

# GOVERNMENT OF THE DISTRICT OF COLUMBIA

## District Department of the Environment



To: Ms. Amy Edwards, Chair - DCBIA Committee on the Environment  
Mr. David Tuchman, Vice-Chair - DCBIA Committee on the Environment

From: Jeffrey Seltzer, PE, Associate Director, DDOE Stormwater Management Division

Date: October 12, 2012

Subject: DDOE response to DCBIA Stormwater Taskforce Clarifying Questions

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DDOE has reviewed the list of clarifying questions from the DCBIA Stormwater Taskforce. DDOE appreciates the time and effort your membership has invested in reviewing the proposed rule and draft Stormwater Management Guidebook and submitting these questions. We look forward to discussing these issues with your stakeholder group and to receiving additional questions and comments before the close of the public comment period on November 8, 2012.

Below are initial responses to some of the questions. In addition, we address a fundamental misconception about how the required retention volume is calculated and how that could be achieved off site. Though we have only heard of this misconception from one member of the development community, it is fundamental, and we would like to ensure that it is clarified. It will be helpful to understand these fundamental aspects of the rule before delving into some of the detailed questions your members have raised. DDOE plans to elaborate on this memo with answers to your remaining questions (not already addressed below) in the near future.

For those who have not yet attended DDOE's training sessions, additional sessions are scheduled for October 16 (morning on use of off-site retention and afternoon on certification of Stormwater Retention Credits) and October 23 (general retention compliance). Additional details are available at [ddoe.dc.gov/proposedstormwaterrule](http://ddoe.dc.gov/proposedstormwaterrule).

As you know, DDOE has offered to answer clarifying questions from all members of the public and stakeholder groups. In the interest of maintaining an impartial and transparent rulemaking process, DDOE will share its responses to clarifying questions, including those in this memo.

**Misconception about the calculation of required stormwater retention volume:** Each regulated development site is evaluated on its capacity to retain the volume of runoff from a single 1.2" storm event (0.8" event for major substantial improvement project). This required retention volume (referred to as Stormwater Retention Volume or SWRV) is a static volume that is calculated up front and does not change from rain storm to rain storm or at any other time.



The site must retain at least half of this SWRV (50% of SWRV) on site. After retaining 50% of SWRV on site, the site is free to use off-site retention for the remaining volume without first demonstrating that it cannot be retained on site. To retain less than 50% of the SWRV on site, the site must demonstrate that it is technically infeasible or environmentally harmful to retain that volume on site. Any remaining volume that is not retained on site is termed the Off-Site Retention Volume (OSRV) and can be satisfied through the use of Stormwater Retention Credits (SRCs) or in-lieu fee payments.

A regulated site must achieve its OSRV on an ongoing basis. The OSRV is also typically static, although a regulated site would have the flexibility to retrofit with additional retention practices in the future and thereby increase its on-site retention and reduce its OSRV. One SRC achieves one gallon of OSRV for one year. A \$3.50 in-lieu fee payment achieves one gallon of OSRV for one year. Additional details on calculating these costs are below.

**Question I.1.a:** Only seven devices potentially provide 50% or more stormwater retention value. (highlighted in green on Table 1). Of these seven only three have the potential to assist in meeting detention requirements.

**Response:** Stormwater practices that allows for retention can be sized to meet the regulatory obligation. However, the credit for retention is determined by the design and is lower for practices that divert stormwater to the sewer infrastructure, (e.g. bioretention with an underdrain) than practices that are not connected to the sewer system. Additionally, any volume of retained stormwater reduces and could potentially meet the detention obligation for the site.

**Question I.2:** The volume credit for the allowable treatment devices is greatly reduced from those under calculations from the current regulations. The same green roof area, bioretention facility or other device under the new regulations provides less storage volume credit than that same device under the current regulations. Did DDOE intend to make this reduction in setting the new regulations? If so, what motivated this change? While incentivizing and encouraging green roofs (for example), the lower volume credit appears to be in contradiction with this goal.

**Response:** DDOE has not made reductions in the value of retention that is credited to stormwater practices when compared to the current regulations. The proposed regulations however, provide a more nuanced calculation of retention. For example, green roofs receive partial retention credit in the filtering media (25% storage void space) and full retention credit in the drainage board (100% storage in the structural “cups” that support and drain the green roof).

