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Re: Sierra Club Maryland Chapter's Comments on the Superconducting Magnetic Levitation Project's Water Quality Certification Application (23-WQC-0007)

**I. Sierra Club is opposed to the Maglev because it is an unnecessary and unjust project.**

The Sierra Club Maryland Chapter (Sierra Club) is strongly opposed to the Baltimore-Washington Superconducting Magnetic Levitation project (Maglev). Any possible benefits of the Maglev are far outweighed by the fundamental inequity of the project, its irreversible adverse impacts on protected public lands, and its anticipated negative impacts on water quality and on the local transportation services that already serve the corridor. Transportation projects (including many necessary ones) all have environmental impacts to some degree, but the Maglev project has significant irreversible impacts that far outweigh any of the questionable claimed benefits.

Sierra Club's mission is to explore, enjoy, and protect the earth's wild places; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environment. In furtherance of that mission, Sierra Club works to educate the public about the climate emergency and to advocate for bold systemic changes at the local and Maryland state level to promote a just and equitable transition away from fossil fuels and to protect air, water, land, and wildlife for future generations. The Sierra Club has approximately 12,000 members in Maryland. It is committed to critically scrutinizing every large infrastructure project like the Maglev that can impact regions, states, and communities. These projects require careful analysis and assessment of risks, benefits, and tradeoffs.

Sierra Club previously commented on the Federal Railroad Administration's (FRA) Draft Environmental Impact Statement (DEIS) for the Maglev and based on the failures identified in that document and in the project design, urged the FRA to select the "No Build" alternative rather than move forward with a destructive project with irreversible impacts on wildlife, public welfare, human health, and recreational resources.<sup>1</sup> In Baltimore-Washington Rapid Rail's (BWRR) Water Quality Certification (WQC) application for the Maglev, like the FRA's Maglev DEIS, BWRR has not

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<sup>1</sup> See Letter from Sierra Club Maryland Chapter to Federal Railroad Administration and the Maryland Department of Transportation Re: Draft EIS Comments on the Baltimore-Washington SCMAGLEV Project (May 20, 2021).

addressed the key gaps in the Maglev project description and the project flaws identified in Sierra Club's comments on the DEIS.

Fundamentally, the Maglev project is inconsistent with environmental justice principles. If the Maglev is constructed as proposed, the people and communities who would bear the burdensome impacts of construction and operation would not receive a fair share of the benefits of the project. According to BWRR, approximately 80% of the land parcels that would have impacts ranging from vibrations, noise, and health hazards are located within communities with majority-minority populations, low-income households, or both. All of the above-ground viaduct portions of the Maglev, where construction and ongoing impacts would be the greatest are also located in such Maryland communities.

Communities in Maryland would bear these impacts without receiving the touted convenience benefits of the Maglev. The Maglev as proposed would only have three stops, in Washington, D.C., BWI Airport, and downtown Baltimore, although its route would create noise, habitat, and watershed impacts in dozens more communities. As Sierra Club pointed out to the FRA in its comments on the DEIS, because of these negative impacts, wealthier communities in Maryland already rejected an earlier Maglev route which led to the current, inequitable path.<sup>2</sup> Marylanders should not be asked to bear this burden for an unrealistic project.

## **II. MDE cannot grant certification to the Maglev project because BWRR's application understates impacts to water quality and is woefully incomplete.**

Despite failing to address the previously identified flaws in the Maglev project, BWRR has now prematurely asked the Maryland Department of the Environment (MDE) to grant its request for a water quality certification under the Clean Water Act (CWA) Section 401 for the Maglev. As Sierra Club explains more fully below, MDE cannot grant BWRR's certification request for the Maglev because BWRR's application is incomplete and fails to comply with the applicable water quality regulatory standards. In addition, MDE cannot accept Maglev's proposed adverse impacts to water quality because the Maglev project is so unjust and so flawed.

### **A. BWRR's WQC application is incomplete and the final route for the Maglev is still unknown and likely to change from the route presented in the WQC application.**

BWRR's WQC application materials did not provide sufficient information for MDE to evaluate the impacts of the Maglev project on water quality in part because the final route for the proposed Maglev, and therefore that route's possible impacts on water quality requirements, are not yet known. BWRR's request for certification must be denied on that basis alone.

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<sup>2</sup> See Maureen O'Hagan, *High-Speed Rail Plan Causes Uproar*, Washington Post, <https://www.washingtonpost.com/archive/local/2002/04/25/high-speed-rail-plan-causes-uproar/44bcd4de-daa3-40fb-8339-50d092001c64/>.

In late September 2023, the U.S. Environmental Protection Agency (EPA) revised its regulations implementing the CWA Section 401 requirements for water quality certification decisions to restore states' authority to consider all project impacts and to consider impacts not just from a project's point source discharges into federal Waters of the United States, but also from any project impact to water quality requirements, including nonpoint source impacts and impacts to non-federal waters.<sup>3</sup> The regulations, which are scheduled to become effective on November 27, 2023, and must be used to evaluate BWRR's application, require a certifying state like Maryland to consider broadly whether the project impacts water quality requirements, including from a project's construction and operation.<sup>4</sup>

MDE must therefore consider *all* the Maglev's impacts to water quality requirements as it weighs BWRR's WQC application. Yet, BWRR has not provided sufficient information to MDE to make that determination. As MDE stated to BWRR in a letter sent on September 8, 2023, even before EPA restored states' CWA Section 401 authority to consider broader project impacts and impacts to water quality requirements beyond effluent limitations, BWRR had not yet provided enough information about the water quality impacts from the Maglev for MDE to be able to decide whether to grant certification.<sup>5</sup> BWRR's application is even more deficient compared to EPA's newly broadened standards. Under the regulations in place when BWRR submitted its WQC application, it was required to—but failed to—identify “the location and nature of any potential discharge that may result from the proposed project and the location of receiving waters and a description of any methods and means proposed to monitor the discharge and the equipment or measures planned to treat, control, or manage the discharge.”<sup>6</sup> To properly evaluate impacts under EPA's revised regulatory standards, MDE must consider “[a]ny readily available water quality-related materials that informed the development of the application,”<sup>7</sup> meaning that BWRR must at least provide the location and nature of any potential discharge and other project impacts to water quality requirements, like nonpoint source project impacts from increased stormwater runoff, impacts to groundwater, and impacts to species' habitat.

