



## Compiled Questions and Answers from the *Innovative MS4 Forestry Financing and Crediting Strategies* MDE Webinar on April 6th, 2022

Question 1: Has MDE confirmed that the MS4 credit can be reported for the forestry practices even if only seedlings are planted? The guidance for some of the BMPs makes it seem like 1” caliper trees should be installed.

Answer 1: You are correct. Strictly speaking then no, seedlings less than 1" would not qualify for credit until they reach the appropriate size. The [2021 Guidance](#) states at page 14:

***Forest Planting**....Forest planting credit is available for planting occurring on one contiguous acre or greater. Planting should have a survival rate of 100 trees planted on one acre. At least 50% of trees should have a two-inch diameter or greater (4.5 feet above ground), or a 1-inch caliper at time of planting (high likelihood of 2-inch diameter once 4.5 feet in height).*

However, the Department is generally accepting of fresh plantings and acknowledges that if there are provisions for tree maintenance to ensure adequate survival, then credits may be available. Please follow up with the Stormwater Program to determine whether credit is available on a case-by-case basis for any projects that don't match the criteria specified in the 2021 Guidance.

Question 2: Can you credit previous reforestation areas that are in existing forest conservation easements?

Answer 2: Please contact the Stormwater Program directly about this one. The answer may be highly specific, and they would need more information to reply fully. For example, the answer may depend on who the permittee was (Phase I or Phase II) and what length of time elapsed between the easement establishment and the time when credit is sought. It's a good question but more information is needed to provide a full answer for what seems like very unique and specific scenarios.

Question 3: In the impervious area crediting, is there an opportunity to align with the Chesapeake Bay Program canopy approaches based more on canopy coverage over time? The challenges I've heard with this progressive IA crediting are the 2-inch DBH minimum, which could leave out some good native woody vegetation for crediting.

Answer 3: Within the [2021 Guidance](#), credit for woody vegetation is covered under **Conservation Landscaping**. *Land cover conversion from pervious turf to an unmanaged (unfertilized, unmowed) meadow condition. Conservation landscaping refers to areas of managed turf that are converted into perennial meadows using species that are native to the Chesapeake Bay region.*

MDE does not follow the approach of the CBPO where implementation of BMPs gets incorporated into the model land use at periodic times. MDE allows a jurisdiction to keep reporting a BMP as maintained and verified in order to keep getting credit for the useful lifespan of the BMP. In order to receive credit, it must be reported.

Question 4: Will EIA credit eventually be applied to forest preservation and restoration practices? All BMPs implemented for MS-4 credit rely upon long-term maintenance for optimal functionality, which we also recognize. Is MDE discussing future credit applications for maintenance practices across the BMP spectrum? Street sweeping is one example that already exists. More specifically, based on EIA credits, it's clear that forests/natural areas (upland and riparian] are of the most beneficial TMDL reducing BMPs. Recent studies suggest that forest preservation and restoration initiatives enhance their ecosystem services and "green infrastructure" capabilities. If additional credit opportunities are eventually applied to BMPs like natural area Integrated Vegetation Management, jurisdictions would be incentivized to care for Maryland's new and existing forests to further support requirements set forth by the Clean Water Act.

Answer 4: With respect to obtaining credit for implementation of forests that are maintained over a long term, no, MDE does not currently provide credit for this. Normally, when an implementer puts a BMP in, in order to receive permit compliance credit for the implementation over the permit cycle of 5 years, it would be expected that maintenance would be provided. This is a requirement under the triennial inspection/verification process and would be an MS4's responsibility. Your suggestion is a good one to provide long term incentives for forest maintenance, particularly for existing tracts of forest. There would be a natural question about what additionality would be realized following the implementation that isn't already captured. Please follow up with the Stormwater Program about this to discuss the ecosystem services aspect and the importance of linking that to water quality outcomes.

Question 5: It is my understanding if you do an overlay easement on a property and plant trees in an area currently not forested your able take credit for the new trees planted once they reach DBH, is this correct?

Answer 5: If one planted new forest on land upon which there was an existing easement, then MDE would probably not have an issue with this with respect to crediting once the trees reach the appropriate DBH. I would recommend following up with the Stormwater Program directly.

Now, it may be that the easement has existing restrictions about conversion from say grass buffer to forest, but that would be an issue the easement holders would have to address. So, in an example where agricultural land had a CREP easement for grass buffers, MDE would recommend going to NRCS and checking if the grassed buffers could be modified to forest and still follow their 10-year agreement. MDE would recommend checking with whoever holds the prior easement to see if it could be modified if necessary.

Question 6: The average costs of containerized trees in the FFIT Calculator seems a bit low, at \$13. It doesn't seem like that can be adjusted in the spreadsheet that was provided. Is it possible to update/adjust that cost to more accurately match market rates?

