Final Project Report

Bangor Stormwater Utility Planning (ARRA 604b)

Department of Environmental Protection

Grant Project Number: 2009SP01

City of Bangor

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EXECUTIVE SUMMARY

The City of Bangor received funding from Maine Department of Environmental Protection to conduct a feasibility study for a stormwater utility in 2009. After two years of work, two consulting firms, support and feedback from a Citizen Review Panel, several meetings with City Councilors, and many public presentations, the study has been completed. The study includes recommendations for why it may be the best choice for funding a stormwater program, what a utility would consist of, and how it would be implemented.

Historical Water Quality Expenditures

The City of Bangor began to experience symptoms of environmental stress on water quality as a result of urbanization several decades ago. The Environmental Protection Agency (EPA) ordered the City to reduce storm-induced overflows of its underground pipelines that carry sewer and stormwater in the 1980's. The revenue needed to meet EPA requirements (approximately $40 million) was generated through increased sewer rates and bonding.

In 2001 the City-owned Bangor International Airport and its neighbor, the Maine Air National Guard, were called to duty as a result of the September 11 attack on United States. As a result of the attack, the Maine Air National Guard was on standby with airplanes being constantly deiced 24 hours a day, seven days a week to support missions to Iraq and Afghanistan. The increased military activity during that winter resulted in an increase discharge of pollutants (deicing fluids) to Birch Stream causing a foul smelling brook and public complaints. Collection systems were installed in 2004 to collect and deliver residual fluids to the waste water treatment plant. The approximately six million dollar cost was borne by the Airport and the Guard.

In 2003, pursuant to regulatory requirements, the City applied for its Phase II NPDES municipal separate storm sewer system (MS4) permit to discharge stormwater to waters of the State. The first Total Maximum Daily Load report (TMDL) on an urban impaired stream (Birch Stream) was released in 2005. This report is developed by the Department of Environmental Protection to set water quality improvement goals for specific watersheds. Recently, five additional streams have been added to the list for which TMDL goals need to be met. These most recent regulatory requirements (MS4 permit and TMDL goals) have been paid for up to now with grant money from the state and federal government and the City's general fund. Staff estimates the City will need to spend approximately $2.3 million dollars each year over the next ten or more years to adequately address all MS4 and TMDL goals.

Grant money is not a stable or consistent form of funding, and cannot be used for MS4 permit activities. Grant money becomes scarce as more and more communities compete for the funds to meet their own TMDL goals. In order to meet MS4 permit requirements and to develop and implement watershed

management plans, new revenues which are stable and sustainable will be needed over the next two decades to meet water quality improvement goals.

Three Options for Consideration

During the course of developing this study, staff set out to explain in plain and simple terms why new sources of revenue were being considered and studied. Staff began by considering what would happen if the City continued with the existing practices and revenue streams and did not attempt to identify new sources of revenue. This was identified as Option #1. Staff developed a preliminary budget to support the increased regulatory requirements, including increased maintenance of stormwater infrastructure, increased education and outreach efforts, and implementation of watershed management plans in impaired streams. Option #2 is to pay for this new budget through the general fund by raising taxes. Option #3 uses the same preliminary budget, but the budget is paid for through fees generated by all properties contributing to the stormwater system. There are pros and cons and varying amounts of risk to be considered within all three scenarios, but when comparing costs to all contributors, the third option generally carries a lower cost per entity, and provides the greatest equity. During the many presentations and discussions staff had with a wide variety of community members, few people if any disagreed with this analysis.

A Unique Approach to Meet TMDL Goals

Credits used as incentives are the only means for getting treatment systems installed on private property in many municipal stormwater utilities, but not in Bangor. Bangor intends to meet its water quality goals by directly installing treatment systems wherever they are the most cost-effective by working directly with land owners. The preliminary budget developed for this study includes funding to install stormwater treatment structures on existing developed public and private property as identified in watershed management plans. This portion of the capital improvement plan is unique in comparison to other municipal approaches, where financial incentives are typically created to entice private property owners to install their own treatment systems. In most cases, that approach has not been very successful, because incentives are not big enough to offset the costs of retrofits, and return on investment is not profitable enough. Credits are being considered as part of this study for rate payers who have made investments and have proof that their systems reduce the burden of stormwater management on the City. The credits contribute toward making the system fair and equitable.

Results of the Study

As various pieces of the study were examined, developed and discussed, it became more and more apparent that a stormwater utility is the most equitable solution to creating additional revenue for a stormwater program. Staff worked to develop an organizational structure for the improved stormwater program, balancing the need for sufficient attention to and resources for stormwater management with the desire to have an efficient program that avoids unnecessary bureaucracy. The study therefore recommends creating a new division within the City rather than setting the utility up as a separate

entity. The Stormwater division would have certain staff and resources dedicated solely to stormwater, but would share some staff and resources with other City departments.

While the study provides a set of recommendations for City Council to consider, it also identified a few items that should be studied further prior to implementation, should the Council decide to move forward. For example, further research on consideration for how to address low income or fixed income property owners may be appropriate. Also, guidelines for private property agreements where City-installed systems treat stormwater from abutting properties should be developed.

During the review of this report new concerns rose to the surface, and changes made in response. The most basic of concepts has been changed to reflect the most equitable posture possible. Staff is proposing to remove the Equivalent Residential Unit, instead charging all properties according to the number of square feet. This is one example of how staff expects the policies and utility concepts to adapt until the right balance of equity and stability is established.

It is anticipated that the City Council will make a decision about whether to implement a stormwater utility within six months to one year. Should the council decide to move forward, staff would anticipate holding one or two additional workshops with the City Council to clarify the recommendations provided in the study and answer questions.

Implementation steps would include integration and testing of the billing system, conducting public outreach & education, determining the final organizational structure, developing a credit manual, prioritizing retrofits, and developing an asset management and preventative maintenance program for storm sewer infrastructure. Should the Council so desire, staff anticipates being able to have a stormwater utility in place by the beginning of the next fiscal year 2013.

I. PROJECT OVERVIEW

The City of Bangor, Maine has a residential population of approximately 33,000 people. Bangor is a "service area", with total daytime population estimated to be between 65,000 to 144,000. The City provides employment, retail, healthcare, and governmental services for more than one-third of Maine's population and many Canadians.

The City currently manages a multifaceted stormwater program, which includes ownership and responsibility for improvement and maintenance of stormwater infrastructure. The City also has responsibility for discharges from the stormwater infrastructure which flows into rivers, streams, tributaries, wetlands, and other water bodies. The discharge is subject to the National Pollutant Discharge Elimination System (NPDES) program, for which the Environmental Protection Agency (EPA) has delegated authority to the Maine Department of Environmental Protection (DEP).

Recent changes in regulatory requirements, such as the Phase II NPDES permits for Municipal separate storm sewer systems (MS4), which Bangor was granted in 2003, have increased the requirements on local governments within Urbanized Areas. The MS4 permit requires local governments to implement education and outreach programs, remove pollutants, and reduce flooding caused by urban run-off through six minimum control measures. Regulatory authorities have indicated that each new version of this 5 year permit will be more onerous than the previous permit. In 2013, a new permit will be issued that is expected to be more aggressive, and with higher associated costs than the current MS4 permit. For example, Massachusetts MS4s are overseen by the EPA, and are required to monitor certain MS4 outfalls with analytical water quality sampling.

Additionally, the City of Bangor has five streams that have been listed by Maine DEP as urban impaired, meaning they do not meet their designated water quality classification as set by the Maine legislature. As a result, new plans, new infrastructure, and practices must be constructed or implemented with the intent of helping the streams meet their designated water quality classification. This means even more work must be completed in Bangor than in the other MS4 communities in the Bangor Urbanized Area.

Bangor is a member of the Bangor Area Stormwater Group (BASWG), a non-profit 501(c)(3) created by its members for the purpose of creating activities and programs collaboratively to meet the NPDES Phase II minimum control measures which cover 1) education and outreach and 2) public participation. The seven local communities that have MS4 permits as part of the Bangor Urbanized Area determined that working together, they could meet the permit requirements in a more cost effective and efficient manner than they could individually.

