

Developing a Good Local Stormwater Mgmt Program: From the Permit to the Audit

Municipal Finance Workshop
Environmental Finance Center

June 24, 2008

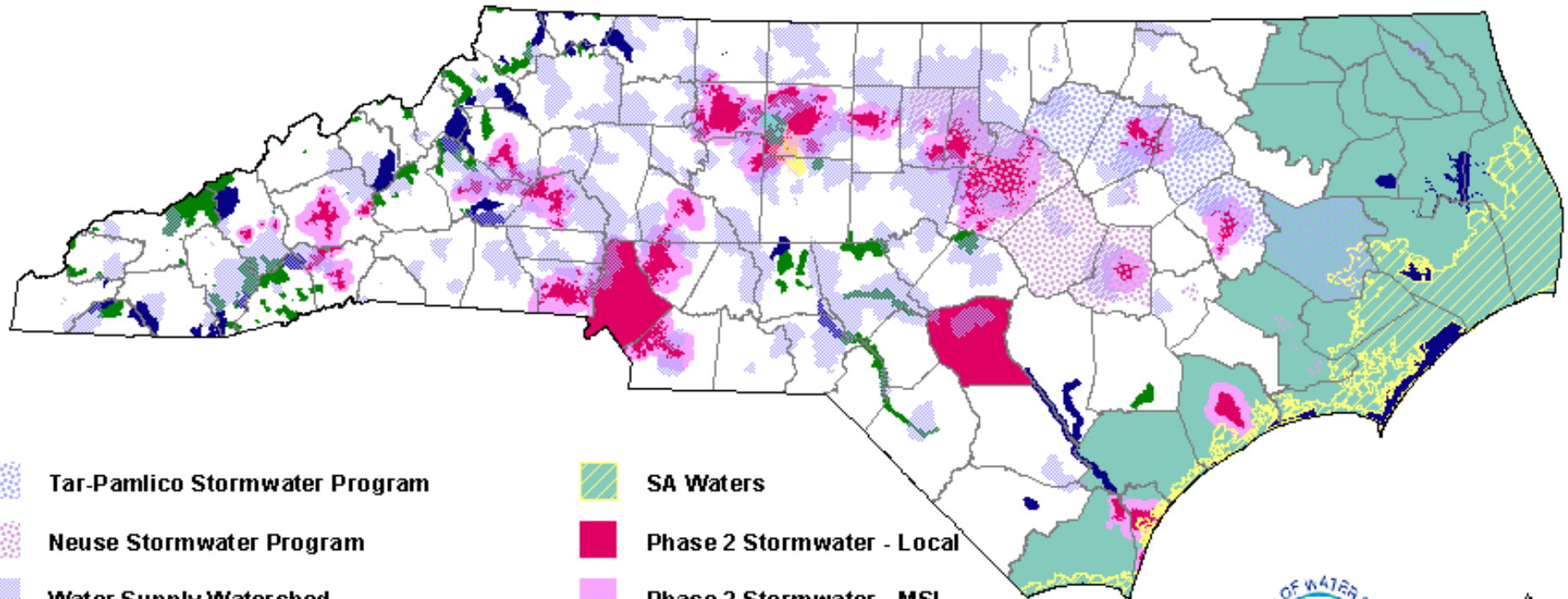



Stormwater Management Legal Basis

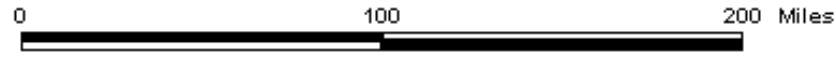
- Rivers and Harbors Act of 1899
- Public Health Service Act of 1912
- Oil Pollution Act of 1924
- Federal Water Pollution Control Act of 1948
- Water Quality Act of 1965
- Clean Water Act (Federal Water Pollution Control Amendments) – 1972
- Phase I – 1990, communities serving 100,000+
- Phase II – 1999, urban areas serving 50,000+

