# AGENDA

# JAMES CITY COUNTY BOARD OF SUPERVISORS

#### WORK SESSION

# **County Government Center Board Room**

November 23, 2004

4:00 P.M.

#### A. CALL TO ORDER

# B. ROLL CALL

### C. BOARD DISCUSSIONS

- 1. Stormwater Task Group Special Stormwater Criteria and Offsite Open Space Program
- 2. Joint Meeting with the Parks and Recreation Advisory Commission

# D. ADJOURNMENT

112304bsws.age

#### **MEMORANDUM**

DATE: November 23, 2004

TO: The Board of Supervisors

FROM: Scott J. Thomas, Senior Engineer

SUBJECT: Stormwater Task Group - Special Stormwater Criteria and Offsite Open Space Program

The Board authorized the formulation of a Stormwater Task Group (STG) to develop Special Stormwater Criteria as outlined in Priority No. 7 of the approved Powhatan Creek Watershed Management Plan and develop an offsite open space program (for stormwater compliance purposes) consistent with the 1998 Policy Study (*James City County Stormwater Policy Framework, Final Report of the James City County BMP Policy Project*). At the conclusion of the Work Session presentation, staff will recommend adoption of a resolution that implements the STG recommendations.

Staff facilitated the STG in accordance with Board directives. The Yarmouth Creek Watershed Management Plan was subsequently adopted by the Board at its October 14, 2003, meeting. The Board adopted the Yarmouth Creek Plan with the exception of Priority No. 3, Special Stormwater Criteria.

The STG consisted of ten members, one guest, and County advisory staff. A series of fourteen monthly meetings were conducted from June 2003 through October 2004. Members and guests of the STG consisted of local consulting engineering and landscape architect firms, a large private developer, a large and small homeowners association, the Friends of the Powhatan Creek Watershed, the Virginia Department of Conservation and Recreation (DCR), and a large-tract private landowner. County Environmental Division staff facilitated the task group meetings and also served as a single participant for voting purposes. The STG meetings were very technically oriented with educational sessions and open discussions about traditional and emerging technologies in stormwater management and principles and practices of Better Site Design and Low Impact Development. The meetings were consistently structured with advance notification of meeting times/date, agenda, and announcements. Members/guests who missed meetings were provided with a full copy of meetings handouts including minutes. A summary of proceeding (minutes) for each of the fourteen meetings is available upon request.

The main purpose of the STG was to develop the *Special Stormwater Criteria* (SSC), the *Offsite Open Space Program* and revise and "overhaul" the existing County Best Management Practice (BMP) Manual which has been in existence and use (unedited) since January 1, 2000. Over the course of the last year, these objectives were achieved by the STG and will be presented by four members of the STG. The presentation will provide a background and history of how *Special Stormwater Criteria* and the *Offsite Open Space* program came to fruition, an overview of some of the important highlights of the task group meetings, an overview of the process and procedure for applying *Special Stormwater Criteria* (*SSC*) and the *Offsite Open Space* program, and a recommended implementation schedule.

Additional reference material is attached, a full stand-alone copy of the *Special Stormwater Criteria (SSC)* as developed by the STG and a full stand-alone copy of the *Offsite Open Space Program* as developed by the STG. (Besides the four members that will present at the Work Session, the task group decided that all other task group members and guests should attend the Work Session to respond to any Board inquiries.)

Stormwater Task Group - Special Stormwater Criteria and Offsite Open Space Program November 23, 2004 Page 2

Staff recommends adoption of the resolution in accordance with the proposed implementation schedule. Questions about the *Special Stormwater Criteria (SSC)*, the *Offsite Open Space Program*, and general County BMP Manual revisions/edits will be addressed at the Work Session.

