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Submitted via email to: info@bwmaglev.info, brandon.bratcher@dot.gov.

Brandon Bratcher, Environmental Protection Specialist
USDOT Federal Railroad Administration, Office of Program Delivery
1200 New Jersey Avenue SE., MS-20
Washington, DC 20590
202-493-0844
brandon.bratcher@dot.gov.

Re: Comments on Baltimore-Washington Superconducting MAGLEV Project Draft Environmental Impact Statement and Draft Section 4(f) Evaluation (EIS No. 20210010)

On behalf of the Beacon Heights and Woodlawn Community Groups, we submit the following comments in response to the Notice of Availability of the Baltimore-Washington Superconducting MAGLEV Project Draft Environmental Impact Statement (hereinafter "DEIS") and Draft Section 4(f) Evaluation[1] prepared by the Lead Agency for the matter, U.S. Department of Transportation Federal Railroad Administration[2] (hereinafter "Agency"), as well as Maryland Department of Transportation (hereinafter "MDOT") and the Project Sponsor, Baltimore-Washington Rapid Rail (hereinafter "BWRR").

The Beacon Heights and Woodlawn Communities oppose the construction and operation of the SCMAGLEV from Baltimore, MD to Washington, D.C. and therefore support the No Build Alternative. The Baltimore-Washington SCMAGLEV Project (hereinafter "SCMAGLEV Project") disproportionately harms environmental justice communities, including Beacon Heights and Woodlawn, for predominantly three reasons. First, the SCMAGLEV Project's route goes directly through minority and low-income communities without providing service to these communities. Second, although the SCMAGLEV Project is purported to be a cleaner, alternative form of transportation, the SCMAGLEV Project is likely to increase air and water pollution, adversely affecting the health of communities surrounding the route. Finally, the construction and operation of the SCMAGLEV Project will likely bring adverse physical changes to the surrounding communities, such as loss of habitat and historic sites, to make way for the SCMAGLEV Project route.

The DEIS for the SCMAGLEV Project fails to meet the requirements of the National Environmental Policy Act (hereinafter "NEPA") for several reasons. First, the DEIS fails to adequately assess the effects that air emissions, stormwater runoff, noise and vibration, and electric and magnetic fields (hereinafter "EMF"), from both construction and operation of the train, will have on the surrounding communities. Second, the environmental impacts of the

[1] 86 Fed. Reg. 6643; See also 86 Fed. Reg. 14908 ("Extending the Comment Period from 04/22/2021 to 05/24/2021.").
[2] U.S. Department of Transportation's Federal Railroad Administration will be abbreviated hereinafter as "FRA."

SCMAGLEV Project are not reasonable in light of the purpose and need for the Project. Third, the DEIS pushes the responsibility for assessing these environmental and community impacts to a "later design phase" or to the permitting process, which largely excludes public participation. Further, the SCMAGLEV Project is an unnecessary addition to the multiple methods of transportation that already service residents from Washington D.C., Baltimore, MD, and Baltimore-Washington International Airport (hereinafter "BWI").

In light of these reasons, and the reasons listed below, the No Build alternative must be selected. The DEIS and procurement process should be stopped and the purpose and need for the SCMAGLEV Project should be reassessed utilizing updated traffic statistics reflecting the changes since the onset of the COVID-19 pandemic. A better analysis of whether the SCMAGLEV Project will meet certain permitting requirements should be conducted at this stage and not passed down to the agency permitting processes where there is limited ability for public participation. Further, a new DEIS should be prepared that adequately assesses the impacts of the proposed SCMAGLEV Project and alternatives on both the environment and the surrounding communities. For these reasons, Beacon Heights and Woodlawn support the No Build Alternative.

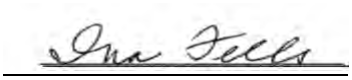
Sincerely,

Beacon Heights and Woodlawn[3]

FOR BEACON HEIGHTS CIVIC ASSOCIATION:

Michael Farley
Vice President of Beacon Heights Civic Association

FOR WOODLAWN COMMUNITY ASSOCIATION:



Ina Fells
President of Woodlawn Community Association

[3] The Communities would like to acknowledge the University of Maryland Francis King Carey School of Law Environmental Law Clinic for assisting in drafting these comments. Specifically, the Communities would like to acknowledge Zoe Rydzewski and Johanna Adashek, student attorneys with the Maryland Environmental Law Clinic under the supervision of Seema Kakade, for their contributions to the comment.

COMMENTS ON THE BALTIMORE-WASHINGTON SCMAGLEV DEIS

I. Background

A. Background on Beacon Heights and Woodlawn, Maryland

i. Beacon Heights[4]

The Beacon Heights neighborhood dates back to 1948. It started with cozy little starter homes built for soldiers returning home from WWII. Beacon Heights is located at the intersection of Riverdale Road and 67th Avenue in Prince Georges County, Maryland. The citizens formally incorporated the subdivision of Beacon Heights in 1953.

Beacon Heights has gone through many demographic changes through the years but has handled it well. In fact, there is an old historic African American burial ground, the Cherry Hill Cemetery[5], located on Ingraham St. within Beacon Heights. Predominantly Caucasian in the 1950's through the 1980's, Beacon Heights is now a diverse community of young Hispanic,

[4] Testimony provided by a resident of Beacon Heights, MD.
[5] *See infra* Section IV.A.

African American, and Asian families. Beacon Heights is in the 86th percentile in Maryland for people of color and in the 81st percentile in Maryland for low-income populations.[6]

As a community on the rise, there will be a brand-new school, Glenridge Middle School, for grades seven through nine, completed in the next couple years. Located fifteen minutes from downtown Washington, D.C. and still inside the beltway, Beacon Heights is a great place to live.

ii. Woodlawn[7]

Homes in Woodlawn date back to the early 1940s, with predominately White homeowners living in the community for an exceptionally long time. In the late 1970s, there was a huge demographic change in Woodlawn when African Americans began buying homes in the area. Woodlawn has always been a welcoming community, where neighbors became friends. Most of the residents that live in the community, have seen each other's children grow up and become adults themselves. The residents have worked hard and paid off mortgages, retired and started to live comfortably.

Within the last 8-10 years, Woodlawn began to attract younger Latin and African American families. Currently, Woodlawn is in the 87th percentile in Maryland for people of color and in the 77th percentile for low-income populations.[8] Woodlawn's hope for these new homeowners is that they become active in a community that will thrive and grow.

iii. The SCMAGLEV Project's Impact on Beacon Heights and Woodlawn

Beacon Heights and Woodlawn are Environmental Justice (hereinafter "EJ")[9] communities who already experience significant adverse environmental hazards that the SCMAGLEV Project will only further exacerbate.[10] The majority of Beacon Heights' and Woodlawn's EJ indices for pollutants and environmental harms are in and around the 90th percentile for Maryland.[11] For example, Beacon Heights and Woodlawn are already in the 95th percentile for PM2.5 in Maryland,[12] 94/93rd percentile for diesel in Maryland,[13] and 94/93rd percentile for respiratory hazard in Maryland.[14] The DEIS estimates that "[a]t the height of construction activity there will be 560 to 690 daily truck departures/arrivals at this work site, which will be active 24 hours per day. In addition, there will be an estimated 425 autos carrying

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[6] *See infra* Appendix A.
[7] Testimony provided by a resident of Woodlawn, MD.
[8] *See infra* Appendix A.
[9] The EPA defines environmental justice as the "fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies." EPA, *Learn About Environmental Justice*, https://www.epa.gov/environmentaljustice/learn-about-environmental-justice (last visited Feb. 4, 2021).
[10] *See infra* Appendix A
[11] *Id*.
[12] *Id*.
[13] *Id.* (94th for Beacon Heights and 93rd for Woodlawn).
[14] *Id.* (94th for Beacon Heights and 93rd for Woodlawn).

workers arriving and departing over the 24-hour period."[15] The DEIS states the construction will also contribute diesel emissions from the temporary standby generation facilities powering the tunnel boring machines, which the DEIS contend will use 4.9 trillion MMBtus of energy.[16] Such vehicles and machines are likely to emit additional amounts of PM2.5 adding to the already high levels of PM2.5 which Beacon Heights and Woodlawn currently face.

Moreover, tunneling for the SCMAGLEV Project could exacerbate the severe flooding and sinkholes already plaguing the residents of Beacon Heights, Woodlawn, and Prince George's County at large.[17] For each build alternative described in the DEIS, except for the No Build Alternative, the SCMAGLEV Project requires tunneling for 75 percent of the route for the J Build Alternatives and 83 percent of the route for the J1 Build Alternatives.[18] To support the underground portion of the system, the Agency intends to build surface facilities to house ventilation plants and emergency exits spaced every three (3) to four (4) miles along the tunnel segments that can be as large as 1.5 acres.[19] One of these facilities will be located at MD

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[15] Baltimore-Washington Superconducting MAGLEV Project DEIS, App-D.2-65

[16] *Id.* at 4.19-14.

[17] For some examples of sinkholes in and around Prince George's County in recent years, *see* Matt Ackland, *Md. Homeowner at Odds on Who is Responsible for Fixing Growing Sinkhole in Backyard*, FOX 5 WASHINGTON DC (May 11, 2016), https://www.fox5dc.com/news/md-homeowner-at-odds-on-who-is-responsible-for-fixing-growing-sinkhole-in-backyard (describing a sink hole, caused by a broken water drainage pipe, which only enlarges with additional rain); Sydney Wu, *PG Sinkhole Swallows Car after Water Main Break*, PATCH (Jan. 27, 2015), https://patch.com/maryland/uppermarlboro/pg-sinkhole-swallows-car-after-water-main-break ("The 90-year-old pipe broke at about 3:30 a.m., causing a large sinkhole that filled with water. . . The large sinkhole swallowed one car and left another one teetering on the edge."); Matthew Stabley, *Sinkhole Swallows Car in Prince George's County*, NCB WASHINGTON (November 28, 2013), https://www.nbcwashington.com/news/local/sinkhole-swallows-car-in-prince-georges-county/2041200/ (describing a sink hole resulting from a broken water main); Dan Taylor, *Huge Sinkhole Opens Up Under Clinton Home: Report*, PATCH (Feb. 12, 2018), https://patch.com/maryland/bowie/huge-sinkhole-opens-under-clinton-home-report (unknown cause of a sink home under a resident's home).

[18] Baltimore-Washington Superconducting MAGLEV Project DEIS, at 3-18. "Each Build Alternative follows the same common alignment in deep tunnel from the Washington, D.C. Station to just west of the Anacostia River. The alignments then split and follow along either the east or west side of the BWP in a combination of deep tunnel and elevated viaduct. The alignments re-converge just north of MD 175 near Fort George G. Meade. The alignments then continue in deep tunnel north through the BWI Marshall Airport tunnel and ultimately terminate at the Cherry Hill Station or Camden Yards Station. Each Build Alternative includes one of two alignments - Build Alternatives J or J1, each with six variations that incorporate station and TMF options, as noted below. Both Build Alternatives generally follow a common route (described above) and the BWP; Build Alternatives J are on the east side of the BWP and Build Alternatives J1 are on the west side of the BWP." Baltimore-Washington Superconducting MAGLEV Project DEIS, 3.3.2-11. The Agency's current plan for tunneling is to bore a tunnel 80 to 150 feet below ground level (as measured from the top of the guideway) under more than half of any of the proposed routes. BALTIMORE-WASHINGTON SUPERCONDUCTING MAGLEV PROJECT, *Preliminary Alternatives Screening Report*, MDOT 20 (Jan. 2018), https://www.bwmaglev.info/images/document_library/reports/pasr/SCMAGLEV_PASR_January_2018_FullVersion_v2.pdf. The inside diameter of the proposed tunnel is 43 feet. *Id.* The goal is to maintain at least 14 meters (about 46 feet) of soil between the top of the tunnel and the foundations of any structure above the tunnel. *Id.*

[19] BALTIMORE-WASHINGTON SUPERCONDUCTING MAGLEV PROJECT, *Preliminary Alternatives Screening Report*, MDOT (Jan, 2018), https://www.bwmaglev.info/images/document_library/reports/pasr/SCMAGLEV_PASR_January_2018_FullVersion_v2.pdf.

