

## SUMMARY

**Needs and Opportunities for Comprehensive Stormwater Management in southern Orange County**

Surface water quality throughout the Chapel Hill area continues to decline primarily due to the effects of development. At the same time residents, businesses and public properties in many areas are being confronted with the prospects of greater vulnerability to both nuisance flooding and major flood disasters. Development pressures are strong in and around Chapel Hill, and are projected to continue through 2025 (Chapel Hill Data Book 2001).

The recent flood damages to Eastgate Shopping Center and Piney Mountain Road reflect the increasing vulnerability of both public and private interests in our community. Local surface water quality and biodiversity have experienced a continual decline as a result of stream bank erosion, sedimentation, streamside buffer degradation and other biological and chemical pollutant sources. Impaired stream health is a special concern since the Town's surface water flows into Jordan Lake, which is a drinking water-supply source and recreational area. Compounding these problems is the lack of understanding about issues related to flooding and water quality; and the lack of sufficient information to allow for a proactive decision-making process through which to effectively plan and mitigate these problems.

The Town of Chapel Hill should act to minimize risk to public health and safety. This would also serve to enhance protection of the environment in concert with local economic development strategies. The continual decline in water quality and the recent series of flooding incidents suggest that it is imperative that the community address stormwater management issues in a comprehensive fashion.

In order to protect its citizens from flooding and further water quality degradation, the Town must enhance its stormwater management program to include comprehensive long-range management efforts. Current resources directed toward stormwater management and watershed health are insufficient to fully address the Town's current needs or future water quality problems and flood risks.

**Policy Basis for Stormwater Management in the Town's Comprehensive Plan**

The policy basis for comprehensive stormwater management is set forth in the Town's 2000 Comprehensive Plan. Specific strategies include:

- Strategy 9F-1: Improve existing stormwater practices.
- Strategy 9F-2: Develop and implement an effective water quality performance review process.
- Strategy 8A-3: Preserve open space in residential development through the application of conservation development principles.

The plan also states that actions to improve stormwater management are to “*evaluate low impact development and sedimentation control requirements*” and “*develop a dedicated source of funding with a stormwater utility no later than January 31, 2004.*”

### **Goals for Comprehensive Stormwater Management**

Based on a public charette, previous committee recommendations and review of the Town’s Comprehensive Plan and other relevant policy documents, the Stormwater Utility Development and Implementation Study Committee identified the following goals:

1. To prevent or reduce non-point source pollution to the maximum extent practicable.
2. To prevent flood damages caused by new development and reduce flood risk to existing development through mitigation strategies.
3. To reduce the negative impacts and disruption of the economy and local government services due to flooding and flood damages.
4. To protect or enhance surface water resources, water quality, riparian buffers and natural wildlife habitat.
5. To effectively educate and incorporate citizens, businesses and institutions in stormwater management issues and programs.
6. To promote inter-jurisdictional cooperation and programs that ensure a uniform and consistent application to meet the stated goals.
7. To ensure compliance with state and federal regulatory mandates for water quality protection (notable EPA’s NPDES Phase II) and floodplain management.

### **Recommendations for a Comprehensive Stormwater Management Program**

The Stormwater Utility Development and Implementation Study Committee has developed two broad recommendations for the Council to consider. The recommendations are based on work by the Committee as a whole, and on particular contributions of local government staff members with the development of the Southern Orange County Stormwater Management Program Analysis attached to the Committee report.

One recommendation involves actions needed to initiate improved inter-jurisdictional cooperation. The second recommendation focuses on actions to create a Town stormwater utility that would provide a stable revenue stream for a comprehensive stormwater and floodplain management program that addresses the goals outlined by the Committee.

#### *1. Support Inter-jurisdictional Cooperation*

The Committee recommends that the Chapel Hill Town Council direct the Manager to initiate formal discussions with neighboring jurisdictions of Carrboro, unincorporated Orange County, UNC-CH and OWASA to establish a *Stormwater Management Workgroup*. The workgroup should focus on how to implement the following recommendations:

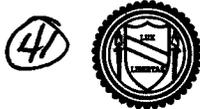
- A. *Inter-jurisdictional monitoring, enforcement and elimination of illegal discharges.* Take joint action in monitoring water quality to detect trends in the health of streams that cross multiple jurisdictions, respond to non-compliance issues and take action to identify and enforce compliance through a series of technical and legal steps. This joint endeavor could increase efficiency and cost-effectiveness of individual efforts.
  - B. *Public education.* Undertake a comprehensive and coordinated public education program to consistently inform citizens of stormwater, water quality and floodplain management issues, to enable them to take mitigation actions and to provide a simple mechanism to alert officials of observed problems.
  - C. *Digital flood mapping and database management.* Replace outdated and inaccurate regulatory flood insurance rate maps locally using geographic information systems (GIS) technology. Provide further modeling and regulatory maps for additional streams and tributaries experiencing significant development pressure. Manage and compile floodplain data and mapping resources.
  - D. *Sedimentation and erosion control.* Make available to Orange County expanded resources to ensure regular inspection and enforcement of erosion and sediment control regulations in the rapidly growing areas of the four jurisdictions.
2. *Create a Utility to Support and Sustain a Comprehensive Stormwater and Floodplain Management Program in Chapel Hill*