Concerned about the increasing cost of meeting NPDES requirements, the Bangor Area Stormwater Group hosted a workshop in 2008 that introduced the concept of a Stormwater Utility District as a

sustainable, unique funding strategy for stormwater programs. The BASWG hosted a more focused stakeholder workshop in June, 2009 that took a closer look at Bangor's situation to see if they had a compelling case for considering a feasibility study of a stormwater utility district. The result of this workshop was a general consensus that a feasibility study should be undertaken. In August, 2009 the City of Bangor was awarded grant funding by Maine DEP to conduct this study through the 2009 American Recovery and Reinvestment Act.

Project Purpose

The purpose of this feasibility study is to examine the various considerations that would be necessary to implement a stormwater utility. The first of these is to examine what the City is currently doing with regard to the stormwater program, what additional things it needs to do to meet its stormwater program goals, and what the associated costs are. This sets the stage for determining how much revenue needs to be generated, and the rate that may need to be charged.

Beyond the estimated revenue, and rates, the study also considers the fairness and equity with regard to who should be charged under the stormwater utility, and why. Credits, also called rate modifiers, or rebates, were examined and preliminary recommendations were developed. There were numerous policy questions and organizational and structural questions that were posed through the scope of work, developed by staff, and discussed with the Citizen Advisory Panel. The results of those discussions are reflected in this document.

Part of the study included an outreach campaign in order to meet three needs; 1) to ensure transparency of the process, 2) to receive feedback on the policy concepts we were discussing, and 3) to engage citizens and community leaders early on in the process so that when it comes to making recommendations or comments to the Council, their input would be informed and knowledgeable.

The information below is a synopsis of our work to date. It is formatted in a manner which is required by the Maine DEP for a Final Project Report.

Project Highlights

A lot of extremely useful information and some surprising facts emerged from the study. Much of the information was very helpful in the process of deliberating over policy issues. Following are some of those highlights.

The first task was to map property boundaries onto the newly flown aerial photographs and determine the total amount of impervious cover in Bangor. The total impervious cover was calculated, and divided up by land use type. The total residential impervious cover was divided by the number of residential parcels resulting in an average of impervious cover per residential lot. The average residential impervious cover, or equivalent residential unit (ERU), was determined to be the unit of measure that would be used to determine all the number of units that other property types would need to pay for. This was helpful in determining how many units of measure would be available to charge a fee to.

Simultaneously, a preliminary budget was being developed, based upon what services, staffing, and equipment are expected to be needed to meet stormwater program requirements. The preliminary budget estimate was then divided by the number of units to be charged to determine a preliminary rate. We were also able to compare the total residential impervious cover land use to that of commercial land use. This is useful in order to see that the discharge of stormwater can be somewhat equally attributed to both residential and commercial land use types.

In developing the preliminary budget, staff had to tease out the work that is already being done to support the stormwater program and what the associated costs are that are hidden within various departments that contribute to the program. Staff determined that the City currently spends approximately $500,000 on stormwater activities and programs that are dispersed throughout various departments within the City. This does not include various grants and other temporary funding revenue.

There was a strong desire to be able to describe the need for funding in a way that is easy for laypersons to comprehend. The simple concept of three management options served as a useful tool to explain to people and organizations the situation that has caused staff to conduct a stormwater utility feasibility study. The participants in the focus groups seemed to grasp the concept easily. Most focus group participants determined that option three -- a utility -- was the most equitable and logical direction to take, although no options were desirable.

The Citizen Review Panel and the DEP project manager assisted in developing our public presentation to include the background leading up to the three management options. The general consensus of our audiences was the same as the focus groups. Most were unhappy with another program to pay for, but conceded that the stormwater utility may be the best option for funding it. Staff also met with several non-profit organizations to inform them of this project and the potential new fees they may be faced with. The list of organizations that staff met with is provided in Appendix L. Our expectations were that the non-profits would be the loudest group against the concept of a utility. The response from these organizations was much more positive than what was expected. All the non-profits we visited were supportive and appreciative for having met with us to get an idea of what potentially could affect their future budgets.

The process of studying the feasibility of such a program included the development of several policy positions in the form of white papers which we also presented to the citizen review panel for input and improvement. The white papers provided a foundation or stepping off point for discussion purposes, and serve as the foundation for the policies and recommendations found in the draft stormwater utility ordinance.

Finally, we found that the general public is extremely difficult to inform unless they are deeply concerned. More than a dozen public forums were scheduled, but only about 50 people attended altogether. The sewer/water bill inserts probably generated the most response from residents. Staff will consider utilizing the inserts again after a decision is made or when the public seems interested in learning more. Perhaps if/when a decision is immanent, more citizens will be interested.

II PROJECT ADMINISTRATION AND MANAGEMENT

The Project Manager completed reports in accordance with the grant agreement including 7 quarterly progress reports, a Request for Proposal for consultant services, Draft & Final Project Reports, a list of key citizen leaders and organizations to be contacted, a Summary of Outcome of Discussions and Meetings, and a Summary of Concerns and Solutions. The last two deliverables are included below.

Outcome of Discussions and Meetings

One of the most important aspects of the Stormwater Utility Feasibility Study was the interaction with, and consideration of responses by, numerous groups of people with regard to stormwater utility (SWU) feasibility and various aspects of stormwater program improvement requirements. The discussions laid the groundwork for how a utility, tailored for the City of Bangor, should be structured, who should participate, and what aspects should be addressed, analyzed, and documented. Groups who participated in discussions were City staff, consultants, Penjajawoc Citizen Review Panel, City Manager and City Council, ad-hoc focus groups, members of the general public, community organizations, and non-profit organizations. Some of the outcomes of those discussions are highlighted below;

Stormwater Utility Staff & Consultants

Initial discussions were held at length with City staff and consultants to provide an orientation of sorts. One member of the City staff was borrowed from the airport as a media relations expert. The outcome of these lengthy discussions was that all participants understood the basic concepts of stormwater and the related legal, economic, environmental, social and political ramifications surrounding the project.

Focus Groups - Focus group participants were chosen randomly from addresses around the City, and were mailed invitations to breakfast or lunch and to participate in the focus group sessions. Three (3) Focus group sessions were held on June 17, 2010, with the following participants:

14 business and nonprofit participants (14 confirmed, 14 showed)

8 residents (9 confirmed, 1 did not show)

4 residents (7 confirmed, 3 did not show)

During all three sessions, several themes emerged after a discussion of three options were presented (see Governance below). Responses at all public meetings were mostly in agreement and understanding, and very few arguments against option #3. The focus group sessions prepared us for what people would be concerned with, and we had positive responses at meetings as a result of this preparation.

Citizen Review Panel - The Citizen Review Panel (CRP) is made up of several people who were previous City Council members, and the rest are highly respected business owners/managers, or representatives of environmental interests. The CRP was particularly helpful on every subject brought to them for consideration, and turned out to be the official "sounding board" for policies and whitepapers before they were presented to City Council.

City Manager/City Council - In order to ensure that the City Manager and City Council were fully prepared for public responses and questions, estimated costs and the three options discussion (defined below) were presented to them prior to conducting focus group sessions.

General Public - All Bangor sewer and water customers whose mailing address is in Bangor received a notice that public meetings were planned to discuss potential stormwater fees. Amazingly few people came to the dozen meetings that were held. Senior citizens were the most prevalent audience. Their concern was being unable to afford their own homes, since various fees in the City of Bangor kept creeping higher and higher, and their fixed incomes did not increase with the cost of living. Written comments from citizens are contained in Appendix M.

Community Organizations - Stormwater staff were eagerly granted speaking engagements at several regularly held Local Community Organizational meetings such as Kiwanis, Chamber of Commerce (Fusion), Maine Real Estate Developers Association (MEREDA), Rotary Club, Lions Club, Tuesday Forum, Kiwanis, etc. The agenda of these organizations allows about 20 minutes for speakers, so brevity was of the essence. Lots of well thought questions emerged from the audiences at these meetings. The question of regionalism stood out at several meetings. A complete list of organizations that met with staff is included in Appendix L.