Highway 410, which is adjacent to the Beacon Heights and Woodlawn communities.[20] The SCMAGLEV Project's DEIS expects construction at the MD 410 Fresh Air Emergency Egress site (hereinafter "FA/EE") to be 24 hours-per-day for an estimated 1-5 years.[21] In order to build the FA/EE sites, the DEIS states that the construction process will "require deep boring, pile driving and possibly blasting."[22]

The general tunnel boring practices and the building of the FA/EE site adjacent to Beacon Heights and Woodlawn is likely to cause a number of adverse impacts to the communities. First, the tunnel boring for the SCMAGLEV train under the Beacon Heights and Woodlawn communities and the potential pile driving and blasting for the FA/EE site adjacent to Beacon Heights and Woodlawn will cause increased vibrations in the area which may cause structural damage to above ground structures, like homes, in the Beacon Heights and Woodlawn communities.[23] Subsequently, once the SCMAGLEV Project is complete, the operation of the train underground may also cause increased vibrations in both communities as well.[24] Second, the additional roads needed for the construction of the FA/EE site adjacent to Beacon Heights and Woodlawn will increase the surface area of impervious surfaces which will only exacerbate the already prevalent issue of flooding in the area.[25] Third, the deep tunneling for the SCMAGLEV Project and the construction of the FA/EE site are likely to cause the acidic soils in the area around Beacon Heights and Woodlawn to be dislodged to the point where the soils "produce enough acidity to degrade concrete and steel structures to the point of failure."[26] The degradation of concrete and steel structures, such as underground pipes, can lead to sinkholes.[27]

B. Legal Background

NEPA requires an environmental review process for proposed federal projects. The environmental review process under NEPA has two major purposes: to ensure that "agencies consider the significant environmental consequences of their proposed actions and informing the public about their decision making."[28] NEPA has a number of requirements to ensure that agencies adequately consider significant environmental consequences of a proposed project. The Council on Environmental Quality's (hereinafter "CEQ") regulations mandate than an agency discuss a project's environmental consequences in an EIS.[29] In relevant part, this discussion must consider: "the environmental impacts of the proposed action and reasonable alternatives to the proposed action and the significance of those impacts"; unavoidable adverse effects, including

[20] *See infra* Appendix C.
[21] Baltimore-Washington Superconducting MAGLEV Project DEIS, App-D.2-85.
[22] *Id.* at 4.17-18.
[23] *See supra* Section III.A.2.
[24] *Id.*
[25] *See supra* Section III.D.1.
[26] *See supra* Section III.A.2; *See also* Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.13-7.
[27] *See infra* note 16.
[28] *A Citizen's Guide to NEPA: Having Your Voice Heard*, COUNCIL ON ENVIRONMENTAL QUALITY EXECUTIVE OFFICE OF THE PRESIDENT (Jan. 2021), https://ceq.doe.gov/docs/get-involved/citizens-guide-to-nepa-2021.pdf.
[29] 42 U.S.C. §§ 4443(c)(i), (ii).

both direct and indirect effects; "energy requirements and conservation potential of various alternatives and mitigation measures"; "urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures"; the "means to mitigate adverse environmental impacts"; and "where applicable, economic and technical considerations, including the economic benefits of the proposed action."[30]

NEPA also requires as part of an EIS's analysis of environmental consequences, that the Agency analyze the reasonably foreseeable effects or impacts of a project. Under 40 C.F.R. § 1508.1(g), the effects or impacts of a project include "changes to the human environment from the proposed action or alternatives that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives, including those effects that occur at the same time and place as the proposed action or alternatives and may include effects that are later in time or farther removed in distance from the proposed action or alternatives."[31] Under 40 C.F.R. § 1508.1(aa), reasonably foreseeable is defined as "means sufficiently likely to occur such that a person of ordinary prudence would take it into account in reaching a decision."[32]

Not only does NEPA require that an agency evaluate environmental consequences of a project, but it also requires agencies to analyze and propose possible measures to mitigate those consequences. As stated in 42 U.S.C. § 4321, the purposes of NEPA include promoting efforts that will prevent or eliminate damage to the environment.[33] Accordingly, under 40 C.F.R. § 1500.2(f), federal agencies shall, to the fullest extent possible, "use all practicable means consistent with the requirements of the Act and other essential considerations of nation policy, to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions on the quality of the human environment."[34] The purpose of proposed mitigation measures issued in an EIS is to avoid or minimize the impact of the project on the surrounding environment.[35]

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[30] *Id.*
[31] 40 C.F.R. § 1508.1(g).
[32] *Id.* at 1508.1(aa).
[33] 42 U.S.C. § 4321.
[34] *See* 40 C.F.R. § 1500.2(f). *See also Forty Most Asked Questions and Answers on the CEQ Regulations: Number 19a*, DEPT. OF ENERGY, OFFICE OF NEPA POLICY & COMPLIANCE, https://www.energy.gov/nepa/downloads/forty-most-asked-questions-concerning-ceqs-national-environmental-policy-act (last visited April 23, 2021) (The mitigation of impacts should be considered regardless of whether the impacts are significant).
[35] See 40 C.F.R. § 1508.20 (stating that mitigation includes: Mitigation includes: (a) Avoiding the impact altogether by not taking a certain action or parts of an action; (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; (e) Compensating for the impact by replacing or providing substitute resources or environments.).

The second purpose of the environmental review process is to inform the public about an agency's decision making.[36] CEQ offered guidance in January of 2021 on how the public can be involved in the NEPA process. One way that the public can participate is through commenting on the DEIS. Additionally, CEQ proposes that the public also comment throughout the permitting process since statutes and regulations also often provide opportunities for public comment.[37] Important for this comment, CEQ recommends that "the permitting and NEPA processes [] be integrated or run concurrently in order to have an effective and efficient decision-making process."[38]

Further, the Department of Transportation's (hereinafter "DOT") has its own EJ Order, setting forth how the DOT is supposed to incorporate EJ principles into its decision making.[39] Under such order, DOT Order 5610.2(a), DOT must ensure that its programs that have a disproportionately high and adverse effect on protected populations will only be carried out if certain requirements are met.[40] Importantly, a substantial need for the program based on the overall public interest must exist.[41] Further, alternatives that would have less adverse effects on protected populations would either have adverse and severe social, economic, environmental, or human health impacts or would extraordinarily increase costs.[42]

II. Inadequacies in Meeting NEPA Requirements

A. Inadequacies in Meeting Requirements under U.S. DOT Order 5610.2(a)

The Agency has not ensured that the SCMAGLEV Project, with its disproportionate impacts upon EJ communities, is substantially needed according to public interest, as necessitated under U.S. DOT Order 5610.2(a).[43] Section I.A.1 below demonstrates the disproportionate impacts to Beacon Heights Woodlawn, and EJ communities at large. Section I.A.2 below illustrates that the disproportionate burden on EJ communities is not justified because there is no substantial need for the SCMAGLEV Project, especially in light of the public interests and existence of other reasonable alternatives.

1. The impacts of construction and the lasting impacts from the train disproportionately burden Beacon Heights and Woodlawn

[36] *A Citizen's Guide to NEPA: Having Your Voice Heard*, COUNCIL ON ENVIRONMENTAL QUALITY EXECUTIVE OFFICE OF THE PRESIDENT (Jan. 2021), https://ceq.doe.gov/docs/get-involved/citizens-guide-to-nepa-2021.pdf.
[37] *Id.*
[38] *Id.*
[39] U.S. DEP'T OF TRANSP., *Dep't of Transp. Order 5610.2(a)*, (May 2, 2012), https://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/orders/order_56102a/index.cfm.
[40] *Id.*
[41] *Id.*
[42] *Id.*
[43] *Id.*

U.S. DOT Order 5610.2(a) explicitly requires that DOT consider the project's disproportionate impacts.[44] Yet, the extent of this burden was not calculated in the DEIS and the DEIS, by its own words, relies on an incomplete or under-detailed traffic data study. In particular, the DEIS states that a detailed traffic study will be completed at a later design phase.[45] The DEIS also states that the information relied upon for the DEIS is not adequate enough to understand the implications of truck arrivals and departures."[46] As a result, the true impact of construction traffic cannot be measured and DOT is unable to calculate the full breadth of emissions and pollution impacts attributable to construction at this site.[47] These unknown and unstudied emissions will exacerbate the pollution in Beacon Heights and Woodlawn, communities already heavily burdened by PM 2.5, diesel, and respiratory hazards.[48]

The SCMAGLEV Project's DEIS expects construction at the MD 410 FA/EE to be 24 hours-per-day for an estimated 1-5 years, with potentially 560-690 trucks per day. [49] The impact of this was not calculated in the DEIS but pushed off to a later design phase.[50] Tunneling under Beacon Heights and Woodlawn could take years. Many of the residents' work from home and often need to speak with clients and, therefore, the continuous construction will hurt their businesses and interrupt their lives. Other community members are recently retired and would like to spend their retirement in a quiet area, free from years of construction and the worry of ground instability. Yet, they will likely be burdened with noise and vibration, worsening air quality, interrupted transit service, and community disruption for years.

Moreover, the residents will also see no benefits because there is no station or stop in or near their communities that would allow the residents of Beacon Heights and Woodlawn to access the train. Residents will have to first drive almost fifteen miles into Washington, D.C. or twenty-five miles to BWI to access a stop on the train. The train will serve neither Beacon Heights nor Woodlawn. The DEIS merely points out that the SCMAGLEV Project is more efficient with less stops.[51] Thus, to the communities of Beacon Heights and Woodlawn, it feels as though the intent of the DEIS is to purposively trade equity for efficiency in contradiction to the principles of environmental justice.[52]

In sum, the following are the disproportionate impacts on Beacon Heights, Woodlawn, and EJ communities at large that will likely occur as a result of the SCMAGLEV Project.

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[44] U.S. DEP'T OF TRANSP., *Dep't of Transp. Order 5610.2(a)*, (May 2, 2012), https://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/orders/order_56102a/index.cfm.
[45] Baltimore-Washington Superconducting MAGLEV Project DEIS, App-D.2-66.
[46] *Id.*
[47] *Id.*
[48] *See supra* Section I.A.iii.
[49] Baltimore-Washington Superconducting MAGLEV Project DEIS, App-D.2-65, 85.
[50] *Id.*
[51] *Id.* at 4.19-7, 9, n.11.
[52] Under Title VI DOT is expressly required to provide service on a non-discriminatory basis. U.S. DEP'T OF TRANSP., *Dep't of Transp. Order 5610.2(a)*, (May 2, 2012), https://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/orders/order_56102a/index.cfm.

- "The vast majority of the SCMAGLEV Project impacts would occur in EJ population areas due to the fact that most of the SCMAGLEV Project Affected Environment qualifies as EJ;"[53]
- "Due to the prevalence of EJ population areas, impacts to resources along the corridor will predominately be located in EJ population areas;"[54]
- "Collectively, the Build Alternatives would impact 14 parks, 12 of which are located in EJ population areas. The other two parks are large federal properties that do not have an EJ designation;"[55]
- Ninety percent of the community facilities impacted or displaced by the SCMAGLEV Project are located in EJ communities.[56] The project will displace three community facilities that are not only located in EJ communities but also serve EJ communities.[57] The Adams Place Emergency Shelter, Woodlands Job Corp., and Medmark Treatment Center are essential facilities that provide shelter, job assistance, and addiction treatment to Maryland's most vulnerable populations.[58]
- "The entire length of the viaduct is located within and adjacent to EJ population areas, and the new aboveground elevated guideway would be visible to those EJ populations"[59]
- "Long-term operational effects of the SCMAGLEV Project for either Build Alternatives can include potential spills of hazardous substances or accidents. . . These spills are more likely to occur in EJ communities, as nearly all of the viaduct, ancillary facilities, MOW, and TMFs (*sic*) are in EJ population areas;"[60]
- "Over 99 percent of the impacted noise receptors are located with EJ population areas;"[61]
- "100 percent of the severe vibration impacts would be located in EJ population areas;"[62]
- "Approximately 80 percent of the parcels that would be impacted are located within EJ population areas;"[63]
- "The construction of and the associated construction staging and laydown areas and haul routes for the SCMAGLEV Project would predominately occur within Environmental Justice population areas;"[64]

[53] Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.5-6.
[54] *Id.* at 4.5-9.
[55] *Id.* at 4.5-12.
[56] *Id.* at 4.5-10.
[57] *Id.*
[58] Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.5-10,11.
[59] *Id.* at 4.5-14.
[60] *Id.* at 4.5-15.
[61] *Id.* at 4.5-15,16.
[62] *Id.* at 4.5-17.
[63] Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.5-17.
[64] *Id.* at 4.5-20.

- "The majority of the underground stations (MVS East Station and Camden Yards Station) and FA/EE facilities would be located in areas with EJ populations so these populations would experience increased noise and vibration due to construction;"[65]
- "Construction laydown areas would be required in multiple locations throughout the SCMAGLEV Project corridor. All identified construction laydown areas would be located within areas with EJ populations;"[66] and
- "Construction of the SCMAGLEV Project would result in short-term adverse impacts to EJ populations due to temporary use of property, increased noise and vibration, air quality/emissions, changes in aesthetics and visual quality, changes to access and mobility, changes in current transit service, and the use of community facilities. EJ populations subject to these impacts may also experience community disruption (a population's ability to navigate their way around their community) and adverse effects to community cohesion (disruption of interaction between people and groups within a community).[67]

2. No substantial need for the SCMAGLEV Project exists to justify the SCMAGLEV Project's disproportionate impacts

U.S. DOT Order 5610.2(a) also states that a project with high and adverse effects on EJ populations, will only be carried out in certain circumstances, including if there is substantial need for the program, and limited alternative options. As demonstrated below, no substantial need for the SCMAGLEV Project exists, especially based on the overall public interest. The train will cost too much for the residents of Beacon Heights, Woodlawn, and most citizens to ride, and will only cater to the wealthy.[68] Moreover, the DEIS neither considers nor demonstrates that alternatives with less adverse effects would have other adverse social, economic, environmental or human health impacts that are severe or would involve increased costs of extraordinary magnitude, as dictated by U.S. DOT Order 5601.2(a)(2). The DEIS did not consider non-SCMAGLEV alternatives at all, such as upgrading existing transportation methods within the northeast corridor. Section I.2.i-iv examines the purported reasoning behind each of the SCMAGEV Project's stated needs and demonstrates that they are inadequate to justify the disproportionate impacts borne by the SCMAGLEV Project.

i. Increasing population and employment

The DEIS relies upon inadequate population statistics and data. The DEIS used population statistics from the "Baltimore-Washington region," however, the whole region will

[65] *Id.* at 4.5-21.
[66] *Id.*
[67] *Id.* at 4.5-22.
[68] LSIA, *SC MagLev – Not Good for Linthicum & not the Solution* (Feb. 17, 2021), http://www.lsia.net/scmaglevbwrr; CITY OF GREENBELT, *Special Meeting – City Council Agenda: Proposed MAGLEV Project* (Sept. 8, 2020), https://d3n9y02raazwpg.cloudfront.net/greenbeltmd/cdb3857a-e873-11ea-9419-0050569183fa-2e149c49-c4d9-4b27-bcb0-3291927b3078-1599241136.pdf.

not use the train, rather, it is likely that only those in Baltimore and D.C. will use it. The population growth rates in Baltimore and D.C. have decreased for decades. From 1980 to 2000, Baltimore saw a population growth rate of –17.2% and D.C. –10.4%.[69] Early census data for 2020 affirmed showing that Baltimore city lost 9,000 residents, and is now below 600,000 people.[70] Similarly, in 2019, D.C. saw its lowest population growth since 2005.[71] Neither population nor employment trends justify a new transportation system among the many others in the Northeast Corridor.

