



Town of Chapel Hill

Pro Forma Business Plan – Utility-Based Stormwater Management Program Summary

Introduction

The Town of Chapel Hill requested a pro forma Business Plan for a Utility-Based Stormwater Management Program. This business plan contains a brief assessment of the Town's stormwater management program, and summarizes potential improvements and stormwater funding methods.

Assumptions include:

- ◆ The Town of Chapel Hill wishes to have a stormwater utility as a means of funding its stormwater program;
- ◆ The Town will have a moderate implementation of all regulatory programs required;
- ◆ The Town wishes to accomplish this task to citizens' satisfaction with a minimum increase in personnel and costs.

Since 1992, efforts have been extended to develop a more comprehensive stormwater management program. This document includes a brief analysis of current operations, anticipated requirements, and a list of recommended changes. These proposed program changes will require additional resources to implement. To assist in establishing funding sources for these changes, a recommended funding approach is also included.

Areas of Consideration

Five primary areas were investigated as being essential to the formation of a comprehensive stormwater management program. They were: Program and Issues Assessment; Funding Feasibility, Database Development; Recommended Approach and Public Involvement. Each of these is presented in separate sections of this business plan and contains information on the issues and challenges facing the Town of Chapel Hill.

1. PROGRAM and ISSUES ASSESSMENT

The Town of Chapel Hill's stormwater system has evolved over the course of many years – with portions of the system being more than 60 years old, well beyond its anticipated design life. Due primarily to a lack of available resources, this system needs capital improvements and improved maintenance. Currently the Town spends about \$950,000 per year on stormwater

What is a Stormwater Utility?

- **A FUNDING METHOD**
A method or mix of methods for providing adequate, stable, and equitable funding for the comprehensive stormwater program.
- **A PROGRAM CONCEPT**
A comprehensive stormwater quantity and quality program with an effective balance of: capital, operational, regulatory, engineering, planning and administrative activities.
- **AN ORGANIZATIONAL ENTITY**
A legal entity with the authority to regulate stormwater management, operate stormwater management systems, and assess fees and charges.

management. Other municipal stormwater programs in the Southeast devote substantially greater monies to stormwater infrastructure construction and maintenance than Chapel Hill. Municipalities that have essentially solved the major problems facing Chapel Hill spend annually about twice what Chapel Hill spends, and have done so for many years.

To better address stormwater issues and problems, we recommend that the Town should budget approximately \$2,000,000 per year for the stormwater management program. Elements of this program should include: master planning, infrastructure inventory and management, better response to complaints (minor construction and maintenance), remedial maintenance (replacement of aging infrastructure), and proactive maintenance.

The Town receives approximately 50 stormwater-related complaints per year. Complaint response is difficult because the Town lacks accurate maps of the system. There is no master plan to fix problems, and the Town does not have policies in place to obtain and maintain access to all parts of the system or to provide routine and remedial maintenance at a level commensurate with the need. Work is therefore done in reactive manner, resulting in lack of efficiency and coordination.

Portions of Chapel Hill, which has three watersheds within its town limits, drain into Jordan Lake, a drinking water supply. To protect water quality, improvements in stormwater management are becoming mandatory. In compliance with the Federal Clean Water Act, Chapel Hill will be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for stormwater runoff under the new NPDES Phase II rules that are going into effect in 2003. Currently, the Town has public drainage projects pending that will require difficult funding decisions. This fiscal crisis, however unexpected, could be dampened in these areas with an adequate stormwater utility in place.

Depending on the policy decisions, a stormwater utility could provide resources for many programs. These could include resources to sustain additional environmental measures currently under consideration in the Development Ordinance such as the Resource Conservation District Ordinance and Stormwater Management and Impervious Area provisions. The Town has adopted a Hazard Mitigation Plan, as required by the State of North Carolina for disaster funding eligibility. All of the mitigation measures in the plan could utilize resources provided by a stormwater utility. A utility could build up and sustain a "rainy day" fund for emergency projects associated with unexpected flood damages to streets and drainage infrastructure.

2 FUNDING

Ten funding mechanisms were examined that might partially or wholly fund stormwater management in Chapel Hill. The first two, a stormwater service fee and the Town's General Fund support, offer sufficient potential revenue capacity to support the projected funding needs. The other eight funding mechanisms considered in this analysis would be insufficient to fully fund program needs, but might be desirable as "secondary" funding methods. These include special assessments, special service fees, bonding, in-lieu-of-construction fees, system development charges, impact fees, and federal and state grants and loans. A stormwater service fee is the most viable long-term funding method for the proposed program. A stormwater service fee offers stable and adequate revenue to meet the system service requirements and offers the opportunity to design a rate methodology that results in an equitable distribution of the cost of services and facilities.

Stormwater service fee programs typically generate most of their revenue through "user" fees. "Use" of the stormwater system is defined as the demand a property places on that system and the stormwater services and facilities provided which protect the property, downstream properties, and the receiving waters. Each property generates stormwater runoff that flows into the drainage system and from stormwater management each property owner benefits, in some way, from safer streets, cleaner water, etc. The demand a property places on a system is traditionally measured in terms of the peak flow of stormwater runoff generated by the property. The greater the flow the greater the use, and thus, the greater the user fee. Two major parameters that most significantly influence the demand that a property places on the stormwater system are total property area and total impervious area within a property.

