SB798 – Stream Restoration Contractors Licensing Board

COMMITTEE - Education, Energy, and the Environment

Testimony on SB798

POSITION – Favorable with amendments

Hearing Date - March 5, 2024

Thank you for this opportunity to testify on behalf of the grassroots organization, Protect Our Streams. My name is Sharon Boies.

1. Maryland's native stream corridors and ecosystems are invaluable, irreplaceable…and finite. Many streams are the headwaters for sources of clean drinking water. Stream ecosystems encompass unique bio- diversity with climate resilient DNA. Mature established stream corridor forests absorb stormwater runoff, they capture and retain nutrients and silt and sediment and recharge the groundwater. Shady forests are the counter measure for heat islands, they sequester carbon, produce oxygen, and provide critical habitat for wildlife. Wooded natural stream corridors also provide us with a healthy connection with nature.

https://www.nasa.gov/press-release/nasa-shares-first-images-from-us-pollution-monitoring-instrument/ **- Please review the image of the air pollution over Howard County and Central Maryland, we need our mature trees.**

2. Maryland's stream ecosystems are complex, fragile and under stress. Maryland streams have been placed under enormous pressure as they receive more polluted stormwater runoff and silt and sediment from our actions that include deforestation, paving, and development, and from increasing amounts of precipitation due to climate change.

3. Maryland's forested stream corridors are also threatened by heavily engineered stream restoration practices. Maryland Department of the Environment awards obligatory, TMDL and other types of credits to MS4/ NPDES permit holders for restoration activities in Maryland watersheds. Stream restoration (as defined by the state of Maryland) is a common way to generate credits within this Total Maximum Daily Load Reduction system. A second driver of stream restorations in Maryland is the need for mitigation credits which are sold to developers and others to offset permanent environmental harm elsewhere. In both cases, credit generation is now big business for both municipalities and contractors. Most stream restorations in Maryland fall into two categories of designed approaches:

- those focused on heavily engineered practices such as stream bank removal and reinforcement by armoring them with imported rock, step pools and stream channel and meander re-alignment;
- those incorporating ecological considerations but still focused solely on alterations of the stream channel by practices such as filling in the stream channel to raise the stream bed with imported materials and loose substrates which can wash out during a large rain event.

However, studies are finding that designed stream "restoration" projects like these lack effectiveness in biological improvement (uplift) for aquatic organisms, even over time. Finally, they are unlikely to deliver even the hoped-for stream flow management over time because the problem of upland run-off volumes and rates remains unchanged or has worsened. That is why these engineered systems have a life expectancy of about 10 years and many require unanticipated repair so soon after completion which can cost more to repair than the original project (Lower Booze Creek[1]). To summarize, we are fooling ourselves if we think we can tear streambeds up, remove large numbers of mature trees in the process, and then recreate a new drainage system that functions like a natural stream. We must stop converting our natural resources into stormwater management facilities but calling them "restored" streams and expect them to be healthy.

https://www.youtube.com/watch?v=NvTvPnG6Qs8 **- Please watch this short video of a typical stream restoration.**

4. There are alternative approaches. Preserving mature trees and installing BMP's in the upland watershed have demonstrated storm water control effectiveness and often cost less. Fortunately, there are 31 other alternatives to construction-heavy and stream channel-centric restoration methods available to help reduce stream flows and that generate credits within MDE's Accounting Guidance to meet MS4 permit credit obligations. These "green" approaches address the run-off problem at its source, reducing drainage to subject streams from upland areas. Techniques include strategic use of rain gardens, bioretention techniques, tree plantings (as opposed to counterproductive vegetation removal), permeable pavement, and native lawn vegetation. These upland practices reduce stormwater run-off before it can enter streams and can ultimately eliminate the need for disruptive streambed alterations altogether. Scientific evidence is showing alternative approaches such as these are more effective than engineered approaches at restoring biological assets of streams.

5. Maryland law should incentivize stream restoration approaches that preserve trees, and capture stormwater runoff where it's occurring and discourage approaches that result in ever more tree loss and without requiring proof or evidence of improvements to water quality or biological uplift. Maryland also should incorporate an accounting process for public review on the extent to which Maryland stream resources, including upland forests, have been conserved, or lost. There are not enough stream resources in the state of Maryland for the current "trial and error" approach to stream restorations driven by the MS4 program. Once we've lost them, they are gone forever. Maryland should take a precautionary approach by incentivizing less destructive methods.

6. Without amendment, SB798 could have the effect of closing the door to improvements in the future. While it is clear much effort has gone into this legislation and other related stream restoration legislation currently before this chamber, left unamended, SB798 will, perhaps unintentionally, cement in place current heavily engineered approaches to stream restorations which are so destructive to mature trees, native streams, and existing ecosystems.