Moreover, the COVID-19 Pandemic has changed everything: populations, employment statistics, and future population and employment trends, making the data and statistics relied upon in the DEIS outmoded and inadequate. In order to save lives and stop the spread of COVID-19, many employers ordered employees to work remotely. One study found that chief information officers expect that the number of employees permanently working remotely to double from pre-COVID levels.[72] Another study of business leaders found that seventy-four percent of chief financial officers will move at least five percent of their workforce to permanently remote after the COVID-19 pandemic.[73] A study produced by Upwork estimates just 12.3% of the workforce worked remotely before the COVID-19 Pandemic, while in 2021, 26.7% of the workforce worked remotely, and over 1,000 company managers expect 22.9% of workers to remain in a remote capacity for the next five years.[74]

Further, employees working from home are more efficient and on average work more hours than they would commuting to an office or workspace.[75] For example, REI decided to sell its new, eight-acre corporate campus in D.C. and embrace a more remote and hybrid-remote model.[76] With more companies transitioning to remote or hybrid work, less will need or utilize office spaces, meaning less people commuting. So even if employment does increase as the

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[69] City of Baltimore Comprehensive Master Plan 49 [available at: http://planning.baltimorecity.gov/sites/default/files/Key%20Trends_0.pdf.]
[70] Jayne Miller, *Early Census Count Shows Baltimore Lost 9,000 Residents*, WBAL TV (Mar. 26, 2020), https://www.wbaltv.com/article/census-early-count-shows-loss-of-around-9000-citizens-in-baltimore/31942490.
[71] Sunaina Kathpalia, *The District's Population Grows for the 14th Year in a Row, but at a Weaker Rate*, D.C. POLICY CENTER (Apr. 15, 2020), https://www.dcpolicycenter.org/publications/districts-population-grows-14th-year-row-weaker-rate/#:~:text=According%20to%20the%20latest%20population,minus%20the%20number%20of%20deaths.
[72] Gertrude Chavez-Dreyfuss, *Permanently remote workers seen doubling in 2021 due to pandemic productivity: survey*, REUTERS (Oct. 22. 2020), https://www.reuters.com/article/us-health-coronavirus-technology/permanently-remote-workers-seen-doubling-in-2021-due-to-pandemic-productivity-survey-idUSKBN2772P0.
[73] GARTNER, Gartner CFO Survey Reveals 74% Intend to Shift Some Employees to Remote Work Permanently (Apr. 3. 2020) https://www.gartner.com/en/newsroom/press-releases/2020-04-03-gartner-cfo-surey-reveals-74-percent-of-organizations-to-shift-some-employees-to-remote-work-permanently2.
[74] Dr. Adam Ozimek, *Economist Report: Future Workforce*¸ UPWORK (Dec. 2020), Economist Report: Future Workforce | Upwork.
[75] Gertrude Chavez-Dreyfuss, *Permanently remote workers seen doubling in 2021 due to pandemic productivity: survey*, REUTERS (Oct. 22. 2020), https://www.reuters.com/article/us-health-coronavirus-technology/permanently-remote-workers-seen-doubling-in-2021-due-to-pandemic-productivity-survey-idUSKBN2772P0.
[76] Caroline Castrillon, *This is the Future of Remote Work in 2021*, FORBES (Dec. 27, 2020), https://www.forbes.com/sites/carolinecastrillon/2021/12/27/this-is-the-future-of-remote-work-in-2021/?sh=2d621c701e1d.

DEIS states, the current employment trends are based on inadequate data and do not take into account the new and poignant trends of remote work.

ii. Growing demands on the existing transportation network and inadequate capacity of the existing transportation network

The SCMAGLEV will not significantly reduce the congested roadways from Baltimore to Washington D.C. The DEIS projections claim the train will divert the majority of ridership from automobiles.[77] However, the diversions are only a small percentage of the annual automobile trips within the SCMAGLEV Project area.[78] The difference between the SCMAGLEV Build Alternatives and the No Build Alternative results in, at most, 1.3% of automobile trips diverted.[79] Further, while only small changes are expected on a daily basis, even smaller changes are expected during peak hours, when congestion is at its highest.[80] Thus, the SCMAGLEV Project will not sufficiently address congestion and delay problems on roadways to and from Baltimore and D.C. and does not resolve the inadequate capacity of roadways.

The SCMAGLEV Project also does not solve the congestion problem in the Northeast Corridor and only exacerbates the problem by adding one ***more*** method of transportation to the multiple transportation methods utilized in the corridor. The SCMAGLEV ridership forecast predicts it will divert 2,000,000 passengers per year from rail and 200,000-300,000 passengers per year from bus. The SCMAGLEV Project is not needed to help with alleged growing demand and inadequate capacity because the MARC and Amtrak trains, discussed below, are currently undergoing improvements to bolster their speeds and capacity.

The MARC train is the most affordable and equitable transportation option in the corridor. A trip from Baltimore to Washington D.C. costs $12 or less given the significant discounts for students, children, groups, the elderly, and people with disabilities.[81] The MARC train runs from Baltimore to Washington D.C., with more than ten stops in between, including BWI. Juxtaposing the accessibility of the MARC train, the SCMAGLEV will only accommodate commuters traveling between the two already accessible cities and the BWI Airport.[82] To meet growing demand and capacity problems, MARC has long range plans for physical improvements to the MARC rail lines that will allow for more frequent trips with additional capacity and "more attractive and convenient service to potential riders."[83] The SCMAGLEV Project forecasts that

[77] Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.2-20.
[78] *Id.* ("Results showed small changes in volumes between the No Build and Build Alternatives, which reflects the fact that although there will be annual diversions to the SCMAGLEV Project from automobiles . . . these diversions are a small percentage of the total annual automobile trips made within the SCMAGLEV Project Affected Environment and are for a small set of distinct origin/destination (O/D) pairs that are part of a much larger set of O/D pairs that are not conveniently served by the SCMAGLEV Project").
[79] *Id.*
[80] *Id.*
[81] MDOT, *MARC Fares*, https://www.mta.maryland.gov/marc-fares (last visited Dec. 30, 2020).
[82] MDOT, *Route MARC – Penn – Washington*, https://www.mta.maryland.gov/schedule/timetable/marc-penn (last visited Dec. 30, 2020).
[83] Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.2-9.

it will divert approximately 32% of annual MARC ridership on the Penn and Camden Lines, causing a decline in fare revenue.[84] Diverting revenue from a governmental organization means that public transportation quality and service frequency will decline. The MARC train provides the lowest cost options to people in need of transportation and reducing MARC profit will only worsen the transportation situation in the Northeast Corridor. The SCMAGLEV train is not a proper solution for issues with the MARC train because the SCMAGLEV train will not be capable of making the frequent stops that makes the MARC train so accessible and equitable.

Amtrak's Acela provides high-end and fast paced travel between Washington D.C. and Baltimore. The DEIS incorrectly states that Acela "stops only at Baltimore Penn Station and Washington Union Station."[85] Acela will make nearly the identical trip that the proposed SCMAGLEV Project will, traveling between Baltimore and Washington, D.C., and stopping at BWI.[86] Acela offers food service, complimentary WIFI, charging ports, restrooms, takes less than forty minutes to travel from Baltimore to D.C., and can cost less than $20, which is far less than the SCMAGLEV Project purports to charge.[87] Acela currently travels at 150 miles per hour and is dealing with the "aging infrastructure" by upgrading their trains and increasing train speeds to 160 mph this coming year.[88] Yet, these improvements that are already underway may be made inconsequential as the SCMAGLEV Project forecasts that it will divert 94% of annual Amtrak trips traveling between the three major Amtrak stations within the SCMAGLEV Project."[89] This is egregious not only because it will divert most of Amtrak's ridership, pulling funds from the government, but especially because the DEIS recognizes that bus and rail are more energy efficient than the SCMAGLEV Project.[90] Thus, the SCMAGLEV Project will divert ridership from more efficient transportation methods and divert funds supporting government transportation into private entitles.

The SCMAGLEV Project Purpose and Need Statement claims its primary objective was to "[i]mprove redundancy and mobility options for transportation between the metropolitan areas of Baltimore and Washington, D.C."[91] The SCMAGLEV Project will only increase the redundancy of the current transportation options while deflecting funding from existing transportation options. The Agency already has other projects and improvements currently, or soon-to-be, underway, including "MDOT MTA Bus Expansion Program, Bus Rapid Transit to BWI Marshall Airport – from Dorsey MARC Station to BWI Marshall Light Rail Station, U.S.

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[84] *Id.* 4.2-10.
[85] *Id.* 4.2-11.
[86] AMTRAK, *Acela*, https://www.amtrak.com/routes/acela-train.html (last visited Feb. 18, 2021).
[87] AMTRAK, *Train Options and Accommodations*, https://www.amtrak.com/tickets/departure.html (last visited Dec 26, 2020); AMTRAK, *Acela*, https://www.amtrak.com/routes/acela-train.html (last visited Feb. 18, 2021).
[88] CBS NEWS, *Amtrak's new Acela gets speed testing ahead of 2021 rollout: "It's going to be a game changer"*, (Oct. 9, 2020), https://www.cbsnews.com/news/amtrak-acela-speed-testing-rollout/. *See also* DEIS Chapter 4.2 page 12.
[89] Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.2-12.
[90] *Id.* at 4.19-8.
[91] BALTIMORE-WASHINGTON SUPERCONDUCTING MAGLEV PROJECT, *Purpose and Need Statement* (Oct. 12, 2017), https://www.bwmaglev.info/images/document_library/reports/purpose_and_need_2017_10_12.pdf.

29 Bus Rapid Transit service, DC Streetcar Expansion, and MDOT MTA Purple Line."[92] Overall, the SCMAGLEV Project is not needed to meet the growing demand for transportation or any alleged inadequacies in the bus or rail systems as there are already current projects underway that fulfill the same needs. In addition, due to COVID-19 disruptions, Amtrak experienced nearly a 50% passenger ridership decline in the 2020 fiscal year as compared to 2019.[93] With policy recommendations like social distancing, two-week quarantines, and travel restrictions in place, public transit ridership has declined precipitously across bus, and rail, and will likely continue to do so.[94]

iii. Increasing travel times and decreasing mobility

The DEIS fails to show that the SCMAGLEV Project will decrease travel times or increase mobility. While the DEIS projections claim the majority of ridership will be diverted from automobiles the difference between the SCMAGLEV Project's Build Alternatives and the No Build Alternative results in, at most, 1.3% of automobile trips diverted.[95] And, as explained in Section I.2.ii, upgrades to the MARC and Acela trains will upgrade infrastructure and speed up trains.[96] Acela's new fleet will go faster and accommodate twenty-five (25%) more passengers.[97] As the SCMAGLEV Project will not divert substantial amounts of automobile trips, it will not decrease travel times or increase mobility, especially with the upgrades already started within the corridor.

Additionally, the SCMAGLEV Project Purpose and Need Statement is based on traffic assumptions assessed prior to the COVID-19 pandemic, before working from home became the new normal. The COVID-19 pandemic has shown that people can work from home, and are even more productive doing so, thus drastically reducing the number of cars on the highway.[98] Many companies have said they plan to move at least some of their workers permanently remote after

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[92] Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.2-16.
[93] AMTRAK, *Amtrak Route Ridership FY 20 v. FY19*, at 1 (last visited Feb. 28, 2021), FY20-Year-End-Ridership.pdf (amtrak.com)
[94] Christina Ianzito, *Guide to State Quarantine Rules for Travelers*, AARP (Feb. 24, 2021), COVID-19 Travel Advisory: Quarantine Guide By State (aarp.org); CDC, *Social Distancing*, (Nov. 2020), Social Distancing (cdc.gov); USA FACTS, *Monthly public transit ridership is 65% lower than before the pandemic*, (Oct., 2020), Monthly public transit ridership is 65% lower than before the pandemic - USAFacts.
[95] Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.2-20 ("Results showed small changes in volumes between the No Build and Build Alternatives, which reflects the fact that although there will be annual diversions to the SCMAGLEV Project from automobiles . . . these diversions are a small percentage of the total annual automobile trips made within the SCMAGLEV Project Affected Environment and are for a small set of distinct origin/destination (O/D) pairs that are part of a much larger set of O/D pairs that are not conveniently served by the SCMAGLEV Project").
[96] *See supra* Section D.3, D.4.
[97] *New Amtrak Acela Trains Stimulate Nationwide Economy*, AMTRAK (Dec. 4, 2019), https://media.amtrak.com/2019/12/new-amtrak-acela-trains-stimulate-nationwide-economy/.
[98] Gertrude Chavez-Dreyfuss, *Permanently remote workers seen doubling in 2021 due to pandemic productivity: survey*, REUTERS (Oct. 22. 2020), https://www.reuters.com/article/us-health-coronavirus-technology/permanently-remote-workers-seen-doubling-in-2021-due-to-pandemic-productivity-survey-idUSKBN2772P0.

