District of Columbia's Trading and Offset Programs Review Observations

I. Summary of Program Characteristics and Regulatory Status

For the common trading and offset programs elements discussed in Appendix S of the Chesapeake Bay TMDL, Table 1 distinguishes between trading (T) and offset (O) provisions, categorizes the degree to which the District of Columbia's (DC) program addresses each element, and illustrates whether the program is designed to support Point to Point source transactions, Nonpoint to Point source transactions, Nonpoint to Nonpoint source transactions and/or Point source to Nonpoint source transactions.

NOTE: The table below can not be used to summarize DC's program at this time

Table 1. District of Columbia Trading and Offset Programs Summary Table

Element	Types of Transactions							
	Point Source to Point Source		Nonpoint Source to Point Source		Nonpoint Source to Nonpoint Source		Point Source to Nonpoint Source	
Trading (T) /Offset(O)	T	O	T	O	T	O	T	O
Authority								
Baselines (for a credit generator)								
Minimum Controls								
Eligibility								
Credit Calculation and Verification								
Safeguards								
Certification and Enforceability								
Accountability and Tracking								
Nutrient Impaired Segments								
Credit Banking								
Growth								

○ Necessary measures not in place
◐ Partial (e.g., Legislation drafted or steps have been taken to implement but not fully in place, some details still to be determined but framework is largely established)
● Jurisdiction has measures in place and in effect
◌ Jurisdiction is evaluating the issue but has taken no formal measures to implement anything specifically
X Not Applicable

II. Summary of Review Observations

On the basis of interviews and review of statutes, regulations, policies and program documents related to the jurisdictions' trading and offset programs, EPA has drafted the following observations. Tier 1 are classified as statutory or regulatory conformance that EPA expects to be addressed by the jurisdiction in order to maintain consistency with the policies, definitions and elements described in Section 10 and Appendix S of the Chesapeake Bay TMDL. Tier 2 is classified as a program recommendation that EPA finds should be addressed in order to strengthen the jurisdiction's trading and offset program.

A. Program Recommendations Common to All Jurisdictions

1. Jurisdictions' definitions of trading ratios, offsets, credit, trading, etc. should be consistent with federal definitions. Some jurisdictions use the terms "trading" and "offsetting" interchangeably. See Section IV. 1.

2. Interstate and intrabasin trades and offsets should be evaluated by the jurisdictions for potential inclusion in their trading and offset programs. See Section IV. 10.

3. Local governments' data and information should continue to be integrated into state tracking and accounting systems. See Section IV.8.

4. Stormwater offsets programs are being evaluated and developed in many jurisdictions. These programs should be consistent with the Chesapeake Bay TMDL and EPA regulations, policy, and guidance. See Section IV.1.

5. Several jurisdictions are considering developing or expanding their current programs. The jurisdictions should continue to develop guidance and methodologies to address meeting baseline for point and nonpoint sectors including consideration of the use of non-traditional Best Management Practices (BMPs) such as algal scrubbers, oyster aquaculture, etc. EPA suggests that the jurisdictions consider the retirement of credits and use of net improvement offsets in this guidance and methodology. See Section IV. 2 and 5.

6. Jurisdictions expressed interest in finding a good way to use stormwater BMPs to offset nonpoint sources such as new septics and nonregulated agriculture. The jurisdictions should continue to explore the potential use of that type of offset. See Section IV.2 and 5.

7. Updating enforcement policies and procedures should continue and include, but not be limited to, items such as inspectors' access to off-site areas where credits or offsets are generated and compliance determination methodology. See Section IV.7.

8. Jurisdictions should continue to develop tracking and accounting systems for new or increased loads and offsets for those loads. These systems should be transparent and accessible to the public. See Section IV. 8.

9. Jurisdictions should ensure that adequate resources are available to fully implement the developing trading and offset programs. See Section V.