In addition, there is another fundamental reason that BWRR has not fully described Maglev's impacts to water quality requirements: the final proposed route is unknown. The FRA has paused the federal environmental review for the Maglev, so the final route for the proposed Maglev is still in flux. BWRR chose to analyze a particular route for the Maglev (route J-03), but

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<sup>3</sup> See generally EPA, Clean Water Act Section 401 Water Quality Certification Improvement Rule, revising EPA's regulations for State, Tribal, and EPA Clean Water Act Section 401 certifications, 88 Fed. Reg. 66558 (Sept. 27, 2023) (EPA Final Rule on CWA 401 Certification Requirements).

<sup>4</sup> 40 C.F.R. § 121.3 (2023) (addressing the scope of certification).

<sup>5</sup> See generally Sept. 8, 2023, Letter from Danielle A. Spendiff, MDE, to BWRR.

<sup>6</sup> 40 C.F.R. § 121.5 (2020).

<sup>7</sup> 40 C.F.R. § 121.5(a)(1) (2023).

that route has not yet been selected after a full review and it could certainly change once (and if) the federal environmental review is restarted.

Likewise, just this month, BWRR settled a lawsuit with Stonewall Capital LLC over a parcel of land that BWRR had tried to condemn for part of Maglev's proposed Baltimore terminal. As part of the settlement, Stonewall Capital announced that its plans to build a housing project on that parcel will go forward, suggesting that the contours of Maglev's Baltimore station and its water quality impacts are also in flux.<sup>8</sup> Understanding impacts to Baltimore Harbor are critical because "[b]oth the Camden Yards Station and Cherry Hill Station would result in permanent impacts within the Critical Area Buffer and floodplain of the Patapsco River located near the Inner Harbor."<sup>9</sup>

Because BWRR's WQC application failed to provide key details about the water quality impacts of the route it chose to evaluate in the WQC application and because the proposed route for the Maglev itself is unknown, MDE must deny BWRR's WQC application.

## **B. The Maglev would cause adverse water quality impacts.**

Even if the proposed Maglev route remains as described in BWRR's WQC application, which as just explained is an unrealistic assumption, BWRR admits that the construction of the Maglev project in Tier II catchment areas would lower their water quality and elsewhere fails to fully acknowledge adverse water quality impacts. Likewise, the cumulative effects of the changes to the waterways, wetlands, and watersheds in terms of stormwater runoff and potential chemical pollutants would impair the ability of the State of Maryland to meet the mandates of the Chesapeake Bay Watershed Agreement and would impact other waters throughout the state. For example, the Agreement includes the goal of successfully implementing a CWA Total Maximum Daily Load for nitrogen, phosphorous, dissolved oxygen, water clarity, submerged aquatic vegetation, sediment, and the Maglev would make meeting those targets more difficult.

### **1. Stormwater impacts.**

BWRR has failed to provide specific plans or details about its stormwater management plans. Instead, BWRR plans to wait until after MDE's WQC decision must be made in February 2024 before making any real efforts to quantify and address stormwater impacts. This same

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<sup>8</sup> Melody Simmons, *Westport Developer Settles Lawsuit with Builder of High-Speed Maglev Train*, Baltimore Business Journal (Nov. 6, 2023).

<sup>9</sup> U.S. Department of Transportation Federal Railroad Administration; Maryland Department of Transportation. 2021. "Draft Environmental Impact Statement and Draft Section 4(f) Evaluation: Baltimore-Washington Superconducting Maglev Project." (Maglev DEIS) § 4.10-13.

problem plagued the Maglev DEIS. Based on this lack of specificity alone, MDE cannot certify that the Maglev project would not impair our state's waterways.

Commenters like the Citizen's Against the SCMagLev, Maryland Coalition for Responsible Transit (MCRT), and the City of Greenbelt noted in their comments on the Maglev DEIS that the DEIS was silent on how the significant volumes of stormwater that would be created by the Maglev would impact water quality.<sup>10</sup> As these commenters explained, the DEIS did not discuss the anticipated impacts of the most common contaminants in construction stormwater runoff on the watersheds at issue, or those that would be found in runoff from Maglev operation, like the contaminants present on Maglev cars, viaducts, portals, or ancillary facilities like the trainset maintenance facility (TMF).

For example, BWRR does not identify stormwater pollution prevention plans (SWPPP) for either the construction or operation stage. Instead, BWRR states that it would adhere to the "Best Management Practices" (BMP), without providing specific examples for each area of impact.<sup>11</sup> Likewise, in the portion of BWRR's WQC application that explicitly summarizes stormwater treatments, BWRR reveals that it has not yet quantified stormwater impacts or identified treatments to address them. It concerningly (but candidly) reveals that "[s]pecific treatments will be selected and sized as the design progresses and [environmental site design] will be used to the [maximum extent practical]." The proposed treatments are not specified and BWRR provides no information on stormwater volumes or the system's capacity for treatment. As the City of Greenbelt identified two years ago in its comments on the Maglev DEIS, readily available modeling tools exist to predict stormwater impacts from Maglev's proposed impervious surface increases and BWRR should be able to predict, for each watershed, the impact on water quality and its ability to meet effluent limitations and existing water quality requirements.<sup>12</sup> That BWRR has declined to do so in its WQR application is grounds for MDE to deny certification.