**Question I.5:** What are the requirements if a project design area includes both private space and public right of way (PROW)? For example, how much of the site’s retention volume can be routed to the PROW? Can the PROW area be excluded as stated in the regulations? Will DDOT and DC Water be working with DDOE and support the use of PROW as defined by the new regulations?

**Response:** Under the existing regulations, DDOE’s procedure has been that a regulated site that disturbs the PROW is responsible for treating the volume associated with that area of land disturbance in the PROW. Please elaborate on what is meant by the statement that the PROW area can be excluded as stated in the regulations. DDOE recognizes that there are limitations

associated with retaining volume from the PROW and is continuing to evaluate options in how it approaches this.

DDOE is also working with DDOT to determine the circumstances under which the PROW can be utilized to satisfy a private development's regulatory obligation. It is likely that the PROW can be reconstructed to take credit for stormwater retained from the public space; however it is less likely that DDOT's public space policy will allow stormwater from private parcels to be routed to the PROW for management. Currently DDOE, DDOT, and DC Water are collaborating on the development of standard specifications for stormwater retention practices in the PROW. These new standards will be incorporated into DDOT's Blue Book.

**Question II.1:** Please provide clarification in regard to the grandfathering issue. Please indicate the specific permit application (or a list of acceptable applications) that must accompany the ESC and SWM plans and the level of completeness that is required. As background, throughout 2011 and 2012, the development community has been under the impression that the submission of these plans, whether accompanied or not by a specific permit application would vest a project under the current regulations

**Response:** To fall under the current regulations, a project needs to have submitted their SWM plan as part of a building permit application through DCRA prior to the effective date of the revised regulations. There is no process for DDOE to receive stand-alone SWM plans for formal approval outside of the DCRA permitting process. DDOE does review preliminary SWM plans but only for guidance. To be considered complete a SWM plan must show that it meets the requirements of the stormwater management regulations that are in place at the time of submittal.

**Question II.4:** Is there a discrepancy between the SWPPP requirements for the EPA under the Construction General Permit and what is requested by DDOE (one acre threshold for EPA and 5,000 sf of disturbance for DDOE)? There is a very large discrepancy between 5,000 sf and an acre. The lower threshold would greatly increase the number of SWPPP's and related review time.

**Response:** DDOE has developed a boiler-plate SWPPP for use by development sites between 5,000 sf and one acre (please consult Appendix R of the draft Stormwater Management Guidebook). This boiler plate plan provides for common-sense, good housekeeping practices for construction sites. If a site is larger than one acre, the SWPPP required under EPA's Construction General Permit (which is more extensive) must be followed and will also satisfy DDOE's requirement.

**Question IV.1:** Protection of future Stormwater BMP areas on site (i.e. infiltration trenches, bio-retention areas, disconnection areas, etc.) will prove problematic as it will:

- a. further constrain already tight site conditions
- b. may significantly impact cost and schedule if near the building footprint as contractors will have to sheet and shore where lay back excavation would have previously been sufficient. Was it DDOE's intention for this measure to have such a significant impact on construction means and methods?

**Response -** DDOE’s intent is to protect the proper post-construction operation of BMPs to meet stormwater retention standards. This requirement is standard industry practice. For example, the inlet to a newly constructed bioretention cell may need to be protected to avoid construction debris and erosion from clogging the practice.

**Question IV.2:** It is unclear what stages of construction require an inspection by a representative of DDOE. Is it just for pre-construction, final stormwater BMP approval and to verify final stabilization, or is it required at all inspection stages of BMP installation (each BMP has a “Construction Inspection” section that lists multiple recommended inspections)? During busy construction months, it may prove difficult to schedule inspectors if all active construction sites in DC require these inspections and construction schedules may be adversely impacted. Would third party inspections be acceptable?

**Response:** At a minimum, each site must complete a pre-construction inspection meeting and final stabilization inspection. Each BMP type does have discrete inspection requirements as detailed in the guidebook, including a final construction inspection. DDOE is increasing staff in anticipation of this increase in workload and will consider other options as necessary to avoid construction delays.