B. District of Columbia Specific Observations

Tier 1 – Statutory or Regulatory conformance

1. As required by its MS4 permit, DC has developed regulations (expected to be released for public comment in the first quarter of 2012) that will require regulated development sites to retain the runoff from a 1.2 inch storm. Those regulations will allow regulated sites the option to achieve a portion of that retention volume through off-site retention by using Stormwater Retention Credits (traded on the private market) or paying an in-lieu fee to the District Department of the Environment (DDOE). Appendix S of the Chesapeake Bay TMDL expects pollutant loads from new or increased discharges to be offset in the event that the jurisdiction did not set aside allocations for new growth. The District of Columbia's final Phase I WIP did not include an allocation for new growth. However, development in the ultra-urban District is almost entirely redevelopment of existing impervious surface with little or no retention. Under the current MS4 permit's 1.2 inch retention standard and the planned 1.2 inch retention standard City-wide, development will bring significant reductions in stormwater volume and pollutant loadings, as compared to the status quo.

Tier 2 – Program recommendation

1. With respect to DC's assumption that any development is redevelopment and represents an improvement over current conditions, EPA suggests that DC address whether redeveloped areas will have the same or smaller loading than the predevelopment use and thus provide validation for this assumption. See Section IV.1.

III. History and Overview of the District's Offset Program

The District of Columbia has recently developed and will soon issue for public comment regulations that require regulated stormwater development sites to retain the first 1.2 inches of stormwater runoff and that will allow those sites the option to achieve a portion of that retention volume through off-site retention. Regulated sites in DC can achieve retention off-site by using Stormwater Retention Credits (traded on the private market) or paying an in-lieu fee to DDOE. Regulated sites pursuant to these DC regulations are those that disturb 5,000 square feet or more of land and buildings with a footprint of 5,000 square feet or more that are undergoing substantial improvement (interior renovation, the cost of which equals or exceeds 50% of the property value).

The final MS4 permit for the District requires the implementation of the 1.2 inch retention standard for land-disturbing activities that equal or exceed 5,000 square feet and requires the District to establish a retention standard that may be lower than 1.2 inches for substantial improvement sites. The permit also requires the development of off-site options (EPA 2011). The District estimates that the land area that will be regulated by DC's new regulations will amount to about 1% of the District's total land area on an annual basis.

The District's timeline for potential adoption of its stormwater regulation and associated SRC program (subject to change) is as follows:

- Beginning 2012 – DC circulates regulations for 60-day public comment period.
- Summer 2012– DC finalizes Stormwater & Erosion Regulations containing offset/trading elements.
- 6 month lag to take effect (end of 2012 – beginning 2013 – deadline in MS4 permit is set for April 2, 2013)).

The DC regulations will require any stormwater management plans that are first submitted as of the effective date (after the 6 month lag) to be designed to the 1.2 inch standard, or the lesser standard for substantial improvement projects. During the 6 month lag, DDOE will allow projects to generate SRCs.

IV. Detailed Evaluation of the District's Trading and Offset Programs Conformance with the 2010 Chesapeake Bay TMDL

1. Authority

Development in the District under the planned 1.2" retention standard (i.e. redevelopment of existing impervious surfaces with little or no retention) will inherently be offset in that the development will result in dramatic reductions in stormwater volume and loading from those sites. Retention that is not achieved on site will be achieved off site through use of SRCs or payment of an in-lieu fee. Necessary measures are partially in place. See Sections II B.1 and 2 and Sections II.A. 1. and 4.

Currently, the District has no trading, in-lieu fee, or offsets programs in place. However, the vast majority of development in the District is redevelopment of existing impervious area. After the District implements the 1.2 inch retention performance standard required by the 2011 MS4 permit, this development should reduce loadings. The District's offset program is expected to further reduce loadings by creating a market for stormwater retrofits of existing impervious surfaces in the District that would otherwise be unlikely to be redeveloped and therefore retrofitted for many years. The retention performance standard and an off-site mitigation and/or in-lieu fee program are requirements of the District's 2011 Phase I MS4 NPDES permit (NPDES DC0000221).

The District will promulgate enabling regulations for these requirements as noted above, under District law and in compliance with the final MS4 Permit.

No additional legal authorities are identified as being needed at this time.

2 . Baseline (for credit generators)

To generate SRCs, sites that trigger the District's stormwater management regulations must exceed those requirements. Sites that do not trigger those regulations must exceed their existing retention. DDOE plans an SRC ceiling corresponding to 1.7 inches of volume from a site. Necessary measures are partially in place. See Section II.B.1. and Section II A. 5 and 6.

