

June 19, 2023

Serena C. McIlwain
Secretary of the Environment
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

RE: Water Quality Certification for I-495 and I-270 MLS (WQC No. 22-WQC-0023)

Dear Secretary McIlwain,

As provided in COMAR 26.08.02.10F(4), Sierra Club Maryland Chapter, on behalf of its members at risk of adverse project impacts, is requesting reconsideration of the decision by the Maryland Department of the Environment (MDE) to [issue](#) a Water Quality Certification (WQC) for the I-495 and I-270 Managed Lanes Study (WQC No. 22-WQC-0023). We believe the basis for issuance of the WQC is flawed procedurally and substantively, as described below.

The Approved WQC is misaligned with the Preferred Alternative project scope:

The August 30, 2022 [Federal Register](#) gave notice that the Federal Highway Administration (FHWA) approved on August 25, 2022 the Managed Lane Study (MLS) of I-495 and I-270 in Montgomery County and Prince George's County, Maryland, and Fairfax County, Virginia. The approved project was materially changed from the project initially evaluated: The [Federal Register at the Draft Environmental Impact Statement \(DEIS\) stage](#) said: "This EIS will evaluate the potential environmental impacts of alternatives that address congestion within the specific Study scope of I-495 from south of the American Legion Bridge in Fairfax County, Virginia to *east of the Woodrow Wilson Bridge* and on I-270 from I-495 to I-370, including the east and west I-270 spurs in Montgomery and Prince George's Counties, Maryland (emphasis added)." Yet in fact, with no update to the Federal Register even to the present, the MLS considered (and only at the DEIS stage) only over to MD-5, not to east of the Woodrow Wilson Bridge.

Despite wider study limits contemplated or considered at the DEIS stage extending to MD-5, the only part of the project that actually received final approval to build in the Record of Decision (ROD) was a 15-mile "Preferred Alternative" called Phase 1 South.¹ Phase 1 South covers from I-270 at I-370 south to I-495 and over the American Legion Bridge to south of the George Washington Memorial Parkway in Virginia.

¹ That approval is currently being challenged, see Environmental groups ask judge to reverse Maryland toll lane approvals, The Washington Post, June 16, 2023, <https://www.washingtonpost.com/transportation/2023/06/16/maryland-toll-lanes-lawsuit/>.

In the project Final Environmental Impact Statement ([FEIS](#)) responding to earlier EISs and the Joint Permit Application, public, stakeholder, and agency comments pertaining to areas outside the Preferred Alternative, including in Prince George's County, were deemed "completely avoided" rather than responded to (see FEIS Appendix T, 12 volumes). Since individuals and groups with concerns about areas outside of the Preferred Alternative did not receive a response relevant to their unique, substantive comments and concerns, those areas should not have been approved within the MLS as undergoing the NEPA process by FHWA and should not be approved by MDE explicitly or implicitly as part of a WQC permit.² Currently, MDE's cover letter issuing the permit could easily be read as a permit for the entire MLS project, not just Phase 1 South of the MLS project.

After examination and consideration of the documents received and evidence in the file and record for the I-495 & I-270 Managed Lanes Project, the Water and Science Administration has determined that the project meets the statutory and regulatory criteria necessary for issuance of an individual Water Quality Certification (WQC).

In the WQC, MDE approves too much outside of Preferred Alternative and not enough within it.

The FEIS and ROD state that by choosing Phase 1 South as the Preferred Alternative: "[t]he result is complete avoidance of significant stream valley parks, including Rock Creek, Northwest Branch, Sligo Creek, Southwest Branch, and Henson Creek Stream Valley Parks, as well as historic parks of national significance including the Baltimore-Washington Parkway, Greenbelt Park, and Suitland Parkway."

Yet, even though Rock Creek is supposedly completely avoided and outside the limits of Phase 1 South, the MDE WQC appears to contemplate work affecting these water resources, and lists as a special condition that "Rock Creek and its tributaries are Use I waterways; in-stream work may not be conducted from March 1 through June 15, inclusive, of any year." *COMAR 26.08.02.08*

In the MDE WQC text, the project location is initially described as "I-495 from the George Washington Memorial Parkway to east of MD 187; I-270 from I-495 to north of I-370; and on the I-270 eastern spur from east of MD 187 to I-270 in Montgomery County, Maryland." Further down, the WQC says that "the project begins *just north* of the George Washington Memorial Parkway in Virginia (emphasis added)." Yet, the Impact Plates in the FEIS ([Appendix E](#), p. 2) show Phase 1 South starting *south* of the GWMP. So, although the MLS project starts south of the GWMP, the WQC it appears is only approving the project from the

² For the hundreds of times comments were not addressed, see in particular [Volume 11.6.A](#) and search the phrase "outside of Phase 1 South".