Scott J. Thomas

CONCUR:

Darryl E. Cook

SJT/gb stormwtrtask.mem

Attachments

# <u>RESOLUTION</u>

#### STORMWATER TASK GROUP -

#### SPECIAL STORMWATER CRITERIA AND OFFSITE OPEN SPACE PROGRAM

- WHEREAS, the Board of Supervisors, on February 26, 2002, adopted eight goals and 21 of 24 priorities associated with the Powhatan Creek Watershed Management Plan (Priority Nos. 3, 4, and 11 were not adopted); and
- WHEREAS, the Board of Supervisors, on October 14, 2003, adopted the Yarmouth Creek Watershed Management Plan dated July 14, 2003, with the exception of Priority No. 3, Special Stormwater Criteria; and
- WHEREAS, Priority No. 7 of the Powhatan Creek Watershed Management Plan refers to "Special Stormwater Criteria in sensitive stream areas and conservation areas"; and Priority No. 3 of the Yarmouth Creek Watershed Management Plan refers to "adopt Special Stormwater Criteria (SSC) in the watershed to increase groundwater recharge in the development process"; and
- WHEREAS, the Board of Supervisors authorized the formulation of a Stormwater Task Group (STG) to develop *Special Stormwater Criteria (SSC)*, an *Offsite Open Space Program* and perform general revisions to the County Best Management Practice (BMP) Manual; and
- WHEREAS, the 2003-2004 STG conducted a series of fourteen monthly meetings between June 20, 2003, and October 15, 2004, to accomplish their objectives.
- NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of James City County, Virginia, hereby adopts the *Special Stormwater Criteria (SSC)*, the *Offsite Open Space* Program, and associated revisions to the County BMP Manual as developed by the 2003-2004 STG and authorizes proceeding with its implementation recommendations as follows:
  - 1. Incorporate *Special Stormwater Criteria* (SSC) and the *Offsite Open Space Program* into the revised County BMP Manual.
  - 2. Submit the revised County BMP Manual to appropriate State regulatory agencies for review and comment.
  - 3. Use the revised County BMP Manual effective January 1, 2005, or later pending review by appropriate State agencies and following appropriate notification to all known manual users.
  - 4. Incorporate language for use of *Special Stormwater Criteria (SSC)* into an appropriate section of the County's Chesapeake Bay Preservation Ordinance at an appropriate future time.

5. Conduct follow-up implementation meetings with the STG and report to the Board as necessary or as directed.

Bruce C. Goodson Chairman, Board of Supervisors

ATTEST:

William C. Porter, Jr. Deputy Clerk to the Board

Adopted by the Board of Supervisors of James City County, Virginia, this 23rd day of November, 2004.

stormwtrtask.res

# SPECIAL STORMWATER CRITERIA TASK GROUP

Special Stormwater Criteria (SSC) in James City County, Virginia

> Final Draft November 1, 2004

# Special Stormwater Criteria (SSC) in James City County, Virginia

# Introduction:

*Special Stormwater Criteria (SSC)* was developed as a result of goals and priorities as established by watershed management plans in James City County and following a year long process involving a multi-disciplined stormwater task group. Objectives of *Special Stormwater Criteria (SSC)* include:

- Protection of specific stream reaches from accelerated channel erosion;
- Protection of conservation areas from the impacts of stormwater runoff;
- Protection of high quality wetlands from the effects of altered water level fluctuation;
- Developing more effective criteria and locations for stormwater practices in watersheds for new development;
- Retrofitting of existing facilities and uncontrolled areas of the watershed to improve water quality;

*Special Stormwater Criteria (SSC)* were developed to achieve two primary goals. The first is to preserve pre-development hydrology to reduce impacts to high quality streams. The volume of recharge that occurs on a site depends on slope, soil type, vegetative cover, precipitation and evapo-transpiration. Sites with natural ground cover, such as forests and meadows, have higher recharge rates, less runoff and greater transpiration losses under most conditions. This helps to preserve existing water table elevations thereby maintaining the hydrology of streams and wetlands during dry weather. Because development reduces natural cover and increases impervious surfaces, a net decrease in recharge rates is inevitable.

The second primary goal of *Special Stormwater Criteria* (*SSC*) is to provide enhanced water quality treatment of stormwater runoff. Current (traditional) stormwater management for water quality in watersheds is characterized by the use of a single structural BMP practice, namely a wet or dry pond, to manage stormwater from a contributing drainage area. However, many of these practices have not been properly maintained, reducing their pollutant removal capability. In addition, although the County's codes and ordinances allow for reduced impervious cover and open space preservation in site design, it does not appear that developers consistently exercise those options. More sensitive site design can play a significant role in reducing water quality and hydrologic impacts resulting from development.

