

**A G E N D A**  
**JAMES CITY COUNTY BOARD OF SUPERVISORS**  
**READING FILE**  
**County Government Center Board Room**  
**101 Mounts Bay Road, Williamsburg, VA 23185**  
**May 9, 2017**  
**5:00 PM**

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**A. FOR YOUR INFORMATION**

1. JCC-HRSD SWIFT MOA

## ITEM SUMMARY

DATE: 5/9/2017

TO: The Board of Supervisors

FROM: Frances C. Geissler, Director, Stormwater Division

SUBJECT: JCC-HRSD SWIFT MOA

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This draft memorandum of agreement defines the conditions under which JCC can utilize pollution reduction credits to meet future, unknown requirements related to the Chesapeake Bay TMDL. The memorandum also confirms JCC's support for the SWIFT project.

### ATTACHMENTS:

Description	Type
☐ draft JCC-HRSD Swift MOA	Cover Memo

### REVIEWERS:

Department	Reviewer	Action	Date
Stormwater	Geissler, Fran	Approved	3/24/2017 - 5:35 PM
General Services	Boone, Grace	Approved	3/27/2017 - 7:55 AM
Publication Management	Burcham, Nan	Approved	3/27/2017 - 8:56 AM
Legal Review	Kinsman, Adam	Approved	4/4/2017 - 1:49 PM
Board Secretary	Fellows, Teresa	Approved	4/18/2017 - 11:33 AM
Board Secretary	Purse, Jason	Approved	5/2/2017 - 4:24 PM
Board Secretary	Fellows, Teresa	Approved	5/2/2017 - 4:33 PM

## **HAMPTON ROADS WATER QUALITY CREDIT AGREEMENT FOR CHESAPEAKE BAY RESTORATION**

**THIS HAMPTON ROADS WATER QUALITY CREDIT AGREEMENT FOR CHESAPEAKE BAY RESTORATION** (this “Agreement”) is made this \_\_\_\_\_ day of, 2017, by and among the Hampton Roads Sanitation District (“HRSD”) and the County of (the “County”) (each a “Party” and collectively the “Parties”).

### **BACKGROUND**

A. The HRSD Plants. HRSD owns and operates various wastewater treatment plants that are authorized to discharge the nutrients total nitrogen (“TN”) and total phosphorus (“TP”) as well as sediment as total suspended solids (“TSS”) to the Chesapeake Bay watershed (the “HRSD Plants”). The HRSD Plants have TN, TP and TSS waste load allocations assigned by the State Water Control Board and the Virginia Department of Environmental Quality (collectively, “DEQ”) pursuant to the Water Quality Management Planning Regulation, 9 VAC 25-720, and by the U.S. Environmental Protection Agency (“EPA”) pursuant to the Chesapeake Bay Total Maximum Daily Load (“TMDL”) and related Virginia Watershed Implementation Plan (“WIP”). The HRSD Plants are subject to the General Virginia Pollutant Discharge Elimination System (“VPDES”) Watershed Permit Regulation for TN and TP Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia, 9 VAC 25-820, most recently reissued by DEQ effective February 8, 2017, as hereafter modified or reissued from time to time (the “Watershed General Permit”). Due to exceptional performance and current operating conditions, the HRSD Plants currently discharge less TN, TP and TSS than they are authorized to discharge under the Watershed General Permit while protecting Chesapeake Bay water quality and, therefore, HRSD has the ability to provide TN, TP and TSS credits on at least a temporary basis.

B. The Locality MS4s. The County owns and operates a municipal separate stormwater sewer system (“MS4”) authorized to discharge TN, TP and TSS to the Chesapeake Bay watershed. Like the HRSD Plants, the MS4 is subject to the Chesapeake Bay TMDL as derived from the Virginia WIP and to a VPDES General Permit issued to the County by DEQ. Pursuant to the TMDL, WIP and VPDES General Permit for the MS4, it is anticipated that the County will reduce MS4 - related TN, TP and TSS discharges pursuant to County-developed and DEQ-approved TMDL Action Plans for each of three, five-year permit cycles, which are referred to as the First Bay TMDL Permit Cycle (5% Progress), Second Bay TMDL Permit Cycle (40% Progress) and Third Bay TMDL Permit Cycle (100% Progress). During 2017, the County is in the fourth year of its First Bay TMDL Permit Cycle.

