REQUEST FOR BOARD ACTION

HENDERSON COUNTY
BOARD OF COMMISSIONERS

MEETING DATE: May 16, 2007

SUBJECT: Stormwater Management Presentation

ATTACHMENTS: Yes
1. Stormwater Management Presentation

SUMMARY OF REQUEST:

The purpose of this agenda item is to inform the Board of Commissioners on Stormwater Management and Henderson County's involvement. The presentation outline is as follows:

- Introduction to SWM
- Clean Water Act and Henderson County
- Options for Henderson County
- Clean Water Management Trust Fund
- Funding a SWM Program
- Implementation

BOARD ACTION REQUESTED:

The Board is requested to begin discussing the issues related to Stormwater Management and the County's involvement in the issue.

Suggested Motion:
No motion necessary at this time.

Attachment 1

Stormwater Management (SWM) Presentation

Stormwater Management (SWM)

Presentation Overview

- Introduction to SWM
- Clean Water Act and Henderson County
- Options for Henderson County
- Clean Water Management Trust Fund
- Funding a SWM Program
- Implementation

SWM Introduction

What is stormwater runoff?

Stormwater runoff is water from rain or melting snow that “runs off” across the land instead of seeping into the ground. This runoff usually flows into the nearest stream, creek, river, lake or ocean. The runoff is not treated in any way.

From NCDENR’s www.ncstormwater.org

SWM Introduction (cont)

What is polluted runoff?

- On its way to creeks, rivers and lakes, runoff water can pick up and carry many substances that pollute water.
- Some - like pesticides, fertilizers, oil and soap – are harmful in any quantity. Others – like sediment from construction, bare soil, or agricultural land, or pet waste, grass clippings and leaves – can harm creeks, rivers and lakes in sufficient quantities.
- Various human activities like watering, car washing, and malfunctioning septic tank can also put water onto the land surface…possibly creating runoff that carries pollutants to creeks, rivers and lakes.

from NCDENR's www.ncstormwater.org

SWM Introduction (cont)

What is polluted runoff, continued?

- Polluted runoff generally happens anywhere people use or alter the land.
- For example, in developed areas, none of the water that falls on hard surfaces like roofs, driveways, parking lots or roads can seep into the ground. These impervious surfaces create large amounts of runoff that picks up pollutants. The runoff flows from gutters and storm drains to streams.
- Runoff not only pollutes' but erodes streambanks. The mix of pollution and eroded dirt muddies the water and causes problems downstream.

from NCDENR's www.ncstormwater.org

SWM Introduction (cont)

What is Nonpoint Source Pollution?

- This is another term for polluted runoff and other sources of water pollution that are hard to pinpoint. The term “nonpoint source pollution” comes from the federal Clean Water Act of 1987. There, it is used as a catch-all for all kinds of water pollution that are not well-defined discharges (point sources) from wastewater plants or industries.

- Many state agencies have nonpoint source (NPS) management programs that address polluted runoff. North Carolina’s NPS program is part of DENR’s Division of Water Quality. It serves as the central coordinating agency for the many NPS-related programs operated by various agencies.

from NCDENR’s www.ncstormwater.org

SWM Introduction (cont)

Why do we need to manage stormwater and polluted runoff?

- Polluted stormwater runoff is the number one cause of water pollution in North Carolina. In most cases in North Carolina today, stormwater either does not receive any treatment before it enters our waterways or is inadequately treated.
- Polluted water creates numerous costs to the public (Water Treatment)
- Polluted water hurts the wildlife in creeks, streams, rivers and lakes.
- Because more water runs off hard surfaces, developed areas can experience local flooding. The high volume of water also causes streams banks to erode and washes the wildlife that live there downstream.

from NCDENR's www.ncstormwater.org

SWM Introduction (cont)

How are stormwater and runoff "managed"?

- "Best management practices" is a term used to describe different ways to keep pollutants out of runoff and to slow down high volumes of runoff.

- Best Management Practices (BMPs)
  - Education
  - Laws (Planning and Permitting)
  - Stormwater Control Devices
    - (Detention Ponds, Sediment Fences, Permeable Paving, etc)

from NCDENR's www.ncstormwater.org

SWM Introduction (cont)

Why all the recent fuss about stormwater?

- The federal Clean Water Act requires large and medium sized towns across the United States to take steps to reduce polluted stormwater runoff. The law was applied in two phases. The first phase addressed large cities. The second phase, often referred to as ”Phase II,” requires medium and small cities, fast growing cities and those located near sensitive waters to take steps to reduce stormwater. In North Carolina, Phase II laws take effect in 2005.

SWM Introduction (cont)

These laws require chosen cities to do six things:

1. Conduct outreach and education about polluted stormwater runoff.
2. Provide opportunities for residents to participate and be involved in conversations and activities related to reducing polluted stormwater runoff.
3. Detect illicit discharges (e.g. straight piping or dumping).
4. Control construction site runoff (Erosion Control Programs).
5. Control post-construction runoff.
6. Perform municipal housekeeping (e.g. take steps to prevent runoff from city buildings and activities.)

from NCDENR's www.ncstormwater.org

Clean Water Act and Henderson County

- Henderson County is required to apply for a Phase II Permit with NCDENR for its facilities

- NCGA Session Law 2006-246

Henderson County Phase II Requirements

- May 30, 2006 Letter from NCDENR
  - NPDES Permits for County Facilities
- October 24, 2006 Response from HC
  - Request to reconsider need for Compliance
- Anticipated Response from NCDENR
  - Original letter is correct

NCGA Session Law 2006-246

- July 1, 2007 the Water Quality Section of NCDENR will manage stormwater in unincorporated Henderson County (similar to E&SC)
- Will be managed out of Raleigh (one engineer for 19 counties)
- “Self Imposed Unfunded Mandate” (similar to E&SC)

SWM Options for Henderson

- "Do Nothing Option" with NCDENR managing the State SWM Program

- Develop a Delegated County Program
  - Similar to Erosion & Sediment Control
  - Partnership with Municipalities
  - Complementary to E&SC

SWM Options for Henderson, cont.

Elements of a SWM Program

- Planning and Zoning (buffer requirements)
- Design and Review of SW devices
- Construction and Inspection of SW devices
- Permitting and Maintenance of SW devices

NC Clean Water Management Trust Fund

Out of cycle Grants available for Stormwater Master Plans

- Model Stormwater in County
- Develop SWM Ordinance
- Recent news on CWMTF funding

Funding a SWM Program

- Permit Fees
  - Developer fee's for Review and Inspection
  - Owner Permit Renewal Fees
- General Fund
- Tax on a parcel's Impervious Surface
- State program will be funded by permit fees

Funding a SWM Program, cont.

- Cost of a Program
  - Modeling Stormwater
  - Ordinance Development
  - Planning Staff to implement SWP code
  - Program Staff to Approve Permits
    - Review plans and Inspect Construction
  - Program Staff to Renew Permits
    - Inspection Condition of Maintenance
  - Program Staff perform Maintenance

Funding a SWM Program, cont.

- SWM Program staff will have similar functions to the Erosion and Sediment Control staff.
- A combined SW and E&SC Department could provide cost savings
- Impact on Planning staff would need to be considered
- Accurate Estimates of Cost done during development of Master Plan

Implementation of SWP

- Fiscal Year 2008
  - Apply for CWMTF Grant
  - Model Stormwater
  - Develop Ordinance
  - Develop Revision to Planning Code (proposed LDC)
  - Estimate and Budget for Program Cost
- Fiscal Year 2009
  - Begin Program

Stormwater Management

Questions?

Thank you.