NC Water Quality Protection Strategies - Stormwater

3/1/05

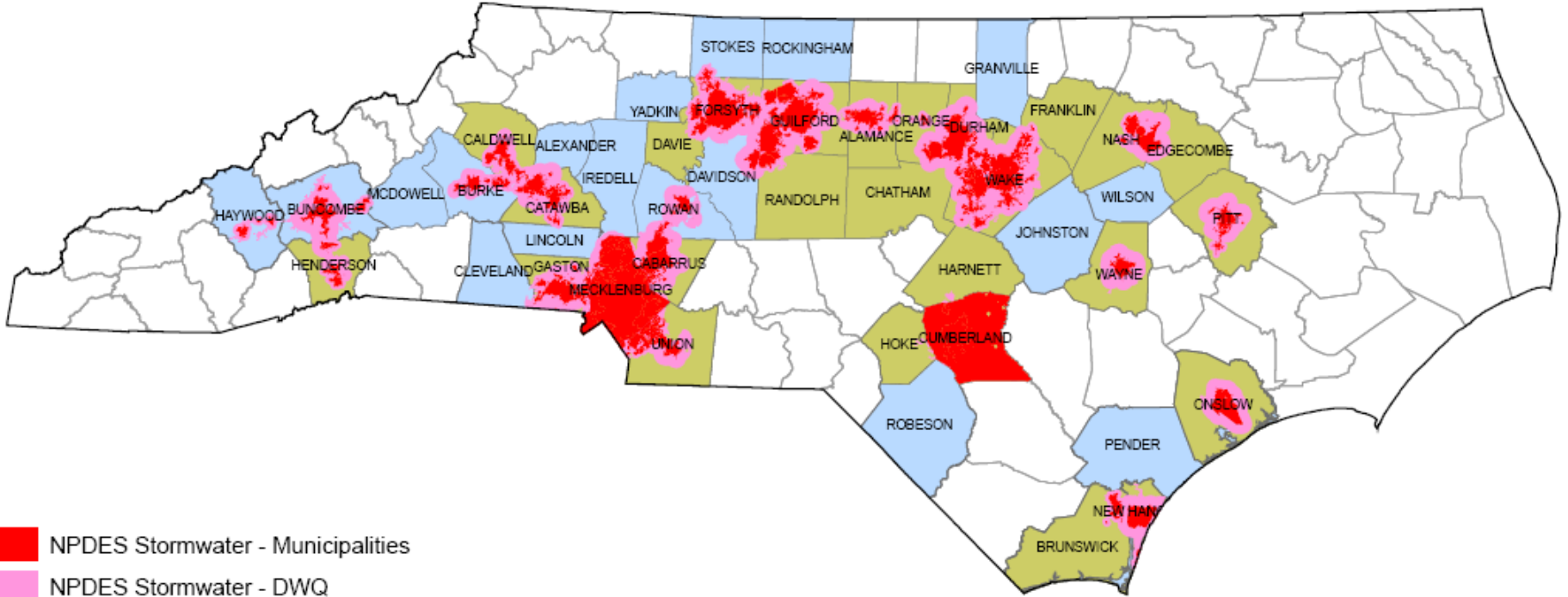


- | | |
|--|---|
|  Tar-Pamlico Stormwater Program |  SA Waters |
|  Neuse Stormwater Program |  Phase 2 Stormwater - Local |
|  Water Supply Watershed |  Phase 2 Stormwater - MSI |
|  Randleman Upper Watershed |  High Quality Waters |
|  Randleman Lower Watershed Critical Area |  Outstanding Resource Waters |
|  Randleman Lower Watershed Protected Area |  Coastal Counties |

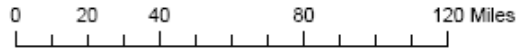


Counties Affected by Phase II (Per Session Law 2006-246)