In general, *Special Stormwater Criteria (SSC)* are considered to be one step above and beyond traditional County stormwater management criteria, focusing more on the aspects of site design and source control - as opposed to traditional stormwater treatment at the end of stormwater drainage collection and conveyance systems. Use of *Special Stormwater Criteria (SSC)* on a proposed development site does <u>not</u> remove the need to provide traditional stormwater quality treatment and quality control in accordance with current County Chesapeake Bay Preservation and Erosion and Sediment Control ordinances, the County BMP manual, and the Virginia Erosion and Sediment Control and Stormwater Management Handbooks. The use of additional measures in the drainage basin beyond traditional methods may, however, subsequently affect post-development site hydrology and reduce the peak rate and volume of runoff, thereby perhaps reducing the size or storage volume requirements of traditional end-of-pipe detention or retention facilities.

# When is Special Stormwater Criteria (SSC) Applied?

*Special Stormwater Criteria (SSC)* are applied to plans of development under the following three (3) situations.

- SSC Type 1 Watershed Management Plans. Special Stormwater Critieria designation is placed on a development project, in whole or part, due to the site being situated in a defined Special Stormwater Criteria (SSC) area consistent with an approved watershed management plan in James City County. Approved watershed management plan means the plan has been approved by the Board of Supervisors. Examples include the Powhatan Creek and Yarmouth Creek watershed management plans. The term watershed management plans also includes any associated subwatershed or catchment maps and/or specific subwatershed or catchment strategies in narrative portions of the plan or special studies.
- SSC Type 2 Variance Process. Special stormwater criteria designation is placed on a development project, in whole or part, as part of a mitigation or compensatory condition placed on the project as a result of the granting of a waiver or exception to the County's Chesapeake Bay Preservation or Erosion and Sediment Control ordinances. For example, Special Stormwater Criteria (SSC) designation may be applied to a development site, in whole or part, as a result of an administrative or Chesapeake Bay Board approval to impact Resource Protection Area (RPA) or as a result of administrative approval to impact steep slopes or to vary from established minimum standards & specifications as outlined in the County BMP manual, the Virginia Erosion and Sediment Control Handbook and/or the Virginia Stormwater Management Handbook.

*Special Stormwater Criteria (SSC)* may apply to the site, in whole or part, depending on the location of the site under the Type 1 criteria or as identified by the plan-approving authority under Type 2 criteria. Specific design and construction plan information and details for *Special Stormwater Criteria (SSC)* must be presented for review during submission of the plan of development for the project. For rezoning, special use permit and concept or master plan purposes, detailed design is not necessary. For these instances, the applicant needs only to identify if it is believed that *Special Stormwater Criteria (SSC)* will apply to the site in whole or part.

# How is Special Stormwater Criteria (SSC) Applied?

# Step 1 – Watershed Management Plan (Type 1) Determination:

Utilize developed project site mapping in conjunction with available County mapping to identify if the proposed development site is situated in whole or part in a defined *Special Stormwater Criteria (SSC)* area in accordance with any County approved watershed management plans. If no, proceed to Step 2. If yes, proceed to Step 3.

#### Step 2 - Variance (Type 2) Determination:

Determine if a waiver or exception is required to the County's Chesapeake Bay Preservation or Erosion and Sediment Control ordinances or if a variance is required to the County BMP manual, VESCH or VSMH for the project and if the possibility exists for *Special Stormwater Criteria (SSC)* to be applied to the site, in whole or part, by the plan-approving authority as a condition, mitigation or compensation measure for those requests. If yes, proceed to Step 3. If no, *Special Stormwater Criteria (SSC)* does not apply to the proposed development site.

#### Step 3 - Soils Inventory:

At this point, the user has the option to proceed directly to Step 6, if desired. However, as one of the primary goals of *Special Stormwater Criteria (SSC)* is to save existing Hydrologic Soil Group A & B soils on the site to the greatest extent possible and as all plan of development projects require an environmental inventory and soils map to meet Chesapeake Bay Preservation and erosion and sediment control plan requirements, it is encouraged that this step not be bypassed but included in the *Special Stormwater Criteria (SSC)* process.

Using the Environmental Inventory and soils map as compiled for the project, identify Hydrologic Soil Group (HSG) soil mapping units contained within the anticipated limits of work for the project. The limits of work is defined as the ultimate limit of impact for the project due to clearing, land-disturbing and site development activities including offsite utility connections and installation of temporary erosion and sediment control measures. Hydrologic soil mapping units shall be based on the latest edition of the *Soil Survey of James City and York Counties and the City of Williamsburg* as published by the United States Department of Agriculture, Soil Conservation Service. Hydrologic soil group A and B soils are defined as soils having high infiltration rates even when thoroughly wetted (low runoff potential) and soils having moderate infiltration rates when thoroughly wetted, respectively. After the Hydrologic Soil Group inventory is completed, proceed to Step 4.