COVID-19, and many more are planning hybrid work schedules.[99] With more companies transitioning to remote or hybrid work, less will need or utilize office spaces, meaning less people will commute. Moreover, the DEIS uses data that is over five years old instead of the MDOT's most recent annual report that became available in 2019.[100] In fact, the 2019 annual report produced new data with the 15 most congested roads, and segmented the roads less, which can be seen in the side-by-side comparison of the reports in Appendix B.[101] Instead of nearly half of the "most congested roads" located between Baltimore and Washington, D.C., as the DEIS states, only two portions of road are actually on direct paths between Baltimore and Washington D.C.[102] Therefore, the current trends utilized by the DEIS are based on inadequate data and do not take into account the new trends of remote work. Further, the SCMAGLEV Project will not substantially reduce drivers from the Northeast Corridor, thus not solving any congestion problems.

iv. Maintaining economic viability

The DEIS loftily states that the SCMAGLEV Project will be "a transportation system that provides options for reliable, efficient, and cost-effective movement of passengers and goods [] needed to support continued economic growth, including the retention of, and an increase in jobs in the region."[103] The Acela upgrades are projected to do exactly that. The Acela upgrades created an estimated 1300 jobs and sourced parts from all over the country.[104] The DEIS also shows how the SCMAGLEV Project is cost-ineffective. By its calculations, the DEIS estimates that expected SCMAGLEV Project riders will save $462.3 million in 2030 and $617.7 million in 2045 with the Cherry Hill Station or $519.7 million in 2030 and $696.6 million in 2045 with the Camden Yards Station.[105] These savings are based on saved travel time.[106] However, these savings are traded off against costs of travel estimated at $552.6 million in 2030 and $704.2 million in 2045 with the Cherry Hill Station or $607.5 million in 2030 and $773.7 in 2045 with the Camden Yards Station.[107] Overall, the time saved by using the SCMAGLEV Project is heavily outweighed by the high costs of usage. The SCMAGLEV Project relies on outmoded and outdated data and, further, will not fulfill any of the project's stated purposes and needs.

[99] *Id.*; *See also supra* Section II(b)(i).
[100] MARYLAND DEPARTMENT OF TRANSPORTATION, *Mobility and Reliability*, https://roads.maryland.gov/mdotsha/pages/Index.aspx?PageId=711 (last visited Feb. 18, 2021).
[101] *See infra* Appendix B.
[102] For a side-by-side comparison of 2015 and 2019 congestion reports, *See Appendix B*.
[103] Baltimore-Washington Superconducting MAGLEV Project DEIS, at 2-15.
[104] *New Amtrak Acela Trains Stimulate Nationwide Economy*, AMTRAK (Dec. 4, 2019), https://media.amtrak.com/2019/12/new-amtrak-acela-trains-stimulate-nationwide-economy/.
[105] Baltimore-Washington Superconducting MAGLEV Project DEIS, at 4.6-2.
[106] *Id.* at 4.6-3.
[107] *Id.* at 4.6-3.

B. The Agency Did Not Conduct Sufficient Outreach During the Scoping Process

The Agency did not adequately conduct the scoping process because it failed to properly engage with residents living along the planned route in areas where stops would not be located.[108] The notice of intent to draft an DEIS for the SCMAGLEV Project was published in the Federal Register on November 25, 2016.[109] Two Agency scoping meetings were held in 2017 for participating agencies. Five scoping meetings, as seen in Figure II.C.1, were held open to the public.[110] However, only 152 people attended these open houses and 57 people submitted comments at the open houses.[111] A total of 669 postcard mailings were sent out to selected community groups, chambers of commerce, and neighborhood associations in early December 2016.[112] The mailing list was determined by the project team based upon proximity to proposed alternative alignments and area of potential effects.[113]

[108] As stipulated under 43 C.F.R. § 46.235 ("bureaus must use scoping to engage State, local and tribal governments and the public in the early identification of concerns, potential impacts, relevant effects of past actions and possible alternative actions. Scoping is an opportunity to introduce and explain the interdisciplinary approach and solicit information as to additional disciplines that should be included") and 40 C.F.R. § 1501.9 (Agencies must hold scoping meetings, publish scoping information, "or use other means to communicate with those persons or agencies who may be interest").
[109] Baltimore-Washington Superconducting MAGLEV Project, *Final Scoping Report*, MDOT (May, 2017), https://www.bwmaglev.info/images/document_library/reports/Maglev_Scoping-Report_051717RE.pdf.
[110] Baltimore-Washington Superconducting MAGLEV Project DEIS, 5-11.
[111] Baltimore-Washington Superconducting MAGLEV Project, *Final Scoping Report*, MDOT (May, 2017), https://www.bwmaglev.info/images/document_library/reports/Maglev_Scoping-Report_051717RE.pdf. *See also* Baltimore-Washington Superconducting MAGLEV Project DEIS, 5-11.
[112] Baltimore-Washington Superconducting MAGLEV Project DEIS, 5-8.
[113] *Id.*

Figure II.C.1: Final Scoping Map[114]

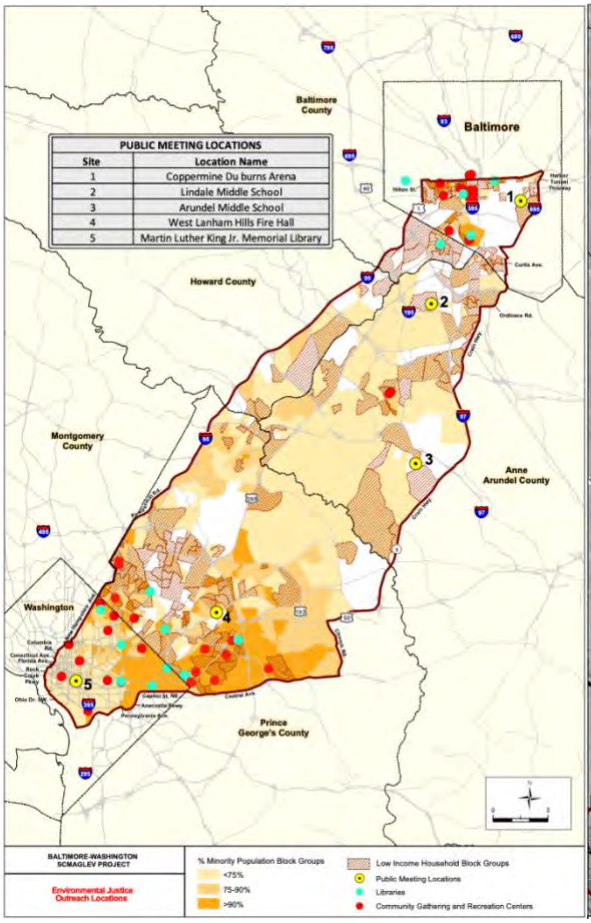
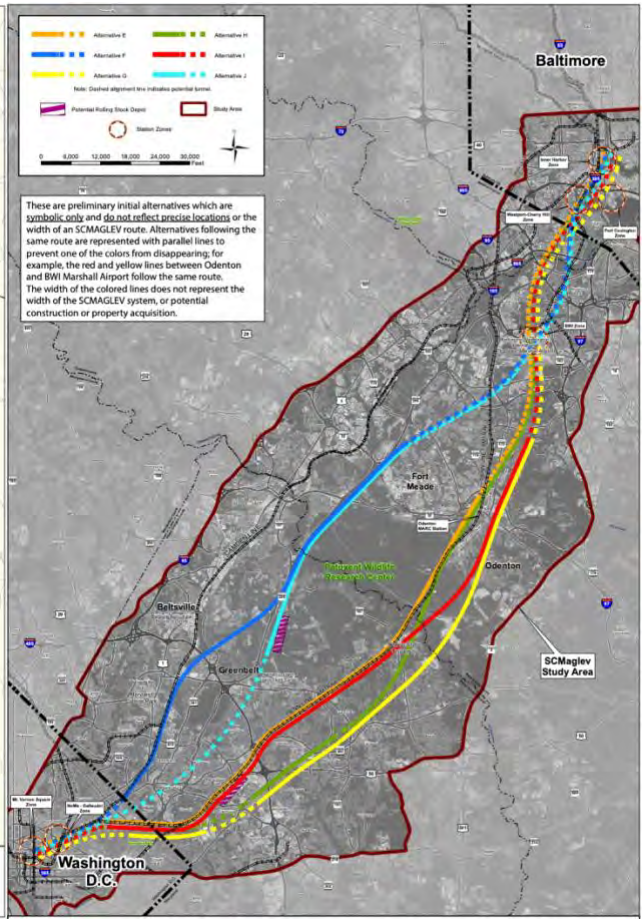


Figure II.C.2: Initial MAGLEV Routes Alternatives[115]



The Agency did not adequately conduct the scoping process because it failed to properly engage with residents living along the planned route in areas where stops would not be located. The majority of flyers were placed in and around Baltimore and D.C., neglecting the entirety of the central portion of the SCMAGLEV Project route of Figure II.C.1. Unfortunately, it is those areas with less ability to participate and less notice that will have to endure construction for years–and SCMAGLEV Project operation for decades–without being serviced by it, as seen in Figure II.C.2. Further, the fact that the Agency only had 150 people in total at their five public open houses, which is barely a fraction of the entire population that will be affected by this SCMAGLEV Project, evidences the lack of public knowledge and participation in the early

[114] Baltimore-Washington Superconducting MAGLEV Project, *Final Scoping Report*, MDOT (May, 2017), https://www.bwmaglev.info/images/document_library/reports/Maglev_Scoping-Report_051717RE.pdf (Figure 2-2).
[115] Baltimore-Washington Superconducting MAGLEV Project, *Draft Purpose and Need, and Screening Maps*, MDOT (April, 2017), https://www.bwmaglev.info/index.php/april-2017-draft-purpose-and-need-and-screening-meetings-maps.

stages of the SCMAGLEV Project. The Agency overlooked a key portion of the population that will be adversely affected by this SCMAGLEV Project.

The Agency should have sent out more mailings, placed more flyers, and conducted additional public meetings along the route of the SCMAGLEV Project in order to garner more public participation. The Agency should have also conducted additional public meetings once they received little turn out in their initial public meetings. For comparison, in order to engage the public to assist with determining how to best update transportation needs along Utah's 1800 North Corridor, the agencies held a single scoping meeting, which garnered over 150 people.[116] A road widening/reconstruction project with one scoping meeting at one location generated a larger audience than five scoping meetings along the 40-mile path of the Proposed SCMAGLEV Project.[117] The I-64 Hampton Roads Bridge Tunnel held two public meetings and also had 152 citizens attend. They then held further meetings to obtain more input.[118] After very little public participation, the Agency should have restructured their outreach and readdressed scoping to do more to reach additional people along the proposed routes, especially since the purpose of NEPA is public involvement.

C. The FRA Should Issue an RPA for the Project

The FRA should issue a Rule of Particular Applicability (hereinafter "RPA")[119] for this SCMAGLEV Project, just as it has for other projects utilizing high-speed rail technology,[120] since it is based off of foreign, newly introduced technology not yet in use in the United States.[121] The DEIS for this SCMAGLEV Project merely states that the FRA *may* issue an RPA but currently does not require the publication of an RPA.[122] Given the unique nature of this SCMAGLEV technology and the precedent set forth by the Texas Central Railroad Project (hereinafter "TCRR") in particular, the FRA should issue an RPA for this SCMAGLEV Project.

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[116] *1800 North (SR-37) Transportation Improvement*, EPA, https://cdxnodengn.epa.gov/cdx-enepa-II/public/action/eis/details?eisId=88431 (last visited Mar. 4, 2021) (DEIS Volume 1 at 64).
[117] *Id.*
[118] *I-64 Hampton Roads Bridge Tunnel from I-664 in the City of Hampton to I-564 in the City of Norfolk VA*, EPA, https://cdxnodengn.epa.gov/cdx-enepa-II/public/action/eis/details?eisId=80039 (last visited Mar. 4, 2021) (DEIS at S-4).
[119] *See Dallas to Houston High-Speed Rail- Passenger Service from Houston to Dallas*, U.S. DEPARTMENT OF TRANSPORTATION: FEDERAL RAILROAD ADMINISTRATION, https://railroads.dot.gov/environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail-passenger (last visited April 21, 2021) (stating an RPA is "a set of minimum Federal safety standards to enable effective safety oversight of the operation" of a high-speed rail system in the United States.)
[120] *See* FEDERAL RAILROAD ADMINISTRATION, *Passenger Equipment Safety Standards, Standards for Alternative Compliance and High-Speed Trainsets*, 83 Fed. Reg. 59182 (stating that the "final rule amends FRA's passenger equipment safety standards using a performance-based approach to adopt new and modified requirements governing the construction of conventional- and high-speed passenger rail equipment.").
[121] Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.22-1 ("The SCMAGLEV Project introduces technology that does not currently operate in the United States.")
[122] *Id.* (stating "…FRA may issue a Rule of Particular Applicability (regulations that apply to a specific railroad or a specific type of operation (RPA)) or a Rule of General Applicability, to impose requirements or conditions by order(s) or waiver(s), or take other regulatory action(s) to ensure that the SCMAGLEV Project is operated safely.").