Non-profit Organization - Stormwater staff met with numerous Executive officers of local non-profit organizations such as Wellspring, Bangor Nursing, St. Josephs, Eastern Area Agency on Aging, Bangor Housing Authority, and the Bangor School Department. The response from these organizations was very similar. It was clear that they placed the stormwater program on the same level of importance as their own social and/or health related community support efforts, and felt that they would find a way to pay their fair share of the burden. This was a huge relief, since our expectation was just the opposite. One non-profit even went as far as to write a letter of support for the program and the utility. A complete list of organizations that met with staff is included in Appendix L.

Individuals - Staff and consultants naturally held individual conversations with local business owners, church leaders, facility managers, consultants, etc. The author of this report, speaking for herself, can reflect that each person spoken to face-to-face agreed with the concept of a stormwater utility as the most fair and equitable way to address the City's stormwater regulatory requirements.

Summary of Concerns and Solutions

Following are highlights of the most common concerns voiced by citizens during meetings, or through other communications. Each concern includes one or more solutions that were designed to address the

concerns, and a summary statement about outcomes, as we know them, at this time. The formal focus group sessions arranged and conducted by our consulting group, Packard Judd Kaye, were especially helpful in highlighting what the concerns would be in advance of going in front of the public.

1. Concerns that Bangor is leading the charge, when this perhaps should be a regional effort: This is a concern that is raised by Bangor residents and others due to Bangor being a service center with a day population estimated at three to ten times higher than the number of residents (depending on the season).

   Solutions: We explained during the presentation, that fees paid by local businesses would be passed on to all customers no matter where they were from. With regard to approaching stormwater on a regional basis, we mentioned that we currently do many stormwater permit activities as part of a regional effort with the Bangor Area Stormwater Group.

   Outcomes: Our current sewer and water services are already "regional" in nature, because they include several local communities that border the City of Bangor. The likely outcome is that the City will implement its own utility if the Council chooses a utility approach. The utility will be designed with an eye towards being able to include other entities if they choose to be part of the utility in the future.

2. What is fair and equitable & who should be charged? What is the fair and equitable share of expense for each property in proportion to its contribution of the problem? Why should citizens pay? Should the State and Federal Government pay for their properties, streets, etc.? Should the City pay for its own facilities such as the airport, public works, streets, sidewalks, etc.?

   Solutions: A pie chart of Impervious Cover by Land Use Type was created illustrating that residential properties contribute to the problem as much as commercial land uses if impervious area is only consideration. A white paper was developed titled, The Impact of Public Transportation Stormwater Fee Exemptions on Citizens, as well as a white paper titled, The Basis for Credits. This white paper develops a foundation for standard answers to questions such as, "what types of credits will be offered, how will rebates be calculated, on what basis will they be determined?" What rebate line item amount should be built into the budget? Additionally, as part of the Master Account File Report, staff developed a list of exceptions (sidewalks, driveway aprons, & swimming pools) Policies for Impervious Cover Calculations & determining who pays in exceptional situations.

   Outcomes: The main outcome found by consultants and staff was that after engaging in discussions or listening to the presentation, there was recognition by all that option 3 (stormwater utility) was the fairest of the 3 options.

3. Participants are weary of increased payments for City services: People are understandably not happy about increased fees placed on them by government, especially during a time when the cost of living is consistently going up, and those on fixed incomes are not experiencing cost of living increases. Particular concerns were voiced on several occasions when we spoke to non-profits who

are in tune with the needs of the low income citizens, and from senior citizens themselves who either attended the public presentations, or called or wrote in comments. Their concern is that senior citizen homeowners on fixed incomes may not be able to afford more fees, and will be forced out of their homes.

Solutions: Staff is still conducting research into various mechanisms used by other utilities for reducing impact on seniors, being careful that the mechanism does not undermine the basis for charging fees (in process). Staff also tried to build services into the budget that citizens will recognize as new and beneficial as a result of the utility (i.e., residential incentives, sweeping, complaint line, etc.)

Outcomes: The outcome of these concerns will be determined by the City Council when it deliberates over the implementation of a stormwater utility and the associated budget. Although we understand the argument against more fees, we believe that developing a proactive approach will be the least costly for the City and for property owners in the long run.

4. Concerns about "big government": From the focus groups, we heard concerns about "big government", can we avoid the creation of a new layer of bureaucracy?

   Solutions: Look for ways to integrate new programs into existing systems, such as the billing administration. Organizational Structure will illustrate the proposal to use many of the same staff we already have, and add a few new in order to increase our level of service.

   Outcomes: Staff concluded that we can integrate the new billing requirements into the current sewer/water billing system, without too much difficulty, and it is anticipated that we can integrate the stormwater utility programs into existing departments, yet have a program and budget separate and distinguishable from existing departments.

5. What is the City currently spending on stormwater programs, and how much will it charge? Almost immediately after being presented with a draft budget, the Citizen Review Panel asked, "What does stormwater cost us now? What are we already doing? How is it being paid for? Can we tell citizens that their taxes will go down?"

   Solutions: Staff prepared a draft preliminary budget of current expenditures compared with anticipated budget needs. We also calculated how much money the City would saved from the general fund budget by transferring costs to the utility, and how much the City would have to pay the utility for its own impervious cover fees.

   Outcomes: The preliminary budget and analysis found that the general fund will be reduced by the amount of money that is currently being spent on SW programs, however, the general fund will be tapped to pay nearly an equal amount for City owned impervious cover fees.

6. Should certain facilities receive a credit if they have already invested dollars to comply with stormwater rules?

Solutions: Staff developed a White Paper titled, “Basis for Credits”.

Outcomes: While staff has developed a paper that describes the basis for credits, and some examples of how credits could be calculated, ultimately, the amount of credit to be offered should be consistent with the amount of stormwater burden (volume and/or pollutant) that is removed from the City’s system. Staff realized that providing enough credit to incentivize citizens or commercial property owners may be difficult or impossible, but recognition for having already done something proactive is important to recognize. The approach used in the white paper is somewhat complex, but thorough. If individual entities wishing to receive credits are required to provide proof that their facility deserves credit the amount of work by staff is expected to be reduced. This also provides recognition of the fact that the City is serious about offering a credit, only if the entity receiving credit has genuinely reduced the stormwater burden on the system.

III. PUBLIC OUTREACH PLAN

The goal of the Public Outreach Plan was to raise the awareness of the target audience of the need for a comprehensive stormwater program with a stable, sustainable funding source. As a result of these outreach efforts, community leaders and the general public have had the opportunity to provide input into the policy-making decisions that have helped to form a conceptual model for a stormwater utility. Additionally, it is expected that the target audience will help inform decisions to be made by City Council regarding the development of a stable funding source for stormwater efforts.

Target audiences & Associated Message

The 4 target audiences for the Outreach Plan included key community leaders, business owners, non-profit managers and residents that own property in the City of Bangor. Since each target audience has its own needs, perspectives, and values in addition to the potential to be impacted differently by stormwater fees, outreach tools to reach the various audiences were specifically chosen to reach them. In order to tease out initial responses and concerns, Planned Focus Group roundtable discussions were held in June, 2010.

Outreach Tools

Recognizing that the target audience is extremely varied, and gets its information in different ways, the Public Outreach Plan included several tools, including the following:

- Public and Organizational Meetings scheduled at City Hall and with individual organizations. Frequent updates were also made to the City Council Infrastructure Committee to provide status of stormwater utility feasibility study and receive feedback.

- Press Events were published on April 20, 2011 with coverage by Channel 2 News, “Storm water could cost Bangor property Owners”, and on May 19, 2011, “Storm water utility discussion continues”.

- The Stormwater web page on the City’s web page provided information on stormwater, stormwater funding options, and what people can do to participate. Also a “hotline” was included to get further information and make direct contact with staff.

- A Frequently Asked Questions Brochure was included on the web page and handed out during public meetings.

