



PATUXENT RIVER COMMISSION

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Councilman John Hartline, Chairman

Christopher Perry, Vice Chairman

We, the Patuxent River Commission, envision a Patuxent River ecosystem as vital and productive in 2050 as it was in the 1950s. We therefore commit to be stewards and advocates for the Patuxent River and to lead and inspire actions to protect, enhance, and restore living resources and the natural, cultural, economic, and recreational values of the Patuxent River and its watershed.

November 9, 2023

Maryland Department of the Environment

Attn: Danielle Spendiff

1800 Washington Boulevard, Suite 430

Baltimore, MD 21230

RE: Comments on the Application for Water Quality Certification 23-WQC-0007

Dear Ms. Spendiff:

In 2001, the Maryland legislature, seven counties and the City of Laurel adopted the Patuxent River Policy Plan, which includes goals to restore the water quality and living resources of Maryland's largest and longest river. In 2014, the seven counties and the City of Laurel recommitted to restoring the river by adopting the 2015 update to the Patuxent River Policy Plan. Subsequently, in 2016, the Maryland General Assembly passed Joint Resolution 1 to approve the 2015 Patuxent River Policy Plan update as an amendment to the Patuxent River Policy Plan.

The Maryland legislature established the Patuxent River Commission to "review and comment on plans and reports related to the Patuxent River and its watershed." After completing a detailed review and evaluation of the Water Quality Certification 23-WQC-0007 for the SCMAGLEV project, the Commission OPPOSES the granting of a water quality certification. The state agencies, federal facility, and three local government (Anne Arundel, Montgomery, and St. Mary's County) representatives, as well as three stakeholder representatives (academic, citizen/environment, cooperative extension) abstained from voting on this issue. Attached are the Commission's comments in support of the Commission's OPPOSITION of the granting of a water quality certification.

Sincerely,

John Hartline, Executive Director
Tri-County Council of Southern Maryland
Chair, Patuxent River Commission

Christopher Perry, Operating Manager
Bourn Environmental
Vice-Chair, Patuxent River Commission

Maryland Department of the Environment

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cc: Maryland State Senators Michael Jackson, Jim Rosapepe, Alonzo Washington and Ron Watson
Maryland State Delegates Benjamin Barnes, Adrian Bofo, Anne Healey, Marvin Holmes Jr., Julian Ivey, Mary Lehman,
Ashanti Martinez, Joseline Peña-Melnyk, Kym Taylor and Nicole Williams

Summary of Areas of Greatest Concern and Key Points of Opposition of the Patuxent River Commission to the granting of Water Quality Certification to the Proposed Baltimore Washington Super Conducting (SC) Maglev Project

After substantial and detailed review of the Baltimore Washington SC Maglev project (SC Maglev), and the proposed Water Quality Certification from the Maryland Department of the Environment, the Patuxent River Commission (Commission) concludes that the most environmentally responsible action is to deny the requested Water Quality Certification for this project.

Briefly, the areas of greatest concern by the Patuxent River Commission are:

- A. The documentation for the required elements of this certification is deficient in many aspects. The approach taken is largely to map out the areas that will be directly affected, and then state that appropriate measures will be taken to minimize or mitigate the impacts at some later date. The documentation acknowledges the physical extent of permanent impacts, the minimum avoidance to be taken, and the unavoidable losses to be mitigated. However, it largely ignores the often-wide-ranging effects of the tunnelling, grading, staging, and construction to impacted and adjacent sensitive areas, not to mention the “temporary” impacts that may go on for years without appropriate mitigation.
- B. The permit application provides less than is required by MD law and regulation in describing the temporary and permanent environmental impacts to water resources, including Tier II waters¹ that are afforded greater protection from degradation under the law. It also provides less than adequate information about the avoidance of temporary harm and permanent damage to freshwater wetlands, groundwater, streams, floodplain integrity, and hydrology of the Patuxent River and its watersheds including the net increases in impervious surfaces.
- C. The loss of green space that is protective of Tier II High Quality Waters will all magnify negative impacts of the project on Tier II waters. The impacts on habitats and flora and fauna of unique and rare natural resources, and more specifically, the loss of biodiversity and the net loss of ecosystem services resulting from removal of vegetation, especially forested lands, wetland habitat, the creation of permanent and long-term impervious surfaces, facility construction, and other disturbances, such as creating new corridors of forest fragmentation or new paths for invasive species will seriously damage the balance of sensitive environments and have negative effects on water quality not just in Tier II waters, but extensively throughout the Patuxent watershed. The plans for avoiding and mitigating such unavoidable losses are wholly inadequate.
- D. Increased chemical pollution of land, water, and air creating temporary, long-term, and permanent impacts to local environments will cause lasting and possibly irrevocable damage to federally, state, and locally protected natural resources and especially to Section 4(f) protected resources.