For the TCRR, which is a high-speed rail system, the FRA is proposing an RPA.[123] The FRA explained that it "continues to believe that addressing proposals for standalone high-speed rail systems on a case-by-case basis and comprehensively (such as through an RPA or other specific regulatory action(s)) is prudent because of the small number of potential operations, and the potential for significant and unique differences in their design."[124] The TCRR is using "technological and operational aspects of the JRC Tokaido Shinkansen system," but is also choosing to do an RPA because there are "significant operational and equipment differences [that] exist between the system proposed for Texas and existing passenger operations in the United States."[125] Additionally, "[i]n many of the railroad safety disciplines, FRA's existing regulations do not address the safety concerns and operational peculiarities of the proposed TCRR system. Therefore, in order to allow TCRR to operate with effective safety oversight, an alternative regulatory approach is required."[126] Using this reasoning, the FRA should issue an RPA for the SCMAGLEV system since it is a standalone high-speed rail system relying on international technology yet to be operated in the United States.[127]

III. The DEIS Inadequately Discusses Adverse Environmental Impacts

When evaluating a project's environmental impacts, agencies are obligated to consider the environmental impacts of their actions to the "fullest extent possible."[128] Specifically, NEPA requires agencies to discuss not only the project's environmental impact, but "*any* adverse environmental effects which cannot be avoided should the proposal be implemented."[129] Here, the DEIS's consideration of environmental consequences insufficiently addresses structural impacts from the SCMAGLEV Project,[130] fails to analyze the effects of electromagnetic fields,[131] insufficiently analyzes the SCMAGLEV Project's air emissions,[132] and inadequately analyzes impacts on water quality.[133]

[123] FEDERAL RAILROAD ADMINISTRATION, *Passenger Equipment Safety Standards, Standards for Alternative Compliance and High-Speed Trainsets*, 83 Fed. Reg. 59182.
[124] *Id.*
[125] *Id.*
[126] *Id.*
[127] Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.22-5 (stating that the current safety and security requirements are based off "observations of international operation of SCMAGLEV technology and an analysis of proposed design specifications and safety controls.").
[128] 42 U.S.C. § 4332.
[129] *See infra* Section I.B.
[130] *See supra* Section III.A.
[131] *See supra* Section III.B.
[132] *See supra* Section III.C.
[133] *See supra* Section III.D.

A. The DEIS Inadequately Discusses the Potential Structural Consequences of the Project on Residents' Homes

1. The DEIS fails to adequately assess the impacts that construction of the underground portion of the SCMAGLEV Project will have on above ground structures such as residents' homes and other aging infrastructure

The DEIS fails to adequately analyze the impacts tunneling will have on above ground structures. Each build alternative described in the DEIS requires deep tunneling through the majority of the SCMAGLEV Project route.[134] Although the Agency alludes to the fact that these construction efforts may lead to above ground structural problems, the Agency fails to adequately assess how these construction efforts may impact above ground structures and to what extent.

Structural impacts are not adequately studied in the DEIS, especially because the DEIS states outright that the Agency did not look at specific information for Maryland and Washington, D.C. where the Agency plans to construct this SCMGALEV Project. For example, the DEIS states, that "future geotechnical investigations would determine whether accounting for rockslides in the project design is recommended."[135] Moreover, the DEIS explicitly acknowledges the likely presence of acid producing soils in the region, but simply states, that the "FRA did not identify published Maryland- and Washington, D.C.- specific information." [136] The Agency should not have glossed over the issue of acidic soils because, as they go on to state in the DEIS, "acid producing soil hazards are also present and certain unconsolidated soils and sediments in the Atlantic Coastal Plain could contain minerals that produce enough acidity to degrade concrete and steel structures to the point of failure."[137] The Agency's solution to these problems is to conduct further "subsurface geotechnical testing"[138] in "subsequent phases of SCMAGLEV Project Development."[139] Pushing this type of analysis to later in the SCMAGLEV Project's development strips the public of their right to comment on these impact analyses and is directly contradictory to the spirit and purpose of NEPA.

Additionally, the DEIS states that during the construction of the tunnel, the Agency will have to pump groundwater out of aquifers in a process known as "dewatering" in order to adequately and safely use the tunnel boring machines. Although this is a proper and commonly used construction method, the Agency admits that "[g]roundwater pumping could result in topographic subsidence and ground compaction..."[140] The DEIS provides no other information as to how this subsidence and ground compaction may affect above ground structures. Additionally, the DEIS does not go on to state the extent to which this impact may affect communities along

[134] *See infra* Section I.A.
[135] Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.13-7.
[136] *Id.* at 4.13-4.
[137] *Id.* at 4.13-7.
[138] *Id.* at 4.13-7.
[139] *Id.*
[140] *Id.* at 4.13-6.

the SCMAGLEV Project route, specifically communities like Beacon Heights and Woodlawn who are directly above an underground portion of the route.

Buildings are not totally static structures and are subject to movements caused by a number of external factors. Therefore, it is essential to carry out a condition survey of all structures within the area of disturbance of the tunnel. A condition survey should record all visible defects both superficial and structural. A condition survey should also be used to identify what current structural issues the infrastructure along the SCMAGLEV Project route already faces. This survey can guide the construction accordingly by mitigating the construction damage in areas with already high levels of infrastructure damage.

2. The DEIS fails to adequately consider the impacts of vibration from both the construction of the underground portion of the SCMAGLEV Project and the operation of the train through the tunnels, on above ground structures

The DEIS fails to adequately consider what vibration impacts, from both construction and operation of the SCMAGLEV Project, will have on above ground structures. Although the DEIS generally assess the impacts of vibration, the Agency did not adjust their calculations for building foundations along the route.[141] The Agency states in the DEIS that "[a]djustments for individual building foundation effects will be applied during final design where impacts are predicted."[142] However, assessing the impacts to individual building foundations along the route in a later design phase will not give the public the opportunity to comment on such analysis.

Beyond Beacon Height's and Woodlawn's susceptibility to general vibration from tunnel boring during construction, Beacon Heights and Woodlawn are adjacent to a FA/EE location. The DEIS states that "[l]ocalized vibration impacts are also expected from station and FA/EE excavation as these will require deep boring, pile driving and possibly blasting."[143] Although the Agency makes this statement in the DEIS, it does not further state what these "localized vibration impacts" are or to what extent they may do damage to above ground structures.

The Agency also has not done enough research and analysis into how the vibration impacts may be mitigated. The DEIS states that "[b]ased on the limited information available on the use of maglev or SCMAGLEV train service around the world, experience with source-specific vibration control measures is very limited."[144] Although the SCMAGLEV technology is relatively new, this does not excuse the Agency from taking reasonable measures to analyze vibration impacts and mitigation of those impacts to surrounding communities. Vibration impacts could do damage to residential homes and put communities of people at a significant safety risk. Pushing this analysis to a later design phase of the SCMAGLEV Project or using

[141] *See id.* at 4.17-8.
[142] *Id.*
[143] *Id.* at 4.17-18.
[144] *Id.* at 4.17-19.

other studies from different projects is not adequate when it comes to ensuring the safety of the public.

B. The DEIS Fails to Adequately Analyze the Effects and Safety of Electric Magnetic Fields (EMF)

The SCMAGLEV Project creates a plethora of safety concerns, many of which the Agency has not examined fully enough to allow for meaningful public participation. Some of these major health hazards and concerns include exposure to hazardous materials from the disruption of contaminated sites or accidental spills.[145] This may result in hazardous materials becoming airborne, leaching into soil and groundwater, and directly exposing humans to these particulates.[146] Further, runoff from SCMAGLEV Project facilities, exacerbated by the new impervious surfaces and vegetation clearing for the SCMAGLEV Project, could carry heavy metals and bacteria into the local watershed and groundwater.[147] This will be worse in Prince George's County, where Beacon Heights and Woodlawn reside, as there will be heavy tunnel construction.[148] Noise pollution and vibration are projected to cause hearing loss and interrupted sleep, worsened by the 24-hour construction near the Beacon Heights and Woodlawn neighborhoods that will exceed the nighttime noise limit.[149] In addition to all of these health and safety concerns, the DEIS claims that the electromagnetic fields and interference (hereinafter "EMF/EMI") from the SCMAGLEV Project will be safe.[150] However, the Agency did not conduct EMF/EMI studies for the SCMAGLEV Project that will travel between Baltimore and Washington D.C.[151] This prohibits meaningful public participation on the effects and potential hazards resulting from EMF/EMI.

The SCMAGLEV system radiates electromagnetic radiation above the level proscribed by the International Commission on Non-Ionizing Radiation Protection (hereinafter "ICNIRP") and uses "shielding" to lower EMF/EMI levels below ICNIRP maximum allowed levels.[152] The DEIS does not discuss shielding in-depth when discussing EMF/EMI or what occurs when shielding malfunctions. High levels of non-ionizing radiation can damage bodily tissue, especially in the eyes and testes.[153] This violates NEPA's requirement that the Agency consider the degree to which the proposed action affects public health and safety.[154] Thus, the Agency

[145] *Id.* at 4.21-3.
[146] *Id.*
[147] *Id.*
[148] *Id.*
[149] *Id.* at 5.
[150] *Id.* at App-D.11-3.
[151] *Id.* at 4.18-2.
[152] *Id.* at 4.18-9.
[153] Zawn Villines, *Are EMFs Dangerous?*, MEDICAL NEWS TODAY (Feb. 4, 2020), https://www.medicalnewstoday.com/articles/emf#_noHeaderPrefixedContent.
[154] 40 C.F.R. § 1508.27(2).

should conduct studies on SCMAGLEV technology that include long-term exposure and malfunctions in shielding.

The Agency states that there would be a "need to maintain a minimum distance of 20 feet between the magnets along the guideway and people traversing below."[155] This is clearly a negative environmental effect on the area below elevated guideways and, therefore, needs to be discussed in the DEIS and as part of the RPA. The DEIS does not provide evidence that the 20-feet "avoidance zone" is sufficient. The DEIS also did not state or explain how people would be protected in the case of an emergency egress, just that "protocols will be established."[156] The DEIS again neglects to sufficiently analyze imperative aspects of the SCMAGLEV Project and passes it off to be decided at a later design phase.

The Agency also neglects to conduct thorough safety studies on the effects of SCMAGLEV technology on electronics, including cell phones and pacemakers. The DEIS recognizes that even low levels of EMF/EMI can affect pacemakers and cause asynchronous pacing in the presence of the SCMAGLEV train.[157] The DEIS did not study nor mention the effects on pacemakers from long exposure to EMF or if the shielding malfunctions. The EMF likely effects other electronics including cellphones and can limit their range.[158] Interrupting cellphones can be very dangerous, especially in the situation where 911 needs to be called.

C. The DEIS Does Not Adequately Analyze Air Emissions

1. Although the DEIS purports that the SCMAGLEV Project will reduce the number of cars on the road and therefore reduce emissions, mobile source emissions will actually increase as a result of the SCMAGLEV Project due to the increase in traffic around stations

The DEIS presents contradictory conclusions as it states that the SCMAGLEV Project is purported to be a cleaner, alternative means of transportation, yet the Agency's own analysis of air emissions from mobile vehicles shows air emissions increasing over time. This is predominantly due to a rise in traffic from mobile vehicles around the SCMAGLEV stations that people will drive to in order to access the SCMAGLEV train. See the following tables from the DEIS:

[155] BALTIMORE-WASHINGTON SUPERCONDUCTING MAGLEV PROJECT, *Final Scoping Report* (Nov. 2018), https://www.bwmaglev.info/images/document_library/reports/alternatives_report/SCMAGLEV_Alts_Report_Body-Append-A-B-C_Nov2018.pdf.
[156] Baltimore-Washington Superconducting SCMAGLEV Project DEIS, App. G.3-9.
[157] *Id.* at App-D.11-3.
[158] *Id.* at 4.18-9.

Table III.C.1.1: Mesoscale Daily Emissions (tons per day)- Cherry Hill Station Option for 2027 and 2045[159]

Table D.9-10: Mesoscale Daily Emissions (tons per day) – Cherry Hill Station Option

Year 2027

Pollutant	BMC		MWCOG		BMC + MWGOC		Net Difference	% Change
	2027		2027		2027		No-Build to Build	No-Build to Build
	No-Build	Build	No-Build	Build	No-Build	Build		
VOC	0.37	0.38	0.37	0.37	0.74	0.75	0.0049	0.66%
NOx	3.76	3.84	2.95	2.93	6.71	6.77	0.0509	0.76%
CO	12.94	13.20	9.24	9.16	22.18	22.36	0.1808	0.82%
PM2.5	0.12	0.12	0.08	0.08	0.20	0.20	0.0018	0.89%
PM10	0.44	0.45	0.29	0.29	0.73	0.73	0.0074	1.02%
SO2	0.01	0.01	0.01	0.01	0.02	0.02	0.0002	0.90%
CO2	4012.64	4095.07	2663.36	2640.42	6676.01	6735.49	59.4853	0.89%

Year 2045

Pollutant	BMC		MWCOG		BMC + MWCOG		Net Difference	% Change
	2045		2045		2045		No-Build to Build	No-Build to Build
	No-Build	Build	No-Build	Build	No-Build	Build		
VOC	0.31	0.32	0.20	0.21	0.52	0.52	0.0087	1.69%
NOx	3.30	3.37	1.98	1.99	5.28	5.36	0.0802	1.52%
CO	11.09	11.32	6.88	6.92	17.97	18.24	0.2697	1.50%
PM2.5	0.09	0.09	0.05	0.05	0.14	0.14	0.0025	1.77%
PM10	0.44	0.45	0.26	0.27	0.70	0.72	0.0131	1.86%
SO2	0.01	0.01	0.01	0.01	0.02	0.02	0.0003	1.59%
CO2	4130.35	4220.23	2524.82	2538.04	6655.17	6758.28	103.1077	1.55%

Source: AECOM, July 2020

Table III.C.1.2: Mesoscale Daily Emissions (tons per day)- Camden Yards Station Option for 2027 and 2045[160]

Table D.9-11:4 Mesoscale Daily Emissions (tons per day) – Camden Yards Station Option

Year 2027

Pollutant	BMC		MWCOG		BMC + MWGOC		Net Difference	% Change
	2027		2027		2027		No-Build to Build	No-Build to Build
	No-Build	Build	No-Build	Build	No-Build	Build		
VOC	0.37	0.38	0.37	0.36	0.74	0.74	0.0015	0.20%
NOx	3.76	3.83	2.95	2.91	6.71	6.74	0.0258	0.38%
CO	12.94	13.16	9.24	9.12	22.18	22.28	0.0982	0.44%
PM2.5	0.12	0.12	0.08	0.08	0.20	0.20	0.0009	0.46%
PM10	0.44	0.45	0.29	0.28	0.73	0.73	0.0039	0.53%
SO2	0.01	0.01	0.01	0.01	0.02	0.02	0.0001	0.52%
CO2	4012.64	4082.84	2663.36	2627.47	6676.01	6710.31	34.3013	0.51%

[159] *Id.* at D.9-50,51.
[160] *Id.* at D.9-51.