C. The SWIFT Project. HRSD’s Sustainable Water Initiative For Tomorrow (“SWIFT”) Project was conceived with multiple benefits in mind for the Hampton Roads region. Aside from TMDL benefits, this innovative water purification project is designed to enhance the sustainability of the long-term groundwater supply and help address other environmental pressures such as sea level rise and saltwater intrusion. The SWIFT Project is intended to achieve these benefits by taking already-treated wastewater that would otherwise be discharged into the Chesapeake Bay watershed, purifying it through additional rounds of advanced water treatment to meet drinking water standards, and injecting the resulting drinking quality water into the Potomac aquifer deep underground. With respect to TMDL benefits, SWIFT will result in a significant reduction in the total volume of HRSD discharge to the Chesapeake Bay watershed, to achieve greater environmental benefits with corresponding significant reductions of TN, TP and TSS discharges to the Chesapeake Bay watershed.

D. Legal Authority. Pursuant to Virginia Code § 62.1-44.19:21, the County may acquire and use TN and TP credits for purposes of compliance with the Chesapeake Bay TMDL loading reductions of its MS4 VPDES General Permit, including credits generated by the HRSD Plants by discharging less TN or

TP than permitted under the Watershed General Permit. Pursuant to Virginia Code § 62.1-44.19:21.1, the County may also acquire and use TSS credits for purposes of compliance with the Chesapeake Bay TMDL loading reductions of its MS4 VPDES Permit, including credits generated by the HRSD Plants by discharging less TSS than allocated under the Chesapeake Bay TMDL, WIP, and Watershed General Permit. With respect to all three parameters, it is recognized that this authority does not limit or otherwise affect the authority of DEQ to establish and enforce more stringent water quality-based effluent limitations in permits where such limitations are necessary to protect local water quality and, further, that the use of water quality credits does not relieve an MS4 permit holder of any requirement to comply with applicable local water quality-based limitations.

E. Regulatory Modifications to the County's TMDL Obligations. The County has achieved substantial progress towards its Chesapeake Bay TMDL reduction goals as a result of County-wide stormwater management requirements dating back to 1990. Future modifications to the TMDL, WIP or VPDES General Permit for the MS4 may be more cost-effectively addressed by utilizing HRSD-generated TN, TP and TSS credits before and during operation of the SWIFT Project in lieu of stormwater retrofit projects. By utilizing HRSD-generated TN, TP and TSS credits to implement the County's Chesapeake Bay TMDL Action Plan, County Capital Improvement Funds as well as Virginia Stormwater Local Assistance Funds may be reserved for locally important drainage or water quality projects.

F. Credit Trading Premise of SWIFT. For all of the above reasons and others, the ability to generate TN, TP and TSS credits through the SWIFT Project and apply those credits as progress under the Hampton Roads localities' MS4 Permits and associated TMDL Action Plans is a fundamental premise for the SWIFT Project. HRSD is proceeding with the SWIFT Project, and the County is supporting it, in large part in reliance on these critical water quality trading-based benefits.

## **AGREEMENT**

NOW, THEREFORE, in consideration of the foregoing premises (hereby incorporated as if fully set forth herein), the mutual covenants and conditions herein, and other good and valuable consideration, the receipt and sufficiency of which HRSD and the County acknowledge, the Parties hereby agree as follows.

1. Annual Credit Transfers Prior to SWIFT Feasibility Determination. Prior to HRSD's determination of SWIFT Project feasibility as provided below, HRSD shall annually generate and transfer to the County the quantity of water quality credits needed to meet the County's compliance requirements under its DEQ-Approved Chesapeake Bay TMDL Action Plan for its MS4, as provided below.

a. Determination of Total Reductions Needed. The County has determined the total TN, TP and TSS reductions required for its full MS4 implementation of the Chesapeake Bay TMDL and WIP as issued in December 2010, in accordance with the procedures established in its VPDES General Permit and DEQ Guidance Memorandum 15-2005, Chesapeake Bay TMDL Special Condition Guidance (May 18, 2015).

b. Credit Demand Minimization Elements. The County has minimized its calculated reductions by (i) accurately mapping and delineating its existing MS4 service area, (ii) taking full credit for reductions achieved by stormwater projects occurring prior to the effective date of the County's VPDES General Permit in effect as of the Effective Date of this Agreement, and (iii) other procedures or accounting measures reasonably available to the County.