# Step 4 - HSG A&B Soil Group Determination:

If there is a substantial amount of defined Hydrologic Soil Group (HSG) A & B soil mapping units within (inclusive to) the defined limits of work for the project, proceed to Step 5. A substantial amount is regarded as at least 10,000 square feet or more or greater than about 2 percent of the total site area, whichever is greater. If there are no Hydrologic Soil Group (HSG) A & B soils, or minor amounts or isolated pockets of HSG A& B soils (generally less than about 5,000 square feet) within the defined limits of work for the project, proceed to Step 6.

# Step 5 - Saving HSG A&B Soils:

If all defined Hydrologic Soil Group (HSG) A & B soils as identified in Steps 3 and 4 and within the defined limits of work are saved, then *Special Stormwater Criteria (SSC)* has been satisfied. The intent to preserve predevelopment infiltration and recharge characteristics of the site is maintained. Do not proceed any further. Saved is defined as sufficiently maintaining the natural recharge capabilities of the soil compared to predevelopment conditions and there are no direct impacts to HSG A&B soil mapping units due to clearing, land-disturbing or site development activities. If <u>any</u> Hydrologic Soil Group A & B mapping units are directly impacted in any manner whatsoever due to clearing, land-disturbing or site development activities, then proceed to Step 6.

#### <u>Step 6 – Apply Special Stormwater Criteria (SSC) Measures</u>

Apply *Special Stormwater Criteria (SSC)* measures to the project site in accordance with the matrix shown in Table SSC-1 and the Menu of Practices shown in Table SSC-2. Measures must be fully applied to the site development project or as part of the stormwater management plan for the site in accordance with the references indicated or in accordance with other accepted principles and practices. If the references are not utilized, documented evidence of other established planning, design and construction principles and practices may be required.

No more than two (2) of the same SSCP measures can be selected to meet SSC criteria. SSC credit cannot be taken for those measures being performed to meet traditional (ie. 10 point system) stormwater management criteria.

Table SSC-1: Special Stormwater Criteria Application Matrix			
Designation	Site or Section Area	Measures	
Redevelopment	Any Size	1 unit measure from the SSCP Menu	
	New Development Pro	ojects	
SSC Class 1	2,500 square feet to 10,000 square feet	1 unit measure from the SSCP Menu	
SSC Class 2	10,000 square feet to 1 acre	2 unit measures from the SSCP Menu	
SSC Class 3	1 to 10 acres	3 unit measures from the SSCP Menu	
SSC Class 4	10 to 50 acres	5 unit measures from the SSCP Menu	
SSC Class 5	50 to 200 acres	7 unit measures from the SSCP Menu	
SSC Class 6	200 acres or more	Contact Plan-Approving Authority for Pre-	
		Application Meeting and determination.	

SSCP means Special Stormwater Criteria (SSC) Practice.

Table SSC-2: Menu of Special Stormwater Criteria Practices (SSCP's)				
Туре	Unit	Description	Restrictions/Limitations	Reference Standards
Saving HSG	A&B Soils			
SSCP # 1	1/2 unit	Save HSG A&B Soils to the Greatest Extent Possible	<sup>1</sup> / <sub>2</sub> unit for each 25% of HSG A&B soils from Steps 3 and 4 saved.	None
<b>.</b>	• ~			
Limit Imperv	ious Cover			
SSCP # 2	1 unit	Use of pervious pavers	1,000 sf minimum size, must infiltrate runoff,	1
SSCP # 3	1 unit	Shared parking	Legal shared parking agreement in place; meets Planning requirements	9
<b>On-Site Desig</b>	<u>gn Principle</u>	<u>s</u>		
SSCP # 4	1 unit	Disconnection of impervious areas	Applied site-wide, all downspout locations	1, 5, 6
SSCP # 5	1 unit	Increasing time of concentration flow paths	Applied site-wide	5
SSCP # 6	1 unit	Increase surface roughness "n"	Applied site-wide	5
SSCP # 7	1 unit	Maintain sheet flows	Applied site-wide	5
SSCP # 8	1 unit	Limit use of underground storm drain piping	Applied site-wide	2, 5

