September 8, 2023

Baltimore-Washington Rapid Rail
6 South Gay Street
Baltimore, MD 21202
Attn. Mr. Neb Sertsu

Via email to: NSertsu@bwrapidrail.com

Re: Agency Interest Number: 170244
Tracking Number: 202061983
Water Quality Certification Number: 23-WQC-0007

Dear Mr. Sertsu:

On February 7, 2023, the Maryland Department of the Environment (Department) received a request for a Clean Water Act, Section 401 Water Quality Certification (Certification or WQC) from Baltimore-Washington Rapid Rail (BWRR) for a dedicated alignment and structures associated with a high-speed superconducting magnetic levitation (SCMAGLEV) transportation system between Washington, DC, and Baltimore, MD. The proposed SCMAGLEV alignment consists of both below ground and elevated rail on viaduct, with an intermediate stop at Baltimore/ Washington International Thurgood Marshall (BWI) Airport.

A WQC is required for discharges associated with US Army Corps of Engineers (Corps) permit application CENAB-OPR-MN NAB-2016-01622. The Federal Railroad Administration and the Maryland Department of Transportation are developing an Environmental Impact Statement in compliance with the National Environmental Policy Act of 1969 (NEPA), 42 USC 4321 et seq. The Department notes that the alignment proposed in the WQC request (known as J-03) has not yet been accepted as the preferred alignment under NEPA, however, the Department's decisions on any WQC request are limited to the project description contained in that request.

The Department must take action on a Certification request within one year of the date of receipt, or on or before February 7, 2024. In order to issue a Certification, the Department must verify that the discharge will not violate Maryland's water quality standards or limitations (COMAR 26.08.02.10). Thus, all necessary information related to potential discharges must be provided as part of a request for Certification. Overall, BWRR's WQC request is lacking essential information related to construction, stormwater management, operations, and maintenance, all of which may

result in discharges to regulated waters. The Department is hereby requesting additional information to determine whether adverse impacts from the project will be sufficiently addressed to protect and maintain Maryland's water quality standards.

Potential impacts to water quality are of particular concern in areas already overburdened by pollution and for sensitive populations (refer to the Department's EJ Screening Tool for further information). Additional analysis should be conducted when responding to the below comments to determine whether the project may have disproportionate construction or operational impacts on water quality, and any additional best management practices (BMPs) or mitigation measures that may be implemented for unavoidable impacts.

Compliance with Water Quality Criteria and Designated Uses

As stated above, all relevant information is needed at the time of the request for Certification in order to determine that the project and associated discharges will comply with water quality standards, which include designated uses, water quality criteria, and antidegradation policy (addressed below). Please provide a point-by-point response to the following items in order to complete the request for a Maryland Certification:

1) The WQC Request Memorandum dated February 7, 2023 (WQC Memo) states that local discharge points were identified based on likely locations of surface flow leaving the project area and entering receiving waters. While some discharges have been identified, it is required that the requestor identify the location and nature of any potential discharge that may result from the proposed project and the location of receiving waters.

    - Please provide a complete and accurate characterization of discharges, their locations, and project impacts resulting from: all direct fill in regulated resources; clearing and grading in regulated resources; discharges from stormwater outfalls; stormwater which may bypass treatment facilities (including runoff from the entire length of the viaduct and any permanent or temporary storage or maintenance facility or access roads); structures such as piers and culverts; specific stockpile locations and disposal sites for excavated or other material; inadvertent discharges to surface or groundwaters from construction, operation and maintenance facilities; and any of these activities or project elements which may enter a regulated water while not originating in a regulated resource.

2) The NEPA Draft Environmental Impact Statement (DEIS), Exhibit D, p. 7-86 notes the potential for both direct and indirect impacts (e.g., including dewatering, altering hydrologic connections and habitat, introduction of invasive species) to occur past the limit of disturbance (LOD) without significant minimization or mitigation. The extent of these potential impacts is not described in the WQC request so that the Department may

determine whether or not water quality standards will be met, and what measures may be needed to ensure compliance with water quality standards.