- A PowerPoint Presentation was created for use at Public Meetings and community organizational meetings.

- Finally, Water/Sewer Bill inserts were sent out notifying property owners of upcoming meetings.

Evaluation Tools

As presentations were made, comments and feedback was noted and recorded. Communications from the public was tracked and summarized. Citizens were encouraged to write or call specific staff to provide additional feedback and input. Staff noted that the best results were gained from face to face engagement with audiences. Based upon the number of responses, the second most affective tool seemed to be the water/sewer bill inserts. The Public Outreach Plan is constantly changing to meet the needs of the audience. More importantly, the public outreach is never finished. As long as there is discussion and/or implementation of a stormwater utility, public outreach activities will be critical in getting approval, and, if implemented, in running a successful utility. Future decisions made by City Council will provide the ultimate evaluation of the success of the Public Outreach Plan.

IV. GOVERNANCE & POLICY DEVELOPMENT

Summary of Governance and Policy statements

In creating a stormwater utility, many decisions must be made about how the utility will be governed, who will pay, how much they will pay, and a host of other considerations. This summary is intended to briefly outline positions advocated by City staff, after receiving input from stakeholders and consultants, on some of the details of these issues. Certain of these issues are addressed in more depth in other documents. *See Appendix A - K, attached.*

Given the host of environmental, economic, and other concerns facing the City, some might question whether now is the time to enact a new fee on Bangor property owners. Some of the impetus for this fee comes from the experience of Long Creek in South Portland, which has been forced into implementing a stormwater management program through regulatory action. As Bangor has six streams on the State urban impaired streams list, it is probably only a matter of time before regulators act regarding Bangor. This action could limit Bangor's control over stormwater management of its waters and be less equitable than a solution Bangor implemented itself. See *Appendix A, Regulatory Hammer, (attached).*

Staff therefore recommends the City create a stormwater utility district to provide a stable and consistent source of funding for stormwater improvements. A stormwater utility could be set up as a department of the City, similar in structure to that of the Sewer Department, or as a separate entity, as the Bangor Water District is. Comparison of these two options suggests that a City department would be the better approach. Care should be taken, however, to ensure proper attention is given to stormwater, an advisory group provides input on decisions, and stormwater fees are clearly separated from other City funds. *See Appendix B, Governance – City vs. Separate, (attached).*

Staff recommends utility fees be assessed based on the amount of impervious cover on a property. The primary factor distinguishing urban watersheds from undeveloped watersheds is the amount of impervious cover -- roads, roofs, parking lots, and the like -- in the urban watersheds. This impervious cover causes water to enter streams directly, carrying with it many pollutants, rather than filtering through the ground. If property owners are to pay stormwater fees in proportion to the amount their property contributes to stormwater problems, then basing their fee on the amount of impervious cover on their property makes sense.

The simplest way to base a fee on impervious cover is to charge property owners per unit of impervious cover, measured either in Equivalent Residential Units (for Bangor, this would be an estimated 3,111 square feet) or simply by square foot of impervious cover. Staff recommends charging single-family residential properties a flat rate, given the general uniformity of such properties and the administrative burden if each residential property is separately considered. If square feet are used, staff also

recommends setting a base rate for properties with impervious cover, also in order to alleviate administrative burdens and expenses. See Section VII. b. Policy for Exceptional Billing Situations.

As a result of this study, it is proposed that a property owner should pay for the impervious cover on his or her property. Some utilities do not require governments to pay for their own impervious cover (e.g. roads), perhaps because, unlike private property, they are for the use of all people. A perception of unfairness could result, however, especially when government land is used for similar purposes as private land (e.g. a public vs. a private university). In situations where one private entity is the primary user of the land, however, it may make sense to charge that user. An example is the portion of a driveway that lies in the City's right-of-way, just before it connects to a street. See *Appendix C, Sidewalks & Aprons (attached).*

Some properties have stormwater management structures, or structural best management practices (BMPs), installed to help alleviate the adverse effects of stormwater. Since these properties are reducing the burden on the City's system and streams by mitigating the effects of their stormwater runoff, they should receive a credit acknowledging the positive impact of their BMPs. Providing a credit may also provide some incentive for a property owner to consider new BMPs when renovating or building new facilities. Staff recommends instituting a program that would award credits, (also called discounts, or rate modifiers) on stormwater fees based on how well the BMPs reduce the burden on the municipal storm sewer system. in the area where the BMP is located. See Appendix D Credits and Appendix E Credit Examples, (attached).

In order to ensure the stormwater fee is considered a fee and not a tax, the fee should be related to the service provided to a particular property, be based on the cost of services provided, and only go towards that service. Basing the stormwater fee on impervious cover, giving credits, and charging only the amount needed for stormwater services provided are all consistent and supportive of the legal basis of a fee based system.

The idea of a new fee is not appealing. Given the environmental and regulatory challenges the City faces, however, a carefully constructed stormwater utility district is the best approach available to the City for dealing with stormwater issues. See *Appendix F. Presentation Outline, (attached).*

V. FIVE AND TEN YEAR PROGRAM FUNDING STRATEGY

The scope of work for this study includes a five and ten year funding strategy. While this sounds like a reasonable strategy to project, it is really not very realistic to achieve within the limitations of this study. The reason this is difficult to achieve is because staff cannot begin to guess what amount of money will be needed to meet regulatory goals more than five years from now. The preliminary budget is based upon what goals have been placed upon us now and what we anticipate may be placed upon us in two years from now. Therefore, the program funding strategy is based upon a five year budget, knowing that some of our implementation goals will not likely be met until at least ten years from now. While we could project costs tens years into the future, the exercise would not be based on any facts, and would likely deter would be supporters, rather than support this study.

Level of Services Description

The services provided under the stormwater program can be divided into four basic categories; 1) Capital Improvements; including retrofit installations, in-stream restoration, and purchase of equipment and buildings; 2) Operations & Infrastructure Maintenance; including repairs, replacement, and upgrades of catch basins, pipelines, culverts, etc., illicit discharge investigations, preventative maintenance such as street sweeping and catch basin sump clean outs, watershed plan updates, design and construction of new treatment systems, and assistance to property owners in design considerations; 3) Education & Outreach, for example; salt/sand/snow management, erosion control, rain water harvesting, green infrastructure, stormwater systems maintenance; and 4) Incentive Programs including; designing credit standards, reviewing applications for credit, monitoring credit authenticity, and potentially offering grants or revolving loan programs. See *Appendix G. Budget & Cash Flow, (attached)*.

Current Level of Service ($506,324)

Due to grant funding, the City has managed to provide an excellent level of service the Capital Improvements category. New stormwater treatment systems were installed by the Bangor International Airport and the Maine Air National Guard to address de-icing issues in the Birch Stream in 2004-2006. More recently, due to several grants targeted toward Bangor by the Maine Department of Environmental Protection, funding through the American Recovery and Reinvestment Act 2009 provided the City with $3 million dollars to build treatment systems in the Birch Stream and Penjajawoc Stream watersheds, and buy a state of the art street sweeper and water quality monitoring equipment.

Operations and Infrastructure Maintenance (for example street sweeping, catch basin cleaning, and culvert replacement) might be rated as a moderate level of service, as some tasks do not meet expectations set by the DEP through the Municipal Separate Storm Sewer (MS4) permit. The number of catch basins cleaned, streets sweeped, and culverts replaced is directly related to the equipment and the labor available to do the work. The general fund budget has not provided adequate funding under the Public Works Department for this activity to be thoroughly completed. Until recently, funding was

not earmarked for these activities, so other projects supported by budgeted funds were given higher priority. On a positive note, the City hired a Geographic Information Specialist for the Engineering department, resulting in mapping of City infrastructure which is very useful in understanding our underground assets.

The City has received limited grant funding for some Education and Outreach projects. Membership dues are paid to the Bangor Area Stormwater Group to conduct outreach and education projects. However, most members of that regional group do not have impaired streams to address, and therefore are not held to the same requirements as the City of Bangor. The City is expected to go above and beyond the MS4 education and outreach requirements that are addressed by the Bangor Area Stormwater Group. As a result, the City will need to do some education and outreach with its own resources.

