

Wake County
Collaborative Stormwater Management Evaluation
Stormwater Task Force Meeting # 8

Overall Ranking of Tools

Tools and Strategies	Category	Compliance with Goals & Objectives	Cost	Ease of Implementation	Equity	Total Score
Public Education for Good Housekeeping (residential, non-residential & municipal)	Public Education	4.0	4.0	5.0	5.0	18.0
Hydrologic and hydraulic modeling of drainage system (volume, velocity, elevation, etc.)	Assessment & Forecasting	4.0	4.0	3.5	5.0	16.5
Design and maintenance standards for sedimentation and erosion control devices	Site Construction Controls	4.0	3.5	4.5	3.5	15.5
Inspection and enforcement for sedimentation and erosion control devices	Site Construction Controls	4.0	3.0	4.5	3.5	15.0
Preserve land through open space acquisition, conservation easements, etc.	Preservation, Restoration, Rehabilitation and Replacement	4.0	2.5	4.5	4.0	15.0
Monitoring requirements for stormwater facility performance and operations	Inspections, Operations and Maintenance	4.0	2.5	3.5	5.0	15.0
Material use, exposure and disposal for municipal operations	Inspections, Operations and Maintenance	4.0	2.0	5.0	3.5	14.5
Inspection and maintenance for stormwater facilities	Inspections, Operations and Maintenance	5.0	2.0	2.5	5.0	14.5
Strategies to reduce impervious surfaces required for new development	Development & Redevelopment Standards	4.0	3.0	3.5	4.0	14.5
Water quality modeling for watershed (pollutant loadings)	Assessment & Forecasting	2.0	4.0	3.5	5.0	14.5
Reducing impervious surfaces with zoning restrictions	Development & Redevelopment Standards	4.0	3.0	3.5	3.0	13.5
Planning and layout of development (cluster, etc.)	Development & Redevelopment Standards	4.0	3.0	3.5	3.0	13.5
TOP 12 TOOLS LISTED ABOVE; REMAINING TOOLS LISTED BELOW						
Inspect, maintain and rehabilitate the sanitary sewer system	Preservation, Restoration, Rehabilitation and Replacement	4.0	1.5	4.0	3.5	13.0
Material use, exposure and disposal for non-municipal operations	Inspections, Operations and Maintenance	4.0	2.0	3.5	3.5	13.0
Illicit discharge detection and elimination	Inspections, Operations and Maintenance	3.0	3.0	3.0	4.0	13.0
Application of S&E for agricultural operations	Site Construction Controls	4.0	2.5	3.0	3.0	12.5
Hazardous material spill prevention/containment and enforcement	Inspections, Operations and Maintenance	2.0	4.0	3.0	3.5	12.5
Stream Stewardship	Public Education	2.0	3.0	3.5	3.5	12.0
Preserve stream buffers	Preservation, Restoration, Rehabilitation and Replacement	2.0	2.0	5.0	3.0	12.0
Hazardous material spill response and clean-up	Inspections, Operations and Maintenance	2.0	4.0	3.0	3.0	12.0
Strategies to reduce impervious surfaces for existing development	Development & Redevelopment Standards	4.0	2.0	3.5	2.5	12.0
Protection of sensitive and valuable natural areas	Development & Redevelopment Standards	3.0	2.5	3.0	3.5	12.0
Replace the stormwater drainage system to address capacity issues	Preservation, Restoration, Rehabilitation and Replacement	2.0	1.0	4.0	4.5	11.5
Site-Level Water Quality Controls	Development & Redevelopment Standards	3.0	1.0	3.5	4.0	11.5
Real Estate Disclosure of Structural Flooding	Public Education	2.0	3.0	2.0	4.0	11.0
Rehabilitate the stormwater drainage system to address age and condition	Preservation, Restoration, Rehabilitation and Replacement	2.0	1.5	3.0	4.5	11.0
Minimize changes to the existing FEMA floodplain	Development & Redevelopment Standards	2.0	1.5	4.0	3.5	11.0
Site-Level Flood Controls	Development & Redevelopment Standards	2.0	1.0	4.0	4.0	11.0
Development or Watershed-Level Flood Controls	Development & Redevelopment Standards	2.0	2.0	2.0	4.5	10.5
Development or Watershed-Level Water Quality Controls	Development & Redevelopment Standards	2.0	2.0	2.0	4.5	10.5
Restore in-stream habitat and stream banks	Preservation, Restoration, Rehabilitation and Replacement	2.0	1.5	3.5	3.0	10.0
Restore wetlands	Preservation, Restoration, Rehabilitation and Replacement	2.0	1.5	3.0	3.0	9.5
Floodproof properties in the flood plain	Preservation, Restoration, Rehabilitation and Replacement	2.0	1.5	3.5	2.5	9.5
Purchase properties located in the flood plain and remove from flood plain	Preservation, Restoration, Rehabilitation and Replacement	2.0	1.5	3.5	2.0	9.0