- Please identify the nature and extent of impacts that may occur beyond the LOD.

3) Certification of projects also requires the Department to consider discharges related to operation of facilities after construction. The WQC Memo states that BWRR will implement practices for safe storage and use of chemicals, and develop a Stormwater Pollution Prevention Plan when required. Potential operational discharges need to be clearly identified as part of the WQC request as future activities can have deleterious effects on water quality. Right-of-way maintenance protocols (for structural elements as well as vegetation management) and proposed deicing plans must be identified.

    - Please provide details regarding potential operational impacts to water quality as described above.

4) Potential impacts to groundwater are considered in the review of tunneling activities and underground construction as these may result in discharges to drinking water aquifers and wellhead protection areas, or to surface waters in the event of inadvertent returns of material. The DEIS (Affected Environment, Environmental Consequences and Mitigation, p. 4.10-30) states that groundwater modeling would be conducted during final design and permitting to quantify potential effects. The WQC Request includes a Construction Planning Memorandum as well as a Tunneling Memorandum with descriptions and narrative details related to construction methods including tunneling and excavation activities, including statements that adverse impacts will be minimized through implementation of contractual requirements and specifications, but does not appear to incorporate project-specific modeling. Detailed plan and profile drawings identifying discharge locations (including from pumping operations) are necessary to determine potential impacts, and all regulated resources must be shown in areas where tunnels or subsurface construction is proposed.

    - Please provide any additional plans or modeling developed since the time of the WQC request, as well as construction specifications and/or contractual requirements that will be utilized to protect groundwater resources particularly in sensitive areas

    - As referenced in the Tunneling Memorandum, please provide specific protocols for addressing inadvertent returns (including notification procedures and contingency restoration measures) based on sensitive areas and ground conditions identified along the alignment.

5) The request for a WQC notes that several permits related to water quality will be requested later in the design process- e.g., Stormwater Management Plan and Erosion and Sediment

Control Plan approvals, the 20-CP National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction Activity, and the 20-SW NPDES General Permit for Stormwater Discharges Associated with Industrial Activity, as may be required. The information provided in the Certification request is limited to demonstration that sufficient footprint exists to construct stormwater BMPs and gives a description of stormwater discharge points and a summary of BMP treatment recommendations (underground storage, surface treatment, etc.). In addition, the Certification request (Exhibit H) states that drainage scuppers may be utilized for the viaduct section to disperse runoff in the air, presumably avoiding the need for additional BMPs. For significant projects of this type and scale, a request for Certification should include a concept-level Stormwater Management Plan that has been submitted and reviewed by the appropriate authority, thereby demonstrating how Maryland's water quality standards are minimally and conceptually planned to be met. While MDE acknowledges not all state or other required authorizations must already be obtained in order to review a Certification request, a statement that the requestor will obtain them later is also not sufficient demonstration of a project's demonstration that water quality standards will not be violated.

- Please provide a Stormwater Management Plan concept design, or otherwise identify specific additional information and BMPs which adequately demonstrate Environmental Site Design to the Maximum Extent Practicable and compliance with state requirements related to stormwater and erosion and sediment control.

6) Adequate mitigation proposals for impacts to nontidal wetlands (including Nontidal Wetlands of Special State Concern) and waterways are needed to determine the acceptability of proposed mitigation in replacing lost resource acreage and associated water quality functions. Related Department determinations will not be finalized until the Phase II Mitigation Plan is reviewed and approved, which will be based on standard requirements in Department guidance, as well as information which BWRR committed to providing in the response to the Department in Exhibit Q of the Joint Permit Application (JPA). A characterization of streams is included but lacks sufficient detail to be used to set mitigation requirements or evaluate any mitigation proposals for waterway impacts using the most recent Function Based Rapid Stream Assessment methods approved by the Corps for the Maryland Stream Mitigation Framework.