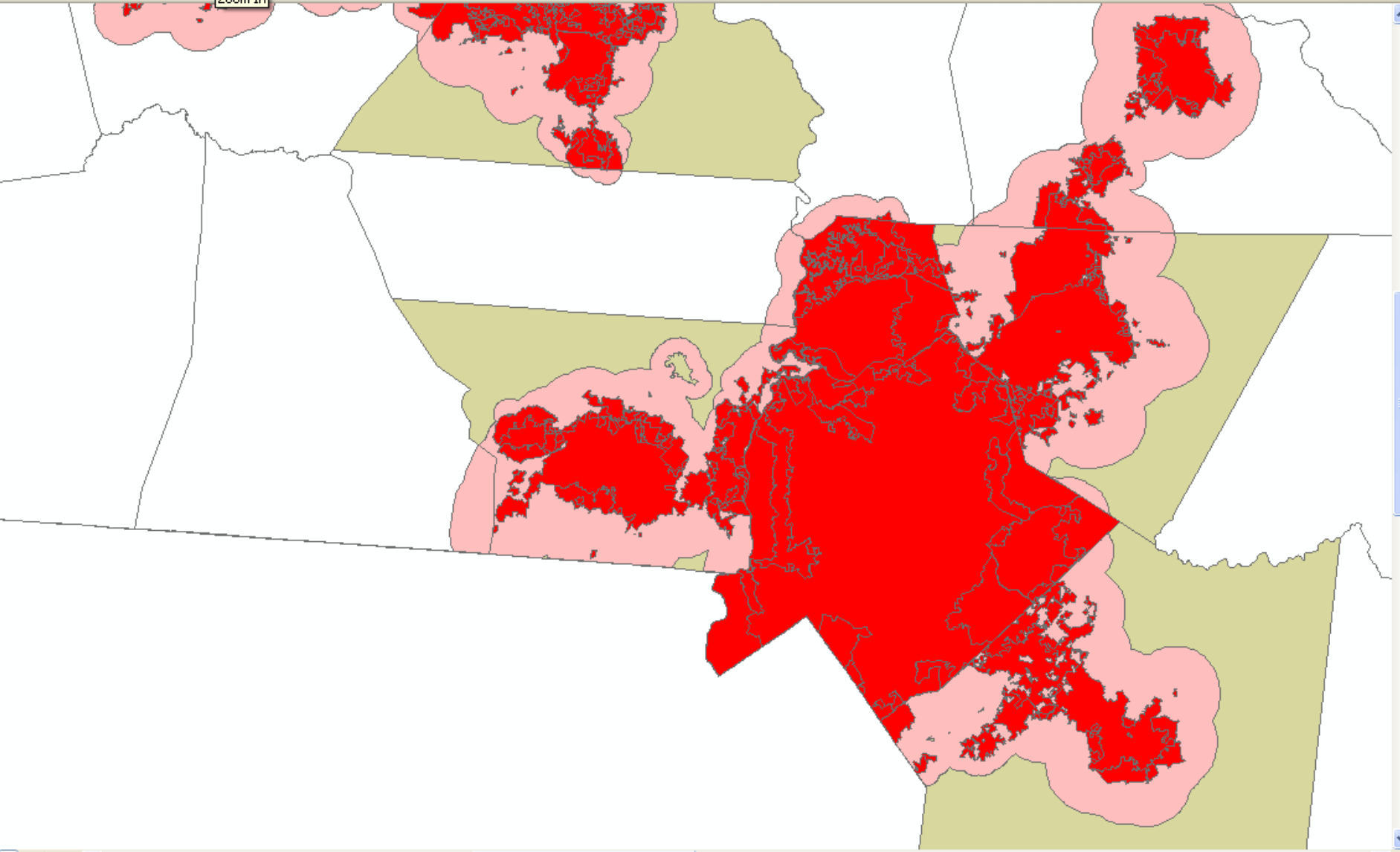
Total No. = 45



- NPDES Stormwater - Municipalities
- NPDES Stormwater - DWQ
- PhII_Counties
- Counties_Affected



Navigation toolbar with icons for File, Print, Home, Find, Measure, Rotate, and a scale bar showing 1:527,179. A dropdown menu is open showing "General SW Permits (N...".