Year 2045

Pollutant	BMC		MWCOG		BMC + MWCOG		Net Difference	% Change
	2045		2045		2045		No-Build to Build	No-Build to Build
	No-Build	Build	No-Build	Build	No-Build	Build		
VOC	0.31	0.32	0.20	0.20	0.52	0.52	0.0033	0.64%
NOx	3.30	3.33	1.98	1.98	5.28	5.32	0.0326	0.62%
CO	11.09	11.21	6.88	6.87	17.97	18.08	0.1069	0.59%
PM2.5	0.09	0.09	0.05	0.05	0.14	0.14	0.0010	0.68%
PM10	0.44	0.44	0.26	0.26	0.70	0.71	0.0050	0.71%
SO2	0.01	0.01	0.01	0.01	0.02	0.02	0.0001	0.64%
CO2	4130.35	4174.95	2524.82	2521.73	6655.17	6696.69	41.5163	0.62%

Source: AECOM, July 2020

2. The DEIS fails to take into account the reasonably foreseeable emissions and harm to human health which are likely a result of the SCMAGLEV Project construction being delayed for even an additional short amount of time

The DEIS fails to account for the reasonably foreseeable scenario where the predicted construction time of the SCMAGLEV Project is delayed or extended, and construction takes longer than five years. If construction of the SCMAGLEV Project at individual sites along the route was predicted to take five years or more, a hot spot analysis would be required to adequately assess air emissions at those construction site locations. Under 40 C.F.R. § 1508.1(g), an agency must take into account the effects or impacts of the project.[161] It is reasonably foreseeable that air emissions will occur from construction over five years and therefore the Agency should have conducted a hot spot analysis for air emissions around these sites in order to assess the health impacts on communities surrounding these construction areas.

According to the DEIS, the Agency proposes that "no site-specific construction element or section will last more than five years with the exceptions of overall construction schedule for stations and trainset maintenance facilities ([hereinafter "TMF"]) lasting six years. However, according to the Construction Planning Memorandum (BWRR, May 14, 2020), given the number of stations to be constructed, at a specific station, the construction will not last more than five years."[162] Although the Agency's Construction Schedule does not propose that construction in any one location will take more than five years, many of the facilities listed on the Construction Schedule propose that construction will take up to four years. Thus, any delay in construction at a particular site will cause construction to take more than five years.

A reasonable person familiar with construction projects, particularly a reasonable person in the business of construction, knows that projects rarely go according to plan. For example, the Purple Line Light Rail Project in Maryland was anticipated to be finished in 2022 after the

[161] *See infra* Section I.B.

[162] Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.16-5. As per 40 C.F.R. § 93.123(c)(5), "CO, PM10, and PM2.5 hot spot analyses are not required to consider construction-related activities which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site." *Id.* at D.9-29.

partnership agreement was signed between the state and the project sponsor in 2016.[163] However, because of delays, the project is now anticipated to be finished in 2024.[164] One of the delays of the construction of the Purple Line Light Rail Project was due to Washington's Suburban Sanitary Commission's (hereinafter "WSSC") cease and desist letter requesting a halt in the project because the project was "perilously close to a major pipe that provides drinking water to Prince George's County and would explode if broken."[165] This pipe is located along Veterans Parkway (Route 410) where the Glenridge facility is to be located, which is close to where the FA/EE adjacent to Beacon Heights and Woodlawn will be located.[166] A delay in this SCMAGLEV Project, such as the cease and desist for construction of an SCMAGLEV facility, could be enough to cause construction to last more than five years, triggering a hot spot analysis.

Beacon Heights and Woodlawn residents want, and deserve, to live in a clean and safe environment. Not only will Beacon Heights and Woodlawn be facing the effects from the emissions of the construction of the FA/EE adjacent to their communities, but also, they have already been suffering from the construction impacts and emissions from the Purple Line Project's construction of the Glenridge Facility adjacent to their communities. The compounded impacts from these construction emissions will have a detrimental impact on the air quality and health of these communities.[167] As the pandemic has brought to light, poor air quality and underlying conditions of asthma, and other respiratory problems, can increase the mortality and morbidity rates of these communities who are disproportionately impacted by poor air quality.[168]

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[163] Katherine Shaver, *Purple Line project delays, cost overruns reveal long-brewing problems*, WASH. POST (July 18, 2020 at 8:00am), https://www.washingtonpost.com/local/trafficandcommuting/purple-line-project-delays-cost-overruns-reveal-long-brewing-problems/2020/07/18/d3bda6ae-c620-11ea-b037-f9711f89ee46_story.html.

[164] *Id.*

[165] *Id.*

[166] *Id.*

[167] Personal Testimony from Woodlawn Community Member:

> Since retiring, I have experienced more burning and itching in my eyes, nasal congestion, a constant runny nose, constant sinus headaches, and a dry cough. In September of 2017, for the first time in my life I was referred to a Pulmonologist, and, I was even put on a nebulizer, because I showed asthmatic symptoms, wheezing and shortness of breath. Prior to 2012, I did experience seasonal allergies (grass and tree pollen) in the past, however, the symptoms were not year-round. I am of the belief, that it is due to the location of my environmental justice community and how it seems to be the best location to institute transportation projects to resolve all of Maryland's transportation problems.

[168] *See* Yan Cui et al., Air Pollution and Case Fatality of SARS in the People's Republic of China: An Ecologic Study, NCBI: Environmental Health (Nov. 2003) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC293432/. (stating that globally, air pollution is estimated to be responsible for nearly 40% of lower respiratory tract infections and around 20% of coronary heart disease and diabetes diagnoses); Southwest Pennsylvania Environmental Health Project, Air Pollution and Respiratory Infections, Reviewing the Science, www.environmentalhealthproject.com, https://www.environmentalhealthproject.org/sites/default/files/assets/resources/air-pollution-and-respiratory-infections-reviewing-the-science_0.pdf (last visited Nov. 29, 2020) (finding that with an increase in air pollution, more people go to the hospital within a week of the spike where they are subsequently treated for respiratory infections, like pneumonia or bronchitis); Anoop J. Chauhan & Sebastian L. Johnston, Air Pollution and Infection in Respiratory Illness, 68 BRITISH MEDICAL BULLETIN 1, 95 (Dec. 2003) https://academic.oup.com/bmb/article/68/1/95/421216 (stating that "acute lower respiratory infections were attributed to have caused up to 4 million deaths worldwide from 1997 to 1999."). See also Southwest Pennsylvania

3. The DEIS fails to adequately assess possible mitigation strategies to reduce air pollution, both for the construction phase and operational phase

The DEIS does not adequately assess all relevant and reasonable possible mitigation measures to reduce air emissions, either for the construction phase or the operational phase, of the SCMAGLEV Project.[169] Under 40 C.F.R. § 1500.2(f), federal agencies shall to the fullest extent possible consider mitigation measures for a proposed project.[170] For this SCMAGLEV Project, the DEIS includes a fifteen-page chapter on air emissions and a seventy-page technical report on air emissions. The Agency's analysis of mitigation measures for air pollution consists of a one-page bulleted list of only four proposed mitigation measures to reduce air emissions for the entire SCMAGLEV Project.

Compared to other DEISs and Final Environmental Impact Statements (hereinafter "FEISs"), this is a poor assessment of mitigation measures. For example, the Dallas to Houston High Speed Rail Project DEIS offered three pages of discussion of mitigation measures for air emissions and supplied six mitigation measures that could be adopted.[171] The FEIS for the California High Speed Rail Project from Fresno to Burbank had a four-page analysis of mitigation measures and offered eight mitigation strategies the project could adopt to reduce air emissions.[172] In the DEIS for the Washington Union Station Expansion Project, FRA considered seven different mitigation measures for air emissions during the operation and construction phase of the project and an additional ten mitigation measures to combat greenhouse gas emissions.[173] Additionally, for the Washington, D.C. to Baltimore Loop Project, which proposes building an underground hyperloop from D.C. to Baltimore, the Environmental Assessment (hereinafter "EA") for the project proposed six mitigation measures to reduce air emissions.[174] Notably, an

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Environmental Health Project, Air Pollution and Respiratory Infections, Reviewing the Science, www.environmentalhealthproject.com, https://www.environmentalhealthproject.org/sites/default/files/assets/resources/air-pollution-and-respiratory-infections-reviewing-the-science_0.pdf (last visited Nov. 29, 2020) (finding that Low income communities and communities of color are disproportionately burdened by air pollution).

[169] Under 40 C.F.R. § 1508.20, "agencies are required to identify and include in the action all relevant and reasonable mitigation measures that could improve the action." 40 C.F.R. § 1508.20 (Mitigation measures include: avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; compensating for the impact by replacing or providing substitute resources or environments).

[170] *See infra* Section I.B.

[171] Dallas to Houston High Speed Rail Project DEIS, 3.2-34,36, https://railroads.dot.gov/sites/fra.dot.gov/files/fra_net/17954/1%20Dallas%20to%20Houston%20High%20Speed%20Rail%20DEIS_MAIN%20TEXT%20I.pdf.

[172] California High Speed Rail Project- Fresno to Burbank FEIS, 3.3-86-90, https://railroads.dot.gov/sites/fra.dot.gov/files/fra_net/3648/FB%20FEIRS%20CH%203.3%20Air%20Quality%20and%20Global%20Climate%20Change.pdf.

[173] Washington Union Station Expansion DEIS, Ch.7-7,8, https://railroads.dot.gov/sites/fra.dot.gov/files/2020-06/07_Chapter%207_Mitigation%20Measures_WUSDEIS_pdfa.pdf.

[174] Washington, D.C. to Baltimore Loop Project EA, 3.9.4-222. https://www.dcbaltimoreloop.com/DraftLoopEA.pdf.

EA is not required to be as detailed as a DEIS,[175] but even the EA for the Washington, D.C. to Baltimore Loop Project proposed more mitigation measures for air emissions than the SCMAGLEV Project DEIS. These examples illuminate the insufficiencies in the mitigation discussion present in the SCMAGLEV Project DEIS.

D. The DEIS Does Not Adequately Address the Water Quality Impacts from the Project

1. The DEIS fails to adequately examine how increased stormwater runoff, due to an increase in the surface area of impermeable surfaces from the SCMAGLEV Project, will affect receiving waterways

The DEIS fails to adequately calculate the increase in impervious surfaces likely to result from the SCMAGLEV Project, and therefore, does not adequately analyze the increase in stormwater runoff as a result of the increase of impervious surfaces.[176] Of particular import to this comment, the surface area of impervious surfaces will increase in the Beacon Heights and Woodlawn Communities. Adjacent to the Beacon Heights and Woodlawn neighborhoods, an FA/EE site will be constructed that includes Permanent Access Driveways, which are additional impervious surfaces adjacent to Beacon Heights and Woodlawn.[177]

The DEIS expects an increase in the surface area of impervious surfaces both during the construction phase and the operation phase. During the construction of the SCMAGLEV Project, trucks and work vehicles will need to access the SCMAGLEV Project route on a daily basis for a two-to-seven-year construction period.[178] In order for these trucks and work vehicles to access points along the SCMAGLEV Project route, additional roads, and the expansion of existing roads, will be required.[179] Specifically, for the FA/EE that will be built adjacent to Beacon Heights and Woodlawn, there will be approximately 560 to 690 trucks, at the height of construction, arriving and departing daily with access 24 hours a day.[180] Additionally, there will be 425 automobiles carrying workers arriving and departing at the site 24 hours a day.[181]

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[175] *See* EPA, *National Environmental Policy Act Review Process*, https://www.epa.gov/nepa/national-environmental-policy-act-review-process (last visited April 23, 2021) ("The regulatory requirements for an EIS are more detailed and rigorous than the requirements for an EA.").
[176] S*ee infra* Section I.B.
[177] *See supra* Appendix C.
[178] Baltimore-Washington Superconducting MAGLEV Project DEIS, D.2 A.15-84-91.
[179] *Id.*
[180] *Id.* at D.2.A-65.
[181] *Id.*

Table D.1.1: New Impervious Surface per Build Alternatives[182]

Table D.7-10: New Impervious Surface per Build Alternatives

Acres of New Impervious Surface by Alignment, Station, and TMF								
Build Alternative	Alignment	Stations			TMF			Build Alternatives Total Permanent Acres of Impact
		BWI Marshall Airport	Cherry Hill	Camden Yards	BARC Airstrip	BARC West	MD 198	
J-01	554	2	74	-	-	-	177	808
J-02	557	2	74	-	193	-	-	826
J-03	558	2	74	-	-	187	-	822
J-04	552	2	-	14	-	-	177	745
J-05	555	2	-	14	193	-	-	764
J-06	556	2	-	14	-	187	-	760
J1-01	505	2	74	-	-	-	198	780
J1-02	511	2	74	-	188	-	-	776
J1-03	507	2	74	-	-	190	-	774
J1-04	503	2	-	14	-	-	198	718
J1-05	510	2	-	14	188	-	-	714
J1-06	506	2	-	14	-	190	-	712

The Agency fails to accurately calculate the addition of impervious surfaces as a result of the SCMAGLEV Project. The Agency plans to re-calculate the additional acres of impervious surfaces during the final design stage, but at that subsequent stage in the SCMAGLEV Project, the public will be excluded from commenting on such an analysis. The Agency also fails to explain why areas of proposed permanent stormwater management facilities associated with each Build Alternative would not contribute to impervious surfaces but rather the Agency just makes a blanket statement without justification. The Agency should calculate the additional acres of impervious surfaces before the final design stage and assess the impacts those acres will have on the environment and communities surrounding the SCMAGLEV Project. The Agency also fails to evaluate whether the increase in impervious surfaces along the SCMAGLEV Project route will directly hinder the efforts and goals of the Chesapeake TMDL.[183] The Agency states in the

[182] *Id.* at D.7-55.