If this legislation is passed or not carefully amended, this may be "it" for Maryland's riparian forests. Notably, though planted saplings are a requirement for obtaining a waiver from The

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1 https://www.google.com/url?q=https://www.montgomerycountymd.gov/water/restoration/booze-creek.html&sa=D&source=docs&ust=1709583605896723&usg=AOvVaw0sOqtlMjnky5HaaXjdmBjo

Forest Conservation Act, saplings do not equal mature trees when it comes to carbon storage and eco- benefits. That is, we can't plant our way out of this loss. Saplings do not produce acorns.They do not store metric tons of carbon.

Please watch this short video about deforestation and carbon storage, we are losing Oaks in stream restorations at an alarming rate https://www.youtube.com/watch?v=0D0zp7Q4YnE

Recommendations:

- Incentivize tree preservation (not just replanting saplings), and "green" restoration generally, in all future Maryland stream restorations:
    - Provide additional funding to MDE by eliminating the exemption of application fees for stream restoration projects.
    - Require pre- and post-project mature tree maps and a preservation plan.
    - Require applications to include plans that specify how projects will improve or align with goals regarding biological and ecological uplift, water quality, forest preservation, and reduce the impacts of climate change.
    - Require expanded public notice, transparency, and community engagement in the process.
    - Require baseline testing and erosion studies with bank pins – not just visual checks, to ensure project success after completion with penalties for projects that fail.

- The licensing board will legitimize a practice that is intrinsically destructive and has not proved to be effective at restoring the Chesapeake Bay despite decades of insisting this practice would do that very thing, and despite our state having paid millions to billions of dollars to a handful of private contractors who have financially benefited handsomely off of our state resources .Amend or replace the Licensing Board with a scientific advisory board comprising experts without direct financial reliance on the stream restoration industry. A few of many concerns include;
    - Overweighted stream restoration industry membership on the licensing board (3 of 7 members) which could lead to conflicts of interest or at least give the appearance to members of the public.
    - Not all Maryland counties have representation by a board member, some counties have been excluded.
    - The licensing board insularity; they establish policies and procedures for themselves including where and how often they meet, and how they vote for a chair and a co-chair.
    - It's unclear if the meetings will be open to the public.
    - The board will employ staff that will work to streamline and expedite the approval and permitting process.
    - The board will determine the requirements for eligibility for obtaining and retaining a stream restoration contractors license.
    - The requirement of only one licensed employee for an entire company to be considered as licensed is insensitive to the size of the company. Could one license be considered sufficient for a company of say 30 employees? 60? Clearly to say people driving excavators in the streams would now be "licensed" is meaningless under this provision as drafted.

Conclusions:

Our state does not need a more streamlined and expedited permitting process, it needs a paradigm shift, that's what the CESR report indicates. We're told restorations have "lag" time. But if a stream hasn't recovered in 5 years, and a stream restoration has a 10 year life expectancy, should this be considered a failure? What if it hasn't come back in 10 years? Shouldn't the stream be fully recovered by the end of the project's life expectancy if anyone is going to claim these projects are successful or provide any benefits? If no one is checking after 5 years, how can anyone say that?

- I oppose solicitation of stream restorations by contractors, that seems like chasing credits.
- We should not allow stream selection for these projects to be determined by just who will allow it.
- We should not legitimize a practice that is still requiring 20 million dollar pilot projects, 30 years after we have been permitting them, to determine if they work or not.
- The health of the bay has shown little improvement and who can determine how much of that little bit of improvement can scientifically be attributed to stream restorations? Where's the proof?

If these suggested comments are considered and amendments addressing them are added to the bill, my hope would be that stream restorations practices in Maryland will become more aligned and consistent with what the current science suggests we must do to improve the health of our streams and to reduce the unintended consequences of the currently used processes.

Thank you for this opportunity to submit testimony regarding potential risks of SB798 , Senator Fry-Hester's legislation as currently drafted and ways to improve it. I urge you to only vote in favor of this bill if all of the above amendments are adopted, otherwise I oppose this bill and I ask you to vote unfavorable, if the vote is on the current suggested language.

Sharon Boies

Columbia MD

Protect Our Streams

RESOURCES

Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated Guidance for National Pollutant Discharge Elimination System Stormwater Permits"

https://mde.maryland.gov/programs/water/StormwaterManagementProgram/Documents/Final%20Determination%20Dox%20N 5%202021/MS4%20Accounting%20Guidance%20FINAL%2011%2005%202021.pdf 1

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Hildebrandt et al Quantifying the ecological uplift and effectiveness of differing stream restoration approaches in Maryland Final Report Submitted to the Chesapeake Bay Trust for Grant #13141. Robert H. Hilderbrand and Joseph Acord, Appalachian Laboratory University of Maryland Center for Environmental Science And Collaborators Timothy J. Nuttle and Ray Ewing Civil and Environmental Consultants, Inc. 333 Baldwin Road, Pittsburgh, PA 15205