The following are recommendations to effectively obtain the resources needed for a comprehensive stormwater and floodplain management program in Chapel Hill:

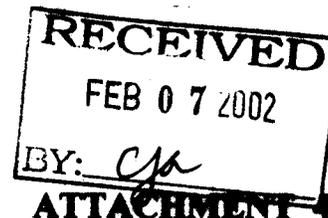
- A. Obtain the services of a professional consultant to evaluate existing local programs and procedures, to identify practical funding and rate options, and to develop scheduling, billing, collection, and accounting procedures for creating and implementing a Chapel Hill stormwater utility.
- B. Establish a citizen's *Stormwater Action Committee* to work directly with Town staff and a professional consultant to clearly define the program elements and more importantly to design a program to provide the necessary public awareness and to build support for funding the program. The action committee would be responsible for holding public information meetings and disseminating information to the public. It is anticipated that interested members of the current Stormwater Utility Development and Implementation Study Committee, who are Town residents, as well as other interested residents, might serve as members of the action committee.

The following tasks should be undertaken by the professional consultant to address the goals set forth in the Committee report:

1. Review the Town's current stormwater management, water quality monitoring, floodplain management, database management, drainage maintenance and capital improvements programs, budgets and policies.
2. Review previous stormwater committee reports and recommendations, current stormwater management and floodplain development regulations, the Town Code and the 2000 Comprehensive Plan.
3. Interview directors and other appropriate staff of the Engineering, Public Works, Planning, Finance and Inspections Departments to determine current departmental programs, policies, budgets and levels of service related to stormwater management, drainage maintenance and floodplain management.
4. Review the goals and recommendations set forth by the Stormwater Utility Development and Implementation Study Committee.
5. Schedule and conduct two meetings with the citizen's *Stormwater Action Committee* and Town staff. The first meeting would solicit input and initiate and develop public support for a Town stormwater utility. The second meeting would present a draft policy paper for final comment by the action committee.
6. Schedule and conduct two meetings with the inter-jurisdictional *Stormwater Management Workgroup* to define the levels of cooperation and responsibility necessary to increase program effectiveness, to jointly meet NPDES Phase II permit requirements where practicable and to reduce overall costs. The four areas of inter-jurisdictional cooperation in Section II of this report should be used as a general guide. The meetings would be conducted on a parallel timeframe with the *SWAC* meetings for continuity in writing the draft policy paper.
7. Within a twelve-month period, submit a Final Action Plan report to Council with recommendations for implementing a Town stormwater utility to meet local needs and State/Federal mandates. The report would include discussion and recommendations regarding:
  - A) Options for a stable, equitable and sufficient source of revenue including funding and rates, billing, collections, and accounting options.
  - B) Options for varying levels of stormwater management services, with the minimum level including only that which would be necessary to meet NPDES Phase II requirements.
  - C) Options for inter-jurisdictional cooperation including roles and responsibilities, possible joint services to be provided, cost analyses and NPDES Phase II co-permit possibilities.



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AT  
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February 7, 2002

Mr. Cal Horton  
Town of Chapel Hill  
306 N Columbia Street  
Chapel Hill NC 27516

Dear Cal:

This letter provides input on two related issues currently under separate review by the Council: stormwater management and sedimentation/erosion control.

The Development Plan stormwater mitigation initiatives we jointly produced for the main campus clearly show our collective commitment to being a leader.

On January 28<sup>th</sup>, you provided a report to the Council entitled North Carolina Division of Land Quality Sedimentation and Erosion Control Resources. It correctly states that land disturbing activities on state property are monitored by the NC Division of Land Resources.

Town staff is currently reviewing a citizens' report dated November 26, 2001 from the Stormwater Utility Development and Implementation Study Committee. It is a comprehensive report with a number of recommendations. While we generally support the report, there is one area where we need to voice an objection. That is Section 4 which covers sedimentation/erosion control and recommends that Orange County inspect state projects and report to the State. We believe this is neither necessary nor appropriate.

Most importantly, we look forward to working with you on areas of mutual benefit as we each endeavor to come into compliance with EPA NPDES guidelines for cities under 100,000. We are implementing new stormwater and sedimentation/ erosion control requirements as part of our Construction Guidelines, and we believe that additional coordination improvements can be made by our staffs, in terms of communications and public education on state projects.

Please pass this information to your staff and the Council for their use as the issues continue to be reviewed.

Thanks in advance.

Sincerely,

Nancy D. Suttnerfield

cc: James Moeser, Chancellor  
Carolyn Efland, Associate Vice Chancellor, Campus Services  
Bruce Runberg, Associate Vice Chancellor, Facilities Planning & Construction