Given these gaps in BWRR's WQC application, MDE recently demanded that BWRR provide more specific information about stormwater management by the close of the public comment period, including operational impacts to water quality. MDE specifically requested that BWRR "clearly" identify "[p]otential operational discharges" because of possible impacts on water quality. MDE also requested that BWRR identify "[r]ight-of-way maintenance protocols (for

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<sup>10</sup> See, e.g., Citizen's Against the SCMagLev and MCRT comments on the FRA DEIS at 24, 53-54, 74 (May 20, 2021); City of Greenbelt comments on Maglev DEIS at 64 (May 24, 2021), available at <https://www.greenbeltmd.gov/government/departments/planning-community-development/federal-state-projects/maglev-project-information>.

<sup>11</sup> BWRR, Water Quality Certification Application, Key Elements Outline, MAGLEV\_WQC\_MEMORANDUM\_Finalv05.pdf see page 6 of 13, available at <https://mde.maryland.gov/programs/water/WetlandsandWaterways/Pages/SCMAGLEV.aspx>.

<sup>12</sup> City of Greenbelt comments on Maglev DEIS at 70.

structural elements such as vegetation management) and proposed deicing plans.”<sup>13</sup> Elsewhere in its letter, MDE states for proposed projects of Maglev’s “type and scale,” BWRR should have included a “concept-level Stormwater Management Plan.”<sup>14</sup> In addition to these requests, MDE should demand that BWRR identify construction-related discharges and the SWPPPs and other relevant plans related to those impacts. It is unconscionable that, when constructing a large building, the project proponent is usually able—and required—to provide specific and detailed plans for stormwater impacts, yet for a massive infrastructure project like the Maglev, BWRR sought certification based on an application without even the most basic details about discharges, stormwater volumes, and stormwater management plans. MDE must reject BWRR’s certification request.

## **2. Wetland and waterway functionality.**

Likewise, BWRR’s WQC application does not include sufficient detail about impacts to wetlands. Although, like the DEIS, the WQC application estimates the wetland acres affected, it does not include discussions of impacts to wetland functionality.<sup>15</sup>

BWRR also does not propose to adequately protect the Tier II waters that would be affected by tunneling, grading of the land, changes to surface and groundwater hydrology, significant tree and vegetation removal, and polluted stormwater runoff. The impact of the permanent conversion of over 20 wetland acres in the Patuxent River watershed and Beaverdam Creek is also of concern.<sup>16</sup> It appears some of the newly created impervious surfaces would be directly adjacent to or even possibly in sensitive wetland habitats. Impacts to nontidal wetlands include impacts to sensitive Nontidal Wetlands of Special State Concern (NTWSSC) and their expanded buffers, including permanently impacting 1.96 acres of NTWSSC and 2.97 acres of NTWSSC expanded buffer, and temporarily impacts to 0.49 acres of NTWSSC and 3.56 acres of NTWSSC expanded buffer.<sup>17</sup>

As MDE recently explained to BWRR, it must provide compensatory mitigation to address the loss of unique habitat features in impacted streams and riparian wetland areas.<sup>18</sup> BWRR cannot plan compensatory mitigation for impacts it does not fully know or describe.

The rerouting of the river and streams would contribute to a subsequent loss of currently functioning ecosystems including fragile habitat, wetlands, and forested stream and wildlife corridors. As the U.S. Army Corps wrote in its comments on the Maglev’s joint permit application regarding impacts to wetlands that constitute Waters of the United States, the Maglev is likely to

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<sup>13</sup> Sept. 8, 2023, Letter from Danielle A. Spendiff, MDE, to BWRR at 3.

<sup>14</sup> *Id.* at 5.

<sup>15</sup> See Maglev DEIS at § 4.11-11 to 4.11-12.

<sup>16</sup> MDE, Not. of Public Info. Hr’g. App. for WQC 23-WQC-0007 (Aug. 25, 2023).

<sup>17</sup> *Id.*

<sup>18</sup> Sept. 8, 2023, Letter from Danielle A. Spendiff, MDE, to BWRR at 4.

remove key features that “provide unique functions for aquatic species.”<sup>19</sup> The biodiversity that exists in the proposed project locations is irreplaceable and the disturbed areas may quickly fill in with new species that could displace the existing species. The value of the ecosystem services that would be lost is incalculable.

Because BWRR has not yet fully described impacts to wetland functionality it has also not yet adequately described its mitigation plans. For those additional reasons, its WQC application is deficient.

### **3. The Maglev would have significant, insufficiently studied floodplain impacts.**

According to MDE’s public notice for BWRR’s WQC application, the Maglev would impact approximately 52.6 acres of the 100-year nontidal floodplain. In the DEIS, the FRA noted that BWRR has not yet conducted a hydraulic and hydrology analysis to estimate the total impacts of the proposed structures on floodplain elevations and functions. This analysis is postponed until after the—now paused—federal environmental process has been completed, with the DEIS stating that “hydraulic and hydrology analysis would be required as part of permitting and final design to estimate the total impacts of the proposed structures on floodplain elevations and functions. If these studies find that flood elevation would change, floodplain storage mitigation would be proposed.”<sup>20</sup>

The DEIS explains that construction of the Maglev would have significant floodplain impacts, but, as EPA has commented, those impacts are not yet fully described because “construction-related impacts to natural resources related to staging and work areas used temporarily by construction crews could be irretrievable. Construction work areas at waterway crossings and ancillary facilities would be larger in size than the footprint of the permanent structures.”<sup>21</sup> In its comments on the Maglev DEIS, EPA recommends the environmental review documents be updated to better describe how the long-term construction lay down areas would be dismantled and how impacted areas would be restored to pre-construction conditions.<sup>22</sup> It does not appear that the WQC application provides those key details.

MDE must evaluate impacts to the floodplain from these proposed construction areas. Constructing the Maglev would take many years and given the changing nature of rainfall in the mid-Atlantic region, high intensity rain events are likely to occur during construction and cause flooding in areas that previously did not flood. MDE must address the possible floodplain impacts

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<sup>19</sup> Maglev Joint Permit Application, Ex. R, Comment and Response. No. 29 at 12.