¹ Tier II, high quality, waters, as defined by the Clean Water Act, are those that have an existing water quality that is significantly better than the minimum requirements, as specified in water quality standards.

- E. While the Train Maintenance Facility is not projected to be located in the Patuxent watershed, the massive impact to Beaverdam Creek and the nearby forest area that benefits the Patuxent is an added concern. Additionally, due to the proximity to the Patuxent watershed and significant impacts to water quality in the Patuxent 1 area of Tier II waters, the Commission notes the substantial impact to nearby Tier II waters of proposed construction in Beaverdam Creek identified as Beaverdam 2, and the resulting degradation of water quality in the Anacostia River and Chesapeake Bay at large.

Reasons why the Patuxent River Commission identified the five areas of concern above:

- Antidegradation analysis for Tier II waters requires “an evaluation of whether or not the proposed degradation of water quality that would be associated with a new or expanded action would be both necessary and in the overriding public interest.” The Commission questions whether the analysis submitted by BWRR adequately justifies that the assimilative capacity of the Tier II waters has not exceeded thresholds.
- This project is highly incompatible with the national, state and local protections afforded to federal, state, and local public conservation lands for the Patuxent Research Refuge, for the Patuxent River as a state-designated scenic river, for Tier II High Quality waters, for Section 4(f) protected resources of parks, refuges, and recreation areas, and for state protected resources such as wetlands and Wetlands of Special State Concern (WSSC), and Sensitive Species Project Review Areas (SSPRA). The impacts to the Little Patuxent River watershed could be highly significant including the filling of wetlands, and re-routing of the river channel and floodplain. In the Patuxent River watershed alone, 18 acres of new impervious surface would be created in the Patuxent River Tier II waters.
- 1.2.2.2. Conservation. In the Tier II Antidegradation Analysis, BWRR says, “Though the search for mitigation was thorough and exhaustive, BWRR will continue exploring additional mitigation opportunities that become available as the project progresses.” Does this mean that they have not completed required mitigation review as required by law for this WCQ? It certainly appears that it has not been completed since they do not identify where and how they will mitigate unavoidable losses of forest.
- The description of the site search and identification of potential reforestation areas within the Tier II waters of the Patuxent shows how the unavoidable losses cannot reasonably be mitigated and the existing forest that will be lost cannot reasonably be replaced. The MDE Antidegradation program “requires that there be no net negative impact to forests as a result of the proposed activity.” The important consideration is not ‘no net loss of forest cover,’ but rather ‘no net negative impact to forests.’
- In addition, the MDE program regulations state that “Areas identified for Tier II mitigation should be protected in perpetuity.” The mitigation plans proposed by BWRR for unavoidable loss of forest are wholly inadequate and will not result in replacing lost, highly biodiverse contiguous forests in kind, and there are not identifiable plans to protect them in perpetuity as required by law. BWRR cites contact with 45 landowners and expressions of interest from 6. Non-contiguous sites (potentially far from the area of impact) or slivers of larger developed properties would not produce acceptable mitigation for replacement in kind, nor is there any documentation that they will be protected in perpetuity. No standards or guidelines for acceptable mitigation in terms of size, shape, quality, and species composition are proposed. One site mentioned as a potential receiving area for reforestation is slated for development which means that any planted trees would likely be cleared prior to future development. Overall, the mere search for ‘tree planting sites’ as

BWRR describes in their mitigation opportunities does not speak to any effort to assure 'no net negative impact to forests.'

