would pay? Mr. Reckman said yes. Mr. Felten said he thought that a vote had been taken that the City would not pay stormwater fees. Mr. Laurila stated he believed that such a vote was taken and reflected in the meeting minutes. Mr. Ford asked Mr. Reckman what caused him to change his proposed method. Mr. Reckman said it's a complicated problem and that he looked at many methods. He added that logic says the City should pay but that very few cities do pay. There are many factors that need to be balanced. Mr. Felten said the commons fee was one of the original ideas brought to the table for discussion. He added that he has trouble with the distinction between the common interest and site specific interests. It's all common interest. All infrastructure is common. He said the motivation of capturing undeveloped land fairly in a fee is good but that the framing of the argument could make it hard for people to understand. Mr. Reckman said it's like schools that benefit some property owners but not all – although taxes from all tax payers contribute to schools and the that we all collectively benefit from this. Mr. Ghiselin said that the commons makes sense if you can bill it right. He said you could subtract the City from the equation and raise the money needed. Mr. Clark asked if there would be vote on the commons. Mr. Ford said that there was a worksheet for consensus building where votes would be taken on various factors. The members agreed that this would be discussed under items 10 and 11.

## **7. Format for Committee Report to the City Council and DPW Joint Committee**

This was discussed under Item 4.

## **8. Report from Northampton Public Works**

No specific report had been requested and none was provided.

## **9. Discussion by committee on credits and exemptions**

Mr. Hellman handed out a document he had prepared (dated May 16<sup>th</sup>) that described exemptions, credits and incentives. He said that he had offered to look in more detail at budget implications in other communities related to these items but that very little financial data was readily available. Mr. Hellman then proceeded to review the contents of his research document. Mr. Dostal asked if public works staff could provide links to information from the planning department and DPW about stormwater management requirements. Mr. McDonald said this information is available on the City's website and that it can be made available to the Task Force members. Mr. Clark asked if stormwater improvements are required by permit or approval if those systems should be eligible for a credit. Mr. Hellman said that if an improvement has residual benefits that can be inspected and documented it could

be eligible for a credit. Consideration needs to be given to a cut-off for credits. Mr. Ghiselin said that a property owner needs to apply for a credit and prove the long term benefit and reduction in stormwater. The benefit would need to be proven by an inspection each year. Mr. Dostal said that Cooley-Dickinson made significant stormwater improvements and should be eligible for a credit. Mr. Ghiselin agreed. Mr. Hellman suggested that there might be a 5-year credit cycle. Ms. McGrath said that disability and/or senior credits should be considered. Mr. Hellman said that the transfer station permit program used a means-based discount program which could be considered. Mr. Teece said he is 100 percent in favor of credits but that credits may bump up and conflict with caps and exemptions and that those things need to be accounted for. Mr. Clark agreed it is important to hit revenue needs and that he wants significant incentives of all sizes to improve the function of the system. He would like to see visible results and a city-wide effort to improve stormwater systems. Mr. Shennette said he found a credit manual for North East Ohio. He said that a new fee could be implemented and that a system of credits could be worked out in the future.

#### **10. Review of committee comments on Table 1 “Google Docs:**

#### **11. Discussion of Principles – Commons, Credits, Exclusions, Caps (minimum and maximum), residential, non-residential, pervious and non-pervious.**

Mr. Ford had provided a Worksheet for Consensus Building to the members in advance of the meeting. A poster sized copy of the worksheet was used for discussion purposes and to gauge Task Force members thinking about the listed criteria. Attached to the minutes is a copy of the worksheet as it was filled in. Mr. Felten indicated that caps could be staged or phased in over a 1, 2, or 3 year time frame. Mr. Reckman said he was opposed to any caps and felt that a recommendation for caps would carry little weight. Mr. Hellman said caps are acceptable but he preferred a phase-out and he also favors a hard minimum charge. Mr. Clark asked why caps should be phased out. Mr. Hellman said that caps may be arbitrary and not reflect the reality of funding needs for the City. He added that a review of the caps over 3 or 5 years would make sense. Mr. Ghiselin said that what is more relevant is who decides on the cap. He said it could be a political decision with the City Council ultimately deciding on any cap or rate. He supports the idea of having the City Council responsible for determining caps. Ms. McGrath said she favored caps for about 5 years and then being phased out. Mr. Shennette said was not sure about caps without knowing a formula. He might favor a maximum increase each year but wants to see more detail. Mr. Shennette objected to the May 31<sup>st</sup> deadline saying it was not enough time to work out the details on things like caps. Mr. Ford suggested that the members continue to fill out the chart and then see where they stand. Mr. Teece said he would vote for a cap rate increase if the Council was responsible for it. Mr. Ford again encouraged the members to decide on basic principles and then move to build a model. Ms. McGrath offered to remove her model from consideration and that she agreed with the new Culhane/Reckman model. Mr. Clark said that his method and Ms. McGrath’s are similar. Mr. Shennette said that Ms. McGrath’s model was based on Westfield’s and that it should be kept in the discussion. Mr. Ford agreed that all models should remain at this point. After the task force supported the concepts of impervious area and gross area, with a split vote on the use of the commons- Mr. Felten said these factors would serve as the crux of fee setting. Mr. Ford said that when the chart is complete it could be presented to the City Council as part of any recommendation(s) and that the City Council could see that there are some split decisions on some of the factors. Mr. Reckman said that the Clark method does not rely on a commons fee. He added that the commons fee could be removed from the new Reckman/Culhane model and the additional 20% of revenue needed would have to added in a different way. Mr. Teece added that a recommendation could be framed that the City Council needs to decide what to propose on some the factors where the Task Force was split. The City Council could make those decisions and that would be one way to move ahead. Mr. Clark expressed concern about the deadline and that public comment might be reduced if the Task Force deadline was extended. He wants the City Council to increase the amount of education and that if the Task Force needs two more weeks that is less time available for public comments when the matter moves forward. Mr. Felten said the City Council may have a hard time educating the public and it would be better if the Task Force recommendations are cleaner. Mr. Hellman said that recommendations could be achieved in two more meetings. He added that meaningful work needs to be done on the recommendations and suggested that staff could prepare a summary on the background work of the Task Force. Mr. Dostal said it was too soon to decide if an extension was needed and that two more meetings should be held to assess the status and then decide if a request for more time should be made. Mr. Ford said he could tell Councilor Specter that the May 31<sup>st</sup> deadline is not doable to complete the work. Mr. Shennette said in a previous meeting there was a vote that was

approved that said the status of the work would be determined by May 14 and the Task Force would decide on that date whether to request an extension. Mr. Teece agreed with Mr. Ford to tell the Joint Committee that more time is needed and that the October deadline for Council action may turn out not to be as relevant as thought. Mr. Clark asked if an extension should be requested. Mr. Ford confirmed he would tell Mr. Specter that more time is needed and that the Task Force has done due diligence but that there is a lot of work to do. Mr. Reckman made a motion that the City Council be told that the Task Force needs more time. On a vote of 7-2 the motion passed. Mr. Ghiselin and Mr. Reckman were opposed and Mr. Ford abstained.