**Question V.1:** Please explain with an example, how the fee in lieu amount is calculated and how and when it is paid. How often can the fee rate per gallon be altered? Do the regulations limit the extent of any increases?

**Response:** Assume a regulated site with 14,000 square feet (s.f.) of impervious surface. The required Stormwater Retention Volume (SWRv) from a 1.2 inch storm on that site equals approximately 10,000 gallons (gal.). The on-site minimum requirement is 5,000 gal. (50% of the SWRv). Assume that the site chooses to achieve 3,000 gal. of its total retention requirement off site (i.e. its Off-Site Retention Volume is 3,000 gal.).

The site would have an ongoing obligation to achieve its OSRv, but it could meet that obligation for multiple years at a time. Figure 1 shows how the in-lieu fee cost or SRC cost would be calculated for a year and for a five year period. The five-year period is chosen arbitrarily. The site could opt to achieve its requirement for a shorter or longer period.

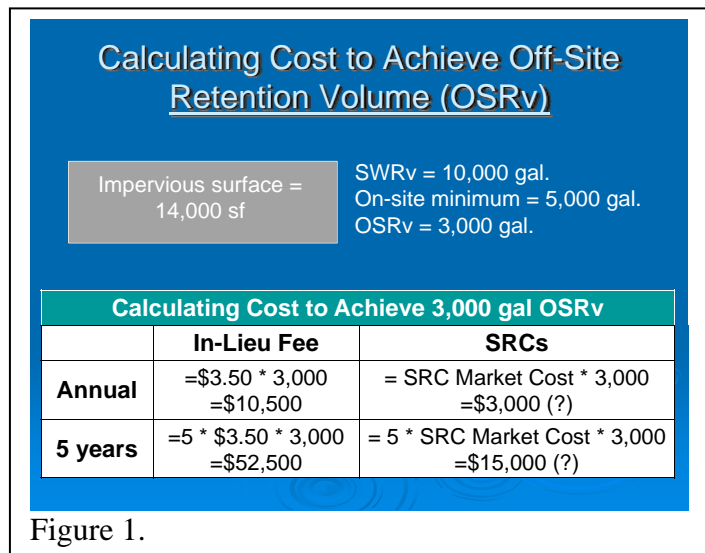


Figure 1.

The rule limits adjustments of the fee rate per gallon to an annual inflation adjustment (See § 530.2 of the proposed rule) and a periodic “re-basing” to capture changes in costs that are not consistent with the inflation rate (See § 530.3). DDOE would do this through a public process, with the opportunity for public comment.

**Question V.2:** Will SRCs be available on Day 1 of the effective date of the new regulations? How can this be guaranteed, and how has DDOE calculated the likely market price of these credits? If SRCs are not available, does DDOE have any plans to address this situation?

**Response:** DDOE expects that SRCs will be available on or close to the effective date of the new rule. Section 534 allows DDOE to certify SRCs for existing retention capacity installed after May 1, 2009. Sites with existing retention capacity can apply for SRC certification as soon as the rule is final; they do not have to wait until the rule actually takes effect.

It is also worth keeping in mind that a regulated site that wants to use SRCs would not need to have SRCs ready to apply to its OSRv when it applies for DDOE approval of a Stormwater Management Plan (SWMP). However, the site would need to have those SRCs before it can successfully complete its final post-construction inspection. If SRCs are not available, the site would be able to make an in-lieu fee payment to meet its OSRv. Once SRCs are available, that site would be able to switch to using SRCs to meet its OSRv in the future.

**Question V.3:** Once a site purchases SRCs from another site, can that purchasing site then resell them to a third site? The regulations do not make it clear how transferable the SRCs are and if they may be indefinitely transferred.

**Response:** Yes, an SRC can be indefinitely traded, as long as it hasn't already been used to achieve an OSRv and as long as the lawful owner is offering it for sale. DDOE's intent was to convey that with § 533.1 and § 533.2. As stated in § 533, DDOE will verify the ownership and status of an SRC before approving its sale. DDOE does not intend to approve the transfer of ownership for retired SRCs, which the rule implies but does not explicitly state.

**Question V.4:** Can SRCs be banked by the purchaser without being used or must a specific receiving site be identified upon purchase? If the SRCs are to have real value, then they should be able to be bought and sold freely without such restriction. The regulations should be clear that a *purchaser* of SRCs can bank them indefinitely. The regulations suggest that it is only the originating site that can bank them indefinitely.