Incentive programs for property owners to finance the construction of BMPs on their own property are non-existent under the current budgetary structure.

Medium (Proposed) Level of Service ($2,378,076)

Capital Improvements under the proposed stormwater program, would receive stable and consistent funding intended to implement retrofits and in-stream restoration recommendations in the two highest priority watersheds and complete the recommendations of the management plans within ten years. Staff believes this would be a great benefit to the City by allowing it to manage its own stormwater and impaired streams plans more cost effectively and with local control, than if the EPA required each business to apply for its own stormwater permit. The funding would also allow some work to begin in the lesser priority watersheds, as well as purchase the necessary equipment to meet catch basin cleaning requirements of the current MS4 permit.

New stormwater treatment systems would be focused on areas where combined sewer separation projects have not been completed. These practices (known as Low Impact Development BMPs) are investments that are expected to result in a reduction in operating costs over the long-term, and in some instances eliminating maintenance, and more importantly reducing the need for costly separation of remaining combined sewers.

Operations & Maintenance budgetary line items would increase the level of infrastructure maintenance & replacement, conduct illicit discharge investigations (find out where sewer lines are tied into storm systems), update watershed management plans, and provide assistance to property owners for design considerations. Additionally, Hydrologic modeling would be funded under this level of service, in order to predict the affects of one BMP or set of BMPs in comparison to another.

Under this level of financial support, the current water quality monitoring program, which has been grant-funded over the past two years, would be continued, and expanded to include macroinvertebrate monitoring. This would ensure that the City could verify whether or not implementation of the watershed management plans is having an impact.

Education & Outreach efforts would be greatly increased under the proposed budget (Medium level of service). The City would be able to meet and provide training for facilities operators on such subjects as salt/sand/snow management, erosion control, rain water harvesting, green infrastructure, and stormwater systems maintenance. The education and outreach efforts through presentations, newsletters, and other media would provide information and guidelines for residents seeking to reduce their fees or seeking answers to problem areas on their property. Face to face outreach to individuals and organizations is likely the most affective tool in explaining the stormwater utility fee structure, and gaining support of its programs.

Incentives Programs under the proposed stormwater program would include the use of fee credits to design and install stormwater treatment systems aimed at reducing the burden on the City's system. This level of service would not likely include grants or revolving loan programs as incentives.

High Level of Service ($3,451,568)

Following are some considerations that might be included in a high level of service which would consequently require a more robust budget and therefore, higher user fees, but also may lower overall costs over the long run.

Capital Improvements under this level of service would include retrofit installations on private properties, in-stream restoration, stream-side (riparian) improvements, and stormwater infrastructure upgrades would be completed on a more aggressive timeline. The Stormwater Utility would aggressively implement the recommendations in the watershed management plans and develop the remaining three plans more efficiently to create a city-wide watershed management plan, and begin to implement all of them within the next ten years.

Operations & Maintenance under this level of service would increase the level of effort for watershed and stormwater structure modeling, inspections, education and outreach, and monitoring of current sweeping and plowing activities through GPS programs to increase level of effort. This level of service would also allow a more aggressive preventative maintenance plan for infrastructure, providing for two vacuum trucks instead of one. Water quality monitoring would also be conducted in more sites at all streams simultaneously, rather than on a prioritized, tiered approach.

Education & Outreach Programs - The costs of education, training, calibration, and monitoring of salt applications is expected to be offset by reduction in costs for purchase of road salt by the city. Studies have shown that reductions in salt application of 20 to 40% after training and equipment calibration are attainable with no compromise of public safety. Moreover, it is expected that future permits will require reductions in salt content in some surface waters. Bangor has the opportunity to avoid future permit restrictions by acting pro-actively through a SWU to reduce salt use. Under the highest level of

A higher level of service would provide for better public education which would increase implementation of Best Management Practices and hence improve compliance with water quality permit requirements, reduce future costs, and avoid future permit restrictions. Hence, the more

comprehensive LOS proposal includes increased emphasis on training and outreach, of residents, commercial facility operators, and management companies, as well as children.

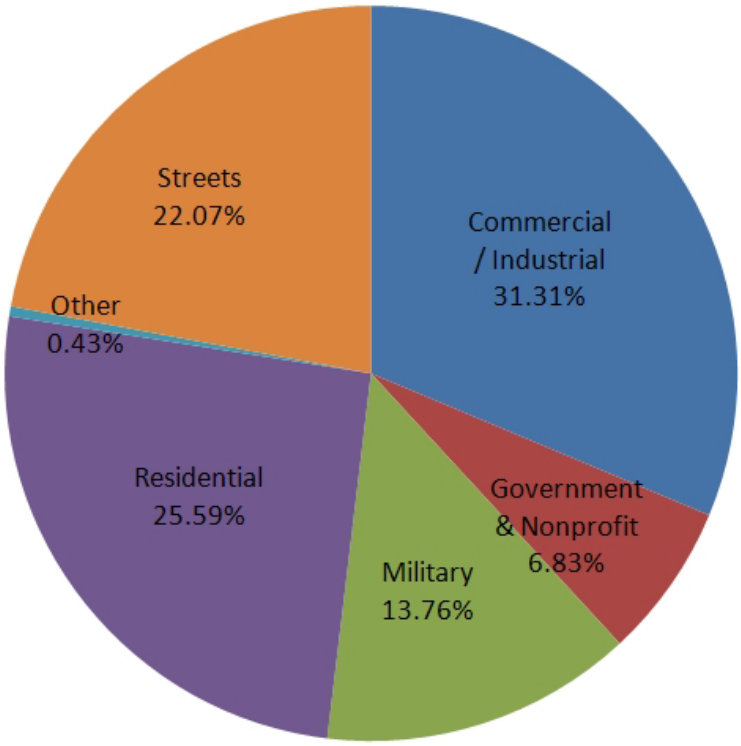
Incentive Programs under the highest level of funding would increase the amount of incentives available to residential and commercial property owners. Potentially, a revolving loan fund or a grant program would be set up. This incentive program is viewed as a central component of the future success of the SWU in both meeting its permit obligations and in garnering support from the public. The director would handle these competitions for funding, with oversight by the SWU citizen advisory panel.

VI. IMPERVIOUS COVER SUMMARY REPORT

The City GIS Specialist worked diligently to integrate the newly flown aerial photos (2010) into the GIS database so the digitizing of property boundaries and impervious cover could be completed as required by this project. Following is a summary of the preliminary findings. The rates are expected to change minimally as the assumptions used in the calculations may change as a result of policy decisions yet to be made.