## 12. Report Writing – Who Does what?

Mr. Ford stated that he had received an email from Mr. Laurila on May 14, 2013 that summarized the Joint Committee's thoughts about the contents and format of the task force report. The contents of the email as follows:

*“Councillor Spector has requested that I send a message to the Task Force in regard to the format and content of recommendations. The City Council-Board of Public Works Conference Committee discussed your request for guidance during their meeting yesterday.*

*The Conference Committee indicated that one important element of the Task Force work is to vote to recommend or not recommend that a new enterprise fund be implemented as the means to meet City stormwater and flood control obligations. Secondly, they requested that the Task Force make recommendation(s) for a fair and equitable fee structure. If the Task Force can agree on one recommendation with details that should be presented. If more than one fee structure is included in the recommendations the Conference Committee would appreciate information on pros and cons of the different fee structures. As may be appropriate references to fee structures or pieces of fee structures in other towns could be mentioned in the final report. The report should include some description of the basis for decision-making so that the Conference Committee can best understand how decisions were made.*

*The final format of the recommendations should be a written document - supplied in hard copy and as a pdf document.*

*The above is based on my notes from yesterdays meeting. If I have not accurately represented the conference committees desires I would ask that this email be elaborated on by the committee members.”*

Mr. Shennette asked if the Joint Committee had discussed the May 31<sup>st</sup> deadline. Ms. McGrath asked if an extension would be requested. Mr. Ford said the deadline was tight and that the Task Force could vote to request more time. Mr. Clark asked if a vote on creating an enterprise fund was part of the Task Force charge. Mr. Felten said that this was not new and that the charge included a language about determining a fair and equitable fee. Mr. Clark said he had an email from Councilor Owen Freeman-Daniels that said an enterprise fund was an option. Mr. Clark then asked if the Task Force was then eliminating other options for funding. Mr. Dostal said fees could be managed like the city ambulance fund or like an enterprise fund. Mr. Teece read from the Task Force charge stating that funding is not a matter of choice and that he said referring back to the charge is important and that any decisions and report back to the City Council should be based on the charge. Mr. Hellman said that Councilor Spector said it would be helpful for a vote about an enterprise fund and that if it's not specifically part of the charge it should be done nonetheless. Mr. Felten said that the first three task force meetings discussed funding options. The Task Force had

debated the merits of an override, general funds a new utility etc. He thought that a specific vote was taken that a new utility was needed, but that the meeting minutes should be checked. He said all methods were discussed and that a utility was determined to be the most effective. Mr. Clark said that he recalls the discussions but does not recall a specific vote and asked if the Task Force was deciding on the need for a utility. Mr. Ford and Mr Dostal stated that the Task Force will only present recommendations. Mr. Clark said a vote should be taken. After some discussion about the language for a motion Mr. Hellman moved that “the Task Force Recommend that funding to deal with the issue of stormwater includes a fee”. Mr. Dostal seconded the motion. The motion passed with 7 votes for. Mr. Shennette opposed and Mr. Teece and Mr. Ford abstained.

### **13. New Business**

No new business was discussed.

### **14. Public Comments**

There were no additional public comments.

### **15. Setting the Next Meeting date**

The next meeting was scheduled for May 23<sup>rd</sup> at 5:00 p.m. at the Public Works Conference Room

### **16. Adjourn**

The meeting adjourned at 7:05 p.m.



# Storm Water Advisory Task Force

*Emory Ford, Chair*  
*Dan Felten, Vice-Chair*

## Meeting Minutes

Thursday, May 23, 2013

5:00 pm – 7:00 pm

Public Works Conference Room  
125 Locust Street, Northampton, MA

- Members present:** Alex Ghiselin, Chris Hellman, Robert Reckman, Ruth McGrath, Dan Felten, Emory Ford, Rick Clark, James Dostal, Megan Murphy Wolf  
**Members absent:** David Teece, John Shennette  
**City Staff Attendees:** James R. Laurila, P.E. City Engineer; Doug McDonald, Stormwater Coordinator, Ned Huntley, Director of Public Works  
**Other Attendees:** Terry Culhane, Board of Public Works, Chair.

The meeting was called to order at 5:00 pm by Emory Ford, Chair.

### 2. Announcement of Audio/Video Recording of Meeting

The meeting was video recorded by North Street Association, Ruth McGrath. Videos of these meetings will be posted on youtube and a link will be placed on the DPW website. It was noted that Ms. McGrath needed to leave about 15 minutes prior to the end of the meeting and the recording would end at that point.

### 3. Public Comment

Resident Fred Zimnoch was concerned that all the old fee models have been scratched. He liked the Felten model which was based on the concept of service use and amount of runoff from pervious and impervious surfaces. Mr. Reckman said all models are still under consideration. Mr. Felten added that there is not one model that they all agree on.

### 4. Discussion and Approval of Minutes from May 9, 2013, and May 16, 2013 meetings

The minutes were approved for the May 9<sup>th</sup> and May 16<sup>th</sup> meetings.

### 5. Presentation of any new fee algorithms from committee members

At the start of the meeting two new fee algorithms were distributed. One was identified as Clark ERU Method #2 and

The other was identified as Felten 2. Also distributed were the following:

- A summary spreadsheet entitled “Sample Annual Stormwater Bill Comparison – City Property Excluded from Billing- Updated May 23, 2013).
- Table entitled “Percentages of Areas, Property Tax, and Proposed Stormwater Fees by Property Types” dated May 23, 2013.