81°40'56.77"W 35°42'37.14"N

Existing Situation for Gaston County

Gaston County has three stormwater programs

- Phase II Stormwater Program including ILAs with county Phase II communities
- Delegated NPDES Phase II county post-construction program
- Three Water Supply Water Shed program areas

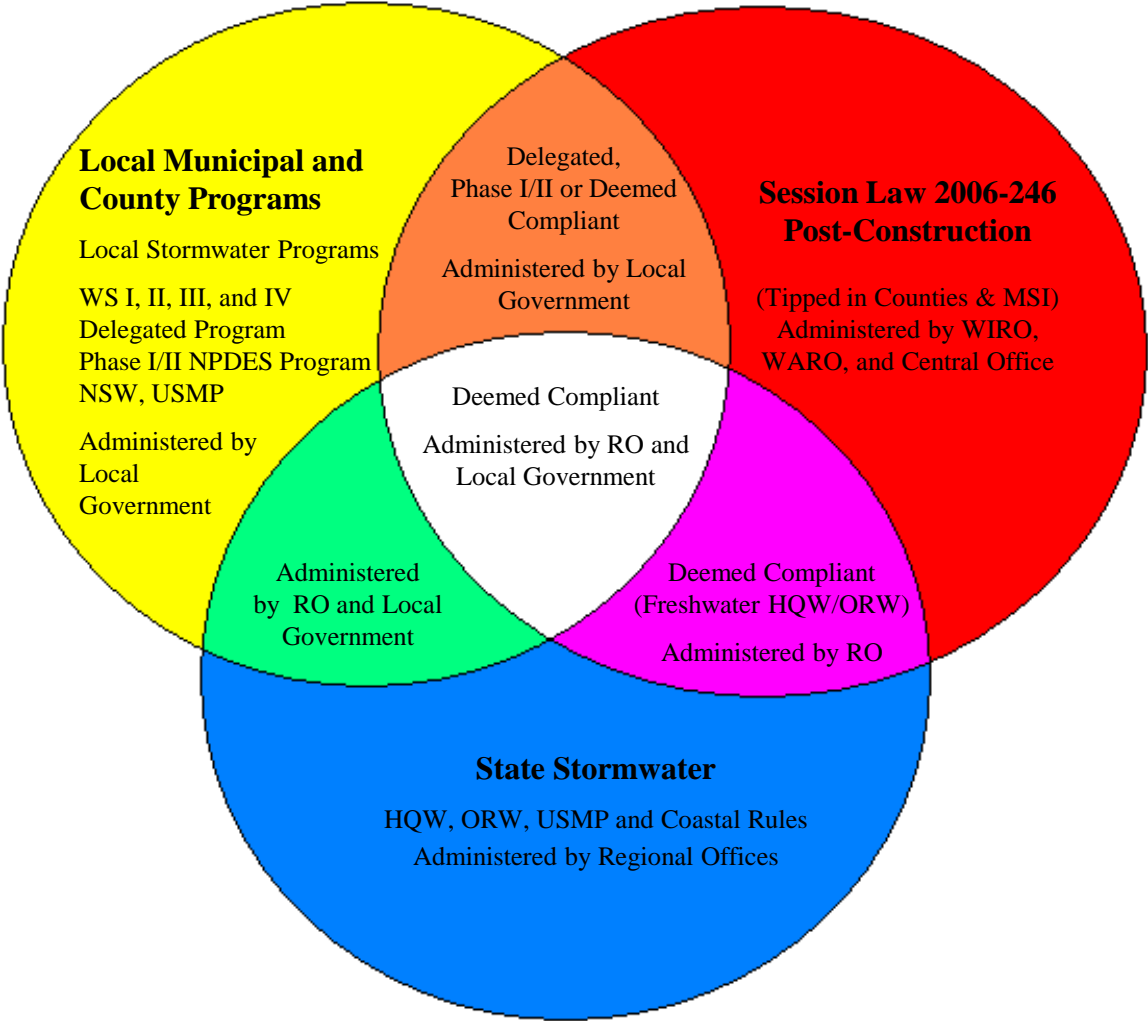
Gaston County Stormwater Program

- Gaston County approved for delegation by State EMC on July 12, 2007
- Gaston has interlocal agreements with Belmont, Bessemer City, Cherryville, Cramerton, Dallas, High Shoals, McAdenville, Ranlo and Stanley, Gastonia, Lowell and Spencer Mountain