Summary of Preliminary Findings

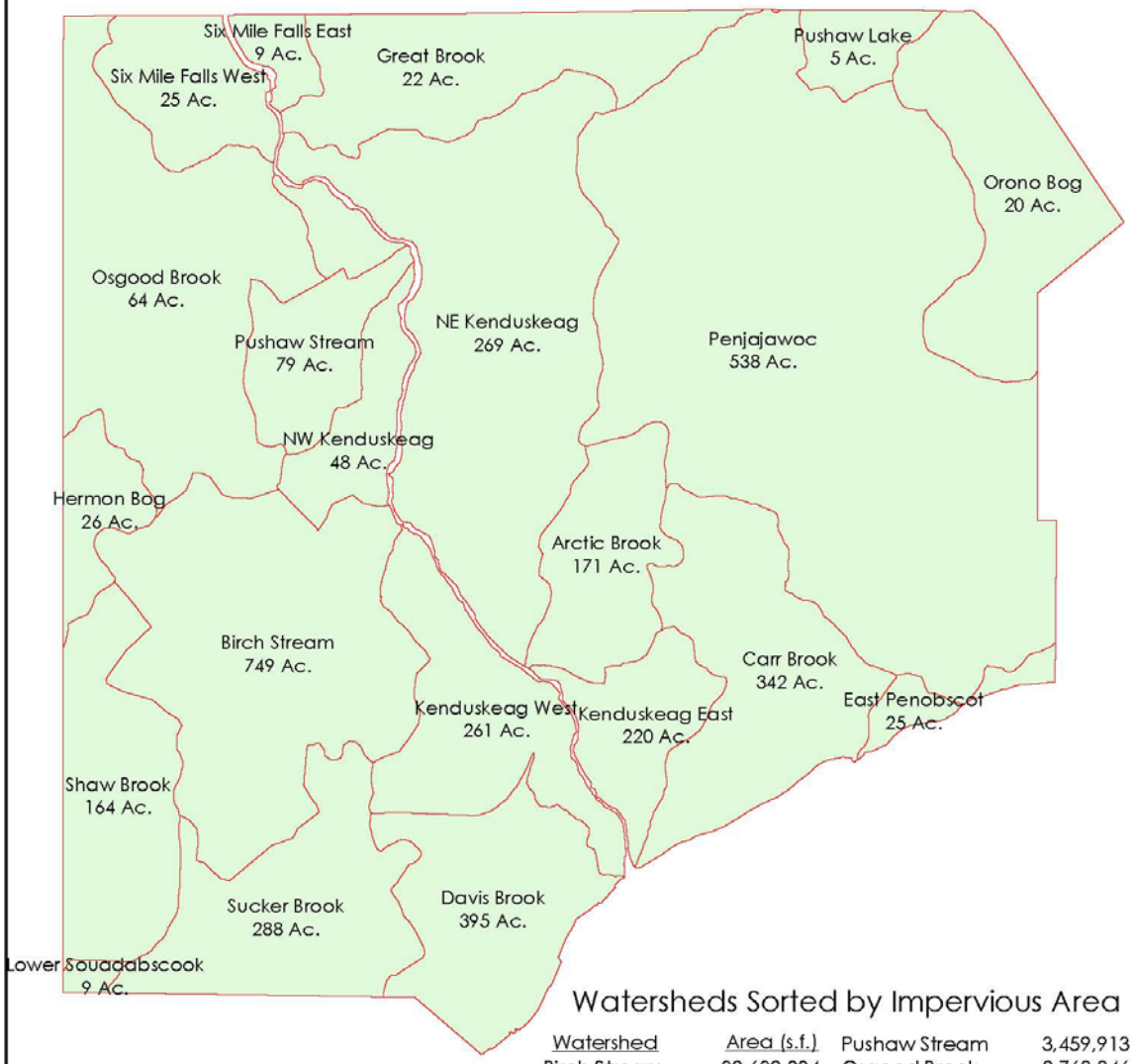
Total impervious area of the City appears to be 161,462,035 SF – or 3,730 acres. The average impervious cover of a single family home or Equivalent Residential Unit (ERU) in Bangor was calculated as 3,111 sq ft. Additionally, the GIS information provides us with estimates of impervious cover per watershed within the City. Some watersheds are not connected with surface streams, but with underground piped stormwater systems. The watersheds have been mapped and include total impervious acres, and percent impervious. The methodology for how the information above was arrived at has been documented and is included in Appendix H Methodology, (attached). The Impervious Surface by Land Use and the Impervious Area by Watershed are shown below. Note that some watersheds are that of piped underground water systems. Not all are representative of surface water bodies.



Total Impervious Area:	161,397,122 SF
Total Land Area of Bangor:	959,711,825 SF
Percent Impervious:	16.8%

City of Bangor

Impervious Area by Watershed



Total Impervious Area
Across All Watersheds

3730 Acres
162,462,357 Square Feet

Watersheds Sorted by Impervious Area

Watershed	Area (s.f.)	Pushaw Stream	3,459,913
Birch Stream	32,639,004	Osgood Brook	2,768,846
Penjajawoc	23,442,462	NW Kenduskeag	2,075479
Davis Brook	17,217,371	Hermon Bog	1,151,281
Carr Brook	14,876,925	Six Mile Falls - W	1,086,957
Sucker Brook	12,547,948	East Penobscot	1,081,948
NE Kenduskeag	11,719,407	Great Brook	966,568
Kenduskeag West	11,353,882	Orono Bog	850,400
Kenduskeag East	9,563,190	Six Mile Falls - E	410,359
Arctic Brook	7,468,465	Lower Souadabscook	215,249
Shaw Brook	7,156,424	Pushaw Lake	410,279

VII. MASTER ACCOUNT FILE REPORT

The Master Account File Report summarizes the total number of billing units, the top 50 rate-payers, the rate(s) that will need to be charged, and a policy statement for billing of exceptional situations.

Billing Unit Summary

As noted earlier, the total impervious area of the City is estimated to be 161,462,035 SF – or 3,730 acres. The average impervious cover of a single family home or Equivalent Residential Unit (ERU) in Bangor was calculated as 3,111 sq ft. The total number of ERUs or billing units in the City is (total SF / ERU) calculated as 51,900 total billing units. Our annual stormwater utility preliminary budget is estimated at $2,378,076. Our preliminary annual budget divided by total billing units gives us an estimated preliminary rate of $45.82 per billing unit per year. The impervious area data indicates that the City (including the Bangor School Department) would be responsible for 10,980 ERUs or $503,103.00 (includes roads and sidewalks). The airport would be responsible for 8,115 ERUs or $371,829 (includes tenants). The state is estimated to account for 1220 ERUs and the Feds 2609 ERUs. That leaves 28,976 ERUs for all others. A preliminary list of the top 50 owners of impervious cover (highest rate payers) has been generated and included below.

Top 50 Rate Payers

Entity	SF Impervious	Acres Impervious	Projected fee
BANGOR CITY OF	59,599,474	1,368.2	$862,095
UNITED STATES OF AMERICA	8,647,621	198.5	$125,086
STATE OF MAINE	4,132,326	94.9	$59,773
BANGOR MALL LLC	2,473,894	56.8	$35,784
GRANT TRAILER SALES INC	2,426,067	55.7	$35,093
HUSSON UNIVERSITY	1,262,933	29.0	$18,268
AIRPORT MALL ASSOCIATES LLC	943,661	21.7	$13,650
QV REALTY TRUST	900,686	20.7	$13,028
BANGOR HISTORIC TRACK	844,188	19.4	$12,211
Eastern Maine Healthcare Systems	746,152	17.1	$10,793

Wal-Mart Real Estate Business Trust	730,268	16.8	$10,563
MAINE TECHNICAL COLLEGE SYSTEM	710,461	16.3	$10,277
UNIVERSITY COLLEGE OF BANGOR	689,631	15.8	$9,975
CABREL COMPANY	662,561	15.2	$9,584
GRANT REALTY CORPORATION	662,445	15.2	$9,582
BRYANT, LAUREL	626,733	14.4	$9,066
WIDEWATERS STILLWATER COMP, LLC	623,113	14.3	$9,013
EASTERN MAINE MEDICAL CENTER	595,250	13.7	$8,610
MT HOPE CEMETERY CORP	574,731	13.2	$8,313
LANE CONSTRUCTION CORPORATION	506,167	11.6	$7,322
ATLANTIC TRUCK & EQUIPMENT INC	443,994	10.2	$6,422
Inland Western Bangor Broadway LLC	430,208	9.9	$6,223
SAMS REAL ESTATE BUSINESS TRUST	429,603	9.9	$6,214
MJH-BGR LLC	426,456	9.8	$6,169
HOME DEPOT U.S.A., INC	421,404	9.7	$6,096
PENOBSCOT LOGISTICS SOLUTIONS LLC	418,694	9.6	$6,056
CAPITAL PIZZA HUT INC	406,763	9.3	$5,884
K MART CORPORATION(PARTY IN POSS)	404,108	9.3	$5,845
LYNDS, KRISTEN	387,366	8.9	$5,603
WAL-MART REALTY COMPANY	384,858	8.8	$5,567
M & J COMPANY	383,565	8.8	$5,548
WEBBER OIL COMPANY	356,722	8.2	$5,160
Smorgon Steel Recycling Inc	353,816	8.1	$5,118
TARGET CORPORATION T-1855	347,755	8.0	$5,030