c. Credit Transfer Ceilings. HRSD's annual credit transfer obligations to the County shall not exceed the lesser of (i) the County's estimate set forth on Attachment A hereto, or (ii) 95 percent of the MS4 Locality's total calculated reductions determined in accordance with this Paragraph 1, included

as part of a DEQ-approved Chesapeake Bay TMDL Action Plan, and subsequently accepted and issued by HRSD as an update to Attachment A.

d. Term and Termination of Initial Credit Transfers. HRSD's annual credit transfer obligations to the County under this Paragraph 1 shall expire upon (i) conversion to a permanent transfer as provided in Paragraph 2, (ii) termination as specifically authorized by any other provision of this Agreement, or (iii) December 31, 2036, whichever occurs first.

2. Permanent Transfer After SWIFT Feasibility Determination. Upon HRSD's determination that full-scale implementation of the SWIFT Project is feasible, HRSD shall permanently transfer to the County the quantity of credits (or comparable TN, TP and TSS waste load allocations to effect the permanent transfer contemplated by this Agreement) set forth for its MS4 on Attachment A hereto, as updated and issued by HRSD in accordance with Paragraph 1 c.

a. Factors for Feasibility Determination. Feasibility shall be determined in HRSD's sole discretion taking into account (i) whether all required permits and approvals have been acquired in final, non-appealable form acceptable to HRSD including the federal Safe Drinking Water Act Underground Injection Control Permit, (ii) whether the first full-scale HRSD plant upgrade is online and performing as desired, (iii) whether full-scale implementation of the SWIFT Project is technically and financially feasible, and (iv) other material factors.

b. Timing for Feasibility Determination. Without limiting HRSD's discretion to determine whether full-scale SWIFT Project implementation is feasible or when to make such determination, it is the mutual goal of the Parties for HRSD to make such determination as soon as reasonably possible and not later than December 31, 2025, so as to preserve the maximum amount of time prior to the termination date for the County to implement stormwater retrofit projects or other permit compliance measures that might be necessary should it be determined that the SWIFT Project is not feasible.

3. Regulatory Plans and Approvals. In furtherance of the annual credit transfer and, when applicable, the permanent transfer contemplated by this Agreement, the Parties shall collaborate on appropriate submittals to and requests of DEQ, as follows; however, HRSD shall have no responsibility for the failure or refusal of DEQ or other governmental authority to approve such transfers.

a. County's TMDL Action Plan. For purposes of annual and, when applicable, permanent transfers, the County shall each include in its Chesapeake Bay TMDL Action Plan a provision for the receipt and use of TN, TP and TSS credits from the HRSD Plants in the form set forth in Attachment B hereto (or such other form as may be mutually agreeable to the County and HRSD).

b. HRSD Watershed General Permit Registration. For purposes of permanent credit transfers, when applicable, HRSD shall modify its Watershed General Permit Registration to reflect such transfers.

c. Virginia Chesapeake Bay TMDL Phase III WIP. HRSD and the County shall collaborate to seek inclusion in the Phase III WIP of recognition of the SWIFT Project and the annual, and when applicable, permanent transfers contemplated by this Agreement.

4. Authorized Use of Credits. The County agrees that its sole and limited use of the TN, TP and TSS credits transferred under this Agreement shall be for the purpose of MS4 Permit compliance and Chesapeake Bay TMDL implementation and that it shall not transfer any portion of HRSD-generated credits (or waste load allocations, if applicable) to any other person or entity. In the event that the County no longer requires some or all of the credits (or waste load allocations) for such use, they shall revert to HRSD and HRSD shall update and reissue Attachment A accordingly.

5. Mutual Cooperation. The Parties shall continue to cooperate with each other as reasonably necessary to confirm or bring about the transfers contemplated by this Agreement.

6. Permits and Approvals. If for any reason any federal, state, regional or local government or agency fails to issue any necessary permit, approval or other authorization for the SWIFT Project or the credit transfers contemplated by this Agreement, HRSD shall be excused from its performance hereunder.

7. Force Majeure. The obligations of HRSD, including its credit transfer obligations, shall be suspended while and as long as performance is prevented or impeded by strikes, disturbances, riots, fire, severe weather, acts of war, acts of terrorism, acts of God, government action (other than by HRSD), major technical, engineering or construction related delays or any other cause similar or dissimilar to the foregoing that is beyond the reasonable control of and not due to the gross negligence of HRSD.