The District's policies on using credits to generate increased levels of stormwater retention (and in turn, decreased loadings of sediment, nitrogen and phosphorus) are described in the District's stormwater management regulations and Stormwater Management Guidebook (Guidebook), which governs design and construction of stormwater management facilities in the District. DC is currently updating the Guidebook to reflect requirements that will be in effect under the planned DC stormwater management regulations and to include a chapter on how regulated sites can use either SRCs or an in-lieu fee to meet their requirements and a chapter on the generation, certification, and ownership of SRCs.

The vast majority of development in the District is redevelopment of existing impervious area. Under the MS4 permit's 1.2 inch retention performance standard, this development should reduce loadings. The District's trading program should further reduce loadings by creating a market for stormwater retrofits of existing impervious surfaces in the District that would otherwise be unlikely to be redeveloped and therefore retrofitted for many years.

Under the District's Phase I WIP, the District expects to meet TMDL load reductions by implementing existing permit requirements (e.g., Blue Plains Treatment Plant) and by implementing the new 1.2 inch standard in its proposed stormwater regulations. To generate a credit, regulated properties in the District are required to exceed the 1.2 inch retention standard. Unregulated sites in the District can generate a credit by achieving retention in excess of existing on-site retention.

Only the baseline determination for runoff generated from development that disturbs 5,000 square feet of land or greater is affected by DC's program. Trading or use of the in-lieu fee in the District is expected to result in a runoff reduction that is greater than or equal to the reduction under a strict on-site 1.2 inch retention standard.

Consistency with the TMDL

The DC program is consistent with the assumptions and requirements underlying the Chesapeake Bay TMDL aggregate WLAs for the District's urban stormwater sector because it is the basis for the District's final Phase I WIP, which provides many of the TMDL's underlying assumptions (based on the District's Scenario Builder input decks reflecting implementation of the new standard over approximately 1% of the District annually).

The District's final Phase I WIP does not rely on DC's offset program to meet DC's reduction goals under the TMDL; therefore any load reductions resulting from DC's offset program will be over and above those the District intends to make to meet its TMDL allocations. The District is essentially completely built out; therefore new development (land use change from pervious to impervious) would constitute a miniscule fraction of development activity. Generally, as a result of the program, redevelopment will lead to improved retention and reduced loading.

3 . Minimum Controls Required for Credit Purchasers

Necessary measures are partially in place. See Section II.B.1.

The only NPDES point source in the District that is expected to use SRCs and/or in-lieu fee and that has specific requirements under the Chesapeake Bay TMDL is the District of Columbia government. The District government's use of SRCs and/or in-lieu fee is expected to result in equal or greater load reductions than would be achieved without the use of SRCs and/or in-lieu fee.

NPDES sources in the District with individual stormwater permits are not expected to use SRCs and/or in-lieu fee to meet their requirements under those permits. The permitting authority for NPDES permits in the District of Columbia is EPA.

All regulated sites in the District using credits will be required to implement some minimum level of retention on site, which has not yet been released. All sites in the District must install stormwater management practices (SMPs), pass inspection, and be subject to regular, ongoing maintenance before credits can be certified.

4 . Eligibility

Necessary measures are partially in place. See Section B.1.1.

Any party may purchase SRCs pursuant to the District's program. An SRC is equal to one gallon of retention capacity for one year. Regulated sites in the District have an ongoing obligation to purchase/use SRCs and/or pay in-lieu fee to meet any volume not retained on site.

DDOE establishes the eligibility requirements for SRC generation and is the sole authority that can certify these SRCs and approve them for use to satisfy the District's stormwater management regulations (i.e., use by development that disturbs 5,000 square feet or more of land). DDOE requires sites that wish to have SRCs certified to meet requirements related to retention volume; design and installation; inspection; and maintenance. Specifically, DDOE requires regulated sites to exceed the 1.2 inch stormwater retention volume in order to generate SRCs, and requires unregulated sites to exceed the existing on-site retention in order to generate SRCs. DDOE will

not certify SRCs for preservation of existing retention. There will be a ceiling on certification of SRCs at the level of the 1.7 inch storm, meaning that DDOE will not certify SRCs for retention capacity on a site that would retain more than the volume for a 1.7 inch storm on that site.

DDOE will certify up to three years' worth of SRCs for a site at a time. If the site continues to meet the eligibility requirements, DDOE will certify additional SRCs at the end of the 3-year period. Each SRC will have a unique identifying serial number, and DDOE will track SRCs.