Mr. Clark describes his revised ERU Method. He said a modification was added that would result in undeveloped land being billed, so that all property owners contribute. He walked through how the bills would be calculated. He

promoted the new ERU method as easy and straightforward. Mr. Reckman noticed that each bill under Clark #2 was lower than Clark #1, because all property owners would be billed under the new algorithm. Mr. Ford asked how flood control costs were handled in the new method. Mr. Clark said that the revenue was all in one pot and not dedicated to stormwater or flood control. Mr. Ford asked if there is no distinction in revenue? Mr. Felten said that this was true of all models proposed so far. Mr. Dostal said it is good to keep it all together. Mr. Clark recommends the ERU method as the best and simplest approach to billing, it allows adjustments and it's transparent. In his opinion using a runoff coefficient is not that important. He added that money is need to fix stormwater infrastructure and not so much about managing a certain volume of flow. Mr. Dostal agreed and said that the last substantial work on storm drains was done in the Dunphy administration when the City sewers were separated into sanitary sewer and storm sewers and that there is a large backlog of stormwater related infrastructure projects.

Mr. Felten described his new algorithm and that the new method was based on impervious area with a minimum fee for undeveloped land. Undeveloped land, regardless of size, would pay \$108 annually which is the lowest residential rate.

Mr. Felten then said that he wanted to have a more philosophical discussion about the stormwater fee and mentioned that he had sent an email to the Task Force members on May 21, 2003 (added to the minutes as a public record.) Mr. Felten referred the Task Force to the table "Percentages of Areas, Property Tax, and Proposed Stormwater Fees by Property Types". He pointed out that the table indicates a shifting of cost burden from residential to commercial/industrial sectors. He said the Task Force has been operating under the assumption that impervious area is a fundamental driver for determining the fee. He said that stormwater system maintenance and monitoring and EPA compliance is an important factor and that the City is in a crisis now because these things have been ignored and not part of the budget historically. This has led to the need for funding now. Tax exempt properties don't pay for stormwater and flood control systems, and taxes are based on property values. The need for projects has continued to build up and it may be a problem to deal with capital projects with a fee. He pointed out that residential properties pay 83 percent of property tax and for the fee proposals the residential contribution is reduced to about 48-52 percent. The change in revenue goes to tax exempt properties. There are various stakeholders at risk and he asked if capital projects should be a city-budget issue or an override issue. Mr. Dostal said he was on the City Capital Improvements Committee for over 20 years and that through the years it was common where less than one-half of the needed capital projects were actually funded. He described the competing needs for limited general funds including schools, police and fire departments. He added that when Proposition 2 ½ passed the public works department was cut in half. Mr. Felten asked how do those points help come to fair and equitable. Mr. Dostal said that all sources of funding need to be considered in terms of fairness. Mr. Ghiselin said that the commercial/industrial sector pays 17 percent of property tax and that it is not necessarily equitable. About 70 percent of impervious surface is due to commercial/industrial development. Is it not equitable to ask for 31% contribution from commercial/industrial? Mr. Ghiselin added that using Proposition 2 ½ overrides for capital projects would be unworkable if used for every capital project. Mr. Felten was concerned that public works may not have firm hold on the numbers. Mr. Ghiselin said that we all have a vested interest in flood control and we all use the roads and infrastructure and we're all in this together. Mr. Felten agreed and said he is looking at 2 sections: 1) EPA driven unfunded mandates – dealing with normal runoff and connected to impervious area and 2) Flood control which may have no real relationship to runoff since impervious area is less relevant and is more about property protection and property values. A fee based on property value protection and property values does not make sense. Businesses will be upset about a new fee. Mr. Felten suggested separating out \$400-500,000 with a surface area fee for EPA related stormwater costs. But that a hard look should be taken at flood control and a large capital project like the flood control pump station should be paid for by an over-ride. He added that he wanted to share his thoughts about the unfair shifting of costs and that you could use an alternate fee based on factors for classes of property. Mr. Reckman said there are a number of conflicting threads related to fees, impervious surfaces, or combination of impervious and pervious land, or look at property values. He asked how would fees get assigned to property value? On the whole he said that most proposed fee proposals have a similar split between property types. What is most equitable? Impervious factors or property value or other factors? Mr. Felten said a new fee will impact property value and that it's a huge impact. Mr. Reckman said fees need to be fair to residential and to businesses. Mr. Hellman said cost of service is used for water, sewer and electricity bills. Mr. Laurila said that developing a fee

based on property value may not be consistent with the Massachusetts General Laws which require a fee for service provided. Mr. Dostal said that industry and homeowners are charged taxes based on the same basis to encourage businesses to come to Northampton. He suggested that businesses and homeowners need to be treated the same. Mr. Ghiselin said there is precedent to treat industrial/commercial sector differently. He said it is ok to change property tax rates but the City has chosen not to do so. He said to suggest that flood control is about property value is a hard nut. Mr. Felten said that if there is a flood, businesses stand to lose more. He added that not many communities our size are looking at fees of this magnitude and that asking Smith College to pay an \$85,000 bill to support a \$2 million budget does not make sense. Mr. Felten then asked about some of the calculated stormwater bills and what percentage of a tax bill they might be. Mr. McDonald was able to provide some tax data for discussion. For example, CVS on King Street paid \$33,107 in real estate taxes and their stormwater fee under the various proposals would be in the range of \$823 to \$1,973 ranging from about 2.5%-6%. Wal-Mart, also on King Street, pays about \$159,635 in real estate taxes and their stormwater fee would range from \$5,248 - \$13,097, corresponding to a range of 3.3%-8%. Coca-Cola pays about \$235,083 in real estate taxes and their stormwater fee under the various proposals would be in the range of \$9,378-\$23,425, corresponding to 4%-10%. Lastly, Paradise Copies pays about \$8,513 in real estate taxes and their stormwater fee would range from \$147-\$367, or 1.7%-4.3%. Mr. Felten added that if we ask for 26% of fees from the commercial/industrial sector under Culhane/Reckman the total tax base to that sector would be a lot higher. Mr. Reckman said this does not include non-profits who would have to pay. Mr. Felten said that businesses would be required to pay 10% over and above their real estate taxes for these new fees. Mr. Ghiselin said that an example is the increase in meals tax that placed an additional tax burden on restaurants. But it is justified because the City provides needed police support, clean-up etc. In this case there are other expenses a business should pay for that is a function of their area of impervious surface, so it's OK to ask them to pay for service. Mr. Hellman added that credits and incentives may help with some reduction in the bills. Mr. Felten said the credits would need to be meaningful. Mr. Hellman said that in Northeast Ohio some credits were up to 100%, but the task force has not assumed credits would be this high, but businesses with larger bills would be able to achieve some credits. Mr. Ford suggested moving to the next agenda item.