Good information on Phase II

- NC P. L. 2006-246 – Implementation of Fed Phase II Stormwater Management Requirements
- EPA website/publications: Storm Water Phase II Compliance Assistance Guide, Phase II Final Rule Fact Sheet Series, MS4 Program Evaluation Guide, etc.
- DWQ Stormwater Permitting Unit can provide information on Phase II program
- DWQ interactive map
http://h2o.enr.state.nc.us/su/Map_Intro_Page.htm#maincontent
- DWQ Stormwater Permitting Unit website,
<http://h2o.enr.state.nc.us/su/index.htm>
- UNC Environmental Finance Center, <http://www.efc.unc.edu/>

Stormwater Programs for New Development



Permit Conditions:

Phase II six minimum measures

- Public Education and Outreach – 12 months
- Public Participation/Involvement – 24 months
- Illicit Discharge Detection & Elimination – 24 months
- Construction Site Runoff/Control – 24 months
- Post-Construction Runoff Control – 24 months
- Pollution Prevention/Good Housekeeping – 24 months

Some Important Phase II Permit Standard Conditions

- Duty to Comply w/Clean Water Act
- Duty of Mitigate Discharges that threaten health or the environment
- Civil & Criminal Liabilities for Non-compliance
- Duty to Provide Information to DWQ
- Permit Actions: Modify, revoke, reissue or terminate for cause

Phase II Permit: Stormwater Management Plan (SWMP)

- Operators of regulated MS4s are required to develop a stormwater management plan that includes measurable goals and to implement needed stormwater management controls (BMPs)
- The process of developing a SWMP, implementing the SWMP, and evaluating the SWMP is a dynamic, iterative process that moves permittees toward achievement of their goals.

Example SWMP BMPs for the six minimum measures

Goal One:

Public Education and Outreach

- BMP 1: Public Education radio campaign on stormwater, targeted audience; followup public awareness survey
- BMP 2: Stormwater education program for school children
- BMP 3: Stormwater education materials for selected commercial businesses; followup tracking of materials distribution

Goal Two: Public Involvement & Participation

- BMP 1: Establish a stormwater steering committee of citizens and stakeholders
- BMP 2: Annual public meeting on program progress
- BMP 3: Storm drain marking/ stream cleanup day

Goal Three: Illicit Discharge Detection and Elimination

- BMP 1: Storm drain system map
- BMP 2: Identify illicit connections through dry weather screening and targeted video inspection
- BMP 3: Illicit discharge/illegal dumping hotline

Goal Four:

Construction Site Runoff Control

- BMP 1: Require ESC plans for any land disturbance greater than 5,000 square feet
- BMP 2: Develop a contractor's checklist for controls/inspection at construction sites
- BMP 3: Develop a certification program for contractors

Goal Five:

Post-Construction Runoff Control

- BMP 1: Develop and adopt a post-construction stormwater control ordinance
- BMP 2: Conduct an annual workshop with contractors, graders, engineers to review post-construction practices and provide guidance
- BMP 3: Encourage low impact development and better site design for stormwater control

Goal Six: Pollution Prevention/Good housekeeping for Municipal Operations

- BMP 1: Training programs for targeted municipal operations employees on pollution prevention
- BMP 2: Develop spill prevention and control plans for municipal facilities
- BMP 3: Maintenance documentation and recordkeeping training for operations employees

Inspections and Audits

Goals of Phase II Audit Evaluation

- Determination of compliance status
- Assistance with permit issuance or renewal process
- Phase II SWMP development assistance
- Assessing pollutants of concern
- Technical assistance

Two New Programs
Universal Stormwater Management Program
and the Proposed New Coastal Stormwater
Rules

I. Universal Stormwater Management Program?

- Optional program for local governments
- Does not create new controls where none currently exist.
- Replaces requirements for 16 s/w programs
- Simpler to administer & implement & more protective of environment.
- Provides greater flexibility to local govts