**Attachment C
Wake County
Collaborative Stormwater Management Evaluation
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Proposed Tools and Strategies Screening Criteria

Screening Criteria	Considerations	Scoring Methodology
Compliance with Goals and Objectives	Goals and Objectives	To what extent (how many) does the tool address the goal and objective statements established by the Task Force?
Cost	Capital Costs	Does the tool require the construction of new facilities, structures or other improvements, or the purchase of real property
	Operations & Maintenance Costs	Does the tool require a new, or an increased, annual budget allocation for field staff, equipment and resources for operations and maintenance?
	Administrative Costs	Does the tool require a new, or an increased, annual budget allocation for management and administration staff and resources?
	Economies of Scale	Can the tool be implemented through intergovernmental cooperation, and will the cooperation result in improved level of service, reduced costs, or both?
Ease of Implementation	Ordinance	Does the tool require a new ordinance, or modifications to an existing ordinance, in order to be implemented by local governments in Wake County?
	Use in County	To what extent (how many local governments) is the tool currently used by local governments in Wake County?
	Organization	Does the tool require new staff or organizational changes to accommodate implementation?
Equity	New and Existing Development	Can the tool be applied to new and existing development?
	Sources of stormwater	Does the tool address multiple sources of stormwater - specifically, non-residential, residential, and roadways?
	Proactive versus reactive	Does the tool addresses stormwater concerns <u>after</u> problem has been made evident, or does the tool address stormwater concerns <u>before</u> the problem has been made evident?
	Personal property	Does the tool affect the use of real property?

Public Education Tools for Residential Audiences

Activity (Choose up to Four)		Target Audience (Choose up to Three per Activity)						Approach / Delivery Mechanism (Choose up to Four per Activity)											Frequency (Choose One per Activity)							
Votes		Adults	HS-age children	MS/ES -age children	Owners	Renters	HOA	TV / Radio	Print Media	Billing Inserts	Website	Email	HOA/ private efforts	Speaker Bureau	Staff Efforts	Posters & Give-aways	Manuals	School Curriculum	Booth at Special Events	Multiple/ week	1 X / week	1 X / month	4 X / year	2 X / year	1 X / year	
1.	Self-performed lawn care management education - fertilizer application, yard waste disposal, etc.	13	14	6	1	11	3	9	9	7	9	7	1	9		1	1		5	2	1	1	1	3	6	
2.	Household hazardous materials management - storage and disposal of chemicals.	7	8	1	3	5	6	5	6	3	4	7	1	5		1		4		1		2	5	1		
3.	Methods and benefits of reducing the volume of runoff from residential property.	12	12	5	4	9	1	10	5	6	3	9	1	7	1	4		3	5	4		4	3	3		
4.	Car washing practices to protect water quality.	4	4	4	1	1		1	2		1	3		1		1		3	2	1		1	2			
5.	Vehicle maintenance practices to protect water quality.	8	9	7	2	7	3	4	8	3	6	5		5		2		1	3		2	2		2	1	
6.	Nuisance flooding - awareness and how to eliminate impacts to personal property.	9	9	5	3	7	3	8	4	3	4	5	1	5		2		3	4	3	2		4	1	2	
7.	Structural flooding - awareness and options to eliminate impacts to personal property.	9	8	2	2	6	2	8	5	2	3	7	2	4	1	2	1	1	2	2	1	1	2	2	2	1
8.	Citizen-based stewardship programs and activities (Big Sweep, Adopt-a-Stream)	6	8	8	7	1			8	4	4	2	1	2	1	1		7	2	2		4	1	1	2	
9.	Drainage system signage and stenciling to increase citizen awareness.	13	14	10	8	4	2	4	7	5	6	8		6	1	1	3		7	4	3	2	3	1	2	2
10.	Pet waste management practices to protect water quality.	7	5	6	3	3	3	4	7	4	4	3		3			1		5	1	1	1	4			

Comments and Notes
 9. Ads can be intermittent. Activity can be on-going. Consider adding intermission periods at sporting events as a media outlet.
 #4 and 5 should be together.
 Someone gives away motor oil at a football game, include education! Advance Auto, etc...
 Billing inserts to me are ineffective, because I usually just throw them out without looking at them.
 #2 Include oil from cars.
 #9 Let people know it goes to drinking water.
 #4 During summer.
 Categories could be better defined.
 The biggest impact to public education is to let people know that if it goes down the storm drain that it goes into their drinking water.
 High school/college age children can be very receptive to this type of education. I think it is great to target kids because they can take the message home to their parents.