## **6. Response from Paul Spector on Time Extension**

Mr. Ford said he had been in contact with Councilor Paul Spector about a possible extension. Mr. Spector said the Task Force could go until June 13<sup>th</sup> if needed. Mr. Dostal thought that 2 more meetings might be adequate, but he wanted to think about it. It might be doable if 2 fee proposals are given since it may not be possible to settle on one proposal. Ms. McGrath agreed that maybe two proposals would be possible, although one recommendation would be best. Mr. Ghiselin said that he's happy to take an extra meeting or make the meetings longer. He felt that it would be a failure of the committee if there are multiple recommendations. Mr. Reckman said that multiple recommendations might be ok, but it should be a goal to get to one. Mr. Clark said he sees both sides of the extension, completion sooner will provide more time to the City Council, but if the Task Force takes more time to get to one recommendation two weeks is not enough. Mr. Felten said either way, wrap up next week or take more time. Mr. Clark added that he would like to see more about credits in the next couple of weeks. Mr. Hellman said that the Northeast Ohio credit manual took time and a lot of money to prepare to the level of detail they did. Ms. Murphy said maybe this can be done with the extension. Mr. Hellman said that Mr. Teece and Mr. Shennette, who are both absent, would have argued for more time. Mr. Felten moved to take the time extension to June 13. All voted in favor except Mr. Clark and Mr. Ford who each abstained.

Mr. Ford said that Mr. Spector told him that he did not want a vote on an enterprise fund system, but that he wanted a fair and equitable fee structure worked out. Mr. Reckman said that a vote had already been taken to use a fee and now they needed to figure out the formula. Mr. Ghiselin said that Mr. Felten had just introduced the idea that flood control costs should be paid by the General Fund and not by a new fee. Mr. Felten moved to "separate the EPA mandates from flood control". Ms. Murphy seconded the motion. Mr. Clark was not in favor of the motion because of the need for funding for deferred maintenance and the flood control pump station and that the vote may threaten the chance to replace the pump station. Ms. McGrath questioned how new projects will get dealt with. Mr. Felten said the budget is gnawing at him and that the budget could be \$2 million or \$6 million, etc. and that the cart was before the horse. He said more definitive information about what is planned is required and then it could be figured

out how to pay for it. He said it's very open ended and he's worried about that. Mr. Dostal said in 1940 the flood control system was funded 100% by the federal government and turned over to the City. Now the Army Corps of Engineers (ACOE) says that because of all the flooding they are not sure of the levees are high enough and they need to be checked. The City was told to do this. The pump station equipment is over 70 years old and parts can no longer be ordered. He said that flood control should not be separated from the proposed fee system. He said no one has yet determined if the pump station needs updating or complete replacements – but either way money will be needed for this and that there is no federal money. Mr. Ghiselin agreed with Mr. Dostal and he does not support separating flood control out separately. He said public works should be given the money to do what needs to be done. He added it's a political decision on the budget and the City Council must vote to increase any fee. A predictable stream of money is needed to do the needed work. Mr. Felten say that there is a need to deal with flood control separately. Funding the EPA mandates is easily done, then flood control is more complicated since it's not fundamentally based on runoff. There is a need for revenue for flood control but how can it be done fair and equitably? The thresholds and ability to pay is important for equitability. A budget of \$500,000 for flow off property makes sense for EPA mandates but flood control needs to be dealt with separately. Mr. Reckman said he understands the distinction between stormwater and flood control but wondered if the distinction would be lost on the public. He said if you only pay for EPA mandates you may never get to any flood control work. He said the fee is a good way to pay for both.

Mr. Felten said that he's not saying not to do flood control but to deal with it as 2 parts of a formula within a fee structure. Mr. Ford said that the bills would be divided into one portion for stormwater/EPA mandates and another portion for flood control? Mr. Ghiselin asked if they can be separated in the budget. Ms. McGrath asked if the Task Force charge even included flood control? As written it only references stormwater. Mr. Reckman said Councilor Spector was previously asked for a clarification of the charge and indicated that flood control is included. Mr. Culhane said that he thought that Mr. Spector had said that flood control should be included but that he could be sent an email to confirm this. Mr. Ford said he wants the charge clarified since it is the official document for the task force. Mr. Felten said getting back to Ms. McGrath's question that flood control and stormwater can be put in one bill but split up. They could be two parts of the same formulas. Ms. Murphy asked if each bill would have two separate line items. Mr. Felten replied it could be a single fee calculated in two parts. Mr. Hellman said he has concerns about separating out flood control and that funding should be based on three principles: a reliable steady source of money, not reliant on taxes, and not reliant on overrides. Mr. Reckman said that Mr. Felten is now indicating that it could be a single fee, in two parts, which would address Mr. Hellman's concerns. Mr. Ghiselin asked if it would shift the funding burden to residential properties? Mr. Felten replied probably. Mr. Dostal said that if there is underlying concern about the total budget, the annual budget could be tied to a cost of living adjustment or other escalating clause. A fund could be set up with a stated increase and the escalator could be reviewed and changed in the future if needed. Mr. Reckman asked if a formula for flood control and stormwater would be changed year to year based on actual costs? Mr. Felten said yes – it would just be a formula. Mr. Dostal suggested a process where public works would discuss budgets with the Joint Committee and then ultimately to the City Council for a vote, or an automatic escalator could be used. Mr. Reckman suggested that an escalator for the first 5 years could be used. Mr. Clark agreed with the general approach. Mr. Culhane commented that the City Council now approves all capital projects that require bonding, that the Board of Public Works sets the water and sewer rates and that the City Council approves all City budgets. Mr. Clark said that the City Council, as elected officials, could set the rates and the timeframe of 3-5 years for an escalator would be good. He stressed the importance of not starting with a low fee and then jumping immediately to a higher fee. Mr. Hellman said he is in favor of a cap and phase-out and that he had concerns about politicians making decisions about rates. He said in the other enterprise funds the Board of Public Works looks very hard at the budgets and makes rate decisions based on revenue needs. He suggested that City Council factors in decisions may not be a soundly grounded on this kind of information. Mr. Reckman said he would like to see a 2-part model to consider it further. Mr. Culhane questioned the need for a vote about using a model in 2 parts for flood control and stormwater and that such a vote would dismiss other models as proposed. Mr. Ghiselin said it's ok to consider new models. Mr. Felten withdrew his earlier motion. Mr. Clark asked if Mr. Felten could prepare another model? Mr. Ford said a new model could be a lot of work and do we think it will result in a positive outcome? Mr. Felten said a new model could be prepared for discussion.