   - Please provide the current status of all compensatory mitigation approvals, including any updated information or plans since the time of the WQC request.

7) The project has potential to impact a number of sensitive species, including aquatic species such as fish and freshwater mussels as well as wetland-dependent species. The Certification

request is missing current characterizations or planned studies of State or federally listed potential endangered species and habitat, threatened species, or rare, threatened or endangered species in Maryland and/or species in need of conservation at both project and mitigation sites, and the measures planned for their protection.

- Please provide information related to studies and proposed protection measures as described above.

8) It is not clear whether additional impacts, discharges, and effects associated with relocation or other alteration of infrastructure such as utility lines (within and outside of the limit of disturbance) have been included in impact calculations and are considered as part of the Certification request for this project.

- Please clarify whether all ancillary impacts are included in project totals and identify planned protections or mitigation for those impacts to demonstrate how Maryland water quality standards will be met.

Tier II Review

Maryland's high quality waters also receive special protection under Tier II antidegradation regulations and policies. The proposed project crosses two Tier II catchments (Patuxent River 1 and Beaverdam Creek 2); although both Patuxent River 1 and Beaverdam Creek 2 currently have assimilative capacity, a Social and Economic Justification (SEJ) was required due to the potential magnitude of impacts to Tier II watersheds and the ecological importance of Patuxent River 1. Independent review of the project's economic benefits by the University of Maryland Center for Environmental Science (UMCES) was finalized on August 7, 2023. Please provide a response to the following comments related to the Tier II review:

1) Section 1.2.2.4 of the March 1, 2022 SEJ states that 'all new impervious surfaces are fully mitigated'. Until stormwater management plan documentation is provided to support that all new impervious surfaces within the Tier II watershed will be treated using environmental site design (ESD) practices, conservatively, the Tier II review will consider the 204 acres of impervious surface in Beaverdam Creek 2, and the 18 acres of impervious surfaces in Patuxent River 1 as untreated (by ESD). These additional acres have increased total impacts in Beaverdam Creek 2 to 461 acres, and 84 acres in Patuxent River 1.

2) Update the list of additional mitigation opportunities that have been identified since March 1, 2022, the date of the last SEJ update.

In order to meet the one year decision timeframe for a WQC request, responses to the requested information and all associated materials must be received by MDE on or before **November 2, 2023**. Please note that additional information may also be requested after this date in response to comments/testimony received during the public comment period that opened on August 25, 2023 and ends November 2, 2023, including the project hearings scheduled for October 11, 12, 17 and 19, 2023. The Department notes that neither the NEPA process nor the Corps has identified J-03 as the preferred alignment, and have not agreed upon a preferred train maintenance facility location. The Department likewise under other independent authorities has not determined that alignment J-03 avoids and minimizes impacts to the extent practicable; the majority of the information submitted in the request for Certification is for the J-03 alignment. Please be advised that the Department's Certification decision is limited to the information available in this request; should other approvals ultimately result in a different alignment, locations of train maintenance facilities or stations, a new request for Certification with documentation of associated water quality impacts would be required to ensure compliance with water quality standards.

The Department would like to help you successfully complete the Certification process, and looks forward to continued coordination on this project. If you have any questions or if I can assist you in any way, please do not hesitate to contact me by telephone at (410) 537-4023 or by email at danielle.spendiff1@maryland.gov. Please refer to the above referenced WQC Number when corresponding with this office.

Sincerely,

Danielle A. Spendiff, Chief
Regulatory and Customer Service Division

Cc: (*via electronic mail*)
Joe DaVia, US Army Corps of Engineers
Matt Hynson, US Army Corps of Engineers
Tony Redman, DNR
Gwen Gibson, DNR
Heather Nelson, MDE
Denise Clearwater, MDE
Angel Valdez, MDE