Available USMP Option

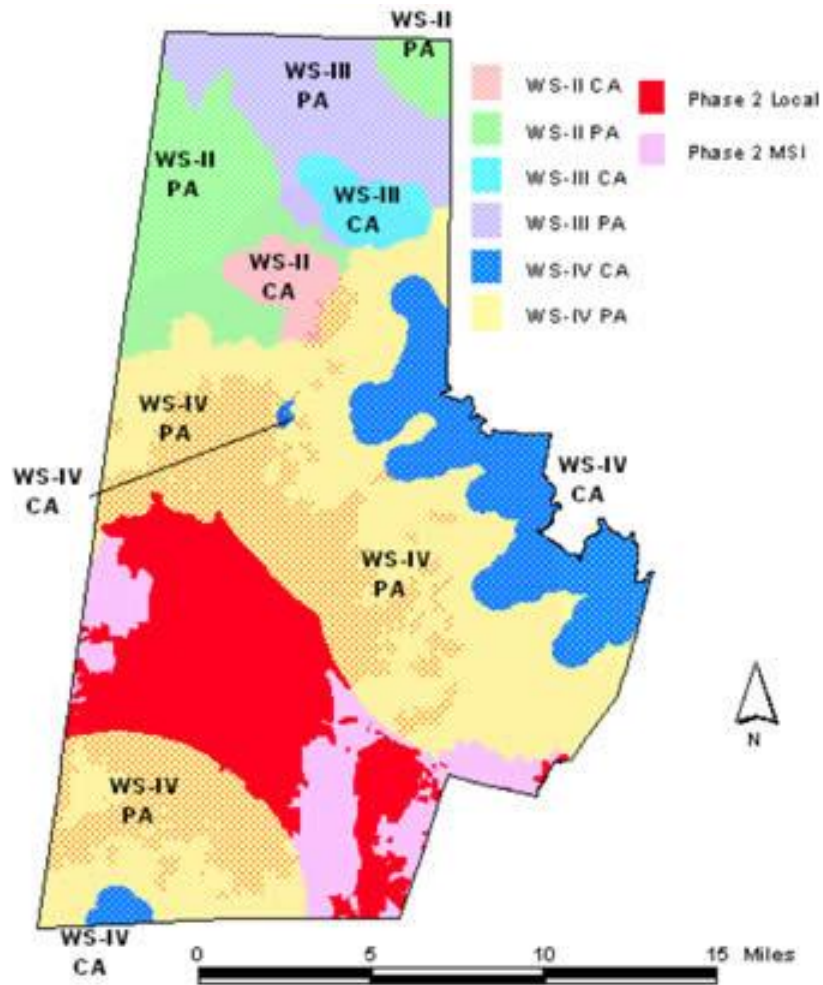
- Universal Stormwater Management Program (USMP) available for adoption as of January 1, 2007
- Satisfies all State (DWQ) post-construction s/w reqs.
 - Including Phase II & the proposed new coastal rules if they adopt soon
- Allows local govt to admin program and issue permits
- Rule & info available on website:
 - <http://h2o.enr.state.nc.us/su/usmp.htm>
- Model ordinance available

USMP fulfills Post Construction Requirements for:

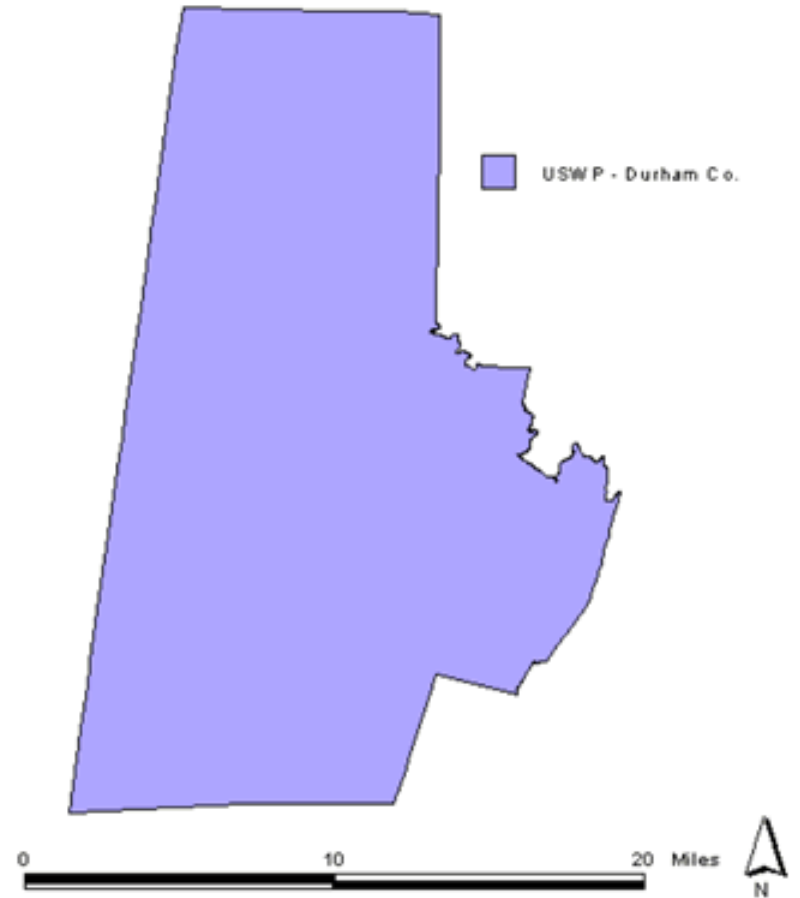
- Phase II
- Water Supply Watershed II, III, IV
- HQW
- ORW
- Catawba Buffer Rules
- Proposed Coastal Rules
- Coastal Stormwater
- Saltwater HQW
- Saltwater ORW
- Shellfishing (SA)
- Controls for 401s
- Randleman Watershed Rules

Durham County – Before and After USMP Implementation

Before



After



Key Points

- Decentralized approach, single set of requirements
- User friendly / minimal requirements
- Framework for continued growth in an environmentally sensitive manner
- No high/low density imperviousness limits
- Focus is on the control of stormwater, not the control of impervious surfaces
- USMP protects environment, but does not restrict development

Phase II Stormwater Requirements

Low Density Threshold	Less than 24% imperviousness	Vegetated conveyances
High Density stormwater management	Structural Stormwater BMPs	Control and treat runoff from 1" rain event, 1&1/2" SA
Setback and Storage Volume Discharge Rate	30 ft from perennial & intermittent waters	Discharge rate equal to or less than pre-development rate
Threshold and General Eng. Stds	1 acre of land disturbance	Must meet 02H.1008 eng. Stds.
Other	85% TSS removal	48/120 hr Drawdown std

Requirements:	USMP
Low Density	None
Setback	30 ft
Design Storm	Control Runoff from first 1" non-coastal 1.5" coastal of rainfall
Density Limits	None
Threshold	1 Ac resid, ½ ac non-resid non-coastal or 10,000 square feet of land disturbance-coastal
Other	No development in 1% chance floodplain, non- coastal counties

Further Incentives for Adoption of the USMP

- Discount on National Flood Insurance Premiums
- Priority Points for CWMTF Grants
- Priority Points for DWQ CG&L Programs

How Would NC Communities Adopt USMP?

- Adopt USMP compliant local ordinance
- Ordinance approved by EMC (DWQ staff can now approve)
- Model ordinance available on DWQ website
- USMP Rule & information available
 - <http://h2o.enr.state.nc.us/su/usmp.htm>

II. Proposed New Coastal Stormwater Rules

- Lowers low density imperviousness limit to 24% from 30%
- Rules affect properties disturbing 10,000 square feet, possibly will be limited to BUA
- Increases setback from perennial and intermittent waters from 30 to 50 feet
- Eliminates use of wetlands area in development site imperviousness calculations
- Encourages rain gardens, cisterns, rain barrels, LID and infiltration stormwater management



Questions and Comments

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