<sup>20</sup> Maglev DEIS at § 4.10-22.

<sup>21</sup> *Id.* at Chp. 4.24-3.

<sup>22</sup> EPA, Technical Comments on the Maglev DEIS at 8 (May 4, 2021).

from both construction and operation along with the expected changing rainfall patterns.<sup>23</sup> As with the other impacts discussed in these comments, BWRR fails to provide sufficient information for MDE.

#### **4. Tunneling Impacts.**

BWRR also fails to present the water quality impacts of its tunneling plans to MDE. A significant portion of the Maglev would run through a tunnel, displacing millions of cubic yards of soil and potentially interacting with many aquifers along its route. Yet, despite comments on the DEIS demanding that BWRR and the FRA model the proposed tunneling to better understand potential groundwater and surface water impacts, BWRR has not done so, so MDE is unable to assess the water quality impacts of the Maglev from the tunneling component of BWRR's construction plans.

What is known about the proposed tunneling is concerning from a water quality perspective. According to BWRR's WQC application, BWRR anticipates that it would remove approximately 23-26 million cubic yards of spoils from its tunneling operations.<sup>24</sup> For an average dump truck capacity between 10-14 cubic yards per load, somewhere between 1.8 and 2.2 million dump truck trips would be required. The sites for collection of the spoils are identified. However, there are no plans for what would be done with this huge volume of tunnel spoils and, as other commenters will explain in their comments on BWRR's application, some proposals could adversely impact the Chesapeake Bay and other water bodies.

In addition, the impacts of tunneling on nearby aquifers seem to be largely unknown. Although the DEIS states that some amount of dewatering may occur, FRA provided contradictory information regarding when dewatering may occur during the construction process and no analysis on planned dewatering or how it may impact surface and groundwater resources. As the City of Greenbelt noted in its comments on the Maglev DEIS, the FRA acknowledged that dewatering "could affect groundwater quantity and flows" and "may affect the groundwater ability to support sustained hydrology to adjacent wetlands,"<sup>25</sup> but describes nothing sufficiently specific to understand the full impacts of the project on groundwater including when the Maglev is transitioning to different depths throughout its route.<sup>26</sup> As MDE states in its recent letter to BWRR, the WQC application "does not appear to incorporate project-specific modeling," and

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<sup>23</sup> MDE has been evaluating changes to its stormwater regulations based on the acknowledged changes to rainfall patterns. See *generally* Advancing Stormwater Resiliency in Maryland (A-StoRM), Maryland's Stormwater Management Climate Change Action Plan, FY 2021 Data.

<sup>24</sup> BWRR WQC Application, Ex. I (Construction Planning Memorandum) at 50.

<sup>25</sup> See Maglev DEIS at § D7-66, D.7-68, D.7-86, D.7-100.

<sup>26</sup> City of Greenbelt comments on Maglev DEIS at 85-86.



instead relies on unspecified promises to implement contract specifications and requirements to protect groundwater.<sup>27</sup>

BWRR's insufficient analysis does not provide any guarantee that the Maglev would protect Maryland's groundwater.

## **5. Greenspace and wildlife impacts.**

Sierra Club is dedicated to ensuring that all Marylanders enjoy, explore, and protect our natural places and promote the concept of access to nature as a human right. The Maglev would impact many acres of public lands—along with their ecosystem services—through construction of the TMF, vent shafts, and access roads.

This is not how we should treat public lands that have been set aside for ecological and agricultural research and conservation of our local natural habitats. MDE should ensure that a private entity does not use these public lands for profit, with the disruption that would occur to priceless natural ecosystems in uniquely valuable places. The DEIS describes many serious and irreversible impacts to the Patuxent Research Refuge and the Beltsville Agricultural Research Center (BARC), as well as National Parkland along the BW Parkway and the Greenbelt Forest Preserve. Hundreds of acres would be lost to the Maglev. The area surrounding the BARC provides important greenspace and a buffer from floodwaters for the area. The so-called "Green Corridor" that covers Greenbelt Park, the Greenbelt Forest Preserve, BARC, and Patuxent Research Refuge is the largest span of contiguous forest land on the East Coast between Richmond, Virginia, and Boston, Massachusetts. The proposed Maglev would also cause significant impacts to outdoor recreational facilities, with the loss of public park space at Maryland City Park, Springfield Road Park, Greenbelt Forest Preserve, and Greenbelt's Northway Fields Park, among others along the proposed route. This greenspace provides important recreational opportunities for Prince George's County residents in a highly urbanized area.

Construction of the TMF and other Maglev project components at BARC would not only impact areas with important terrestrial and aquatic habitat but would likely contribute to degradation of a historically and aesthetically valued area. The Maglev, combined with environmental threats from climate change and regional development, would reduce the BARC's ability to provide for animal and plant species. Moreover, allowing the Maglev to use the BARC for private profit, to build a project designed to serve the wealthy, sets a problematic precedent that important, public greenspace is for sale. The BARC is a historic district, National Register of Historic Places-eligible, and listed on the Maryland Inventory of Historic Properties.<sup>28</sup> The BARC and Patuxent Research Refuge are the sites of important scientific research, with data going back over 100 years. Both research centers represent the largest scientific field stations for their respective agencies. Hundreds of government scientists have worked there, many describing new

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<sup>27</sup> Sept. 8, 2023, Letter from Danielle A. Spendiff, MDE, to BWRR at 3.

<sup>28</sup> See MIHP Form for the BARC at

<https://apps.mht.maryland.gov/mihp/MIHP.aspx?Search=County&County=Prince+Georges>.

species, and most doing research that related to the agriculture and natural areas retained by these properties. The Maglev threatens to impact the continuity of this longstanding environmental research.