Offsite Design	n Practicas			
SSCD # 0	2 units	Potrofit a rankad	Per approved watershed	1 2 3 11
55CF # 9	2 units	priority offsite BMP	management plans	1, 2, 3, 11
SSCP # 10	3 units	Construct offsite BMP	easements	1, 2, 3
		in a previously		
		"Uncontrolled Area"		
SSCP # 11	T.B.N.	Improve an offsite	Not per an approved WMP;	1, 2, 3
		BMP	not part of a traditional	
			SWM plan; permission	
			required; BMP size must be	
			considered in assigning unit	
			value.	
Structural Pr	actices			
SSCP # 12	1 unit	Bioretention basin	650 square ft. minimum	1, 3, 4, 5, 6
			size	
SSCP # 13	1 unit	Dry swales	250 l.f. minimum	1, 3
SSCP # 14	¹∕₂ unit	Sumped or bottomless	Applied at structures near	13
		inlets	to BMPs	
SSCP # 15	1 unit	Manufactured BMP	Ultra-urban areas, water	3, 7
		systems	quality, manufacturers	
		Victoria de la composición de	specs., preapproval	
SSCP # 16	1 unit	Infiltration trenches/pits	Minimum Size 100 sf,	1, 3
			minimum drainage area 1/4	
			acre	
SSCP # 17	1 unit	Dry wells	Applied site-wide, all major	1, 3, 5
	Aliantina.		downspouts	
SSCP # 18	1 unit	Permanent check dams	Applied site-wide, durable	1, 5
	1	in swales (wet swales)	materials	
SSCP # 19	1 unit	Level spreaders	Applied site-wide,	2, 5
			incidental outfalls	
SSCP # 20	1 unit	Enhanced outlet	Applied site-wide, all major	2
		protection measures at	storm pipe outfalls, 12"	
	à.	pipe & channel outfalls	diameter or greater	1.0.0.7
SSCP # 21	I unit	Flat, large bottom	Applied site-wide, applies	1, 2, 3, 5
	NALASA.	width swales	to VESCH 3.1 / stormwater	
	1	A 14	conveyance channels	7
SSCP # 22	1 unit	Alternative measures –	Preliminary Approval	/
	- State	emerging technology	A required by the Plan-	
			Approving Authority	
Non Stored	Dug -4'-			
Non-Structur		Eilter/huffer string	Applied site with	5
SSCP # 23		Cot on Increation /	Applied site-wide	<u> </u>
SSCP # 24	i unit	Get an inspection/	Responsible parties;	12
		A annual from DMD	recorded per County	
		Agreement for a BMP	process requirements	
		which does not have		

Slope / Gradi	ng Practice	s		
SSCP # 25	1 unit	Enhanced slope	Applied site-wide, over 6 ft.	2, 7
		stabilization practices	height; 1,000 s.f. minimum;	
		on all graded cut-fill	non-degradable	
		slopes		
SSCP # 26	1 unit	Use of flatter site	Applied site-wide, not into	5
		grades	steep slope or RPA buffer	
SSCP # 27	1 unit	Reduced fill slope	Applied site-wide	5
		heights		
SSCP # 28	1 unit	Enhanced channel	Applied site-wide, all major	2,7
		stabilization practices	conveyance channels; non-	
		within stormwater	degradable	
		conveyance channels		
<b>On-Lot Storn</b>	nwater Man	agement Practices		
SSCP # 29	1 unit	Rain barrels/cisterns	Applied site-wide, covenants	5,7
SSCP # 30	1 unit	On-lot rain gardens	Applied site-wide,	5
		Contraction of the second s	covenants	
SSCP # 31	2 units	Green roofs	Per Building Codes	5, 10
Enhancemen	t of Traditic	onal Onsite BMPs		
SSCP # 32	<sup>1</sup> / <sub>2</sub> unit	Increased pond buffer	15 feet minimum expansion	1, 3, 8
	per BMP		width	
SSCP # 33	<sup>1</sup> / <sub>2</sub> unit	Enhanced shoreline	Full shoreline perimeter	1, 3
		erosion control,		
	- A	landscaping and	all	
	alata.	stabilization		
Stream Resto	oration			
SSCP # 34	T.B.N	Bioengineering stream bank stabilization	T.B.N	2
SSCP # 35	T.B.N.	Structural stream bank	T.B.N.	2
		stabilization		
SSCP # 36	T.B.N.	Stream bank	T.B.N.	2, 11
	tit.	stabilization of ranked		
	Contraction of the second seco	priority stream		
	Contraction of the second			
Other				
SSCP # 37	T.B.N.	All recommended	Per approved watershed	All
	·	WMP subwatershed or	management plans. If no	
		catchment strategies are	strategies, no unit credit can	
		applied to the site	be taken.	
SSCP # 38	¹∕₂ unit	"Weighted Points over	<sup>1</sup> / <sub>2</sub> unit per every 1 point	1
		10" for traditional	over 10 (ie. 10-point	
		SWM, 10 point system	system)	
SSCP # 39	<sup>1</sup> ∕₂ unit	Provide asbuilt	All culverts, storm drainage	14
		drawings for entire	pipes and stormwater	
		storm drainage system	conveyance channels	