## **7. Report from Northampton Public Works**

No specific report had been requested and none was provided.

## **8. Review of Principles Matrix**

### **9. Individual Member Comments on the Matrix**

Mr. Ford distributed a copy of the matrix from the last meeting. He had highlighted some of the rows in the matrix. Lines marked yellow indicated consensus and pink indicated a split vote. Mr. Felten said to move things forward, if there is a split vote on a factor, multiple fee proposals could be recommended. For example, since there is a split about using a “commons” component in the fee, one recommendation could be to include a fee with a “commons” component. Mr. Ford asked which model should be moved forward? Ms. McGrath indicated that the Culhane/Reckman 2 model had a “commons” component and the “commons” acts like a floor to the fee. Mr. Felten pointed out that the Culhane/Reckman 2 model has a different percentage distribution that property value and tax contributions. He asked if the “commons” would be the floor and that credits would be added on. Mr. Hellman and Mr. Reckman indicated yes. Mr. Dostal added that the “commons” fee would be paid by all. Mr. Ford said that that model would be recommended due to the split vote on the “commons” criteria.

Mr. Ford asked about members thoughts about various caps. Mr. Dostal said the budget could be tied to an escalator like 2.5% for 5 years, or to a COLA. Mr. Felten said that a cap on overall revenue could be established. Mr. Dostal said the public is concerned about this. Mr. Clark commented that in a previous meeting Mr. Shennette did not like an overall cap because what if more money was needed to deal with an unexpected emergency. Mr. Dostal said that you could use language such as any emergency over \$75,000 would have to be picked up by the general fund. Mr. Felten said that the ratepayers needed to be protected from unreasonable increases. He said the current budget of \$2 million is about 2% of the overall City budget of \$96 million and that this is a lot of money. Mr. Ford asked if there was consensus on rate increases. The matrix sheet was filled in and there was a consensus that a cap on the rate increase should be used, that a cap on the amount of revenue should be used and that a cap on the maximum bill should not be used.

### **10. Report Writing – Who does what?**

### **11. Report Writing – Who Does what?**

Mr. Ford asked if the committee should write the report. Mr. Clark said it should be. Mr. Reckman said that every member should review the draft report before it is released. Mr. Felten offered to prepare an outline of the recommendation report document for the next meeting, so that writing assignments can be discussed.

### **12. New Business**

No new business was discussed.

### **13. Setting Next Meeting Date**

The next meeting was scheduled for May 23<sup>rd</sup> at 5:00 p.m. at the Public Works Conference Room. (Note: This meeting date was subsequently changed to May 29<sup>th</sup> at 5:00 p.m. in the Public Works Conference Room.)

### **14. Public Comments**

There were no additional public comments.

### **15. Adjourn**

The meeting adjourned at 7:00 p.m.



# Storm Water Advisory Task Force

*Emory Ford, Chair*  
*Dan Felten, Vice-Chair*

## Meeting Minutes

Thursday, May 29, 2013

5:00 pm – 7:00 pm

Public Works Conference Room  
125 Locust Street, Northampton, MA

- Members present:** Alex Ghiselin, Chris Hellman, Robert Reckman, Ruth McGrath, Dan Felten, Rick Clark, James Dostal, Megan Murphy Wolf, David Teece, John Shennette  
**Members absent:** Emory Ford  
**City Staff Attendees:** James R. Laurila, P.E. City Engineer  
**Other Attendees:** Terry Culhane, Board of Public Works, Chair.

The meeting was called to order at 5:00 pm by Dan Felten, Vice-Chair. Mr. Felten stated that the meeting would end by 6:45 p.m. to allow task force members to attend a presentation by the Army Corps of Engineers about the City's flood control system, which was scheduled to start at 7 p.m. at the Bridge Street School.

- Announcement of Audio/Video Recording of Meeting**

The meeting was video recorded by North Street Association, Ruth McGrath. Videos of these meetings will be posted on youtube and a link will be placed on the DPW website.

- Public Comment**

There was no public comment.

- Discussion and Approval of Minutes from May 23, 2013**

The minutes were approved for the May 23<sup>rd</sup> meeting.

- Presentation of any new fee algorithms from committee members**

Prior to the start of the meeting 2 spreadsheets were distributed by staff as follows:

- Sample Annual Stormwater Bill Comparisons – updated 5/29/13
- Percentages of Areas, Property Tax, and Proposed Stormwater Fees by Property Types

Mr. Felten handed out a spreadsheet that showed a new fee algorithm he had developed (Felten 3). Mr. Felten described the new model which is based on 3 factors for buildings, impervious land, and pervious land. He selected different runoff coefficients for each factor. He said he limited pervious contribution to a maximum of one acre – or about \$100 in the model. He said that for this new model small residential property would pay 52%, large residential 10%, commercial/industrial 22% and non-profits would pay 9%. He said that he felt that model was better approaching equity and would be the least likely to be legally challenged. Mr. Reckman said he was concerned that this model might be complicated to explain. Mr. Shennette asked Mr. Laurila about the feasibility of implementing this fee structure and whether it would be costly. Mr. Laurila said that based on the current understanding of the proposal that there were no issues that would prevent it from being implemented. Mr. Felten said that accessing assessor's information for a specific property only took in the range of 10-40 seconds. Mr. Laurila stated that all the

numbers would need to be checked before any of the fee models are implemented. Mr. Ghiselin asked why the Smith College fee was not shown in the spreadsheet. Mr. Laurila said that the building data needed to calculate the fee is not available in the assessors database and that GIS could be used to get the data needed to calculate the Smith College fee. Mr. Clark asked how building impervious area was determined and Mr. Felten replied that assessor data could be used for this purpose. Ms. McGrath asked were large apartments and town houses fit it? Mr. Felten said those would be under large residential. Ms. McGrath asked if single family was just a flat fee and if a shed or deck would be counted. Mr. Felten said the average single family fee would be \$138 and that a histogram could be used to refine the fee calculations. Mr. Clark asked if this model was an effort to keep the funding burden on the commercial and industrial sectors? Mr. Felten indicated that if the method chosen is close to the tax burden percentage it is a benefit. Residential property accounts for 83% of the total property tax burden. Mr. Clark stated he had no problem with a shift that the ERU method would result in – where the commercial/industrial sector would pay more of a percentage of the total revenue and that the formula is to determine how to divide up the \$2 million revenue need. Mr. Ghiselin said they should focus on equity and comparison of property classes and that the revenue budgeted could be less than \$2 million. Mr. Felten said it could a lot more like \$6 million. Mr. Dostal said \$1.5 million may not be enough money. Mr. Reckman said that the new model puts more value on residential property and that makes sense since human life and safety are the most valuable.