Answer 6: Regarding tree costs in the calculator, you can easily substitute the market rate for tree costs by modifying the formula in cell K:34 of the attached tool.

When you click on the cell K:34, you will see the following formula (unit cost is highlighted) and can overwrite the highlighted cost with your own:

=IF(B31="Hardwood Seedling",13\*D31\*D24,0)+IF(B33="Conifer seedling",8\*D33\*D24,0)

The medium cost in column K sets the adjustments for the low and high range so you only need to change one cell because they will auto-update. MDE has a price sheet that we used for the tool in May 2021 where a 2-gallon seedling was selected for the cost. MDE can share that list if anyone requests it.

Question 7: In the carbon calculation within MD FFIT, was consideration given to the survival rate of trees when calculating the overall credit available?

Answer 7: For the MD FFIT carbon calculation formula, this source was cited to establish a reasonable cost per ton equivalent:

<https://www.cbd.int/financial/2017docs/carbonmarket2017.pdf> but I do not see an answer to the question about survival rate in that source.

Question 8: Where can one find the MDE interest rates for the CW SRF Program?

Answer 8: Website:

<https://mde.maryland.gov/programs/Water/WQFA/Pages/InterestRates.aspx>

Question 9: Is planting trees in an area dominated by low shrub/thicket eligible for Forest Planting (Turf to Forest) credit?

Answer 9: If the prior land use has low shrub/thicket and shrubs on it, it would likely be considered mixed open. MDE has not yet established a credit for this land use and is exploring options. The updated MD FFIT (version 2.0) does not provide credit for mixed open, however, MDE would recommend ground truthing any GIS analysis of identified opportunities to determine if the prior land use is turf. Often the classification of mixed open is not precise and the land use can be considered turf in which case enhanced credit is available.

Question 10: Are the project type costs referred to just initial implementation costs, or total long-term costs including maintenance and management?

Answer 10: The user defined inputs in MD FFIT calculator can include initial implementation costs and total long-term costs for maintenance, however, administrative costs related to personnel/staff are not factored in. Under line item 12 (cell B:46) in the tool, one can add a project cost for pre-planting and post-planting costs, such as site visits, survey costs, and post planting maintenance. If one wants to add costs for the out years of a project,

such as maintenance at \$100 for 5 years, then this can be added as “miscellaneous cost” in line item 12 (cell B:46) for \$500.

Question 11: 50 acres of RFB... with 100' buffers is ~2 miles of stream... with 30' buffers is ~7 miles of stream... is that acreage feasible solely on public land? or were private easement costs included in the estimates?

Answer 11: The MD FFIT scenario used in the case study included a one-time \$6000 per acre incentive payment to the landowner. This is a user defined input and can be adjusted to any value. The input represents an incentive that the implementer is willing to pay to the recipient in exchange for the ability to go in and plant and maintain the forestry. It is most often used on private land where implementation opportunities are greater than on public land. On public land if the implementer is a public entity, the payment would likely be zero. The payment does not necessarily have to be accompanied by an easement; however, the advantage of an easement is that it protects the investment made by the implementer. Easements can be made for a period of years or permanently dependent on what the parties agree to.

Question 12: How generalizable is the FFIT tool? Can it easily be used in other states? And if so, what would need to be changed?

Answer 12: The CWSRF program and the MS4 permit system exist in every state in the US so the tool is generalizable to each state. The MD FFIT tool was developed to focus on the intersection of low interest financing options with MS4 compliance credit required by a regulated, permitted entity. It allows for one to cost out a scenario and identify how much credit a permittee can potentially receive using forestry as a best management practice (BMP). One key question is to what extent do other jurisdictions provide MS4 compliance credit for this BMP, such that it would be more cost effective and achieve relatively larger loading reductions? This is where the incentive can be found. To make the MD FFIT calculator applicable in other states, the crediting relationship would have to be in place.

Question 13: When you performed [the GIS opportunities] analysis of properties to consider, were existing easements considered, e.g., CREP, MET?

Answer 13: No, the DNR and Tetra Tech analysis did not consider land ownership with easements because that data was not readily available.

Question 14: Is it clear in FFIT that the one-year maintenance is for comparison purposes only (and that we know all/most BMPs including tree planting will require multiple years)?

Answer 14: To provide for additional years of maintenance, if that cost is known, one can add these in the line item 12 (cell B:46) called “miscellaneous.”

Question 15: The 35' minimum buffer for streams is that 35' on both sides of the stream? Can you do one side and not the other and still get credit?

Answer 15: Yes, it is possible to one side a stream only. Buffer credits are single-side for the Bay model.