#### **Table Notes:**

- SSCP means Special Stormwater Criteria (SSC) Practice.
- No more than two (2) of the same SSCP measures can be selected to meet SSC criteria.
- SSC credit cannot be taken for those measures being performed to meet traditional (ie. 10 point system) stormwater management criteria.
- Applied site-wide means to apply across the site to the greatest extent possible.
- WMP means watershed management plan.
- T.B.N. means to-be-negotiated on a case-by-case basis with the plan-approving authority.
- Number of Measures required from the Table SSC-1 application matrix and units, restrictions/limitations and reference standards from Table SSC-2 menu may be adjusted by plan-approving authority on a case-by-case basis.

#### **Reference Standards:**

- 1. County BMP Manual
- 2. Virginia Erosion & Sediment Control Handbook
- 3. Virginia Stormwater Management Handbook
- 4. Prince George's County Maryland, Bioretention Design Manual
- 5. Low Impact Development Design Strategies, An Integrated Design Approach
- 6. Low Impact Development Hydrologic Analyses
- 7. Manufacturer's Recommendations
- 8. County Stormwater Management Program
- 9. Zoning ordinance
- 10. Applicable building codes
- 11. Approved County watershed management plans
- 12. County Land Disturbing permit application procedures
- 13. City of Virginia Beach or other appropriate sump inlet standards
- 14. James City County Environmental Division, Stormwater Management/BMP Facilities, Record Drawing and Construction Certification, Standard Forms & Instructions

# Future Considerations

During the course of the proceedings for the Special Stormwater Criteria Task Group, many good ideas were identified for incorporation into *Special Stormwater Criteria (SSC)*; however, some were considered to be outside the stormwater management program area. Although not directly applied in the subsequent *Special Stormwater Criteria (SSC)* procedure, they were considered to be important principles to consider and apply but were generally beyond the ability for the task group to change. Many of the issues discussed were closely related to the Builders-for-the-Bay, Better Site Design Roundtable which was being held concurrently with the Special Stormwater Criteria Task Group or were regulated by other County ordinances and processes. The guiding principles, as offered below, were established by the Special Stormwater Task Group. These principles should be considered by decision makers and plan-approving authorities when reviewing changes to current policies and procedures and for the development community to consider when developing a site.

- Support of the consensus agreement to be prepared by the Builders-for-the-Bay in the Better Site Design Roundtable for James City County.
- Sustainability of original designs ensuring proper maintenance is performed for all stormwater management facilities.
- Support of the preparation of illicit discharge ordinance and the use of stormwater pollution prevention control plans to control and reduce the risk of spills from areas which store materials that may be harmful to surface and groundwater sources.
- Consideration for establishment of a program to buy or sell stormwater credits under the traditional or *Special Stormwater Criteria (SSC)* program areas and to allow credit for stream restoration projects.
- Evaluation of the traditional County 10-point BMP system including consideration for giving extra credit for BMP enhancements above minimum standards, establishing a procedure for allowing BMPs in series; and assigning greater point values for infiltration/recharge and biofilter type BMPs.
- Develop watershed basin and sub-basin models to determine nutrient export and recharge targets.