GWMP itself or from north of the GWMP, depending on which part of the WQC one refers to.

There is a further problem of lack of specificity in the project limits. The project in the WQC text ends “east of MD-187.” But east of MD-187 could go all the way to MD-5 or the Woodrow Wilson Bridge. “East of MD-187” is not descriptive enough for a WQC permit that deals with square feet of impacts. It’s necessary to put how many tenths of a mile “east of MD-187” the project limits are. Likewise, the number of tenths of a mile south of the GWMP should be specified. Specifying these termini is especially important due to the fact that the eastern part of the Beltway was never designated as No Build. A No Build designation for the eastern part of the Beltway was essential for the project to constrain the project and thus the WQC permit area to just Phase 1 South, since the project limits never changed in the Federal Register despite changing frequently over the course of the NEPA process. The Federal Register designation of the MLS still lists it as extending on I-495 to the Woodrow Wilson Bridge even though the MLS limits were changed before the DEIS to stop at MD-5.

MDE should demand clarity from MDOT on project scope in reconsidering the WQC

It is not entirely surprising that these inconsistencies are present. The MLS project and its limits have undergone numerous twists and turns as part of efforts to gain approval. According to a November 3, 2021 Board of Public Works request (<https://bpw.maryland.gov/MeetingDocs/2021-Nov-3-Agenda.pdf>, pages 57-58) for more funding for the project predevelopment,

Over the past three years there have been significant changes to both the Managed Lanes Study and Phase 1 The limits, type, and other aspects of the solicitation changed during the development of the Phase 1, requiring a greater magnitude of early services than originally anticipated. The project limits of the phases and type of P3 solicitation changed several times due to varying factors. The Phase 1 solicitation was originally contemplated as a fixed-price P3 with the limits on I-495 from the vicinity of the George Washington Memorial Parkway to I-95. Phase 1 then changed to a progressive P3 with the limits beginning on I-495 from the vicinity of the George Washington Memorial Parkway to the vicinity of MD 187 and on I-270 from I-495 to I-70, including the I-270 east spur beginning at the vicinity of MD 187.

These changes were not all publicly disclosed in the NEPA documents, and some — like project limits — have clearly not been resolved and made consistent even among the lead agencies. The project limits needed to be updated to Phase 1 South in the Federal Register when the project was downsized, to avoid the inconsistency and confusion that remains about the extent and limits of the project approvals. The lack of clarity from the agencies has been a great

disservice to the public in the context of a NEPA process that is supposed to be transparent and inform the public about the project and its impacts. Though the lead agencies have not resolved the numerous inconsistencies, agencies involved in approving the project need to insist on clarity in writing about project limits, particularly when they stand between the project and construction and have statutory responsibilities to protect the health of the public and the environment.

Issuance of a WQC for the project is premature and inappropriate due to critical missing information and analysis assessing impacts of replacement and demolition of American Legion Bridge.

The WQC states that “The project also includes full replacement of the American Legion Bridge (ALB) with a new, wider bridge.”

If a full replacement is happening, obviously the existing American Legion Bridge will need to be demolished and removed.

Yet the DEIS, SDEIS, FEIS, and ROD did not address the demolition impacts at all.

The MDE cannot provide an approval without more information about the demolition and its impacts so that it can place necessary condition on the terms of the demolition of the bridge including requirements to submit demolition plans for MDE review. The demolition and removal plan as well as the build plan will impact Waters of the United States (in particular, the Potomac River) and numerous nearby resources.

Whether the contractors would demolish the bridge by explosives, hydraulic breakers, dismantling, and/or bursting has significant implications for the surrounding resources. The American Legion Bridge is adjacent to sensitive resources including the Potomac River (which provides drinking water for 5-6 million people); the most studied island in the US, Natural Register-eligible biodiversity hotspot Plummers Island; National Register-eligible archaeological resources; and the National Register-listed C&O Canal National Historical Park visited by over [5 million people a year](#).