Mr. Clark said the ERU method appears to be the best approach. The ERU philosophy works with common ownership and shared responsibility to fix flood control and stormwater systems before problems arise. This is a long term issue that needs to be dealt with now and that using overrides would be a tough sell. The City Council will need to do more public outreach and he thought a \$2 million budget is the minimum that should be considered. Mr. Dostal agreed with these statements. Mr. Felten said the ERU simplifies residential bills and others are based on the impervious surface and rate. It reflects impervious surface exactly and does not account for cost burdens of large impervious area owners, such as sweeping, catch basin cleaning and other costly maintenance activities not encountered by residential property owners. He said he is a homeowner and a business owner in the City and this fee will be tacked as a financial burden like a tax. Mr. Shennette referenced an email sent by Mr. Clark which said that the majority of cities have used an ERU system. He asked if there was a way to do a hybrid fee with an ERU for residential and some other fee structure for other properties. Maybe consider the Felten3 model for commercial/industrial property. He said it might be easier to sell the ERU fee since it is used across the country. He added that Smith College expends a significant amount of money of sweeping, catch basin cleaning, green roofs etc to manage stormwater on their property. Mr. Felten said that Terry Culhane had considered a model with land use factors and that intensity of use factors could be used but that gets more subjective. Mr. Reckman suggested that a 3<sup>rd</sup> factor could be added to the Culhane/Reckman model. Mr. Culhane said that the fee philosophy and framework being determined by the Task Force could last for decades and by the City for a very long time. Mr. Clark said this is a good point and property values may benefit since the City is investing in infrastructure. He added it would be a good way to improve behavior and responsibility for managing stormwater.

Mr. Reckman suggested that a more elaborate version of the Culhane/Reckman model could be developed that used an ERU for residential. Mr. Felten said that might not be much different than his new model. Mr. Hellman said the acceptability of a fee value goes beyond the ability to calculate it. Homeowner will be looking to see if they are paying what their neighbors are paying and that one-family fee is not equal to a 3-family house fee and those types of comparisons. He said that the report writing will be important and that a frequently asked questions fact-sheet on major issues is needed and that it would help the City Council and others.

Mr. Dostal said it was most important to have a cap on the fund at a reasonable amount. He said he had some questions into the state about the use of a revolving fund, special revolving fund and enterprise fund for this purpose. He said a five year sunset clause is needed and after that time the DPW or City Council would need to determine how well the cap is working. Mr. Culhane asked if the intent of Felten3 to nudge fee results so that property value breakdown mirrors the tax rate breakdown by property class? For example, using the Clark method and other methods commercial property on King Street pays a higher cost and commercial/industrial would be a higher percentage than the property tax breakdown. Is this what the Task Force intends? Mr. Dostal said he would not support a higher burden on commercial/industrial sectors because the City Council works hard to get businesses to

come into the City. Mr. Felten said it's not higher by design and that it just came out that way. Mr. Clark said the operation and maintenance cost is variable and not always done and that he gets behind the revenue percentage split in the Culhane/Reckman model. Mr. Teece asked if Mr. Ghiselin question about the salability of dollar amount had been answered. Mr. Ghiselin added that they should be focused on the bill but the relationship between commercial/industrial, no-profits etc is a factor. Mr. Teece expressed concern about the public perception of a fee since a lot of infrastructure is below ground and the fee may be called a rain tax, or fear tax, and that it should be thought of as a reality tax. He said the education piece will be very important. He added that if the fee calculation gets too complex people can't understand it. Mr. Felten discussed how an ERU system worked as a simplified method for residential fees and that the ERU factor is applied to commercial/industrial property. He said that several of the models have math involved to calculate the fee.

Mr. Clark said that he wanted to hear more about credits and that maybe an ERU system with a better set of credits for commercial and industrial would be something to consider. Mr. Hellman said he was against using credits to get around higher fees for commercial and industrial property. He wanted a fee system to be determined absent of credits first, and then a credit system could be determined. He said the City Council could decide on no credits and the fee structure would need to stand on its own. Mr. Teece said that the Task Force should be on record as having strongly recommended the use of credits. Mr. Clark said the commercial/industrial sector will be very interested in credits. Mr. Shennette said that Smith College would also be interested in credits and the educational components for credits. Mr. Ghiselin asked how the runoff factors in Felten3 were determined and if they were in the mid-range of published values. Mr. Felten said they were not and described how he selected them.

Mr. Ghiselin asked if the factors could be defended as realistic. Mr. Felten replied he would. Ms. Murphy said that she could agree with the Felten3 model and that it could be explained to the public. She agreed with Felten3 which puts more burden on the residents and that some previous models resulted in insane bills for businesses that would have been impossible to budget.

Mr. Felten said that during the previous meeting the Task Force had suggested possibly recommending 2-3 models. He reviewed the different approaches and asked if the Task Force wanted to continue with 2-3 models in the recommendation or a list of all the models with a pros and cons list. There was general discussion about how to proceed. Mr. Teece said that if a 3<sup>rd</sup> model was included it might be considered junk. Mr. Dostal and Ms. McGrath agreed 2 are plenty to recommend. Mr. Clark said one recommended model would be nice. By vote the Felten3 model (renamed "hydraulic acreage") was preferred on a vote with Chris Hellman, Megan Murphy Wolf, Alex Ghiselin, Ruth McGrath, Dan Felten, and John Shennette in favor. Favoring other models were Robert Reckman, Rick Clark, James Dostal, and David Teece. Based on another vote the Clark2 method using an ERU was preferred as an alternate fee setting method.

#### **6. Response from Paul Spector on Time Extension**

This item was not discussed at this meeting.

#### **7. Any Report from DPW – Jim Laurila**

No specific report had been requested and none was provided.

#### **8. Review of Principles Matrix**

#### **9. Individual Member Comments on the Matrix**

The principles matrix was not discussed at this meeting.