#### G4. Offsite Open Space

Normally, 10 BMP points are achieved by the use of structural BMPs and open space preservation on a project site. However, the County also allows the purchase and dedication of offsite open space areas to be credited towards compliance with the 10-point BMP evaluation system. The purpose of this is to allow more flexibility in the administration of the Chesapeake Bay Ordinance water quality compliance criteria, to better protect the health of watersheds by preserving higher quality and more important conservation areas, to assist in the County's open space planning efforts, and to protect valuable habitat for wildlife in the County.

This open space credit is limited to one point or 10% of the total points required for compliance for a specific project unless the open space area to be dedicated is determined by the Environmental Director to have special environmental significance. The credit is intended for use on sites where the developed areas are treated with water quality and stream channel protection BMP facilities but the site is still not able to achieve the required number of points. If local water quality is a concern such as is the case when the project is located in a watershed with an established Total Maximum Daily Load (TMDL), it needs to be demonstrated that onsite BMPs satisfy the requirements of the TMDL.

#### Eligible Sites

Open space areas that are eligible for offsite credit will be identified by the County based on information from an approved watershed management plan, such as the Powhatan and Yarmouth Creek plans, or in an open space master plan such as environmental greenways in the Greenspace/Greenway Master Plan. However, open space areas that are important for protection of water quality and environmental health can be eligible for dedication if determined to be acceptable by the Environmental Director. The County will establish a priority list of open space areas.

Open space areas will generally possess the three trophic layers of trees, shrubs, and ground cover but non-forested area can be acceptable if they are reforested with seedlings. Eligible areas must be developable land and not include areas already protected by other regulations or programs such as:

- Resource Protection Areas and associated Buffers
- Jurisdictional Wetlands
- Steep Slopes unless placed in a conservation easement
- Scenic Easements, Community Character Corridors unless placed in a conservation easement, and other Landscape Buffers
- Areas included in a PDR or AFD unless placed in a conservation easement
- > Floodplains
- Reclaimed Areas such as closed landfills where it is not possible to reestablish all three trophic layers of vegetation.

#### Amount of Open Space Required

The following Offsite Open Space Matrix presents the area requirements for open space preservation based on the location of the open space area relative to the project site.

Location	Non-SSC to SSC	Non-SSC to Non- SSC	SSC to SSC
Offsite in Same Subwatershed	1:1	1:1	1:1
Offsite in Same Watershed	1:1	2:1	2:1
Offsite in Same Major Watershed	2:1	3:1	3:1

#### **OFFSITE OPEN SPACE MATRIX**

Note: Subwatershed as delineated in a James City County adopted watershed study Watershed such as Powhatan Creek, Yarmouth Creek, Mill Creek Major Watershed - James or York River watershed in James City County SSC - Special Stormwater Criteria Watershed as identified in an adopted watershed study

- Ratios may be adjusted by Environmental Director if property achieves multiple goals or is on priority conservation area list

#### Management

The offsite open space area must be located within an acceptable conservation easement or other enforceable legal instrument that ensures perpetual protection of the area, and the easement document must clearly specify how the natural area vegetation will be managed and how boundaries will be marked. (Note: Managed turf is not an acceptable form of vegetation management.) The property can be in either public or private ownership but there must always be an enforceable County conservation easement in place.

#### Acquisition Options

The open space property can be purchased through a third party arrangement without involvement by the County other than the acceptance and recordation of the appropriate legal document guaranteeing its protection prior to final approval of the plan. If there is an established open space bank in the County in the appropriate major watershed, documentation can be submitted to demonstrate that the required open space has been purchased. If the County has set aside an area of County-owned open space in a conservation easement essentially creating an open space bank, fees can be paid directly to the County for purchasing "credits" towards compliance.

#### **MEMORANDUM**

DATE:	November 23, 2004
TO:	The Board of Supervisors
FROM:	Alan Robertson, Chairman James City County Parks and Recreation Advisory Commission
SUBJECT:	Joint Meeting with the Parks and Recreation Advisory Commission

The James City County Parks and Recreation Commission is looking forward to its annual meeting with the Board of Supervisors on November 23. During our meeting we would like to share information related to the growth and success of programs and facilities developed over the last decade in response to citizen input. Likewise, we will illustrate several growth patterns we believe will continue in James City County over the next decade that will impact our services.

A copy of the PowerPoint presentation we intend to share with you during our Work Session will be sent for your prior review. Thank you once again for this opportunity and we look forward to sharing our ideas with you.

AR/gb growth.mem