[183] The Clean Water Act (CWA) prohibits discharges of pollutants to waters of the United States without a permit. 33 U.S.C. §§1311, 1342. Under NEPA, the lead agency must coordinate with "permitting and resource agencies that may have jurisdiction, authority, expertise, and/or relevant information with respect to the Project as well as with the public." 23 U.S.C. § 139. This SCMAGLEV Project is located within the Chesapeake Bay Watershed and, therefore, the Agency must comply with the Chesapeake Bay Total Maximum Daily Load (TMDL) as well as Maryland's General Permit No. 12-SWA. In order to adequately comply with these requirements, the Agency must consult with Maryland Department of Environment (hereinafter "MDE") and the District of Columbia Energy and Environment (hereinafter "DOEE"). Although the Agency states in the DEIS they will meet all required permitting standards, they fail to adequately address how receiving waterways in the Chesapeake Bay Watershed will meet established effluent limitations given the increase in pollutant loads from construction and operation of the SCMAGLEV Project. *See id.* § 1362(11) (defining an effluent limitation as "any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance").

DEIS that in order to mitigate an increase in surface area of impervious surfaces, the SCMAGLEV Project will increase the percentage of the route that will be located underground in deep tunnels.[184] This is an inadequate mitigation measure as deep tunnelling could adversely impact communities including from, but not limited to, local water contamination from tunneling through acidic soils. The purpose of mitigation is to avoid or minimize the project's impacts on the surrounding environment,[185] therefore, offering mitigation measures that potentially increase adverse impacts of the SCMAGLEV Project on the surrounding environment and communities, is an inadequate analysis of potential mitigation measures.

2. The DEIS fails to adequately assess the impacts the SCMAGLEV Project will have on groundwater quality

The DEIS fails to adequately analyze the effects of tunneling on aquifers.[186] Beacon Heights and Woodlawn are located in an area designated for deep tunneling and Beacon Heights and Woodlawn sit above the Patapsco Aquifer.[187] The Agency was notified of which issues to assess in the DEIS by the EPA in 2017 during the Agency's scoping process.[188] Even with the requirements given to the Agency, the Agency fails to adequately assess the impacts to groundwater. The DEIS states that the Patapsco aquifer ranges between 250 to 350 feet in depth and "[t]he depth of SCMAGLEV tunnel is proposed to reach an optimum depth of approximately 320 feet, therefore it is possible that the aquifers would experience direct impacts such as disruption within the aquifer and therefore changes in recharge and/or groundwater levels, and indirect impacts such as a change in the water supply or increased risk of contamination."[189] The DEIS specifically mentions "[a] few of these locations include the vicinity of the Washington,

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[184] Baltimore-Washington Superconducting MAGLEV Project DEIS, at 4.10-29.
[185] *See infra* Section I.B.
[186] *See* Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.10.3.3-8 (describing aquifers as geologic formations, "which are distinct rock units consisting of either single or interrelated rock layers.").
[187] Baltimore-Washington Superconducting MAGLEV Project DEIS, at D.7-43.
[188] BALTIMORE-WASHINGTON SUPERCONDUCTING MAGLEV PROJECT DEIS, *Final Scoping Report- EPA Re: Scoping comments for Proposed Environmental Impact Statement for the Baltimore-Washington Superconducting Magnetic Levitation Project* (May, 2017), https://www.bwmaglev.info/images/document_library/reports/Maglev_Scoping-Report_051717RE.pdf. EPA Comment states:

> EPA recommends the Draft EIS address proposed action-related activities in or near wellhead (drinking water) protection areas, upstream of drinking-water supply intakes, springs—including karst areas, and karst terrain. For areas characterized by springs and karst, address the potential for contaminants to be introduced into existing or future sources of public water supplies, including aquifers, down-gradient springs, wells, and surface waterbodies.
>
> It would be beneficial to identify and map the location of known public drinking water supplies and their sources, surface and ground waters, aquifers, recharge zones, natural springs, etc. within the project area. It is recommended to identify construction and/or operational activities that could potentially impact known source water areas, as well as identify potential contaminants that may impact activities to protect known source water areas is important.
>
> The principal aquifers in the region should be identified and described. All wells, both public and private, that could potentially be affected by the project must be identified. Areas of groundwater recharge in the vicinity should also be identified and any potential impacts from the proposed action examined. *Id.*

[189] Baltimore-Washington Superconducting MAGLEV Project DEIS, D.7-59.

D.C. and Prince George's County line; the area just south of the Veterans Parkway FA/EE; and just south of MD 198."[190]

i. Water Quality of Aquifers

The DEIS provides an insufficient analysis of the potential effects to the water quality of aquifers located along the SCMAGLEV Project. The DEIS only describes effects to groundwater and aquifers generally while failing to discuss the aquifers that will specifically be affected by the SCMAGLEV Project except for three pages in Appendix D.7. In the Washington Union Station Expansion Project DEIS, the FRA not only discussed the potentially impacted aquifers, but they also discussed the current groundwater levels in the aquifer and the concentrations of pollutants within the aquifer.[191] The FRA in the Washington Union Station Expansion DEIS adequately considered the site-specific aspects of the potentially affected aquifers, whereas in the SCMAGLEV Project DEIS, the Agency inadequately discussed the potentially affected aquifers and provided no site-specific data.

Additionally, the Agency in the DEIS breezes over the issue of radon gas being released into groundwater through sediment that is disturbed during the tunnel boring phase of the SCMAGLEV Project. The DEIS states that "[a]dditional evaluation of radon content of sediments and groundwater will [] be conducted at later design phase."[192] Given the potential hazardous effects of radon,[193] looking at the radon content of sediments and groundwater at a later date is not sufficient or adequate and poses a risk to human health.

Both Build Alternatives have the potential to contaminate the water quality of groundwater in the Beacon Heights and Woodlawn areas. The DEIS inadequately examine the potential site-specific contamination to surface and/or groundwater that could affect the Patapsco aquifer, which Beacon Heights and Woodlawn rely on for drinking water. In *Friends of Santa Clara River v. U.S. Army Corps of Engineers*, the court ruled that the agency did not act arbitrarily or capriciously in its analysis of the water quality impacts from dissolved copper as a result of the project construction because the agency considered methods for determining *site-specific* dissolved copper quantities and *project-specific* modeling in determining whether the Section 404 Permit would have no effect on the downstream ecosystem.[194] Unlike in *Friends of Santa Clara River*, in this case, the Agency *does not consider site-specific criteria* for calculating the potential water quality impacts of groundwater. The DEIS simply states that the Agency will

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[190] *Id.*
[191] Washington Union Station Expansion DEIS, Ch.7-2, https://railroads.dot.gov/sites/fra.dot.gov/files/2020-06/07_Chapter%207_Mitigation%20Measures_WUSDEIS_pdfa.pdf.
[192] *Id.*
[193] *See* EPA, *Radon in Drinking Water*, https://archive.epa.gov/water/archive/web/html/index-9.html#:~:text=Radon%20is%20a%20naturally-occurring,their%20lifetime%2C%20especially%20lung%20cancer (last visited Apr. 19, 2021) ("Radon is a naturally-occurring radioactive gas that may cause cancer, and may be found in drinking water and indoor air. Some people who are exposed to radon in drinking water may have increased risk of getting cancer over the course of their lifetime, especially lung cancer").
[194] 887 F.3d 906 (9th Cir. 2018).

calculate the water quality effects at a later date. The agency in *Friends of Santa Clara River* prevailed in their case because they took into account relevant scientific data and project-specific modeling,[195] but in this case, the Agency fails to take into account or propose any type of specific analysis for determining groundwater quality at SCMAGLEV Project specific sites. The DEIS does not adequately assess the potential risk to human health of such water contamination. It is vital that the DEIS considers the potential groundwater contamination, specifically in the aquifers relied upon by Maryland residents for drinking water, and the potential health risks associated with such contamination.

Although the DEIS points out locations as potential sites for groundwater contamination, the DEIS fails to assess what type of impacts there will be to groundwater quality. The DEIS states that the Agency plans to conduct such assessments at a "later design phase."[196] Pushing this analysis of groundwater quality to a later design phase eliminates the public's ability to provide comments on the analysis, which violates the purpose and spirit of NEPA.

ii. Dewatering

The DEIS fails to address any requirements for treatment of the water that is collected from the aquifers during the dewatering process at the construction stage. During the construction phase of the SCMAGLEV Project, the Agency will have to dewater[197] areas during the construction of subsurface features, "to remove any accumulated water within areas of excavation."[198] Again, the construction phase most impacts local communities like Beacon Heights and Woodlawn.

Moreover, the DEIS fails to adequately assess mitigation measures for dewatering, particularly in comparison to other DEISs. In order to mitigate the risks of the dewatering, the DEIS proposes that "[t]he Agency should determine the most appropriate means of dewatering, either excluding the groundwater from reaching the work area or pumping it out. The length of time that dewatering would require may dictate proposed measures to mitigate for potential impacts."[199] Dewatering requires assessing the water to determine which contaminants it can contain and which sediments will need to be separated, applying for the required permits, and treating the water by filtering, removing silt, impurities, and sediments, and discharging it at the proper location.[200] If dewatering is not done properly, it has the potential to cause erosion, surface flooding, adverse effects on building structures due to variations caused by soil

[195] *Id.*
[196] Baltimore-Washington Superconducting MAGLEV Project DEIS, D.7-19.
[197] Amanda Wilson, *Dewatering and Discharge Challenges in Construction Projects and Solutions*, WASTE ADVANTAGE MAGAZINE (Dec. 29, 2020), https://wasteadvantagemag.com/dewatering-and-discharge-challenges-in-construction-projects-and-solutions/ (dewatering removes surface water or groundwater from a site before construction commences).
[198] Baltimore-Washington Superconducting MAGLEV Project DEIS, D.7-100.
[199] *Id.*
[200] Amanda Wilson, *Dewatering and Discharge Challenges in Construction Projects and Solutions*, WASTE ADVANTAGE MAGAZINE (Dec. 29, 2020), https://wasteadvantagemag.com/dewatering-and-discharge-challenges-in-construction-projects-and-solutions/.

conditions, damage to adjacent properties due to flooding, dampness and associated unhealthy conditions.[201] Some potential mitigation measures to prevent adverse effects of dewatering, include, but are not limited to:

> "water should not be pumped directly into slopes; dewatering activities should be directed to a wooded buffer, if available; it is important to pay special attention and discontinue dewatering if the area shows signs of instability or erosion; channels used for dewatering must be stable and better if they have been protected with grass or vegetation; you should avoid dewatering under heavy rains because the infiltration rate is at a minimum and water will move slower or just the dewatering process will not function; never discharge water that has been contaminated with oil, grease, or chemical products directly."[202]

Not only should the DEIS have considered these mitigation measures, but other DEISs prepared by the Agency have considered dewatering mitigation measures. The DEIS for the Washington Union Station Expansion Project provided a number of mitigation efforts for the dewatering process during construction. The mitigation measures include:

> "Construction contractor to be required to provide on-site treatment of pumped groundwater and discharge through the District's MS4 instead of through the combined sewer system to Blue Plains. Prior to the beginning of construction, Project Proponents to conduct additional groundwater studies, including: Performing additional borings to depths of 120 to 150 feet inside and along the perimeter of the Project Area to better characterize the lower aquifer's composition and extents and any discontinuities of the Potomac Clay layer separating the aquifers; Performing research of adjacent properties to understand the local impacts of ongoing or periodic dewatering systems acting around the Project Area; Performing additional pump testing that target zones of clay discontinuity in the lower aquifer; and, If warranted by the above, performing further modeling to map the areas that have high potential to experience ground subsidence from drawdown; If warranted by the studies listed above, construction contractor to monitor and control the amount of active dewatering on the site so dewatering does not create subsidence in and around adjacent properties."[203]

It is wholly inadequate that the Agency fails to take into account these mitigation measures in the SCMAGLEV Project's DEIS, when they have considered these mitigation measures in past projects.

iii. Passing Responsibility for Environmental Analysis to the Permitting Stage

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[201] *Id.*
[202] Juan Rodriguez, *Dewatering Techniques and Solutions for Construction Projects*, THE BALANCE: SMALL BUSINESS, https://www.thebalancesmb.com/what-is-dewatering-844520 (last updated Dec. 6, 2019).
[203] Washington Union Station Expansion DEIS, Ch.7-2, https://railroads.dot.gov/sites/fra.dot.gov/files/2020-06/07_Chapter%207_Mitigation%20Measures_WUSDEIS_pdfa.pdf.