JRG PROPERTIES INC	343,647	7.9	$4,971
ROMAN CATHOLIC BISHOP OF PORTLAND	342,831	7.9	$4,959
FREIGHTLINER OF MAINE INC	329,717	7.6	$4,769
BANGOR HYDRO ELECTRIC CO	324,805	7.5	$4,698
WEBB, DANIEL R & LINDA F JT	320,248	7.4	$4,632
KIMCO BANGOR 200 INC	309,708	7.1	$4,480
ACADIA HOSPITAL CORP	289,666	6.6	$4,190
DARLING, JOHN B	289,253	6.6	$4,184
BOMARC INC	285,558	6.6	$4,131
ERG REALTY TRUST	281,691	6.5	$4,075
JACOBI, RAFI	275,255	6.3	$3,982
STILLWATER REALTY LLC	273,218	6.3	$3,952
FROST & WEBBER ASSOCIATES	269,877	6.2	$3,904
GENERAL ELECTRIC INC	265,071	6.1	$3,834
B&L PROPERTIES LLC	260,601	6.0	$3,770
BANGOR SAVINGS BANK	260,268	6.0	$3,765

Policy for Billing of Exceptional Situations

It is recommended that each residential property be charged a flat rate of one billing unit. Each non-residential property would be evaluated to determine how much impervious cover there is divided by the billing unit (3,111 sf) to determine the number of units they would be billed for. It is important to have policies that are somewhat standard with respect to the underlying logic for billing. Following is a list of situations that might cause confusion and need clarification with respect to calculating the amount of impervious cover, and therefore, the number of billing units a property would be charged for.

1. How are rates calculated? What is an ERU? Are ERUs used in calculating rates?

An ERU, or equivalent residential unit, is a measure used by some utility districts in calculating stormwater fees. This measure is a fixed amount of square feet to which impervious cover amounts are

rounded. Another method is to use the actual square footage of properties, with a base rate to cover administrative and general costs and an exception for single-family homes. These approaches are essentially the same; ERUs are simply rounded-off square foot measurements. Staff recommendations are currently based on an ERU methodology, but could easily accommodate using square feet instead.

2. How are single-family homes charged?

All single-family homes should be charged the same flat rate. Single family homes are more uniform than most types of property, and the administrative burden of calculating and maintaining impervious cover areas for every such home in the City argues for a flat rate.

3. How do we charge for multifamily residential properties and accessory apartments?

Any property other than a single-family residential property should be charged based on its number of ERUs or square footage.

4. How do we charge a commercial property with 3.38 ERUs of impervious cover?

A traditional ERU model would charge the property to the nearest ERU -- in this case, 3 ERUs. A more accurate system would charge to the nearest half, quarter, or even tenth of an ERU. Staff recommends this more accurate system, and the technology the City would use could easily handle this level of detail.

5. How do we charge if a single-family residence owner also has a home occupation?

The presence or absence of a home occupation should not be considered in determining the property's status, as home occupations generally do not, of themselves, contribute significantly to stormwater issues.

6. How should a very rural parcel with a lot of well-buffered impervious area be treated?

The location of a property should not be considered, as nearly all the property in the City is within either the watershed of an urban impaired stream or in the City's MS4 area. Buffers may receive credit if an application for credit is approved by the City.

7. How do we treat mobile homes and mobile home parks?

A single mobile home should be treated as any other single-family home. A mobile home park should be measured as any other property that does not fall under the flat rate would be, by charging for the amount of impervious calculated in square feet.

8. How do we treat private roads?

Owners of private roads should pay based on the amount of impervious cover calculated.

9. Who should be charged for driveway aprons and private sidewalk extensions that serve a private property but are in the public right-of-way?

As the private property owner is the primary user, maintainer, and beneficiary of these areas, and causes most of the pollutant loading, these areas should be considered part of the impervious area of that private property.

10. Do we charge the state government for state highways and the federal government for the Interstate and U.S. highways?

For state or federal roads maintained by the state or federal government, charge whoever is responsible for paying for maintenance of the road. For state roads maintained by the City, see if there is any legal precedent that has been set in other stormwater utility districts; if there is none, charge whoever is responsible for paying for the maintenance of the road.

11. How do we split the airport between Military and City ownership?

Charge each entity, City and military, for the areas that they own. If the airport wishes to pass costs on to lessees, it can do so through its lease agreements. These entities may need to provide specific details about which areas they own.

12. Should city streets and sidewalks be treated separately from other city impervious areas (City Hall, the Public Works yard, etc.)?

All impervious should be billed at same rate. Stormwater maintenance activities on streets and sidewalks, such as catch basin cleaning and street sweeping, should be billed to the utility, given the role of these impervious areas in the City's stormwater collection system and their highly public nature.

13. How do we handle stormwater retention ponds?

Although not vegetated, these ponds allow for infiltration and are part of the stormwater system, so should be considered pervious areas.

14. Are decks and patios impervious?

Some decks and patios are permeable, while some are not. Few are likely to have vegetation underneath, and to function as a fully vegetated area would. Decks and patios should therefore be considered impervious, unless photographic proof is provided that shows otherwise.

15. Are swimming pools and their aprons or patios impervious?

Pools capture water and do not discharge it, so should be considered pervious. Aprons, on the other hand, direct water away from pools which potentially becomes runoff. Aprons should therefore be considered pervious.

16. Are athletic fields impervious?

Areas that are vegetated should be considered pervious, and areas that are not vegetated should be considered impervious. A packed gravel infield, for example, would be impervious, but a grassy outfield would be pervious.

17. Are gravel and dirt parking areas and swaths impervious?

As long as they are not vegetated, they are probably functioning much more like impervious surfaces than pervious surfaces, so should be considered impervious.

18. Are quarries impervious?

Quarries are not vegetated, and many pump stormwater off the premises. These externally drained quarries should be considered impervious. Naturally internally drained quarries should be considered pervious.

19. How should additional pervious/impervious questions and other billing decisions be handled?

Specific policy decisions should be made by the Director of the stormwater utility district or his designee, and added to this list.

VIII. RATE STUDY AND BUDGET/CASH FLOW MODEL

Basis for Rate Study Report

There are many reasons why the City of Bangor may decide to adopt a service fee to meet its stormwater program needs. Like many hundreds of municipal governments across the United States, unfunded federal and state mandates are forcing the city to identify new funding sources to generate revenue to meet new regulatory requirements. New revenue is needed to meet capitalization and operational expenses, to facilitate preventative maintenance, replace aging infrastructure, and to expand upon education and outreach programs, all of which are part of the City's Municipal Storm Sewer System (MS4) permit.

Additionally, the City has developed three of six watershed management plans to address urban impaired streams, another mandate by the federal government. These plans will require funding in order to implement. The alternative is to leave implementation up to individual property owners, but this approach would be less cost effective, and place a difficult burden on the business community, putting the City in an increasingly uncompetitive position and risking the potential for limiting new development in the future.

Over the course of review of this study by the Citizen Review Panel and the City Council, the proposed flat rate for single family homes was discussed. Subsequently, the latest Rate Ordinance includes a change from a flat rate or Equivalent Residential Unit (ERU) to a fee per square foot of impervious area for single family as well as commercial. This fee rate is much more fair for single family homes, and the only reason it was not to be charged in that manner, was to save time and money delineating residential properties. Staff has decided that the benefit of this policy change will far outweigh the cost.

Budget and Cash Flow Model

The Budget and Cash Flow Model are included with this report as Appendix G. Budget & Cash Flow & Level of Service Comparison see below and (attached).