Spatially, a developer may use credits certified by DDOE for any location in the District. DDOE will not certify SRCs for practices outside the District.

Aggregators

The District allows third parties such as aggregators to generate, sell, and purchase credits, as discussed above.

Offset Ratios

The District requires offsets on a 1:1 basis for the retention capacity that would have been installed on the regulated site. In most cases, this is expected on an annual basis to achieve a greater reduction in volume than would otherwise be achieved. For example, a regulated impervious site that installs 1.2 inches worth of retention capacity would retain 1.2 inches of volume from a 1.2 inch storm, but it would only retain 0.6 inches of volume from a 0.6 inch storm. By contrast, if the regulated site installs 0.6 inches of retention capacity and an unregulated, impervious site of equal size installs the remaining 0.6 inches of retention capacity, then the 0.6 inch storm would result in the retention of a combined total of 1.2 inches of volume by the two sites. 90% of the storms in the District in a year are less than 1.2 inches in depth, so this use of off-site retention should result in a significant increase in stormwater retained on an annual basis. Furthermore, the District is 43% impervious, and, based on past development data, many years will pass before these areas undergo development that triggers the District's stormwater management regulations. Consequently, there is a great deal of opportunity for SRC trading to retrofit such impervious areas in the District.

5. Credit Calculation and Verification

Necessary measures are partially in place. See Section II.B.1 and Section II.A.5 and 6.

Details related to quantification and calculation of credits will be in the District of Columbia's Stormwater Guidebook (Guidebook), which the District is currently updating to support the pending regulation. The current guide is available at the following link: (http://ddoe.dc.gov/ddoe/cwp/view,a,1209,q,492320,ddoeNav_GID,1486,ddoeNav,%7C31375%7C31377%7C.asp). The Guidebook is based on a review of the available scientific data. Future revisions to calculation methodologies, which are based on the Center for Watershed Protection's Runoff Reduction Method, would be documented in revisions to the Guidebook. DDOE must approve any transfer of SRC ownership, and requires the application for transfer of SRC ownership to be signed by both the buyer and the seller and be notarized. The District expects that the buyer and seller will have a contractual agreement but expects this agreement to be external to DDOE's activities. DDOE intends to facilitate SRC buyers and sellers identifying each other in various ways, including maintaining a list of SRC owners to provide to potential buyers.

DDOE will be the sole certifying authority for credits in the District. SMPs must be designed and installed in accordance with a stormwater management plan approved by DDOE, as consistent with the revised Stormwater Management Guidebook. SMPs must be inspected by DDOE. In the future, DDOE may consider use of third-party inspections and blanket approval of certain types of stormwater management plans in limited circumstances.

Based on preliminary analysis, the District's offset program will result in retention of larger volumes than will the implementation of the 1.2 inch retention standard alone. (Van Wye et al 2011). Credit calculations do not address changes in pollutant form (*e.g.*, total nitrogen versus dissolved nitrogen), however. The District may perform simulations in the future to examine this issue. Uncertainty related to reductions by practices is addressed by calculation measures in the Guidebook based on common practices recommended by the Center for Watershed Protection.

Given the small size of the District and the fact that virtually all stormwater runoff in the District is directly piped to the MS4, there are no measures within the program to account for the distance between the generating and acquiring sources that could affect water quality.

Schedule of Certification and Reporting

DDOE is the sole certifying authority for SRCs and will certify additional SRCs for sites that continue to meet all eligibility requirements every three years. DDOE will track SRCs. Generators of credits in the District are subject to inspections at least every three years and must have maintenance plans in place.

Recordkeeping

Documentation related to the District's program will be housed at DDOE and on DDOE servers. It is expected that portions of the information related to the program will be available to the public. The District's existing Stormwater Regulations, the Guidebook and the MS4 permit are all currently available to the public.

Practice Validation and Verification

DDOE is responsible for inspection and certification of credits as well as granting building permits. In order to be certified, practices must be implemented, pass inspection and have a maintenance plan in place. DDOE may certify additional SRCs every three years (i.e., a 1,000 gallon stormwater management practice will generate 3,000 SRCs every three years). Validation would include re-inspection of the practice to ensure proper maintenance and operation.