The demolition represents a significant adverse cumulative impact and risk of the project to surrounding resources and sensitive sites in the vicinity of the American Legion Bridge. It also puts the health of the people who use those resources at risk. *COMAR 26.08.02.04 (anti-degradation policy)*. Demolition impacts must be assessed and alternatives demolition approaches evaluated to mitigate harms to sensitive resources, including aquatic species, and then special conditions placed in any permitting.

The demolition furthermore should include an environmental protection plan for lead-based paint and asbestos-containing materials in the American Legion

Bridge (not to mention for all the bridges proposed to be demolished and reconstructed throughout the project). Without this, significant harm could come to the habitat of multiple rare and endangered species as well as the many users of the towpath, trails, and parks alongside the Potomac River in the vicinity of the American Legion Bridge.

Last but not least, the FEIS and ROD acknowledge for the American Legion Bridge that “Regardless of whether this proposed action is approved, the ALB needs a new bridge deck plus other repairs or to be replaced in the next decade.” Though the Agencies rightly acknowledge that the ALB can be redecked and repaired, the Agencies did not adequately consider this or any alternatives to full replacement, when clearly there are alternatives. MDE and the Army Corps of Engineers, who are required to insist on least environmentally destructive alternatives, should insist on better consideration of alternatives in terms of redecking and repairing — versus replacing — the American Legion Bridge.

Mitigation framework is fundamentally flawed and not correlated with the needs of impacted resources.

The framework of mitigation (avoid, minimize, compensate) is fundamentally flawed by an early refusal to consider alternatives that would avoid the majority of wetlands, waterways, and forest impacts. The compensatory mitigation options required by the Water Quality Certification are grossly inappropriate to the needs of the impacted resources. Compensatory mitigation is inappropriate in kind (too great a reliance on in-stream restoration of only moderately damaged streams) and in geography (occurring far away from the sub-watersheds that would sustain the most damage, particularly Cabin John Creek) as well as in magnitude to mitigate for the loss of temporal functions, especially for forested and scrub-shrub non-tidal wetlands.

Because I-495 and I-270 were built before the necessity of managing stormwater runoff was recognized and relevant regulations created by federal, state, and local jurisdictions, these highways now contribute to major flooding when significant precipitation occurs in their current configuration. The proposed project would add significant amounts of impervious surface exacerbating flooding and polluted runoff that does not appear to be adequately addressed by the water quality certification. It is inappropriate given the entire project area is within the Bay TMDL that any untreated stormwater be allowed to flow directly into the Potomac River. SHA’s Municipal Separate Storm Sewer System (MS4) permit only requires treatment of 20% of previously untreated impervious acres. Since this project will almost double that impervious area, complete retrofit of the existing impervious acres should be required to prevent degradation of local waterways.

Climate disruption such as hotter summers and more-intense precipitation events do not appear to be factored into any consideration of this project. To have any

chance of avoiding increased climate and flooding impacts from new pavement, any new lanes added to either interstate should trigger redevelopment requirements for the existing portions of those road decks. Environmental outcomes of the highway expansion project of more pavement, more tree-clearing, increased greenhouse gas emissions and more stormwater runoff are in direct opposition to existing Bay cleanup goals and the mandate put forth by the Climate Solutions Now Act of 2022.

Wetland and stream impacts from the project will require mitigation. SHA has requested possible mitigation sites at numerous forested areas in the Seneca Creek and Muddy Branch watersheds. Recent stream restoration projects in these watersheds have caused extensive deforestation; however, even a well-designed mitigation project causes temporary and permanent environmental impacts. Stream or wetland restoration projects should a) be done only within the context of a watershed management plan that prioritizes alternative approaches to address the root causes of stormwater management (i.e. impervious surface growth upstream), b) they should minimize tree loss, and c) should not equate rural with urban or suburban streams. Cabin John Creek, where the impacts will take place, has a watershed implementation plan and recent watershed assessment in place. Impacts within that HUC-12 watershed should be mitigated in accordance with its own watershed implementation plan. The compensatory mitigation package relies too heavily on “in-kind” stream and wetland restorations and should instead prioritize upland stormwater management within the affected watersheds to address the root causes of stream degradation. The increase of road surface area will require more road salt, but impacts to freshwater streams, aquifers and drinking water are not considered in this water quality certification.