3. DATA

In order to implement a stormwater user fee system, there are data needs that must be met. A stormwater service charge rate methodology (See I-3 Basic Data Feasibility) is applied to individual properties and bills must be generated and delivered to each customer. This process requires reliable data to support the rate structure development. The first step requires a master account file. Existing databases, such as property tax rolls and water/wastewater account files, are typically used as the foundation for a stormwater service fee master account file. Information from individual residential and non-residential properties is examined, usually through the use of GIS maps, land use information, and aerial photography. This allows a rate to be determined based on a property's contribution to stormwater runoff as it relates to impervious surfaces on each parcel.

The most important and the most difficult part of the process requires high-quality, current original data. The Town's current photography is almost five years old. This is of particular concern considering the growth and change in the area in recent years. Before the aerial photography is undertaken, it is highly recommended that building the utility database be considered in determining the kind and form of data to be captured.

Depending upon which policy decisions are made during the rate study, the data needs will vary. For example, if a flat fee is proposed for all single-family residential parcels, then it is critical that the tax database has a reliable indicator concerning the improvements on a parcel to allow updates to the billing database. If the rate structure is based on calculating the impervious features by using aerial photographs, the database/GIS layers must clearly delineate the impervious area on each property.

4. RECOMMENDED APPROACH

Chapel Hill faces a steep "program development curve" in the next few years as administrative, operational, capital investment, and regulatory elements of stormwater management are formulated and carried out. It will take five to ten years before a comprehensive program is fully attained. Funding should be expected to evolve along with the program.

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A series of policy issues needs to be addressed if the Town of Chapel Hill decides to establish a stormwater service fee. The issues should be carefully documented since they directly impact the validity of Town Council actions related to the establishment of the service fee and adoption of rates and other funding methods that might be associated with it. The following recommendations on specific funding issues are based on the experiences of other cities that have implemented service fees. They are the minimum that should be examined and documented. These issues will dictate to some degree how the implementation process will proceed if the Town pursues a service fee approach.

- 1) The Town should establish a stormwater service fee as a separate cost center encompassing the full range of services and facilities associated with stormwater quantity and quality management.
- 2) A stormwater management program should be funded primarily from service fees. The stormwater service fee should be on the same bill as the water and wastewater charges if possible, and should appear as a separate line item.
- 3) The rate methodology for stormwater service fees should be fair and reasonable and result in charges that bear a substantial relationship to the cost of services and facilities.
- 4) Bonds should be used to pay for major capital improvements to the stormwater systems, but should be limited to projects that are beyond the capacity of the service fee's annual revenue stream.
- 5) Service fee credits should be provided for properties that reduce their stormwater management demand, or where distinctly lower levels of service are to be provided as a matter of policy.
- 6) The Town should seek and accept state and federal funding in support of the stormwater management program only in instances where such funding is consistent with local objectives and practices and offers appropriate latitude to the Town in using such funds and its own resources.
- 7) The Town should determine if a service fee rate increase is desired after the initial two-year period or, alternatively, if a higher initial rate should be adopted that would cover a longer period.

It is imperative that the correct steps be taken if a service fee is established. Shown below are some of the critical tasks and actions which, when timed correctly, will result in the formation of a stormwater service fee program. This report does not contain sufficient details and staff input to form the stormwater service fee program without additional, detailed analyses.

We recommend a two-phase approach be taken – the first phase is the development of the stormwater management program and the enterprise fund (program service ordinance). The second phase is to carry out the associated rate study (rate ordinance) and to develop the master account file (billing system). This approach offers several advantages. First, it allows several opportunities for the general public to provide input as the Town Council considers the new stormwater management program changes. Secondly, it separates the revenue generation consideration from the program/service development consideration. If this process is begun soon, the Town is approximately 20 to 24 months away from implementing a stormwater user fee.

4 PUBLIC EDUCATION

Public awareness and education are carried out in stormwater management programs in two ways: specific public education campaigns and ongoing "baseline" public information programs and activities. These differ in that a campaign has a beginning and an end while the ongoing program goes through transformations but does not have a planned ending. The messages should stress:

- There are needs in the community that are currently not being met;
- We have a plan to meet these needs that is well thought out, effective and not extravagant;
- Government must take the lead in this;
- This plan costs more money, but this additional investment is well worth it in terms of benefits;
- The method to generate this new revenue is fair, adequate and stable, and is fairer than a tax increase;
- The method is not a tax but a user fee and is very practical in its approach;
- The cost to each homeowner is minimal; and
- Citizens will see results.

The reconstituted use of a citizens' advisory group, perhaps termed the Stormwater Policy Review Committee, in the next phase of the project will help in communicating these messages. Their meetings will generate additional public and media interest in improving the stormwater management program. Information and handouts can be presented to the stakeholders and made available to the media. Individual stakeholders might even be interviewed by the press; special efforts to prepare stakeholders for this can keep the message consistent. We anticipate that the stakeholder group will have representatives from the general public, residents, business and industry leaders, environmental awareness groups, and other community special interest groups -- in addition to the Town staff and political leadership. Plans should be made to educate the general public and to create opportunities for them to get involved in the stormwater management program. They represent a diverse group, which will require several methods to reach. Planned activities include: General Information Brochures, Press Packages, Public Information Meetings, Bill Stuffers, and possibly a video.