Practices will be designed and installed in accordance with the District's Stormwater Management Guidebook and validated by the suite of Chesapeake Bay models.

DDOE will be the sole certifying authority. In order to have SRCs certified, a site must meet the eligibility requirements specified by DDOE in its regulations. SMPs must be designed and installed in accordance with a stormwater management plan approved by DDOE, as consistent with the revised Stormwater Management Guidebook. SMPs must be inspected by DDOE. In the future, DDOE may consider use of third-party inspections and blanket approval of certain types of stormwater management plans in limited circumstances.

The District's accounting policies related to practices implemented through public cost-share incentives stipulate that such projects would be eligible for SRC certification.

The District's program accounts for possible degradation of practices through the maintenance requirements and the inspection process (at least once every three years). The District may establish a reserve bank using higher trading ratios in the future if such a reserve bank is deemed appropriate.

6. Safeguards

Necessary measures are partially in place. See Section II.B.1.

The District's program contains certain measures to ensure that reductions and credits are properly accounted for, not double counted. This includes a unique serial number for each SRC, a database (to be developed) where DDOE will track where credits are generated as well as ownership of credits, and cross-checking to ensure credits are used once.

The District's program contains no restrictions on trades as the program is considered an improvement over existing conditions. The District's program also does not prohibit entities from generating credits. The District points out that most sites (where credits will be generated) are not subject to any type of permit. Therefore, the District expects its program to provide a net benefit to the citizens of the District in terms of water quality and quality of life.

DDOE intends to evaluate how the spatial and temporal distribution of retention practices under trading affects District waterbodies and environmental justice and to adaptively manage the program and use other tools as necessary. DDOE expects that trading may have a net benefit for environmental justice.

The District's program will allow credit banking. DDOE intends to evaluate how the spatial and temporal distribution of retention practices under trading affects District waterbodies and environmental justice concerns. DDOE also intends to adaptively manage its program and use other tools as necessary, including possibly requiring that generation and use of SRCs be synchronized or time limited.

7. Certification and Enforceability

Necessary measures are partially in place. See Section II.B.1 and Section II.A.7 and 8.

Operationally, DDOE is identified by the DC Stormwater Regulation as the entity responsible for implementing the offset program, and is responsible for coordinating load reductions pursuant to the MS4 permit. DDOE has authority to certify practices and to enforce the retention standard through the District's stormwater management regulations. Transactional agreements between parties to an offset transaction will be subject to DC civil law. The District will track SRCs, maintenance obligations for SRC-generating sites, and obligations of regulated sites.

The District government is the NPDES permittee with the permit obligation to implement the stormwater retention performance standard and the off-site mitigation and/or in-lieu fee programs. The District government is responsible overall for ensuring that it is in compliance with its MS4 NPDES permit.

However, as described above, there is a built-in benefit of the District's off-site stormwater retention program in that it is likely to produce greater annual stormwater retention than would otherwise be the case. The District indicates that, if necessary, it may consider setting higher trade ratios to develop a bank of insurance credits or to serve as a margin of safety.

8. Accountability and Tracking

Necessary measures are partially in place. See Section II.B.1 and Sections II.A. 3 and 8.

Though the District's stormwater management regulations will not require tracking of loads, they will require the tracking of stormwater retention volumes.

9. Nutrient Impaired Segments

Necessary measures are partially in place. See Section II.B.1.

The DC program does not contain any restrictions on trades with respect to location of buyers and sellers. Any activities related to the District's program are expected to result in an improvement relative to current conditions. In addition, analysis by the District indicates that areas that are most likely to be susceptible to localized water quality impacts (upstream locations) are those where the program is likely to encourage higher implementation levels than currently exist.

10. Credit Banking

Necessary measures are partially in place. See SectionII.B.1 and Section II.A. 2.

The District plans to allow SRC banking, and will provide details in the revised regulations and the Guidebook. In addition, the District is considering use of 3rd party aggregators.

The District will also allow regulated sites to pay an annual in-lieu fee option to achieve off-site retention. This would involve payment to DDOE of a fee rather than implementing retention. In addition to the fee, all regulated sites will be required to implement some minimum level of retention (to be determined). The District recognizes that the fee must be set at a level high enough to capture all costs faced by the District to install and maintain retention practices. The District expects the cost of this fee to be higher than the cost of SRCs.