The proposed in-kind “stream restoration” mitigation projects will be neither permanent nor self-sustaining since the root cause of the stream erosion, which is stormwater fire-hosing into streams from upland, is not addressed. This violates the federal Mitigation Rule which states: “(b) Sustainability. Compensatory mitigation projects shall be designed, to the maximum extent practicable, to be self-sustaining once performance standards have been achieved,” (Mitigation Rule, § 332.7(b)).

“Stream restorations” should meet both MS4 Permit & federal Mitigation Rule requirements (i.e. - they should be required to meet at least the same standards as for Maryland MS4 Permit credit per MDE’s Accounting Guidance 8 (Appendix H: Minimum Qualifying Conditions for Stream Restoration and Shoreline Management Projects, item 4 (p. 69): “A qualifying project must meet certain presumptive criteria to ensure that high functioning portions of the urban stream corridor are not used for in-stream stormwater treatment (i.e., where existing stream quality is still good).” This must include: Geomorphic evidence of active stream degradation using the “Bank Pin Monitoring” or the “permanent cross sections” methods. and an IBI (i.e., index of biological integrity) of fair or worse.

The erosion rates for both the RFP-2 and CA-5 mitigation sites were calculated using the BANCS method. The BANCS method should not be allowed since it is only an estimation tool - it doesn't measure the actual erosion rate. Plus, its results may not be reproducible by different practitioners.

Non-native invasive plants proliferate with land and construction disturbance and increased sunlight exposure, and the loss of over 400 acres of tree canopy shade will invite invasive plant proliferation. This problem is not evaluated except to mention that the developer will create a management plan.

The 401 Water Quality Certification Request document on page 23 says that the "forest impacts in Maryland would total 461.85 acres within the Washington Metropolitan Watershed (MDE 6-Digit Watershed 021402)" and there will be "unavoidable impacts to forests". The loss of over 400 acres of forest will significantly impact the region's climate change resilience. Planting young trees cannot replace the carbon sink provided by mature forest. The highway expansion project would impose irreversible damage by the projected and unavoidable tree and forest ecosystem loss. MDE ignores this source of potential degradation to water quality by narrowly focusing on direct impacts to streams and wetlands only. Precedent to consider forest loss on wetland health was established when MDE denied a permit to the Georgetown Solar facility which proposed similar magnitude of deforestation.

Without conceding that that the I-495 and I-270 Managed Lanes project should ever be done, instead of in-kind "stream restoration" mitigation projects, the Corps and MDE should require the vendor to use "out-of-kind" upland stormwater control mitigation projects. Such upland projects would address the root cause of stream degradation. The Cabin John Creek Watershed has Total Maximum Daily Loads for sediment and fecal bacteria, and the county is required to reduce levels of each under the state's MS4 permit. The highway expansion impacts are highly likely to increase sediment loads in the watershed, undermining efforts by the county and watershed residents to reduce sediment in these streams. Nature Forward (formerly Audubon Naturalist Society) and Friends of Cabin John Creek have been conducting community-science macroinvertebrate monitoring at Cabin John since 2019. They have seen its Benthic Index of Biotic Integrity scores improve from 1.29 (Poor) to 2.14 (Fair) over that time period. The dedicated members of Friends of Cabin John Creek have solicited and used thousands of dollars in state and county grants to install and promote rain gardens, green roofs, and bioswales to better manage stormwater and protect the health of their stream and the Chesapeake Bay. Now, with nearly all of the stream, wetland, and buffer impact from the highway expansion taking place in the Cabin John watershed, that progress and those investments will be at grave risk.

MDE is relying on MDOT and FHWA's NEPA documentation for their understanding of the Project's cumulative impacts. An agency's NEPA analysis

must analyze “direct effects” of an action, which are caused by the federal action and occur at the same place and time, “indirect effects,” which are caused by the action but occur later in time or farther removed in distance, and “cumulative effects,” which are those effects resulting from the incremental effects of the action when added to other past, present, and reasonably foreseeable actions, regardless of what agency (federal or nonfederal) or entity undertakes those actions.

