

City of Columbia National Pollutant Discharge System Permit (NPDES) Phase I, Stormwater Program

Climate Protection Action Campaign
Special Meeting
June 15, 2010



City of Columbia

Introductions

- City of Columbia
 - Tracey Mitchell
 - Sharon Snyder
 - Victoria Kramer
- Brown and Caldwell
 - Hal Clarkson, PE, CFM




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NPDES Program: City of Columbia Overview

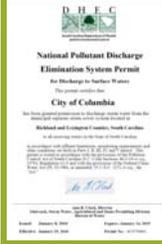
- Individual Permit No. SCS790001
 - Storm Water Management Program (SWMP)
 - Standard Operating Procedures (SOPs)
 - Legal Authority (Ordinance)
 - Adequate Funding



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NPDES Permit No. SCS790001

- Issued January 8, 2010
- Effective January 25, 2010
- Expires January 24, 2015
- Report of activities due on an annual basis



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NPDES Permit Overview

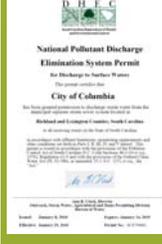
- Jurisdiction
- SWMP requirements
- Implementation schedule
- TMDL implementation
- Monitoring requirements
- Reporting requirements
- Permit and SWMP modification procedures



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Existing SWMP

- Created in June 2002
- Based on anticipated permit requirements
- Approved by SCDHEC
- Doesn't meet current Permit Requirements



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Slide 2

dmm1 maybe the white logo would look better here...
Dana McGill, 2/23/2010

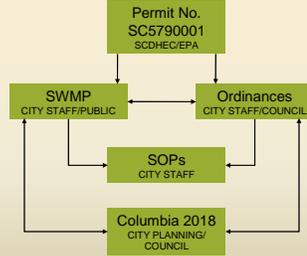
First SWMP Update

- Part III.b requires an update of the SWMP by the “effective date + 6 months” (July 25, 2010)
- Items to be addressed
 - Detailed BMPs
 - Implementation schedules



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First SWMP Update



- Items to be considered
 - Impact on other documents
 - Required resources;
 - Impact on permit compliance

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SWMP Development

- Highest Priority
 - Incorporate the basic permit requirements into the SWMP to ensure compliance by deadline(s)
- Next Priorities
 - Increase public involvement
 - Incorporate “above and beyond” measures
 - Develop standard operating procedures, manuals and standards
 - Obtain adequate resources for full implementation



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Annual SWMP Review and Modification Process

- Perform review annually
 - Evaluate effectiveness of BMPs
 - Evaluate goals of the program
- Adjust BMPs accordingly
 - Add new BMPs and controls
 - Replace existing, ineffective BMPs and controls with justification
 - Delete BMPs and controls with demonstration of impact



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SWMP Development and Public Involvement

- Part II.B.11.k
 - “The permittee shall involve the public in the development, submittal and implementation of the storm water management program.”



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1. Structural Controls and Storm Water Collection System Operation

- Develop an inventory of existing controls
- Develop inspection & maintenance schedule
- Revise ordinance to allow for inspection, maintenance, and repair of privately owned structures
- Create a citizens reporting mechanism
- Develop an SOP for review of proposed controls
- Develop a BMP design manual (construction and post-



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2. Post-Construction Storm Water Management in New Development and Redevelopment

- Develop **design standards** to address:
 - Minimize impervious area
 - Address ecologically sensitive areas
 - Prevent or reduce adverse impacts to streams
 - Implement tree and vegetation protection measures
 - Adopt flow control standards
 - Encourage LID practices
 - Incentives for redevelopment
 - Long-term maintenance



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2. Post-Construction Storm Water Management in New Development and Redevelopment, continued...

- Create inspection and maintenance program
- Adopt an **ordinance** including design standards
- Create an **SOP** to address plan review and inspections



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3. Existing Roadways

- Road Maintenance
 - Develop inspection and maintenance schedule
 - Incorporate BMPs into maintenance activities
- Road Construction
 - Develop a road construction **SOP**
 - Revise contract language to include protection of water quality
- Road Encroachments
 - Incorporate water quality conditions in encroachment permit



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4. Flood Control Projects

- Existing Flood Control Structures
 - Consider water quality if retrofitting existing levee
- New Flood Control Structures
 - Include requirement for review of new flood control structures in "Development Standards"



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5. Municipal Waste Treatment, Storage, or Disposal Facilities Not Covered by a NPDES Stormwater Permit

- Covered facilities
 - Only one facility listed in the application
 - Landfill has NPDES stormwater permit
- Good housekeeping
 - Identify City owned facilities
 - Inspect and implement good housekeeping
 - Provide **training** to employees



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6. Pesticide, Herbicide, and Fertilizers (PHFs) Application

- Certification and Regulation
 - Certified and regulated by Clemson University, Department of Pesticide Regulation
- Education and Public Awareness
 - General public
 - City landscaping staff
 - Commercial applicators



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7. Illicit Discharges and Improper Disposal

- Create an IDDE ordinance
- Perform dry weather screening
- Investigate and remove illicit discharges
- Address spill prevention and response
 - Create cooperative plan
 - Provide training
- Limit sanitary sewage and septage seepage
- Create a citizen reporting mechanism



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8. Industrial Runoff

- Identify and Prioritize for Inspections
 - Prepare city-wide inventory of facilities
 - Prioritize for inspections
 - Perform periodic inspections
- Annual Industrial Operators Training
- Storm Water Pollution Prevention Plans
 - Develop spills, complaints, and



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9. Construction Site Storm Water Runoff Control

- Develop a sediment & erosion control ordinance
- Create design standards for construction BMPs
- Continue site plan review and inspection
- Create a permit tracking system
- Develop an SOP for site inspection and enforcement
- Create a citizen's reporting mechanism
- Perform site operator training



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10. Monitoring Program Requirements

- One year to develop monitoring plan
 - Monitor for pollutants of concern in impaired/TMDL watersheds
 - Outfall pipes, or
 - Ambient conditions, or
 - BMPs
 - Seasonal monitoring
 - Annual reporting



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11. Public Education and Outreach on Storm Water Impacts and Public Involvement/ Participation

- Public education
 - Develop and/or obtain and display materials regarding:
 - Pesticides, herbicides, and fertilizers
 - Pet waste
 - Used oil and household waste
 - Speak at civic group meetings
 - Create a reporting mechanism to report spills and illicit discharges



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11. Public Education and Outreach on Storm Water Impacts and Public Involvement/ Participation, continued...

- Training
 - SWMP implementation for employees
 - Pollution reduction training for employees
 - Designer training for;
 - Plan reviewers
 - Construction inspectors
 - Design community



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TMDL Requirements

- SWMP must address
 - meeting waste load allocations for any TMDL
 - 303(d) listed impaired waterbodies
 - Effluent/ambient monitoring to show compliance



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9. Area Specific Requirements

- There are no area specific requirements at this time.

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SWMP Implementation

- Each Year certain SWMP components implemented
- Additional components implemented each year until all components fully implemented in all watersheds
- Upon full implementation by permit expiration, all watersheds report annually



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SWMP Implementation

- Phase 1
 - Lower Saluda River Watershed
- Phase II
 - Congaree River Watershed
- Phase III
 - Broad River Watershed
- Phase IV
 - Gills Creek Watershed



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SWMP Implementation

- Fourth Year
 - Annual Report is part of reapplication process
 - SWMP & Monitoring adjustments for next 5-year cycle must be proposed

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Questions and Discussion