The District has taken certain measures to reduce transaction costs of the offset program, such as the adoption of a three year certification cycle and the imposition of lower plan review fees for SRC generators.

11. Growth

Necessary measures are partially in place. See Section II.B.1.

The District is heavily built out, and development is generally redevelopment of existing impervious surface, with the net effect of reducing loading to the Bay. Implementation of the District's offset program should further accelerate the retrofit of impervious surfaces.

IV. Additional Information and Programmatic Needs

District staff indicates that the planned 1.2 inch retention standard and use of off-site retention will be key to the District's ability to meet its load reduction obligations under the TMDL. DDOE staff must be prepared to evaluate success of the program to identify whether aspects are not working as designed or whether certain geographic areas of the jurisdiction are being neglected so that adjustments can be made accordingly.

District staff indicated that opportunities for states to gather and compare programs would have been helpful to District staff as they were developing the framework for the SRC program. As a result, an additional need for federal assistance could include providing opportunities (workshops, conference sessions, other venues) to share information related to trading. One potential topic might be how to structure an in-lieu fee in combination with a trading program. EPA may be able to provide support to develop methods to refine certain calculations. An example would be assistance developing a tool to estimate annual retention that accounts well for the antecedent dry period required for retention practices to regain their full capacity.

The District does not use aggregated programmatic credits and/or reserve-offset hybrids as part of its offset program.

With respect to multi-year contracts, DDOE will not certify a credit for longer than the regulation-stipulated three year period, but if trading partners wish, they may develop a contract to work together for a longer period. DDOE would not be involved with that contract.

V. District of Columbia References

DDOE April 2003. (District of Columbia Department of the Environment). Stormwater Guidebook. Accessed 6-29-2011 at: (http://ddoe.dc.gov/ddoe/cwp/view,a,1209,q,492320,ddoeNav_GID,1486,ddoeNav,%7C31375%7C31377%7C.asp).

EPA 2011. (Environmental Protection Agency). NPDES Permit No. DC0000221, Authorization to Discharge under the National Pollutant Discharge Elimination System Municipal Separate Stormwater System Permit, In Compliance with the Provisions of the Clean Water Act, 33 U.S.C. §§ 1251 et seq.

Van Wye, Brian, R. Stack, S. Besse, J. Seltzer, P. Phannavong, H. Karimi, 2011. *Stormwater Retention Trading in Washington, D.C.: Potential Benefits and Framework.* AWRA 2011 Spring Specialty Conference, April 18-20, 2011.

APPENDIX A – District of Columbia

1. EPA expects the District of Columbia to develop a plan of action to address all unresolved, jurisdiction-specific Tier 1 and Tier 2 recommendations from EPA's final offsets and trading program assessment by the end of 2012. These recommendations are as follows:

Tier 1 and 2 combined

Appendix S of the TMDL expects pollutant loads from new or increased discharges to be offset in the event that the jurisdiction did not set aside allocations for new growth. The District of Columbia's final Phase I WIP did not include an allocation for new growth.

District's Response: Development in the ultra-urban District is almost entirely redevelopment of existing impervious surface with little or no retention. Under the planned 1.2 inch retention standard, development will bring significant reductions in stormwater volume and pollutant loadings, as compared to the status quo.

EPA's Response: EPA appreciates the Districts response and finds it satisfactory provided the regulations are put into place according to an agreed upon schedule.

2. EPA expects the District of Columbia to address all unresolved recommendations common to all jurisdictions from EPA's final offsets and trading program assessment by the end of 2013. These recommendations are as follows:

1. Jurisdictions' definitions of trading ratios, offsets, credit, trading, etc. should be consistent with federal definitions. Some jurisdictions use the terms "trading" and "offsetting" interchangeably. See Section IV. 1.

EPA encourages the Chesapeake Bay watershed jurisdictions to provide clear and comprehensive definitions for the terms and concepts incorporated in their nutrient credit offset and trading programs. EPA notes that common terminology may be necessary or appropriate should methods or policies be developed for interstate offsets or trading. EPA expects that DC will continue to work with and support the WQGIT Trading and Offset Workgroup as trading and offset programs continue to advance in the watershed.