Destroying green spaces also destroys sensitive habitats and would affect the many bird and other wildlife species that depend on the area. Removing or altering habitat may indirectly affect species relying on wetland and riparian habitat for all life stages and affect interdependent communities of other species. EPA has clarified in its new rule on the CWA Section 401 certification process that impacts to wildlife and wildlife habitat must be considered as part of any certification decision.<sup>29</sup> The Maglev project would imperil specific Rare, Threatened and Endangered Species, as identified by the U.S. Fish and Wildlife Service and the State of Maryland, including, according to the DEIS, nine species of mammals, twelve bird species, two reptile species, three species of fish; eleven dragonfly and damselfly species; 18 species of lepidoptera, which include butterflies and moths; two species of freshwater mussels (one federally endangered), and at least seven species of plants.<sup>30</sup> Since the DEIS was released, the Northern Long-Eared Bat has been listed as an endangered species<sup>31</sup> and has been identified near the BARC, yet BWRR's application barely mentions the bat even though it was proposed for listing before the BWRR submitted its WQC application. In addition, the proposed trainyard would destroy the pine barren plant community and greatly impact the seeps that flow into the unnamed Upper Beaverdam Creek tributary stream, which are habitat for the state-endangered fringed orchid. The unnamed Upper Beaverdam Creek tributary has one of the cleanest subwatersheds in the entire Anacostia Watershed. The DEIS fails to provide detailed mitigation plans for species or habitat impacts and BWRR'S WQC application barely acknowledges these impacts, let alone provides plans for addressing them. BWRR has not presented monitoring results for many of these species and therefore cannot even quantify the likely project impacts, let alone mitigate them.

In addition, BWRR does not adequately address impacts from fencing proposed as part of the construction or operation of the Maglev. In documents submitted as part of BWRR's Joint Permit Application for impacts to tidal wetlands, BWRR includes schematics showing that the Maglev would be fenced off from the surrounding land in drawings described as "low-clearance viaduct security fence."<sup>32</sup> Likewise in its Social and Economic Justification document, submitted as part of the WQC application, BWRR explains that the proposed TMF would be surrounded by

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<sup>29</sup> EPA Final Rule on CWA 401 Certification Requirements, 88 Fed. Reg. at 66602.

<sup>30</sup> Maglev DEIS Chp. 4 § 4.12.3.3 and App'x D.7, Att. A, B, C & F.

<sup>31</sup> See Fish and Wildlife Service, Final Rule, 87 Fed. Reg. 73488 (Nov. 30, 2022).

<sup>32</sup> BWRR, JPA Application, Ex. S (Plans & Profile Drawings for Tidal Authorization) at PDF 29 (labeled drawing TY-06).

perimeter fencing.<sup>33</sup> Fences create wildlife barriers that can cause changes to animal behavior and even mortality, yet like other aspects of wildlife habitat, BWRR fails to address this impact in its WQC application.

In short, how is the MDE supposed to assess these wildlife impacts when BWRR has not presented any helpful data to evaluate them? As MDE recently pointed out in its comments to BWRR, the DEIS identified potential direct and indirect impacts from the Maglev past the limit of disturbance for the Maglev project, but the WQC request does not describe these impacts. MDE therefore requested the nature and extent of impacts beyond the limit of disturbance.<sup>34</sup> MDE also requested information characterizing or planning to study state or federally listed species at both the project and proposed mitigation sites.<sup>35</sup> BWRR's data and modeling on these important impacts is completely insufficient.

**6. BWRR does not present an adequate cumulative effects analysis so it is likely that the Maglev's impacts are understated.**

MDE must consider the cumulative impact of the construction and operation of the Maglev together with other proposed actions in the area of the proposed Maglev project when assessing impacts to water quality. As EPA explained in its recent regulations regarding CWA Section 401, MDE may address adverse water quality impacts directly caused by the Maglev as well as water quality impacts "contributed to by a federally licensed or permitted activity... [such as] an activity that will contribute to ongoing noncompliance with water quality requirements."<sup>36</sup>

Several major infrastructure projects are scheduled for the DMV area in the upcoming years and BWRR's WQC application only briefly mentions one of them and fails to discuss the cumulative impact of their water quality impacts entirely. In its WQC Application, BWRR should have provided information about the possible water quality impacts of at least the following projects cumulatively with the water quality impacts of the Maglev project:

- Relocation of the Federal Bureau of Investigation (FBI) Headquarters from Pennsylvania Avenue, Washington D.C. to Prince George's County. Greenbelt was recently selected as the final site. The proposed project design includes remodeling and expansion of the Greenbelt Metrorail Station and includes impacts to wetlands in the Indian Creek Watershed.<sup>37</sup>

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<sup>33</sup> BWRR, WQC Application, Antidegradation Analysis, Social and Economic Justification Report, Rev. 2 at 6 (Mar. 2022).

<sup>34</sup> Sept 8, 2023, Letter from Danielle A. Spendiff, MDE, to BWRR at 2-3.

<sup>35</sup> *Id.* at 4-5.

<sup>36</sup> EPA Final Rule on CWA 401 Certification Requirements, 88 Fed. Reg. at 66600.

<sup>37</sup> On November 8, 2023, the General Services Administration announced that the new FBI building will be constructed in Greenbelt. See Lindsay Whitehurst and Brian Witte, *Biden Administration Picks Maryland for New FBI Headquarters*, The Washington Post (Nov. 8, 2023).

- Widening of Kenilworth Avenue/MD 201 to accommodate increased traffic from this Project and others (such as the Department of Treasury’s currency production facility proposed to be relocated to the BARC);
- Sunnyside Avenue Bridge Replacement Capital Improvement Program Project between Edmonston Road (MD 201) and the CSX railroad;
- I-495 & I-270 Toll Lane Expansion;
- Expansion of US 1 (Baltimore Ave) College Ave/Regents Dr to MD 193 (University Blvd); and
- Purple Line Construction and Operation.