#### **10. Committee Recommendations to Joint Committee – Principles, Fee Formula's, Concerns, Minority Report**

#### **11. Report Writing – Who Does what?**

Mr. Felten distributed an outline for “Final Recommendations of the Ad Hoc Stormwater Task Force”. The outline was used to determine writing assignments for the final document. The Task Force discussed having draft section distributed for member review prior to the next meeting. At the next meeting comments would be discussed.

## **12. Path Forward**

No new business was discussed.

## **13. New Business – Reserved for topics the Chair did not reasonably anticipate would be discussed**

The next meeting was scheduled for June 13th at 5:00 p.m. at the Public Works Conference Room.

## **14. Setting Next Meeting Date – Public Comments**

There were no additional public comments.

## **15. Adjourn**

The meeting adjourned at 6:30 p.m.



# Storm Water Advisory Task Force

*Emory Ford, Chair*  
*Dan Felten, Vice-Chair*

**Meeting Minutes**  
**Thursday, June 13, 2013**  
**5:00 pm – 7:00 pm**  
**Public Works Conference Room**  
**125 Locust Street, Northampton, MA**

- 1. Members present:** Alex Ghiselin, Chris Hellman, Robert Reckman, Ruth McGrath, Dan Felten, Rick Clark, James Dostal, Megan Murphy Wolf, David Teece  
**Members absent:** Emory Ford, John Shennette  
**City Staff Attendees:** James R. Laurila, P.E. City Engineer, Doug McDonald, Stormwater Manager, Ned Huntley, P.E. Director of Public Works  
**Other Attendees:** Terry Culhane, Board of Public Works, Chair.

The meeting was called to order at 5:00 pm by Dan Felten, Vice-Chair.

- 2. Announcement of Audio/Video Recording of Meeting**

The meeting was video recorded by North Street Association, Ruth McGrath. Videos of these meetings will be posted on youtube and a link will be placed on the DPW website.

- 3. Public Comment**

Prior to the start of the meeting staff distributed two tables entitled:

- City Properties and City, State and Federal Roadways Excluded from Stormwater Billing
- Federal and State Properties

Mr. Culhane said that the Task Force members had voted to exempt City properties from billing. He asked that the Task Force consider reviewing the list of municipal properties and attaching a final list of exempt municipal properties to the Task Force Report. Similarly, he requested that the list of state and federal properties be reviewed and a final list attached to the Task Force report.

Mr. Paul Walker from Ward 6A requested copies of letters sent to the City by the Army Corps of Engineers and the Environmental Protection Agency. He also requested copies of all Task Force meeting minutes.

- 4. Discussion and Approval of Minutes from May 29, 2013**

The minutes were approved for the May 29<sup>th</sup> meeting.

- 5. Presentation of any new fee algorithms from committee members**

The following documents were distributed:

- Sample Annual Stormwater Bill Comparisons – updated 6/13/13
- Percentages of Areas, Property Tax, and Proposed Stormwater Fees by Property Types –updated 6/13/13
- Felten3 (Hydraulic Acreage) – Proposed Stormwater Fee Billing Structure – Sample Calculations

Mr. Felten described the updated information for the hydraulic acreage billing structure. Mr. Felten had worked earlier in the day with staff to make some modification to the fee structure. This resulted in some changes to sample bills when compared to the fees presented at the last meeting. Using the hydraulic acreage method the average single family home would pay \$144 per year; a 2-family would pay \$125/year; and a 3-family would pay \$150/year. Ms. McGrath asked why the 2-family fee dropped below a single family house fee. Mr. Felten said the change occurred when the algorithm was applied to a listing of all residential properties. Mr. Hellman said someone, such as a politician, might apply a fudge factor to increase the 2-family to be higher than a single family home. He noticed that the fee for undeveloped land also increased. Mr. Clark also questioned why the fee for the 2-family property is less. Mr. McDonald suggested that task force member refer to the sample calculation page that was handed out which illustrates how the fees are calculated. Mr. Felten described the need to adjust for very large residential properties that skew the average property size. Ms. McGrath said she did not understand the calculations and asked what hydraulic acreage means. Mr. Felten described the contribution to the amount of surface water runoff from different surfaces. Ms. McGrath expressed concern about not being able to explain the fee calculation and that the fee is confusing. Mr. Reckman said he felt the virtue in the Felten3 model is that it is a mathematical model. Mr. Hellman said he is also comfortable with the model but said he is committed to preparing a frequently asked questions sheet to help explain it. He added that the final report will need a glossary of terms to make it easier to understand. Mr. Felten said that the glossary should be added to the final report. Mr. Reckman suggested that 2 tables be prepared for the final report. One table would be for the 2 recommended fee structures only – and would show the sample bills. The second table would show all the proposed sample fee structures and bills. Mr. Culhane asked Mr. Felten about the background for calculating the fee for undeveloped property. Mr. Felten described that there is a maximum charge based on a one acre area. Mr. Culhane asked if this was arbitrary and Mr. Felten replied that it is. Mr. Clark said that each model has some degree of arbitrary decision-making and described the ERU model and the assumption for billing undeveloped land. Mr. Teece said that the facts are the facts and can not be disputed. There is some arbitrary decision in preparing a credit program. Some of the items that are arbitrary could be changed by anyone. Ms. Murphy asked how the bills would increase if the overall budget was increased to \$3million per year. Mr. Felten described how the rate would change and the bills would increase. Mr. Dostal said that a cap of 2 ½ percent increases could be used. He also suggested a sunset clause for the review of the cap should be set at 3 to 5 years. Mr. Ghiselin said the \$2 million is arbitrary and it could be more or less and that the number is only being used to define the fee calculations. Mr. Hellman said the \$2 million is based on the Department of Public Works research and that the City Council could decide a higher number would be better. Mr. Clark said for the ERU model if the budget was \$3 million the bills would increase by 50 percent. Mr. Felten said the fee increase would also be proportional for the hydraulic acreage method. He added that the Task Force should focus on the two recommended models and their differences. For example, for undeveloped land the Clark2 model a 50 acre property would have a bill of \$745 versus a bill of \$130 using the hydraulic acreage model. Mr. Clark said that the ERU could use a cap for undeveloped land and the resulting fee for undeveloped land would be smaller and would benefit open space goals. Mr. Felten said all the models have arbitrary assumptions to some degree. Mr. Clark said that the ERU without the fee for undeveloped land does not have that flaw. He added that for a 10 acre undeveloped parcel the fee would be equal to a 3-family house fee and if the revenue requirement increases the fee for undeveloped land would also be increased. Mr. Felten asked the other members how does it work for each model to be considered fair and equitable? There are arbitrary fees caps and fees that could be applied. What is the basis to support these models? Mr. Hellman said that you may have to give up exactness for simplicity. You have to chose a number and it may not be perfect but it's good. Mr. Felten said that the hydraulic acreage model is way out ahead of the ERU and it's the model of choice. The ERU was a distant 2<sup>nd</sup> vote. He suggested the task force focus on that model. He questioned why 2 models were being included in the final report. Mr. Hellman said that including two models helps to tease out the points of contention. He added that the ERU is commonly used and it got votes. Mr. Ghiselin added that they illustrate the strengths and weaknesses of each. Mr. Clark said it was good to show the two recommended models as well as all the other models that were discussed. Mr. Felten said it is important to get these points into the narrative. Mr. Reckman said the report needs to say how much one model was preferred over the other. He suggested adding the actual vote counts into the narrative. Mr. Clark asked if it was relevant to include the column with tax information in the fee summary spreadsheet. Since it is not a fee setting factor it should be removed. Mr. Hellman agreed.