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https://www.epa.gov/chesapeake-bay-tmdl

https://www.fema.gov/pdf/about/regions/regionx/Engineering_With_Nature_Web.pdf
https://www.baltimoresun.com/2023/10/13/environmental-groups-concerned-by-upcoming-construction-along-herring-run-in-northeast-baltimore/ - Please read this article about a neighborhood that could be impacted by a project in Baltimore.

https://www.thebaltimorebanner.com/community/climate-environment/stream-restoration-howard-county-plumtree-branch-EZWMOFQ4ONFNHPPNKTBIKQXGBM/?schk=&rchk=&utm_source=The+Baltimore+Banner&utm_campaign=9a3781df72-NL_AMSC_20231103_0600&utm_medium=email&utm_term=0_-9a3781df72-%5BLIST_EMAIL_ID%5D&mc_cid=9a3781df72&mc_eid=03e98bc6d3 - Please read this article about a neighborhood that stood to be impacted by a project. This is a neighborhood in Howard County.

http://www.saveplumtreebranch.org/

https://www.baltimorebrew.com/2023/12/23/restoration-of-baltimores-stony-run-is-failing-again-residents-and-scientists-say/ - please read this article about a failing project in Baltimore.

Results from the Howard County DPW NPDES permit, these projects were performed for pollution credits-

Howard County DPW NPDES Permit MD0068322 Annual Report for Fiscal Year 2021.

> The annual update of results from watershed monitoring includes several watersheds in which "stream restorations" had occurred in prior years. The results are as follows:
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> - Wilde Lake – the report discusses the erosion and sedimentation status of the upstream reach (the location of the Longfellow "stream restoration" project) and the downstream reach. As of 2021, the "upstream reaches are not experiencing the same level of erosion as the downstream reach and have remained relatively stable over 2017-2021 period". Given this observation, it is not clear why a "stream restoration" project was implemented in the upper reach in 2020-21. The report goes on to state that a "newly constructed stream restoration project in the upstream reach should provide increased stability". Since the upper reach was not exhibiting any instability, it is not clear how such a destructive project in that area, removing acres of trees, can be expected to provide "increased stability".
> - Red Hill Branch – This area is downstream of the Bramhope Lane stream restoration project done in 2011. The monitoring in 2021 found no improvement in water quality. The biological monitoring results "have not shown any significant improvement after restoration". The results did show a reduction in erosion, but noted that flood damage to an upstream debris dam had contributed sediment into the survey area.
> - Dorsey Hall – The post-restoration biological and physical monitoring results showed that "habitat results have been similar throughout the post-restoration period", with the sites falling into the lowest "severely degraded" category. The physical habitat results show that both monitored sites continue to be severely impacted, "with no evidence yet of ecological uplift after restoration".

Howard County DPW NPDES Permit MD0068322 Annual Report for Fiscal Year 2022.

> The annual update of results from watershed monitoring includes several watersheds in which "stream restorations" had occurred in prior years. The results are as follows:
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> - Wilde Lake – The water quality results continued to show elevated total suspended solids concentrations. With respect to biological monitoring,

the report states “Overall, the stream system in the Wilde Lake watershed continues to exhibit evidence of the urban stressors affecting it and has not demonstrated measured improvement in either habitat quality or ecological stream health over the seventeen years of monitoring.”.
Most concerning is the geomorphic assessment, conducted long after the Longfellow project was completed. The text states “The main goal of the monitoring is to assess the temporal variability of the geomorphic stability of the stream channels upstream of the lakes as they react to restoration activities. Overall, implementation of projects in the watershed do not appear to have significantly improved the physical habitat in the tributary streams.”

- Red Hill Branch – This area is downstream of the Bramhope Lane stream restoration project done in 2011. The monitoring in 2021 found no improvement in water quality. The biological monitoring results show that “post-restoration monitoring results indicate a subwatershed in an overall degraded ecological condition, with little change from the first two years of pre-restoration monitoring.” In fact, the BIBI scores in 2022 were “slightly worse results than during 2021”. Habitat assessments in 2022 were “nearly identical to 2021 and 2020 results”, with all sites rated as “degraded”. The text states “The biological community and habitat continue to fluctuate slightly from year-to-year, with 2022 results a slight decrease from 2021, but remain in a degraded condition and have not shown any significant improvement after restoration. The report did note that there had been reductions in erosion.
- Dorsey Hall – The post-restoration biological and physical monitoring results were the same as reported for 2021. The report showed that “habitat results have been similar throughout the post-restoration period”, with the sites falling into the lowest “severely degraded” category. The physical habitat results show that both monitored sites continue to be severely impacted, “with no evidence yet of ecological uplift after restoration”.