- This proposal does not comment on the Bay Total Maximum Daily Load (TMDL) and local TMDL, but the Commission questions whether this project will undermine the achievement of Bay and local TMDLs and Chesapeake Bay Watershed Agreement goals, which among other goals, endorses EPA's targets for TMDLs and for creating and restoring Bay wetlands by 2025. The impact of sedimentation, wastewater discharges from extensive use of cleaning products for trains, disposal of spoils, dewatering, and the significant amount of earth movement, all needs to be quantified and then assessed for its impact on TMDL and Bay Agreement implementation. If additional environmentally protective measures can feasibly prevent these impacts, the proposal must explain what they are. There must be a quantitative assessment made for how much additional runoff and how much greater the pollutant loads would be, and how long they would occur from temporary and long-term conditions.
- Additionally, the impact of this project cannot be taken out of the context of Maryland's conservation and green infrastructure objectives. Further fragmentation of waterside and forest habitat by construction, periodic maintenance and mitigation activities continues to degrade the natural systems upon which the health of our ecosystems is dependent.
- The Commission questions the lack of specifics on the cumulative impact to the Patuxent River watershed downstream from the project site, and the hydrology of the river generally. There is little mention of what degradation of water quality will occur in the downstream Little Patuxent and mainstem Patuxent River from loss of forest cover in floodplains, creation of impervious surfaces in laydown areas, and for example, the effects of water pollution from particulate matter emitted by the tens of thousands of diesel truck trips to haul excavated tunnel material and other fill to off-site areas. This is not mentioned, nor is there an avoidance/mitigation strategy identified to prevent degradation of water quality as required by law for this permit application.
- In Section 2.1, the Tier II Minimization and Avoidance Summary, the examples cited are rife with unspecific and uncertain examples and explanations of how forests, wetlands, and floodplains will be impacted and precisely how such impacts will be avoided or minimized. These include the wholly inadequate description of how temporary roads and laydown areas will be restored to their natural state which could take decades. Once riparian and wetland soils are filled and compacted, the impacts become permanent. The time horizons of how long such impacts will persist is highly unrealistic. Many of these access areas will become permanent fixtures of the ongoing Maintenance Of Way activities once the project is completed, yet such likelihood is ignored and no process for mitigating these "extra" permanent impacts is mentioned.

These areas are very large, particularly in the Patuxent, and will be in use for long periods of time. Due to the amount of activity in these areas, stormwater management facilities are often overwhelmed, disturbed, or destroyed, especially during severe storm events, causing irreparable damage to wetlands and waterways. While the documents submitted indicate where these areas are anticipated and their approximate size, no mitigation or replacement of resources is proposed beyond "restoration" once the project is completed. The loss of use during the construction period (years), the likelihood of irreparable damage, and the inability of replanting and "restoration" of forests and wetlands must be accounted for in the total impact of the project.

- Another example can be found in 2.1, Table 3, No.7, which describes how “The Project will generate approximately 25 million cubic yards of spoils, mostly from tunneling excavation. Excess spoils from tunnel boring and land grading will be disposed of in ways that avoid or minimize impacts on wetlands and streams. BWRR is coordinating with Maryland agencies on potential beneficial use of spoils on the Chesapeake Bay shoreline and island enhancement projects.”

The excavation, staging, temporary storage, and moving of this volume of spoil material will take hundreds of thousands of diesel truck trips to unspecified destination sites. BWRR says it “is coordinating with Maryland agencies on potential beneficial use of spoils on the Chesapeake Bay shoreline and island enhancement projects.” By comparison, the permitting process alone for the disposal and use of spoil and dredge material used for Hart-Miller Island has literally taken decades. The haul roads, while cited as being discontinuous and impermanent, will be for all intents and purposes, become permanent impervious surfaces, as will the construction roads for other Maintenance of Way sites and structures. These impacts are not calculated in antidegradation analysis.

- Mitigation strategies are described for forest loss and are exceptionally vague. While some landowners have expressed an interest in having their land used for forest mitigation, it is an extremely small percentage of potential owners and is likely far from the impact on existing forest. The loss of these highly biodiverse contiguous forests and the impact of forest fragmentation on habitat and water quality is completely ignored.