While BWRR does mention the proposed Currency Production Facility listed above in its WQC application, BWRR discusses environmental impacts from the Currency Production Facility, only insofar as it serves as a contrast to the Maglev construction, rather than as an impact that must be considered cumulatively with the Maglev construction.<sup>38</sup>

The Maglev project is slated to impact hundreds of acres, add significant amounts of impervious surface, and exacerbate flooding and polluted runoff. Water quality impacts from the Maglev would combine with impacts of the preceding projects and cause adverse impacts to water quality throughout the area. Given BWRR’s failure to present information on the full water quality impacts of the Maglev, including cumulative impacts, MDE must deny BWRR’s request for certification.

**7. Many additional questions remain about the anticipated water quality impacts of the Maglev.**

In addition to the concerns just explained, Sierra Club has many questions about the anticipated water quality impacts that are left unanswered by BWRR’s WQC application. For example:

- How long is the time frame for assessing negative impacts?
- Is there a current fish study available?
- How would this project align with the goals of the Chesapeake Bay Watershed Agreement?
- Why have mitigation plans not been designated for the loss of trees protecting the downstream areas from flooding, and are there protections for the public from flooding costs?
- What steps would be taken to mitigate biological impairments to the streams, the Patuxent and Anacostia rivers and Tier II waters if this project causes an increased amount

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<sup>38</sup> See, BWRR, WQC Application, SCMAGLEV\_Tier II\_No Discharge\_SEJ-21.03.30 at PDF page 28.

of iron flocculate, increased water temperatures, changes to dissolved oxygen levels, additional silt and sediment and pollutants in the streams and river and algae blooms?

- What are the anticipated impacts to groundwater? In the DEIS, the FRA also generally acknowledged the potential for the tunnel structure to create changes to the water table and water pressure affecting aquifers and creating the potential for loss of groundwater recharge to wellhead protection areas.<sup>39</sup>
- Have the carbon impacts due to the loss of natural carbon sinks, the truckload trips to move materials, and the impervious surfaces created been considered?

Without answers to these important questions, MDE cannot fully evaluate the impacts of the Maglev.

**C. BWRR’s Proposed Social and Economic Justification does not justify the adverse water quality impacts of the Maglev.**

Because BWRR acknowledges that the Maglev would cause adverse water quality impacts to high-quality Tier II waters in Maryland like Beaverdam Creek and the Patuxent River, it was required to prepare a social and economic justification for its WQC application and an alternatives analysis. BWRR’s documents fail to comply with the applicable regulatory standards.

First, BWRR does not successfully justify the need for unaddressed impacts to water quality. To begin with, BWRR’s statement of purpose in its Tier II analysis documents is far too narrow and therefore eliminates superior alternatives with fewer water quality impacts than the Maglev by requiring a transit option with the “optimum operating speed of the SCMAGLEV technology”:

The purpose of the SCMAGLEV Project is to evaluate, and ultimately construct and operate, a safe, revenue producing, high-speed ground transportation system that achieves the optimum operating speed of the SCMAGLEV technology to significantly reduce travel time in order to meet the capacity and ridership needs of the Baltimore-Washington region.<sup>40</sup>

Yet, “optimum operating speed,” is too narrow. “Optimum operating speed,” is only a goal of BWRR and its promoters, not that of Maryland or the broader DMV public who would be best served by comprehensively studying transportation options to reduce travel times, improve connectivity and accessibility of the system to all riders, and increase transit ridership between Baltimore and Washington. There are alternatives to the Maglev that exist and are operating without the need for miles of new infrastructure, including Amtrak and the MARC. There is no justification for building a high-speed train for the small portion of the population that can afford

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<sup>39</sup> DEIS at § 4.10-20.

<sup>40</sup> BWRR, WQC application, Antidegradation Review Report: Alternatives Analysis – No Discharge Alternative at 2 (March 29, 2021).

to use it on a regular basis. Instead, the region should focus on investing in and upgrading Amtrak and the MARC over building the Maglev. Investing in the MARC and Amtrak would more effectively serve the transit needs of our region rather than diverting from them.

Second, in attempting to justify the benefits of the project, BWRR completely glosses over the impacts to Black, Brown, immigrant, linguistically isolated, and low-income communities along the Maglev construction route. As the City of Greenbelt, MCRT, and Sierra Club detailed in comments on the Maglev DEIS, BWRR has not explained why disproportionate impacts on these communities are justified. Such unaddressed, disproportionate impacts to communities along the Maglev route include impacts from land use conversion, rezoning, and potential property acquisitions. Construction noise, dust, and other impacts are anticipated for varying durations during the construction period, 24-hours a day, seven days a week, for one to seven years, depending on the proposed location of the Maglev route. Given the additional trucks on the road, vehicle collisions and other operational accidents, including potential spills of hazardous materials, could occur at higher rates throughout the Maglev construction period. Most construction vehicles use diesel fuel so there are serious concerns about the particulate matter that this project would generate. In addition to creating air pollution, particulate matter can also contribute to land and water pollution causing a potential unhealthy situation for nearby residents and wildlife and further degrading the water quality. Similarly, most of the frequent and severe noise and vibration impacts from Maglev operation are anticipated in already stressed communities, as is air pollution around stations due to increased traffic and potentially harmful emissions from ventilation facilities.

Third, BWRR's social and economic justification is flawed because BWRR claims that the Maglev would provide transportation upgrades without displacing residential communities,<sup>41</sup> but it would not provide transportation upgrades for most of the regional population. If the Maglev is constructed, communities already impacted by other stressors would see a decreased level of transit services in residential areas and changes to local access or mobility that would not be offset by operation of the Maglev. The Maglev DEIS projects that MARC and Amtrak would suffer significant ridership declines, including a \$30 million annual loss if the Maglev is placed into service.<sup>42</sup> Over time these changes could significantly affect service availability throughout Maryland, rippling well beyond the area immediately affected by the Maglev. As the City of Greenbelt stated in its DEIS comments, among low income and minority populations, "[v]ery few would be able or willing to pay the proposed \$70-79 peak and \$59-\$69 off-peak one-way ticket

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<sup>41</sup> BWRR, Social and Economic Justification Report, Rev. 2 at 16.