**Response:** Section 532.1 states that an SRC can be banked indefinitely, and there is no requirement that the owner specify a receiving site. Please point out where the regulation suggests that it is only the original SRC owner who can bank them indefinitely.

**Question V.5:** Section 531.9(f) – What does “Other documentation” required by DDOE for SRC certification refer to? Criteria for certification should be explicit and set forth in the regulations in order to establish certainty.

**Response:** This language may not be necessary but was carried over from § 534.3 regarding applications for certification of SRCs for existing retention capacity, which may have been installed without first obtaining approval of a SWMP (prior to the finalization of the rule). Without the benefit of an approved SWMP, which would document site conditions prior to installation of the retention capacity and other construction details, there may be instances where additional documentation is required to verify that the eligibility requirements are met.

**Question V.6a:** Who will track the SRCs, and how will the tracking be done? Will there be a publically available inventory on a website? If so, who will administer this inventory and ensure that it is up to date? In order for there to be confidence in the program, these elements must be established in advance, preferably in the regulations.

**Response:** As specified in § 531.2, DDOE will assign a unique serial number to each SRC and track it over time. See Figure 2 for an explanation of how SRCs will be assigned.

DDOE will initially use a spreadsheet to track SRCs. If the level of participation in SRC trading is significant, DDOE plans to upgrade to a database with greater capabilities, including a public interface.

DDOE’s tracking spreadsheet/database will allow it to provide a list of SRC owners to potential SRC buyers. DDOE will continually administer and update the spreadsheet/database.

DDOE intends to publicly share information about the price at which SRCs are selling and to share other information that helps to foster the successful operation of the SRC trading market (§ 533.7).

| Unique Serial Number for Each SRC   |   |                            |  |
|---|---|----------------------------|--|
| Beginning of certification year (yyyymmdd)  | Major & Sub drainage (A,R,P & 2 digits) | SWMP number (5 digits)     | Individual gallon of capacity (6 digits) |
| <b>Example:</b> Application submitted Jan. 1, 2014 for 3,000 SRCs for:  |   |                            |  |
| ➢ 1,000 gallons of retention capacity installed:  |   |                            |  |
| <ul style="list-style-type: none"> <li>In Watts Branch sub-drainage of Anacostia watershed.</li> <li>In accordance with SWMP # 1400.</li> </ul> |   |                            |  |
| ➢ DDOE issues:  |   |                            |  |
| Year 1  | 1,000 SRCs                              | 20140101-A19-01400-000001- | 20140101-A19-01400-001000                |
| Year 2  | 1,000 SRCs                              | 20150101-A19-01400-000001- | 20150101-A19-01400-001000                |
| Year 3  | 1,000 SRCs                              | 20160101-A19-01400-000001- | 20160101-A19-01400-001000                |

Note that the numbers assigned to each sub-drainage have not been finalized. The designation of Watts Branch sub-drainage as number 19 is provided as an example, but the number designation may change before the rule is finalized.

**Question V.6b:** How will SRCs vest in a site? Will there be a separate SRC document recorded against the property? Or, will it be part of the general SWMP (Section 529)?

**Response:** If this question is referring to an SRC-generating site, the proposed rule does not require a declaration of covenants to be recorded against the property. The site is required to maintain the retention capacity in compliance with the maintenance plan in the SWMP, and the SRC owner signs a statement promising that this will happen for the time period of SRC certification when he/she applies for certification of SRCs (see Appendix D of the draft Stormwater Management Guidebook). The application must also include a signed maintenance agreement or maintenance contract covering the time period for which SRC certification is requested. Failure to maintain the retention capacity will result in no additional SRCs being certified as well as the consequences specified in § 532.2 and § 532.3.

If this question is referring to a regulated site’s using SRCs to achieve its OSRv, it would do that by submitting to DDOE an application to use SRCs for OSRv (see Appendix C of the draft Stormwater Management Guidebook).

**Question V.6c:** At what point will demonstrating sufficiency of vested SRCs be required in the building or occupancy process?