A serious deficiency of the documentation is that potential and actual environmental impacts, both short and long-term, have been poorly quantified. This makes it very difficult to properly assess and evaluate the environmental impacts of the project, and in turn, the compliance of the project with the requirements of Maryland law and regulation for granting Water Quality Certification permits. For example, the quantification of impacts to Tier II waters does not adequately assess assimilative capacity. Assimilative capacity is the ability for pollutants to be absorbed by a waterbody without detrimental effects to the waterbody or those who use it. Maryland Department of the Environment (MDE) regulations require a socioeconomic justification if assimilative capacity is compromised: COMAR 26.08.02.04-1. 04-1 Antidegradation Policy Implementation Procedures, (b) If an impact cannot be avoided, or no assimilative capacity remains as described in §G(3)(a) of this regulation, provide the Department with a social and economic justification for permitting limited degradation of the water quality.²

- Social and Environmental Justification “The SEJ must demonstrate that an economic hardship and/or public benefit overrides the value of the ecological services or water quality benefit that the Tier II water segment provides. Before MDE can consider the SEJ in a decision, the applicant must first provide documentation to show that all reasonable avoidance, minimization, and mitigation alternatives have been considered, and where economically feasible, implemented.”

The Commission questions whether the Anti-degradation review is sufficient for informed public comment and therefore an adequate basis for whether this permit should be granted. The Commission contends that it is not sufficient in numerous sections for informed public comment and therefore the justifications for the SEJ do not meet the standard required to grant Water Quality Certification.

2. G. Tier II Antidegradation Review.

(1) If a Tier II antidegradation review is required, the applicant shall provide an analysis of reasonable

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alternatives that do not require direct discharge to a Tier II water body (no-discharge alternative). The analysis shall include cost data and estimates to determine the cost effectiveness of the alternatives.

(2) If a cost-effective alternative to direct discharge is reasonable, the alternative is required as a condition of the discharge permit or amendment to the county plan.

(3) If the Department determines that the alternatives that do not require direct discharge to a Tier II water body are not cost effective, the applicant shall:

(a) Provide the Department with plans to configure or structure the discharge to minimize the use of the assimilative capacity of the water body, which is the difference between the water quality at the time the water body was designated as Tier II (baseline) and the water quality criterion; and

(b) If an impact cannot be avoided, or no assimilative capacity remains as described in §G(3)(a) of this regulation, provide the Department with a social and economic justification for permitting limited degradation of the water quality.

(4) An applicant shall update an antidegradation review when applying for a new permit or major modification to an existing permit.

H. Potential Determinations Resulting from Antidegradation Reviews.

(1) If there is a cost-effective alternative to direct discharge, the applicant shall implement the no discharge alternative and it shall be a condition of the discharge permit.

(2) If there is no cost-effective alternative to direct discharge, but there is potential for further minimization of the use of assimilative capacity, the applicant shall revise the initial application to further minimize the use of assimilative capacity.

(3) If there is no cost-effective, no-discharge alternative, and minimization of the use of assimilative capacity is adequate, but the social and economic justification (SEJ) is not adequately performed, the applicant shall revise the SEJ.

(4) If there is no cost-effective alternative to direct discharge, minimization of the use of assimilative capacity is adequate, the SEJ is adequately performed but does not justify the water quality impact, the proposed amendment to the county plan or discharge permit application shall be denied.

(5) If there is no cost-effective alternative to direct discharge, all reasonable efforts have been made to minimize the use of assimilative capacity, and the SEJ is adequate and justifies the discharge, the proposed amendment to the county plan or discharge permit shall be granted subject to other applicable requirements.

I. Wetlands Permits and Water Quality Certifications. Maryland's wetlands and waterways regulatory process, governed by the Tidal Wetlands (COMAR 26.24.01—26.24.05), Nontidal Wetlands (COMAR 26.23.01—26.23.06), and Waterway Construction (COMAR 26.17.04) regulations, satisfies the requirements of this regulation.

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J. Social and Economic Justification (SEJ).

(1) An SEJ shall be submitted if:

- (a) No cost-effective alternative to the discharge is available; or
- (b) The cumulative degradation resulting from nonpoint source pollution and any other permitted discharges would diminish water quality.

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After completing a detailed review and evaluation of the DEIS, the Patuxent River Commission recommends that the Water Quality Certification Application for the SCMaglev be denied.

The state agencies, federal facility, and three local government (Anne Arundel, Montgomery, and St. Mary's County) representatives, as well as three stakeholder representatives (academic, citizen/environment, cooperative extension) abstained from voting on this issue.