**6. Any Report from DPW – Jim Laurila**

No specific report had been requested and none was provided.

**7. Review of Progress of Report Section Drafts by Committee Members**

**8. Individual Member Comments on Report**

**9. Report Writing – Who does what next**

A statement that was prepared by David Teece was distributed. Mr. Felten said that this statement should be included in the final report, possibly as a forward to the document. Prior to the meeting each draft section of the final document was distributed to each task force member. The task force members discussed the content of each draft section and edits and additions to the document were discussed. The task force members will work on the discussed changes and a revised draft for the next meeting. Mr. Shenette will review, edit and format the final document for distribution to the Joint Committee for their meeting on July 8.

**10. Path Forward**

This was discussed above.

**11. New Business – Reserved for topics the Chair did not reasonably anticipate would be discussed.**

No new business was introduced.

**12. Setting Next Meeting Date**

The next meeting was scheduled for June 20th at 5:00 p.m. at the Public Works Conference Room.

**13. Public Comments**

There were no additional public comments.

**14. Adjourn**

The meeting adjourned at 7:05 p.m.



# Storm Water Advisory Task Force

*Emory Ford, Chair*  
*Dan Felten, Vice-Chair*

**Meeting Minutes**  
**Thursday, June 20, 2013**  
**5:00 pm – 7:00 pm**  
**Public Works Conference Room**  
**125 Locust Street, Northampton, MA**

- 1. Members present:** Alex Ghiselin, Chris Hellman, Robert Reckman, Ruth McGrath, Dan Felten, Rick Clark, Megan Murphy Wolf, Emory Ford, John Shennette  
**Members absent:** David Teece, James Dostal  
**City Staff Attendees:** James R. Laurila, P.E. City Engineer, Doug McDonald, Stormwater Manager, Ned Huntley, P.E. Director of Public Works

The meeting was called to order at 5:00 pm by Emory Ford, Chair.

- 2. Announcement of Audio/Video Recording of Meeting**

The meeting was video recorded by North Street Association, Ruth McGrath. Videos of these meetings will be posted on youtube and a link will be placed on the DPW website.

- 3. Public Comment**

Resident Fred Zimnoch made four points. First, he is concerned about the possible escalating fees as shown in Table 5.11 of the CDM report. He urged the Task Force to recommend a cap. Secondly, he retracted his earlier statement that the ERU method for his property is more expensive than the proposed Proposition 2 ½ over-ride. Third, he asked that the Task Force include a process for a resident to request an abatement. Lastly, he said the Felton Methods are the best but he found Felton3 to be obscure and wondered why the 2-family rate is less expensive than the rate for a single family home.

Resident Paul Walker said he understands the problem but that federal and state issues are not mandates. He said taxpayers are being lied to and asked - why is stormwater a mandate? He said there is an economic downturn and it's not right to be setting new fees.

- 4. Discussion and Approval of Minutes from June 13, 2013**

The minutes were approved for the June 13<sup>th</sup> meeting.

- 5. Presentation of any new fee algorithms from committee members**

No new fee algorithms were proposed. Mr. Laurila indicated that he and Mr. McDonald provided some support to Mr. Clark and Mr. Felten as they explored the details of the hydraulic acreage model. Slightly revised fee calculations were provided for the hydraulic acreage model. Revised sample calculations were provided for the Clark2 model and the hydraulic acreage model. The details of the two recommended models were discussed by the Task Force.

## **6. Any Report from DPW – Jim Laurila**

No specific report had been requested and none was provided.

## **7. Review of Progress of Report Section Drafts by Committee Members**

## **8. Individual Member Comments on Report**

## **9. Report Writing – Who does what next**

Ms. McGrath distributed a draft glossary and requested that the members review it and add any other terms as appropriate. Mr. Clark suggested that the draft report be reviewed to determine if other definitions are needed. He also suggested using EPA documents for determining definitions. Mr. Shennette said that he would have a compiled final report for all to review before July 8<sup>th</sup>. The compiled draft will be sent by email and no further Task Force meetings will be needed. All members agreed to review the compiled draft report to be sent by Mr. Shennette and let him know if they have any comments. There was discussion about how best to incorporate a reference to the CDM report and any implications related to the Task Force work. The pros and cons of adding an Executive Summary to the final report were discussed. There was discussion about whether a presentation of the report to the Joint Committee on July 8<sup>th</sup> was needed. Ultimately it was agreed that the final report would be provided to the Joint Committee before July 8<sup>th</sup> and that no formal presentation would be made. All task force members present indicated their intention on attending the July 8<sup>th</sup> meeting and being able to assist with answering questions that may arise. Mr. Ford offered to do a brief introduction at the July 8<sup>th</sup> meeting.

## **10. Path Forward**

This was discussed above.

## **11. New Business – Reserved for topics the Chair did not reasonably anticipate would be discussed.**

No new business was introduced.

## **12. Setting Next Meeting Date**

No additional task force meetings were scheduled. The Task Force will meet with the Conference Committee on July 8, 2013.

## **13. Public Comments**

There were no additional public comments.

## **14. Adjourn**

The meeting adjourned at 7:00 p.m.