Preliminary Stormwater Utility Budget
(Based on Level of Services)

	Current Level of Service	Medium Level of Service	High Level of Service
Expenses			
Labor			
Director	-	28,657	47,762
Engineer	73,320	94,000	94,000
Inspector	21,338	32,955	65,910
Modeling Engineer	-	70,000	35,000
Training & Outreach	73,936	70,000	80,000
GIS Specialist	37,500	18,940	28,410
Administrative	-	15,160	22,740
Field Crew	117,832	149,760	187,200
Field Crew - Summer Temp	-	9,600	9,600
	323,926	489,072	570,622
FTEs	7	9	10
Supplies	2,000	25,000	26,000
Operating Equipment			
Fleet Maintenance/Fuel	49,725	66,300	82,875
Field, Office, Monitor Equip	-	9,000	11,000
	49,725	75,300	93,875
Fees, Licenses, Assessments			
MS 4 Permit	300	300	300
Software Maintenance	36,500	36,500	36,500
Professional Dues	500	500	700
Stormwater Database Main Fee	300	5,000	7,000
Bgr Area Stormwater Group	12,853	15,000	15,000
	50,453	57,300	59,500
Minimum Control Expenses			
Public Education/Outreach	-	5,000	10,000
Public Involve/Participation	500	5,000	7,000
Illicit Discharge Detection	-	2,000	5,000
Pollution Prevent/Housekeep	12,500	342,000	407,500
Water Quality Monitoring	5,000	90,000	90,000
Urban Impaired Streams	-	105,000	105,000
	18,000	549,000	624,500
Capital Costs			
Retrofit Design & Install Program	-	750,000	1,050,000
Additional Equipment (Storage)	-	60,000	70,000
Replacement Funding	62,220	62,220	62,220
	62,220	872,220	1,182,220
Total Expenses	506,324	2,067,892	2,556,717

Preliminary Stormwater Utility Budget
(Based on Level of Services)

	Current Level of Service	Medium Level of Service	High Level of Service
Revenues			
Stormwater Utility Fee	506,324	2,378,076	3,451,568
Stormwater Reduction Credits	-	(103,395)	(383,508)
Allowance for Uncollectible	-	(206,789)	(511,343)
Total Revenues	506,324	2,067,892	2,556,717
Annual Fee Per ERU	9.76	45.82	66.50
Total ERUs in City	51,900	51,900	51,900

(ERU = Equivalent Residential Unit and measures 3,111 Sq Ft)

IX. RATE ORDINANCE

See Appendix I. Draft Rate Ordinance, (attached)

See Appendix J. Draft Council Order – Setting Fee Rates (attached)

See Appendix K. Draft Council Order – Setting Credits Policy (attached)

X. TABLE OF APPENDICES

Appendix	Title	Description
Appendix A	Regulatory Hammer	Description of the reason why additional sources of funding is needed for stormwater programs
Appendix B	Governance - City vs Separate	Pros & cons described for managing the utility as part of the City or as a separate entity
Appendix C	Sidewalks & Aprons	Example of the difficulties in determining who should be charged for what
Appendix D	Credits	Description of the basis for credits
Appendix E	Credit Example	Examples of calculations for credits
Appendix F	Presentation outline	Script used to make the public presentations
Appendix G	Budget & Cash Flow	Budget & cash flow & level of services comparison
Appendix H	IC Methodology	Methodology for calculating impervious cover
Appendix I	Draft Rate Ordinance	Ordinance establishing stormwater utility
Appendix J	Draft Council Order	Setting Fee Rates
Appendix K	Draft Council Order	Setting Credits Policy
Appendix L	List of Organizations	Descriptions of the organizations staff met with and/or made presentations to
Appendix M	Letters from citizens	Correspondence via e-mail and letters

XI. SUMMARY OF PROJECT DELIVERABLES

List of Deliverables by Task

OBJECTIVE / TASK #1: Administration

A. DELIVERABLES:

- Quarterly Progress reports to DEP during the life of the project (up to date)
- Request for Proposal for consultant services (completed 09/09)
- Draft Final Project Report (completed 7/8/11)
- Final Project Report (completed 7/29/11)

B. DELIVERABLES:

- List of Key citizen leaders and organizations to be contacted (completed 3/31/11)
- Summary Report of outcome of discussions and meetings with citizens and organizations (completed 6/27/11)
- Summary of Concerns and resulting solutions resulting from outreach meetings (completed 6/27/11)

OBJECTIVE / TASK #2: Public Outreach Plan

DELIVERABLES:

- Public Outreach Plan (completed 1/12/11)
- PowerPoint Presentation (completed 1/12/11)
- FAQ Handout (completed 1/12/11)
- Facilitation of 2 Public Meetings (completed 3/3/11)

OBJECTIVE / TASK #3: **Governance/Policy Evaluation and Development**

DELIVERABLE:

- Summary of Governance & Policy Statements - A brief summary of the resulting governance/policy statements generated as a result of the Citizens Advisory Panel/Stakeholder workshops and public meetings (completed 7/8/11)

OBJECTIVE / TASK #4: Five and Ten Year Program Funding Strategy

DELIVERABLE:

- Five and Ten Year Program Funding Strategy Report – A report to include a summary of the cost of services to be added or expanded upon, a discussion of level-of-service options, and a short and long term program funding strategy (completed 7/29/11)

OBJECTIVE / TASK #5: Development of Impervious Cover GIS Data Layer

DELIVERABLE:

- Impervious Cover Summary Report – Report would include the total amount of impervious cover within the City and a description of how much impervious cover exists within each of the various parcel classifications. (Completed 9/10)

OBJECTIVE / TASK #6: Development of the Master Account File (MAF)

DELIVERABLE:

- Master Account File Report – Report will summarizing the total number of billing units, the top 50 rate-payers, the rate(s) that will need to be charged, and a policy statement for billing of exceptional situations. (Completed 7/8/10)

OBJECTIVE / TASK #7: Rate Study and Budget/Cash Flow Model

DELIVERABLES:

- Rate Study Report (Completed 7/8/11)
- Budget and Cash Flow Model (Completed 7/8/11)

OBJECTIVE / TASK #8: Rate Ordinance

DELIVERABLES:

- Draft Rate Ordinance (Completed 7/8/11)
- Final Rate Ordinance (Completed 7/29/11)

XII. SUMMARY OF EXPENDITURES TO COMPLETE THIS STUDY

BUDGET INFORMATION:

Part 1, Estimated Personnel Expenses (Grantee staff only):

Position Name & Title	Hourly Rate	Number of Project Hours	Total Projected Number of Project Hrs	Salary & Fringe	Total Grantee Personnel Expenses	Total Projecte Grantee Personnel Expenses
1.Project Administrator	31.00	97	100	40.00	3,880	4,000
2. Finance Clerk	21.00	35	25	27.00	945	675
3. Project Manager	31.00	597	532	40.00	23,880	21,280
4. GIS Tech/Specialist	17.00	674	1120	22.00	14,833	19,040
5. GIS Oversight	27.00	15	30	35.00	520	1,050
6. SW Engineer	36.00	125	208	47.00	5,875	9,776
7. Executive	55.00	92	208	71.00	6,532	14,768
8. Legal	30.00	215	248	39.00	8,385	9,672
9. Misc. Staff	30.00	42	208	39.00	5,694	8,112
Totals		1892	2679		70,544	92,693

Part 2, Budget Estimates by Cost Category:

Cost Category	*Federal 604(b)Grant*	*Non Federal Match This Quarter*	*Non Federal Match (not required)*	*Total Cost Accumulated t date*
Salary & Fringe (from Part 1)	0	$4,516	$70,544	$70,544
Volunteer Labor – Stakeholders	0	$420	$7,005	$7,005
Supplies	0	0	0	0
Contractual Services [1]	$70,000	0	$15,545	$85,545
Travel (total mileage, rate/mile)	0	0	0	0
Equipment	0	0	0	0
Other (focus group refreshments, printing, copying)	0	0	$160	$160
Indirect	0	0	0	0
Totals	$70,000	$4,936	$93,254	$163,254

1. Note: Contractual Services includes a consultant to facilitate public meetings, guide the development of the utility study. This assumption includes an hourly rate of $120/hr or more. Contractual services in the first quarter included the aerial photography contractor. Second and third quarter included marketing firm contributions outside of billable hours.

2. Stakeholders cost = $30.00/hr.

End of Report