“Cumulative impacts” include those related to climate change and environmental justice. The Project documents fail on multiple fronts to adequately identify, evaluate, and discuss cumulative impacts. The cumulative impacts that were not considered include the impacts of deferred project phases and the order in which phases will take place, as well as other projects including 495 NEXT, the Southside Mobility Study, and the Upper 270 study, the latter of which is in “pre-NEPA” planning but has not been formally initiated by a Federal Register notice of intent to prepare an environmental document. The Agencies’ NEPA narrative is that the Project will not include the 30-mile stretch of the Beltway that runs between the I-270 spurs in Bethesda and MD Route 5 in Prince George’s County (although it may be needed in the future, it suggests). Therefore, the NEPA documents claim that impacts to that 30-mile segment have been eliminated and discusses them as reduced impacts and mitigation measures of the Project rather than properly treating them as cumulative impacts. This certification should only consider the applicant’s efforts to avoid and minimize impacts within the project’s current domain. We feel MDE did not appropriately consider avoidance and minimization at the scale of the project and are concerned the applicant is presenting the project piecemeal with full intent to construct the other phases of the project as originally envisioned.

Special conditions in the water quality certification rely heavily on details of the various required plans as yet not completed to protect water quality standards and existing uses. These plans are not available for public review at this time so members of the public have no confidence that they will indeed be protective. It is premature to issue a final water quality certification prior to the completion of these detailed plans.

For example, special conditions for Water Quality Monitoring plan mention water quality criteria and benchmarks for turbidity, temperature, dissolved oxygen and pH criteria, but lack any direction on whether construction activities should be suspended if any of those criteria are exceeded. In RFP-2 Mitigation Plan (p.7), the vendor states that “...starting in Year 5 if the site meets all final performance standards for at least two (2) consecutive years the Permittee may request termination of additional monitoring.” In CA-5 Mitigation Plan (p. 20), the vendor states the same thing. MDE should reject this out of hand and explicitly require that the Permittee will be required to monitor for the full ten years. Special conditions for Passage of Aquatic Life plan sets up a confusing dichotomy “where

passage of aquatic life is **necessary and practicable**". The special condition should be informed up front by DNR as to what is necessary to accommodate aquatic life passage based on specific culvert diameters and modeled water flows in those systems and the species that could have their passage impeded. Practicability is a concept that can later be negotiated between the applicant, DNR, and MDE once impacts to aquatic life passage are known. Moreover, this special condition seems unconnected to such site-specific engineering calculations of increased flow caused by the increased imperviousness of the project and any climate change exacerbated runoff. Special condition for Mussel Protection Plan similarly mentions that rare, threatened and endangered mussels may exist but only minimization or potential relocation of mussels and their habitat is required in the plan, not avoidance. There should be a threshold of impacts identified in conjunction with the WMP and PAL plans (specifically as RTE mussel host fish are concerned) that would trigger project modifications or denial of this certification. Issuing the certification as final before such analysis is inappropriate and falsely suggests that all possible impacts are able to be addressed through mitigation, even if currently unknown and unanalyzed.

Special Condition 9 protects Plummer's Island channel, but allows untreated stormwater to flow into the main channel of the Potomac River. All stormwater from the expanded bridge should be collected and treated before discharge to waters of the state especially acknowledging that fishing and swimming are designated uses. We appreciate Special Condition 11 requiring an Independent Environmental Monitor. Rather than just reporting violations to MDE and the Corps, the IEM should be given "stop work" authority.

Special Condition 12 is meaningless for temporary impacts to forested wetlands and to a lesser extent, scrub-shrub wetlands. This special condition needs to require higher mitigation ratios for these wetland types to account for the temporal loss of functions while mitigation projects mature. In fact, the proposed mitigation plans for NPS and M-NCPPC mitigation projects would temporarily impact almost 3 times the area of forested nontidal wetlands than the project itself compounding the temporal loss of functions. The science tells us that forests counteract global warming by sequestering carbon, even if they aren't in pristine condition. Therefore, MDE should not allow riparian forests to be cut for "stream restorations."

Thank you for considering this appeal for reconsideration of the permit decision for the I-495 and I-270 Managed Lanes Study (WQC No. 22-WQC-0023).

Sincerely,



Josh Tulkin, State Director
Sierra Club Maryland Chapter