<sup>42</sup> Maglev DEIS at § 4.2-10, 4.2-13, App. D.4 at D-56. According to the DEIS, approximately 32% of annual MARC ridership on the Penn and Camden Lines would divert to the Maglev project once it is implemented. Diverting passengers from MARC and Amtrak would decrease the economic viability of these more affordable services on which Marylanders depend.

prices to use the SCMAGLEV.”<sup>43</sup> And indeed, MARC transit is important to many Maryland communities: “[a]lmost half of current MARC ridership (45.6%) identify as other than white non-Hispanic. 17.8% of MARC riders are from households with less than \$50,000 annual income.”<sup>44</sup> Instead of serving Marylanders, Maglev promises to provide point-to-point transit for only a limited, wealthy, few. Unlike other transit systems, like the MARC and the bus systems, it does not provide service for common transportation needs, such as school, shopping, or medical appointments, because of the lack of local stops and the high-priced tickets.

Fourth, the Maglev is likely to be a drain on public dollars and divert spending away from more climate friendly projects. Lobbyists for the Maglev are aggressively lobbying public officials to pave the way for this funding. According to an analysis of recent lobbying at the Maryland statehouse, the Northeast Maglev, LLC, which is affiliated with Maglev, spent the most on lobbyists in Maryland over the last legislative session, spending \$410,000 on lobbying efforts in Annapolis and far outspending the next highest lobbyist, CSX Transportation.<sup>45</sup> When Maryland state legislators proposed bills to prevent Maryland from spending public funds on the Maglev, BWRR urged lawmakers to reject them.<sup>46</sup> FRA’s DEIS says repeatedly that the project might receive federal funding.<sup>47</sup> Similarly, at a 2021 hearing before a U.S. House Committee, BWRR explicitly asked for \$300 million in contract authority.<sup>48</sup> There is thus a real likelihood that Maglev proponents would seek substantial public funding and thereby divert funding for repairing and

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<sup>43</sup> City of Greenbelt Comments on Maglev DEIS at 21; *see also id.* 45-49.

<sup>44</sup> *Id.* at 47.

<sup>45</sup> Daniel Lukomsky, *Northeast Maglev’s Lobbying Raises Questions for Maryland*, Patch (Aug. 19, 2023), available at <https://patch.com/maryland/gaithersburg/northeast-maglevs-lobbying-raises-questions-maryland>. According to BWRR, The Northeast Maglev is a “promotional entity” for the Maglev project that works closely with BWRR. *See* BWRR, *Frequently Asked Questions*, available at [Facts – Baltimore-Washington Rapid Rail \(bwrapidrail.com\)](https://www.bwrapidrail.com/facts-baltimore-washington-rapid-rail).

<sup>46</sup> *See* Bruce DePuyt, *Maglev Firm Urges Legislators Not to Close Door on Public Funding* (Feb. 13, 2021), available at <https://www.marylandmatters.org/2021/02/13/maglev-firm-urges-legislators-not-to-close-door-on-public-funding/>; Bruce DePuyt, *Maglev Backers, Foes Square Off Over State Funding*, Maryland Matters (Feb. 5, 2020), available at <https://www.marylandmatters.org/2020/02/05/maglev-backers-foes-square-off-over-state-funding/>.

<sup>47</sup> DEIS at §§ 4.4-4, 4.4-20, 4.6-9, and 4.21-6.

<sup>48</sup> Testimony of Wayne L. Rogers, Chairman & CEO, The Northeast Maglev, LLC before the U.S. House States Comm. on Transportation and Infrastructure, Subcomm. on Railroads, Pipelines, and Hazardous Materials, “When Unlimited Potential Meets Limited Resources: The Benefits and Challenges of High-Speed Rail and Emerging Rail Technologies” (May 6, 2021), video and official transcript available at <https://transportation.house.gov/calendar/eventsingle.aspx?EventID=405379>.

improving transit infrastructure, contrary to federal and Maryland’s goals for improving transit to address the climate emergency.

Fifth, the ridership estimates for the Maglev and the financial viability of the Maglev are based on completely unrealistic assumptions, including improbable savings in travel time, very frequent service, and unreasonable predictions of how many riders would switch to Maglev from other forms of transportation. Compounding these issues, these unrealistic predictions are based on documents the public has not been able to review. For example, during the environmental review process for the DEIS, BWRR redacted the analyses and ridership data that underpin the conclusion that the Maglev is financially viable.<sup>49</sup> Without providing unredacted ridership data, BWRR has not substantiated claims that it would be able to generate sufficient revenue to be self-sustaining and to cover the costs of the system’s operation, maintenance, and financing. The communities through which the Maglev would be built and operate should receive clear evidence that BWRR’s ridership projections are not grossly inflated. Yet, the available data seems unrealistic. For example, BWRR projects between 11.4 to 12.6 million passengers annually, but the ridership numbers for the MARC and the Amtrak routes between Baltimore and DC are lower than that and have been affected by shifting work patterns after the COVID-19 pandemic. Businesspeople are increasingly using online technology instead of traveling to meetings since the COVID-19 pandemic, which impacts demand and raises further questions about the value of maglev trains, as has also been seen for the Chuo Shinkansen maglev train project in Japan.<sup>50</sup> BWRR does not explain where the additional Maglev riders would come from even if it is realistic—which it is not—that most of the MARC/Amtrak riders would begin using Maglev. Without those details the Maglev project is not justified.

Sixth, unlike BWRR’s claims in its WQC application, the Maglev project is not climate friendly. As Dr. Owen Kelley, a PhD with a background in atmospheric sciences, has explained, climate figures from the FRA’s DEIS reveals that “Maglev operation would increase net CO<sub>2</sub> emissions by 286 to 336 million kilograms per year relative to the No Build option.”<sup>51</sup> The DEIS also stated that the Maglev would require twice the energy per passenger mile as Amtrak, increasing energy usage by approximately 3.0 trillion additional BTUs per year which is enough

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<sup>49</sup> According to MCRT, the FRA provided only partial, redacted reports in response to a Freedom of Information Act request by the MCRT.