**Response:** If this question is referring to a regulated site's using SRCs to achieve its OSR<sub>v</sub>, DDOE would verify their submission after the site submits to DDOE an application to use SRCs for OSR<sub>v</sub> (see Appendix C of the draft Stormwater Management Guidebook).

If this question is referring to an SRC-generating site's proving eligibility in order to have DDOE certify SRCs, the site would do that through the process of getting DDOE approval of its SWMP and finally in its application to DDOE for SRC certification (which would be submitted after the retention capacity is installed and inspected, and the submittal would include a copy of the as-built SWMP if it had not already been submitted to DDOE.)

**Question V.6d:** Section 533.3 – What is the nature of “Department’s approval?” Only DDOE (or another explicitly stated agency) should be involved in the transfer of SRCs. The approval process for transfer should be streamlined and clear. This regulation needs a lot more specificity. If DDOE anticipates that any other agency is to be involved in this process, has there been collaboration between those agencies yet?

**Response:** The “Department” is DDOE, and DDOE does not expect another agency to be involved in the process. The approval process will consist of verifying the ownership and status of the SRCs proposed for transfer (as stated in § 533.6). This will also allow DDOE to update the tracking database as to the new owner, and to gather information on the sale price of SRCs. Please see the Application for Transfer of Stormwater Retention Credit Ownership in Appendix D of the draft Stormwater Management Guidebook.

**Question V.7:** Section 531.10 – What are the criteria for determining life span of an SRC? Why is three years the maximum amount of time, and why would it ever be as low as one year? The regulations should address these issues.

**Response:** The lifespan of an SRC will always be 1-year. The Department will certify up to three years' worth of SRCs for eligible retention capacity. For example, for a site with a bioretention cell with 1,000 gallons of eligible retention capacity, the Department would certify up to 3,000 SRCs at a time.

DDOE expects that the typical time period for which it is certifying SRCs will be the full three-year period. However, there may be SRC-generating sites that do not intend to maintain their retention capacity for the entire three-year period, and they can apply for certification for a shorter time period. For example, the site mentioned above may plan to redevelop the area where its SRC-generating bioretention is located two years after applying for SRCs, and it should apply for two years' worth of SRCs or 2,000 SRCs.

The three-year time period for which DDOE will certify SRCs corresponds to DDOE's three-cycle for inspecting BMPs.

**Question V.8:** Section 532.1 – A banked SRC should not be able to be retired as long as the generating site complies with all other pertinent regulations. This regulation should be clearer that indefinite bankability means a SRC cannot be retired when not being used. Is the only reason that DDOE would force the retirement of a SRC because of noncompliance by a generating site? If this is the case, the regulations should more clearly state that.

**Response:** After DDOE certifies an SRC, it is the property of its owner (whether the original or subsequent owner), and DDOE can only take away the value of that property to the extent that it is specifically allowed in the rule. DDOE only has authority to force the retirement of an SRC if the SRC-generating site failed to maintain its retention capacity as it had promised when it applied for certification of SRCs, and DDOE can only retire that SRC if it is still owned by the original owner (see § 532.3). Once an SRC has been sold or used, DDOE does not have authority to retire it, but, if the retention capacity is not maintained, it does have authority to require the original SRC owner to purchase replacement SRCs or pay the corresponding amount of in-lieu fee.

**Question V.9:** What is the maximum amount of time DDOE may take to certify SRCs at a generating site or to approve a transfer? Without a stipulated timeframe, transactions, and thereby developments, could be held up indefinitely.

**Response:** The rule does not establish a time limit on DDOE's review of applications for SRC certification. Typically, an application for certification of SRCs will not be submitted until retention capacity has been installed in compliance with a DDOE-approved SWMP and inspected by DDOE. Therefore, DDOE will have a fairly expedited review once the application for SRC certification is submitted.

Once DDOE has certified SRCs for a site, DDOE's review of subsequent applications should proceed more quickly, since DDOE's primary focus will be on confirming that the retention capacity has successfully passed inspection and that a current maintenance agreement/contract is in place.

**Question V.10:** What happens to the recipient site when the generating SRC site can no longer retain the water that generated the SRC in the first place? The recipient site relied on that SRC for the SRC's lifespan, so it should not be penalized for the generating site's error. We believe the regulations conform with this assumption. However, it would be better to explicitly state in the regulatory language that as soon as the SRCs have been sold, the purchaser can use, bank or sell those credits with no regard at all for what occurs at the generating site.