2. Interstate and intrabasin trades and offsets should be evaluated by the jurisdictions for potential inclusion in their trading and offset programs. See Section IV. 10.

In Section 10 of the Chesapeake Bay TMDL, EPA identified interstate trading as a potential stage in the expansion of the trading concept. EPA will continue to work with the Chesapeake Bay jurisdictions to support efficient and appropriate means of expanding nutrient credit trading to meet the goals of the TMDL. EPA expects that DC will continue to work with and support the WQGIT Trading and Offset Workgroup as trading and offset programs continue to advance in the watershed.

3. Local governments' data and information should continue to be integrated into state tracking and accounting systems. See Section IV.8.

Conversion of land uses as the result of development and the redevelopment of land are two examples of important types of information that should be tracked and integrated into the state tracking and accounting systems. EPA expects that DC will continue to work with and support the WQGIT Trading and Offset Workgroup as trading and offset programs continue to advance in the watershed.

4. Stormwater offsets programs are being evaluated and developed in many jurisdictions. These programs should be consistent with the Chesapeake Bay TMDL and EPA regulations, policy, and guidance. See Section IV.1.

EPA looks forward to working with DC in reviewing the baseline loading reduction expectations for existing sources to achieve TMDL targets as identified in their draft Phase II WIP. EPA expects that DC will continue to work with and support the WQGIT Trading

and Offset Workgroup as trading and offset programs continue to advance in the watershed.

5. Several jurisdictions are considering developing or expanding their current programs. The jurisdictions should continue to develop guidance and methodologies to address meeting baseline for point and nonpoint source sectors including consideration of the use of non-traditional Best Management Practices (BMPs) such as algal scrubbers, oyster aquaculture, etc. EPA suggests that the jurisdictions consider incorporating the retirement of credits and use of net improvement offsets in this guidance and methodology. See Section IV. 2 and 5.

EPA expects that any expansion and or development of trading and offset programs, including guidance and methodologies, will be consistent with the Chesapeake Bay TMDL, the Clean Water Act, and relevant regulations, policy, and guidance. The use of non-traditional technologies for meeting baseline for point and nonpoint source sectors needs to be consistent with the Bay model and its assumptions. The Chesapeake Bay Program does have an established process for the validation of non-traditional BMPs and inclusion of those BMPs in the Chesapeake Bay Watershed Model. EPA expects that DC will continue to work with and support the WQGIT Trading and Offset Workgroup as trading and offset programs continue to advance in the watershed.

6. Jurisdictions expressed interest in finding a good way to use stormwater BMPs to offset nonpoint sources such as new septics and nonregulated agriculture. The jurisdictions should continue to explore the potential use of that type of offset. See Section IV.2 and 5.

EPA expects DC to develop and implement a credible offset program that addresses new and increased loads, including loads from septic systems and other on-site systems. EPA expects that DC will continue to work with and support the WQGIT Trading and Offset

Workgroup as trading and offset programs continue to advance in the watershed.

7. Updating enforcement policies and procedures should continue and include, but not be limited to, items such as inspectors' access to off-site areas where credits or offsets are generated and compliance determination methodology. See Section IV.7.

EPA expects that the jurisdiction develops and implements a Trading and/or Offset Compliance Monitoring Strategy and the policies/guidance necessary to implement the strategy. The strategy should provide for regular on site verification by the jurisdiction of generator requirements and conditions to ensure that credits generated are credible.

8. Jurisdictions should continue to develop tracking and accounting systems for new or increased loads and offsets for those loads. These systems should be transparent and accessible to the public. See Section IV. 8.

EPA expects the jurisdictions to develop and implement a tracking and accounting system for new or increased loads and offsets of those loads to ensure that progress is maintained in achieving Bay goals. Tracking of offsets is expected regardless of whether the jurisdiction has a well-developed offset and /or trading program or is conducting offsets or trades on a case-by-case basis while it determines whether to develop a formal program.

9. .Jurisdictions should ensure that adequate resources are available to fully implement the developing trading and offset programs. See Section V.

EPA expects the jurisdictions to provide additional resources, as needed, to fully implement their developing trading and offset programs. EPA expects the jurisdictions to provide adequate resources regardless of whether the jurisdiction has a well-developed offset and/or trading program or is

conducting offsets or trades on a case-by-case basis while it determines whether to develop a formal program.