8. Change in Law. In the event of any material change in applicable laws or regulations, the Parties shall work together to attempt to amend this Agreement to conform to such change, while maintaining as closely as practical the provisions and intent of this Agreement. If in any such event HRSD is unable to transfer credits as provided herein, the County shall be solely responsible for otherwise meeting its TMDL and MS4 Permit obligations.

9. Significant Financial and Budgetary Constraints. Notwithstanding any other provision of this Agreement or any prior determination of feasibility of the SWIFT Project, HRSD reserves the right to terminate or renegotiate this Agreement in the event HRSD experiences significant financial or budgetary challenges which, in HRSD's opinion, would significantly impair its ability to perform its obligations hereunder. In such event, the Parties shall work together to attempt to amend this Agreement to accommodate such challenges, with the goal of providing annual credits to the County (and to other Hampton Roads localities with similar water quality credit agreements) as practical.

10. Credit Supply Constraints. Notwithstanding any other provision of this Agreement, to the extent that HRSD determines in its sole discretion that its available quantity of water quality credits (or allocations) is insufficient to meet the total MS4 Chesapeake Bay TMDL Action Plan compliance requirements of the County and of all other Hampton Roads localities that are party or become party to a similar water quality credit agreement, HRSD's obligations hereunder shall be limited to transferring to the County its pro rata share of the available credits based on pollutant-specific total credit needs of all Hampton Roads localities. For clarity, HRSD shall assume no obligation under this Agreement to install, upgrade, improve or significantly alter the operation of any portion of its sewerage system or treatment works for purposes of providing water quality credits (or allocations).

11. No Third Party Beneficiaries. This Agreement is solely for the benefit of the Parties hereto and their permitted successors and assigns and shall not confer any rights or benefits on any other person or entity.

12. No Assignment. This Agreement, and the rights and obligations established hereunder, shall be binding upon and inure to the benefit of any successors of the Parties. However, no Party may transfer or assign this Agreement, or its rights or obligations hereunder, without the prior written consent of the other Party, which consent shall not be unreasonably withheld.

13. Expenses; Commissions. Except as provided herein, each Party shall pay its own fees and expenses, including its own counsel fees, incurred in connection with this Agreement or any transaction contemplated hereby. The Parties represent and warrant to each other that they have not dealt with any business broker or agent who would be entitled to a brokerage commission or finder's fee as a result of this Agreement or any related transactions.

14. Governing Law; Severability. This Agreement shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. If any word or provision of this Agreement as applied to any Party or to any circumstance is adjudged by a court to be invalid or unenforceable, the same shall in no way affect any other circumstance or the validity or enforceability of any other word or provision.

15. No Waiver. Neither any failure to exercise or any delay in exercising any right, power or privilege under this Agreement by either Party shall operate as a waiver, nor shall any single or partial exercise of any right, power or privilege hereunder preclude the exercise of any other right, power or privilege. No waiver of any breach of any provision shall be deemed to be a waiver of any preceding or succeeding breach of the same or any other provision, nor shall any waiver be implied from any course of dealing.

16. Entire Agreement; Amendments. This Agreement contains the entire agreement between the Parties as to the subject matter hereof and supersedes all previous written and oral negotiations, commitments, proposals and writings. No amendments may be made to this Agreement except by a writing signed by both Parties.

17. Counterparts; Signatures; Copies. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. A facsimile or scanned signature may substitute for and have the same legal effect as an original signature. Any copy of this executed Agreement made by photocopy, facsimile or scanner shall be considered the original for all purposes.

18. Authorization. Each Party represents that its execution, delivery and performance under this Agreement have been duly authorized by all necessary action on its behalf, and do not and will not violate any provision of its charter or enabling legislation or result in a material breach of or constitute a material default under any agreement, indenture, or instrument of which it is a party or by which it or its properties may be bound or affected.

IN WITNESS WHEREOF, the Parties hereto have caused the execution of this Agreement as of the date first written above.