Public Education Tools for Non-Residential Audiences

Activity		Target Audience							Approach / Delivery Mechanisms											Frequency							
(Choose up to Four)		(Choose up to Three per Activity)							(Choose up to Four per Activity)											(Choose one per Activity)							
	Votes	Employee	Engineer	Contractor	Developer	Vocational HS Student	Tech. College Student	Owner	TV / Radio	Print Media	Posters & Give-aways	Website	Mandatory Wkshop	Cert. Process	Trade Show / Conf.	Manuals	Trade Group	Staff Efforts	HS Vocat. Training	Tech. CC Training	Multiple / week	1 X / week	1 X / month	4 X / year	2 X / year	1 X / year	
1.	Lawn care management practices for commercial landscape management company employees.	13	13	2	9	3	1	1	8		4	1	4	7	9	2	5	8	5	1	2	3				7	3
2.	Training for hazardous and non-hazardous materials management for businesses.	7	7	1	6	2	2		6	2		2	7	6	2	4	2	1		1	2		2	2	1		
3.	Training for the installation and maintenance of sediment and erosion control devices.	8	5	4	8	4	2	1	2	2	2	4	6	8	1	3	6	2		1			2	1	2	4	
4.	Mandatory certifications for sediment and erosion control installers and operators.	13	8	7	13	9	2	2	2	2	3	1	5	8	11	3	5	6	3		2	2		2	3	5	1
5.	Structural flooding - awareness and options to eliminate impacts to commercial property.	8	4	3	7	6	2	1	3	2	4		5	4	5		1	2	3		2	1		1	2	3	1
6.	Nuisance flooding - awareness and how to eliminate impacts to commercial property.	2	2		3	2	1	1	1		2		1	2	1		2	1	2					2		1	
7.	Illicit connection awareness and prevention.	7	5	2	3	2	2		5	2	1		3	5	3	1	2	2	4		1			3	2	2	
8.	Good housekeeping practices to reduce litter, sediments, and pollutants in stormwater runoff from parking lots.	8	9	1	4	3	1		8	4	6	1	3	5	2		3	2	5				2	1	1	1	3
9.	Strategies to reduce or control runoff volume from impervious surfaces.	11	3	9	8	10		1	4	3	2	1	4	8	5	2	4	4	3		2	3			1	6	
10.	Vehicle and equipment fleet washing practices for commercial enterprises.	9	8	1	6	1	1	1	8	2	2	1	2	5	1	3	1	7	2	2	1	1			3	2	2

Comments and Notes
 3&4 - Aren't these the same? Certification will require training?
 You guys are doing a great job! Keep up the good work there at CDM.
 TV more frequent - Workshops less frequent.

Public Education Tools for Municipal Audiences

Activity		Target Audience								Approach / Delivery Mechanisms									Frequency							
(Choose up to Four)		(Choose up to Four per Activity)								(Choose up to Four per Activity)									(Choose one per Activity)							
		Streets Dept	Parks and Rec Dept	Facilities / Vehicle Maint	Utilities	Fire	Police	Schools	Building Inspect.	Posters	Website	Email	Mandatory Wkshop	Cert. Process	Trade Show / Conf.	Staff Efforts	Private Cont. Edu.	Coop Extension	HS Vocat. Training	Multiple/ week	1 X / week	1 X / month	4 X / year	2 X / year	1 X / year	
1.	Lawn care management practices for municipal landscape management.	10	5	8	4	4		5	1	2	3	2	9	1	2	6		3	3	1		1	2	3	4	
2.	Training for hazardous and non-hazardous materials management for municipal operations.	12	11	4	11	9	6	3	5	5	4	1	13	8		8	3	3	1	2		1	2	5	4	
3.	Inter-department cross-training to identify, report, and address stormwater management concerns.	18	15	9	13	10	2	1	8	11	4	4	17	7	1	15	5	2	3	2	1	3	2	7	6	
4.	Training for the inspection, installation, and maintenance of sediment and erosion control devices.	12	10	5	6	10	1	1	5	10	3	5	2	10	7	1	9	2		1		1	1	5	2	
5.	Illicit connection awareness and prevention.	8	5	2	2	7	3	2	3	8	3	2	1	7	4	1	5	2				1	2	4	2	
6.	Good housekeeping practices to reduce litter, sediments, and pollutants in stormwater runoff from parking lots.	10	8	6	7	7		1	3	5	3	3	2	9	7		7	3		1	1		2	1	3	2
7.	Strategies to reduce or control runoff volume from impervious surfaces.	8	8	4	6	4	1	1	6	6	3	4	1	8	6	1	4	3	1	1	1		1	2	3	2
8.	Vehicle and equipment fleet washing practices for municipal enterprises.	7	5	1	6	2	4	3	4		3	2	2	5	1	1	4	1	1				1	2	4	1

Comments and Notes