**Response:** Once purchased, an SRC remains valid and bankable, regardless of maintenance failure at the SRC-generating site. In responding to a maintenance failure, DDOE will follow up with the original SRC owner, not the new owner. As discussed above, after DDOE certifies an SRC, it is the property of its owner (whether the original or subsequent owner), and DDOE can only take away the value of that property to the extent that it is specifically allowed in the rule. DDOE only has authority to force the retirement of an SRC if the SRC-generating site failed to maintain its retention capacity as it had promised when it applied for certification of SRCs, and DDOE can only retire that SRC if it is still owned by the original owner (see § 532.3). Once an SRC has been sold or used, DDOE does not have authority to retire it, but, if the retention capacity is not maintained, it does have authority to require the original SRC owner to purchase replacement SRCs or pay the corresponding amount of in-lieu fee.

**Question V.11:** Does DDOE anticipate the approval of credits for 3 years at a time to be the norm? What would cause DDOE to issue a credit for less than the full 3 years? Owners



choosing to voluntarily retrofit their properties would be much more inclined to put a device in place if they were confident that three years of credits would be approved at a time.

**Response:** As discussed above, the Department will certify up to three years' worth of SRCs for eligible retention capacity. For example, for a site with a bioretention cell with 1,000 gallons of eligible retention capacity, the Department would certify up to 3,000 SRCs at a time.

DDOE expects that the typical time period for which it is certifying SRCs will be the full three-year period. However, there may be SRC-generating sites that do not intend to maintain their retention capacity for the entire three-year period, and they can apply for certification for a shorter time period. For example, the site mentioned above may plan to redevelop the area where its SRC-generating bioretention is located two years after applying for SRCs, and it should apply for two years' worth of SRCs or 2,000 SRCs.

**Question V.12:** If an improvement on a credit generating site was installed in May, 2009, for example, would DDOE today approve credits in July, 2012 for the next three years in addition to the previous three years when the BMP was already functioning? What if ownership changed hands during the previous three years? Which entity is entitled to the value of BMP's?

**Response:** Though DDOE will certify SRCs for eligible retention capacity installed after May 1, 2009, DDOE does not intend to certify SRCs retroactively. As specified in § 531.11, DDOE will not certify SRCs for a period that begins earlier than the date an application for SRC certification is submitted. In other words, a 1,000 gallon bioretention installed in June 2009 could apply for SRC certification as soon as the rule is finalized, and, assuming all the requirements are met, DDOE will certify 3,000 SRCs for the upcoming three-year period. DDOE would not certify SRCs for the time between the bioretention's installation in June 2009 and the date on which the application is submitted.

**Question V.13:** At the Sept. 19 presentation, DDOE staff seemed unclear on how to approach issuing credits where DDOE or some other governmental body had already provided subsidies such as a green roof rebate or some other incentives. It seems impractical to omit these projects, and the incentives are far ranging in terms of their percentage of cost recovery.

**Response:** DDOE's current thinking on this is as follows:

- Retention capacity that received DDOE funding and that was installed prior to finalization of the rule will be fully eligible for SRC certification, assuming it meets the normal eligibility requirements.
- The rule will not limit the SRC eligibility of future installations of retention capacity. If DDOE decides to limit that eligibility, it would do so as a term of the contract by which DDOE provides funding.

**Question V.14:** Would DDOE favor the creation of a standard contract for credit sales in order to reduce transaction costs? If yes, collaboration would be necessary to establish such a document.

**Response:** This seems like a good idea, since a standard or template contract(s) for SRC trading should help reduce transaction costs for potential participants in SRC trading. Private property

owners and developers may be in a better position to develop such contract(s) than DDOE, but DDOE would be happy to play a role in developing a contract(s) that would be freely available to all potential participants.

If there are additional clarifying questions on the proposed rulemaking, please contact Brian VanWye at 202-741-2121 or [Brian.VanWye@dc.gov](mailto:Brian.VanWye@dc.gov). DDOE looks forward to continuing our constructive discussions and receiving DCBIA's formal comments.