[SIGNATURES BEGIN ON NEXT PAGE]

**[SIGNATURE PAGE OF HAMPTON ROADS WATER QUALITY CREDIT AGREEMENT  
FOR CHESAPEAKE BAY RESTORATION BY AND BETWEEN HRSD AND COUNTY OF  
\_\_\_\_\_]**

**HAMPTON ROADS SANITATION DISTRICT**

By: \_\_\_\_\_  
Edward G. Henifin  
General Manager

**[SIGNATURE PAGE OF HAMPTON ROADS WATER QUALITY CREDIT AGREEMENT  
FOR CHESAPEAKE BAY RESTORATION BY AND BETWEEN HRSD AND COUNTY OF  
\_\_\_\_\_]**

**COUNTY OF \_\_\_\_\_**

By: \_\_\_\_\_  
[INSERT NAME]  
County Manager

ATTEST:

\_\_\_\_\_  
[INSERT NAME]  
County Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
[INSERT NAME]  
County Attorney

**HAMPTON ROADS WATER QUALITY CREDIT AGREEMENT  
FOR CHESAPEAKE BAY RESTORATION  
ATTACHMENT A**

**Water Quality Credit Needs for Second and Third Bay TMDL Permit Cycles**

*Initial Estimate of Credit Needs (lbs/yr)*

Parameter	James River Basin			York River Basin		
	2 <sup>nd</sup> Permit Cycle	3 <sup>rd</sup> Permit Cycle	Total Both Cycles	2 <sup>nd</sup> Permit Cycle	3 <sup>rd</sup> Permit Cycle	Total Both Cycles
TN	TBD	TBD	TBD	TBD	TBD	TBD
TP	TBD	TBD	TBD	TBD	TBD	TBD
TSS	TBD	TBD	TBD	TBD	TBD	TBD

*Calculation of Credit Needs (lbs/yr) Under TMDL Action Plan After Deducting Credit Demand Minimization Elements*

Parameter	James River Basin			York River Basin		
	2 <sup>nd</sup> Permit Cycle	3 <sup>rd</sup> Permit Cycle	Total Both Cycles	2 <sup>nd</sup> Permit Cycle	3 <sup>rd</sup> Permit Cycle	Total Both Cycles
TN	TBD	TBD	TBD	TBD	TBD	TBD
TP	TBD	TBD	TBD	TBD	TBD	TBD
TSS	TBD	TBD	TBD	TBD	TBD	TBD

For any credit need noted as “To Be Determined” or “TBD,” please refer to Paragraph 1.c. for process for updating and reissuing this Attachment A.

**HAMPTON ROADS WATER QUALITY CREDIT AGREEMENT FOR  
CHESAPEAKE BAY RESTORATION  
ATTACHMENT B**

**James City County TMDL Action Plan Provision for Use of HRSD - Generated Water  
Quality Credits**

The County is implementing a TMDL Action Plan consisting of three primary components: (1) Current Stormwater Projects, (2) Stormwater reductions from stricter development requirements, and (3) the HRSD SWIFT Project.

Each of the three components of the plan is further described below.

Current Stormwater Projects. The first component of this plan consists of water quality improvements from current stormwater projects, including recent, ongoing or other near-term projects credited in accordance with the procedures established in MS4 General Permit and DEQ Guidance Memorandum 15-2005, Chesapeake Bay TMDL Special Condition Guidance (May 18, 2015). For purposes of the First Bay TMDL Permit Cycle and the associated TMDL Action Plan, this includes creditable projects completed or to be completed prior to the end of the first permit cycle.

Stricter Development Requirements. The second component of this plan consists of the strict development standards which require all development to meet the Chesapeake Bay Preservation Act (CBPA) requirements throughout the County, not just within the CBPA buffer zone. According to DEQ Guidance Memorandum 15-2005, the County may receive credit for all stormwater treatment facilities installed after July 1, 2009 outside of the CBPA buffer including those treating less than 1 acre total.

SWIFT Project. The third component of this plan is the generation and use of TN, TP and TSS credits before and during operation of the SWIFT Project in collaboration with HRSD pursuant to the Hampton Roads Water Quality Credit Agreement for Chesapeake Bay Restoration to which the County and HRSD are signatories. This compliance method is in lieu of more traditional stormwater retrofit projects, which may not be feasible to execute on a condensed 10-year schedule (i.e., Second and Third Bay TMDL Permit Cycles). Not only does this method have the advantage of more reliably meeting the MS4 Permit's short deadlines, but it is also beneficial to the public in that it will meet the County's Chesapeake Bay TMDL reduction goals more cost-effectively than otherwise possible. This component of the plan is fully in accordance with Virginia Code §62.1-44.19:21 (TN and TP) and §62.1-44.19:21.1 (TSS). A schedule of the reduction credits from the SWIFT Project that are allocated to this TMDL Action Plan are set forth below.