<sup>50</sup> Tomohiro Oksaki, *Japan’s Maglev Project Derailed by Pandemic and Environmental Fears* (Aug. 13, 2020), available at <https://www.greenbeltmd.gov/home/showpublisheddocument/18465/637574713129210210>. Environmentalists have raised concerns that maglev construction in Japan could reduce water flow to the Oi river and cause shortages in communities downstream. *Id.*

<sup>51</sup> Owen Kelley, *Proposed Baltimore-Washington Maglev Would Increase Greenhouse Gas Emissions* (Apr. 14, 2021), available at <https://www.sierraclub.org/maryland/prince-georges/blog/2021/04/proposed-baltimore-washington-maglev-would-increase-greenhouse>.



energy to power around 88,900 homes per year.<sup>52</sup> Each year we learn that the climate emergency is more dire than previously thought. We cannot allow such a massive scale infrastructure project that moves us farther from bringing climate change under control.

Because of its high cost and inconvenience for many of the communities impacted by its route, Maglev is unlikely to take many cars off the road and instead would create significant impacts. There is no justification for this project when existing public transit options provide for more affordable travel without extensive impacts to communities, waters, habitat, and watersheds.

**D. The Maglev review process has repeatedly failed to comply with public notice requirements.**

The public process for the Maglev project has failed to comply with statutory and regulatory public notice requirements at every turn. For example, in their comments on the Maglev DEIS, MCRT and the City of Greenbelt explained why the Maglev DEIS failed to comply with the public disclosure requirements under the National Environmental Policy Act.<sup>53</sup> The FRA still has not released all the information MCRT requested to better understand the basis for the economics of the Maglev project. Now, during the WQC phase, there continue to be issues with public notice requirements.

Sierra Club was only notified about the public comment period for BWRR's WQC application on October 31, 2023 after its leadership heard from a volunteer who works with a Sierra Club team that, during a meeting, MDE staff said they expected Sierra Club to submit comments on this WQC application. Sierra Club leadership received no direct notification from MDE and despite regular google searches for the Maglev project, did not find the public notice for this application. This raises questions about how the public notice for the WQC application was distributed and why this important comment period was not covered by regional newspapers like the Washington Post and Maryland Matters.

If Sierra Club leadership, with its extensive network of members and general awareness of significant transportation projects in the DMV area, did not receive notice until someone provided notice third hand, it is likely that a large portion of the Maryland public, including key legislators and water-quality interested groups, also did not receive notice of the WQC application and have now lost the opportunity to comment.

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<sup>52</sup> Maglev DEIS at § 4.19-7. The DEIS further states that the Maglev would be “37 and 20 percent less efficient than existing bus and passenger rail, respectively.” *Id.* § 4.19-10.

<sup>53</sup> See, e.g., City of Greenbelt comments on the Maglev DEIS at 214-220.

Because the federal review process for the Maglev project is on hold,<sup>54</sup> many interested stakeholders were under the impression that all public comment periods were also on hold. Anecdotally, Sierra Club has heard that key legislators who are interested in the Maglev project were unaware of BWRR's application or the public comment period in part because it had fallen off their radar because of the federal pause. MDE should consider itself under a heightened burden to ensure that the interested public and stakeholders are engaged in the public comment process and any future public comment opportunities related to the Maglev.

The notice issues are likely to continue. According to BWRR, it will soon be supplementing its WQC application with additional materials, but the public will not be able to comment on them during the public comment period. MDE has requested that BWRR provide additional materials in support of its application on or before November 16, 2023, the same date that public comments are due. As MDE makes clear in its correspondence with BWRR, the materials that MDE has requested should have been included in the original application and thus are critical documents for the public to review to provide meaningful review and comment on BWRR's application. Public input is required by MDE's antidegradation policy and required for any water quality certification.<sup>55</sup> Yet, the public will not be allowed to comment on all the materials BWRR plans to provide because they will only be available *after* the public comment period. This violates Maryland's public notice requirements for a WQC application. Maryland requires public notice "of each application for certification,"<sup>56</sup> but without the additional materials BWRR will provide to MDE, BWRR's application is not complete.

To rectify this failure, MDE must allow public comment on the additional materials to satisfy its public notice requirements. Sierra Club requests that MDE announce the extension of the comment period on a publicly accessible website and clarify that any public comments received before December 17, 2023, will be considered and addressed in the certification decision.

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<sup>54</sup> USDOT FRA, Baltimore-Washington Superconducting Magnetic Levitation Project, <https://web.archive.org/web/20231116203324/https://railroads.dot.gov/environment/environment-scmaglev-project/baltimore-washington-superconducting-magnetic-levitation>; <https://web.archive.org/web/20231116202931/https://www.permits.performance.gov/permitting-project/dot-projects/baltimore-washington-superconducting-maglev-project>

<sup>55</sup> Maryland COMAR §§ 26.08.02.04-2, 26.08.02.10(C).

<sup>56</sup> *Id.* § 26.08.02.10(C)(1).

### **III. Conclusion**

For all the foregoing reasons, MDE has no choice but to deny BWRR's Request for a Water Quality Certification for the Maglev. The loss of flora and fauna would be immeasurable and the area impacted by Maglev would not recover from such major degradation and change. To choose the Maglev is to select a project to benefit a few, to destroy and impair critical and sensitive habitats, and to take action contrary to what climate scientists have said we need to do. In addition to these impacts, Maglev would impair Maryland waterways and watersheds, including the Chesapeake Bay.

MDE must deny BWRR's request for certification because of BWRR's incomplete application, the proposed unmitigated impacts to water quality, and MDE's failure to allow the public to fully assess the impacts of the Maglev.

Sincerely,

Josh Tulkin

Director, Sierra Club Maryland Chapter