The DEIS fails to adequately take into account the permitting requirements for dewatering and the potential contamination of drinking water as the SCMAGLEV Project will be built directly through aquifers that communities depend on. As per CEQ guidance,[204] the Agency should integrate the requirements for necessary permits that will be required for construction and operation of the SCMAGLEV Project throughout the NEPA process. Simply stating in the DEIS which permits are required for the SCMAGLEV Project in the future, is not adequately integrating the NEPA process with the permitting process.

In Appendix D.1, Permits and Authorizations, the Agency notes that the SCMAGLEV Project will need to receive a Water Appropriations Permit pursuant to COMAR 26.17.06 and COMAR 26.17.07 but fails to analyze whether the SCMAGLEV Project would likely be granted this permit. In order for the SCMAGLEV Project to secure a Maryland Water Appropriations Permit, the Agency must apply for the permit with the Maryland Department of the Environment (hereinafter "MDE").[205] In addition to applying for the Water Appropriations Permit, the Agency may have to acquire well construction, waterway construction, or wetland permits and get county planning and zoning approval as well as county water and sewer plan approval.[206] Although the DEIS states that the Agency must acquire a Water Appropriations Permit, the DEIS does not include any of the other additional approvals that the Agency must secure before getting the Water Appropriations Permit.

Additionally, although the Water Appropriations Permit requires a public commenting period coordinated by MDE, the public commenting period for the permit is not conducive to community engagement.[207] In order to find the most recent Maryland Water Appropriation Permits for March 2021, one must access MDE's website and scroll through the "What's New" page in order to find a link to a pdf with the current month's Water Appropriations Permits. Then, in order to receive notice of the public hearings for said permits, one must call the Water Supply Program and asked to be placed on the interested persons list. There was no information available as to whether a written comment could be submitted or if a member of the public only has the opportunity to submit oral comments at the public hearing. Additionally, there is no information as to whether there is a list where a member of the public can subscribe to updates on new notices of Water Appropriation Permits. Therefore, a member of the public would need to check the Water Appropriation Permits notices every month in order to find the permit they were looking for. This is another added burden to members of the public who are trying to exercise their right to public participation. Therefore, the Agency should not pass the

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[204] *See infra* Section I.B.
[205] COMAR 26.17.06.05.
[206] *3.15 Water Appropriation and Use Permit*, MARYLAND DEPARTMENT OF ENVIRONMENT, https://mde.maryland.gov/programs/Permits/Documents/2008permitguide/WMA/3.15.pdf (last visited April 19, 2021).
[207] COMAR 26.01.07.03 & .04 ("The Department shall provide notice and opportunity to submit comments and to request a public informational hearing"); COMAR 26.01.07.06 ("The Department shall conduct public informational hearings").

responsibilities off to other agencies during the permitting process to assess the impacts of the SCMAGLEV Project or required mitigation measures.

IV. Inadequate Consideration of Historic Sites Under § 4(f) and the National Historic Preservation Act

The DEIS does not adequately comply with Section 4(f) and Section 106 of the National Historic Preservation Act (hereinafter "NHPA"). The federal government implemented Section 4(f) of the U.S. DOT Act of 1966 and the NHPA in order to preserve publicly owned parks, recreational areas, wildlife and waterfowl refuges, and public and private historical sites.[208] Section 4(f) of the U.S. DOT Act states that the agencies may only use parks, recreation areas, or wildlife refuges if no feasible and prudent avoidance alternative exists. Unlike NEPA, Section 4(f) imposes substantive restraints on an agency's action."[209] Section 106 of the NHPA requires agencies to account for and consider a project's impacts to historic sites or cultural properties.[210]

A. Inadequate Analysis of the Effect to the Cherry Hill Cemetery under Section 106

The significance of a proposed action affecting the quality of the environment concerns both the action's context and integrity. [211] Integrity includes "the degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources."[212] Section 106 of the NHPA requires a lead Agency to "take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register." [213]

The Cherry Hill Cemetery is of the utmost cultural and historical value to the Beacon Heights Community.[214] The Cherry Hill Cemetery is designated on the Maryland Inventory of

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[208] *Environmental Review Toolkit*, U.S. DEP'T OF TRANSP.: FEDERAL HIGHWAY ADMINISTRATION, https://www.environment.fhwa.dot.gov/legislation/section4f.aspx (last visited April 19, 2021).
[209] *Defenders of Wildlife v. N. Carolina Dept. of Transportation*, 762 F.3d 374, 398–99 (4th Cir. 2014).
[210] 54 U.S.C. § 306108.
[211] 42 U.S.C. § 4332.
[212] 40 C.F.R. § 1508.27(b)(8).
[213] 16 U.S.C. § 470f (§ 106).
[214] As told by a member of the Beacon Heights Community Group:

> "The history of a community contributes to its personality. Preserving the Cemetery in Beacon Heights, gives the community its unique character. Historic preservation provides a link to the roots of the community and its people. The history is important because it connects us to specific times, places, and events that were significant milestones in our collective past.
> The ability to revisit this cemetery from time to time, provides us with a sense of place, and maintains continuity between our past and our present by preserving a trail of how we arrived at where, and who we are today.
> Culturally a community is richer for having the tangible presence of past eras and historic styles. Economically a community benefits from increased property values and tax revenues when

Historic Properties.[215] It was established by Josiah Adams, a free African American farmer in 1884. The cemetery served the free and formerly enslaved African American communities in the area. It is the only remaining cemetery to what was a thriving African American community following the Civil War. The only other similar cemetery of such cultural and historical significance was destroyed by development. According to the DEIS, the SCMAGLEV Project is projected to run directly underneath the cemetery and construction or vibrations from the SCMAGLEV Project have the potential to destroy this only lasting piece of history.

Given that the Cherry Hill Cemetery is designated on the Maryland Inventory of Historic Properties it means that it could be eligible for the National Register of Historical Properties. The Agency should work with the Maryland Historical Trust in determining whether the property is eligible for the National Register. Beacon Heights and Woodlawn request that the Cherry Hill Cemetery be considered for eligibility by the Maryland Historical Trust and ask the Agency to consider the Cherry Hill Cemetery in the SCMAGLEV Project's Section 106 process.

B. The DEIS did not Adequately Comply with § 4(f)

The SCAMAGLEV Project does not fulfill Section 4(f) requirements because there is a feasible and prudent alternative for avoiding the publicly owned parks and parkland and the current plan does not include all possible planning to minimize harm to these properties. When identifying land that would fall under Section 4(f) protection, the DEIS only considered public recreational facilities and parklands within 800 feet of the centerline of the alignments and ancillary facilities.[216] The Agency chose this based, not on construction impacts, but on noise-screening distance.[217]

Setting the area to identify public recreational facilities and parklands that may be impacted by the SCMAGLEV Project at 800 feet improperly limits the area of disturbance. Even within this narrow area, the SCMAGLEV Project does not adequately comply with Section 4(f) because "nearly 2,000 acres of Federal, state, and local recreational facilities and parklands occur in the SCMAGLEV Project Affected Environment" and there is a feasible and prudent

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> historic sites are protected and made the focal point of revitalization and when the community is attractive to visitors seeking heritage. Socially the community benefits when citizens take pride in its history and mutual concerns of the historic cemetery. Educationally a community benefits through teaching local heritage and the understanding of the past, to the community and students. Historic preservation has been shown to be a key ingredient in stabilizing older communities and bringing citizens together. There are many instances in which the value of historic preservation should be seriously considered, because every project brings with it a unique set of conditions and circumstances that must be weighted and evaluated on their own merits and challenges. The community feels that the MAGLEV train should not be allowed to interfere with the historic site in Beacon Heights. Whether large or small, well maintained or neglected, historic cemeteries are an important part of our cultural landscape."

[215] *Cherry Hill Cemetery*, MARYLAND INVENTORY OF HISTORIC PROPERTIES, https://mht.maryland.gov/mihp/MIHP.aspx?Search=Property&Property=Cherry%20Hill%20Cemetery/ (last visited April 19, 2021).

[216] Baltimore-Washington Superconducting MAGLEV Project DEIS, 4.7-4,5.

[217] *Id.*

alternative, the no build option.[218] The parklands affected serves important functions both for the communities in which they are located and for the animals for which they provide necessary habitat.

The DEIS recognizes that some of the impacts are in parks that are already "generally small" and used to "meet local community recreational needs."[219] This means that any impacts to these already small parks may severely impact the utility of parks as places for people to reconnect with nature. The Agency considers several impacts to public recreational facilities and parklands to be difficult to mitigate due to the extensiveness of impact and/or uniqueness of the park features.[220] Despite mentioning the difficulty in mitigating damage to parkland, the Agency does not discuss how they intend to face the challenge of mitigating the damage. They mention developing plans later on to mitigate damages,[221] but this is not enough. Because the Agency makes no attempt to mitigate damages to public recreational facilities and parklands and the No Build alternative represents a reasonable and prudent means of avoiding impacts to public recreational facilities and parklands, the Agency should choose the No Build Alternative.

V. Conclusion

The Beacon Heights and Woodlawn Communities oppose the construction and operation of the SCMAGLEV Project and ask that the No Build Alternative be selected. Beacon Heights and Woodlawn recommend that the Agency reexamine the SCMAGLEV Project's disproportionate impacts on the environment and surrounding communities in four ways. First, the Agency should reexamine and take an actual "hard look" at the SCMAGLEV Project's impacts on environmental justice communities. The Agency should reevaluate how the SCMAGLEV Project's adverse impacts, siting of SCMAGLEV Project facilities, and sources of pollution, are almost solely concentrated in environmental justice communities. The benefits of the project, including station access and price of ridership, cater to higher income communities.

Second, the Agency should reevaluate the impacts of the SCMAGLEV Project on the surrounding communities and environment using updated statistics and studies. The Agency should revisit the SCMAGLEV Project's Purpose and Need Statement after conducting a new traffic survey that reflects the changes in transportation since the COVID-19 pandemic and assess whether there is a need for the SCMAGLEV Project, especially in light of the nearly completed upgrades to MARC and Acela. The Agency should reassess the SCMAGLEV Project's effects of air emissions, stormwater runoff, noise and vibration, and EMF, from both construction and operation of the train, will have on the surrounding communities using updated site-specific studies. Third, the Agency, after reevaluating the SCMAGLEV Project's

[218] *Id.*
[219] *Id.*
[220] *Id.* at 4.7-7.
[221] *Id.* at 4.7-22.

community and environmental impacts, should go back and reassess and update the proposed mitigation measures that the Agency proposed in the DEIS.

Finally, the Agency should better integrate the public in the environmental review process by going back and evaluating the impacts that they pushed to a "later design phase" or to the potential permitting process. There is an extreme disconnect between the NEPA process and the permitting processes to the detriment of the public. In order for a project to succeed, it not only needs to pass a sufficient NEPA process, but it also must secure the appropriate permits before construction and operation. Therefore, the NEPA process should better reflect the project's need for required permits. If the NEPA process is for the purposes of assessing impacts of a project on the environment and community as well as engaging public participation, then the NEPA process should include permit requirements and analysis as well in order to provide a comprehensive understanding of a project's impacts. When agencies fail to adequately examine environmental and community impacts at the DEIS phase, it excludes the public from participating since there is no commenting process at the FEIS stage and the commenting process at the permitting stage is difficult to navigate at best.

On behalf of the communities of Beacon Heights and Woodlawn, we ask that the No Build Alternative be selected.

Appendix A – EJ Screen Reports

Woodlawn, MD, USA (Prince George's County)[222]

EPA United States Environmental Protection Agency

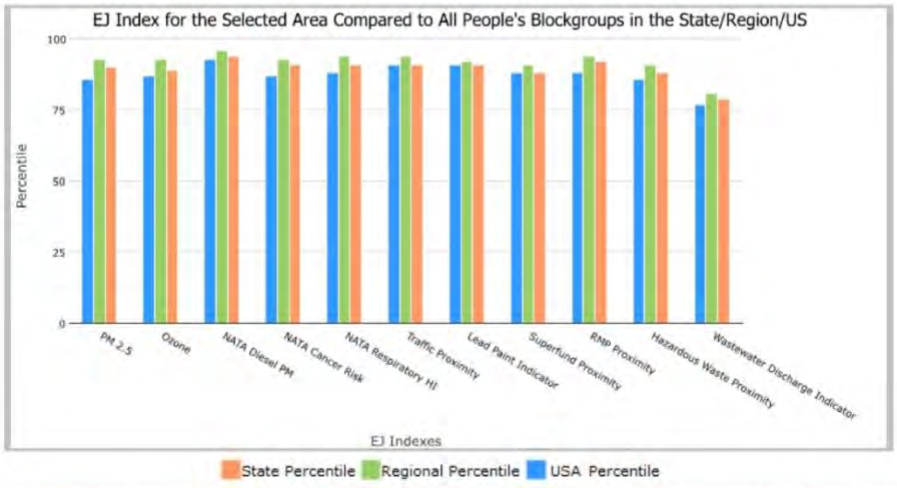
EJSCREEN Report (Version 2020)

1 mile Ring Centered at 38.951116,-76.890264, MARYLAND, EPA Region 3

Approximate Population: 22,605

Input Area (sq. miles): 3.14

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	90	93	86
EJ Index for Ozone	89	93	87
EJ Index for NATA* Diesel PM	94	96	93
EJ Index for NATA* Air Toxics Cancer Risk	91	93	87
EJ Index for NATA* Respiratory Hazard Index	91	94	88
EJ Index for Traffic Proximity and Volume	91	94	91
EJ Index for Lead Paint Indicator	91	92	91
EJ Index for Superfund Proximity	88	91	88
EJ Index for RMP Proximity	92	94	88
EJ Index for Hazardous Waste Proximity	88	91	86
EJ Index for Wastewater Discharge Indicator	79	81	77



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

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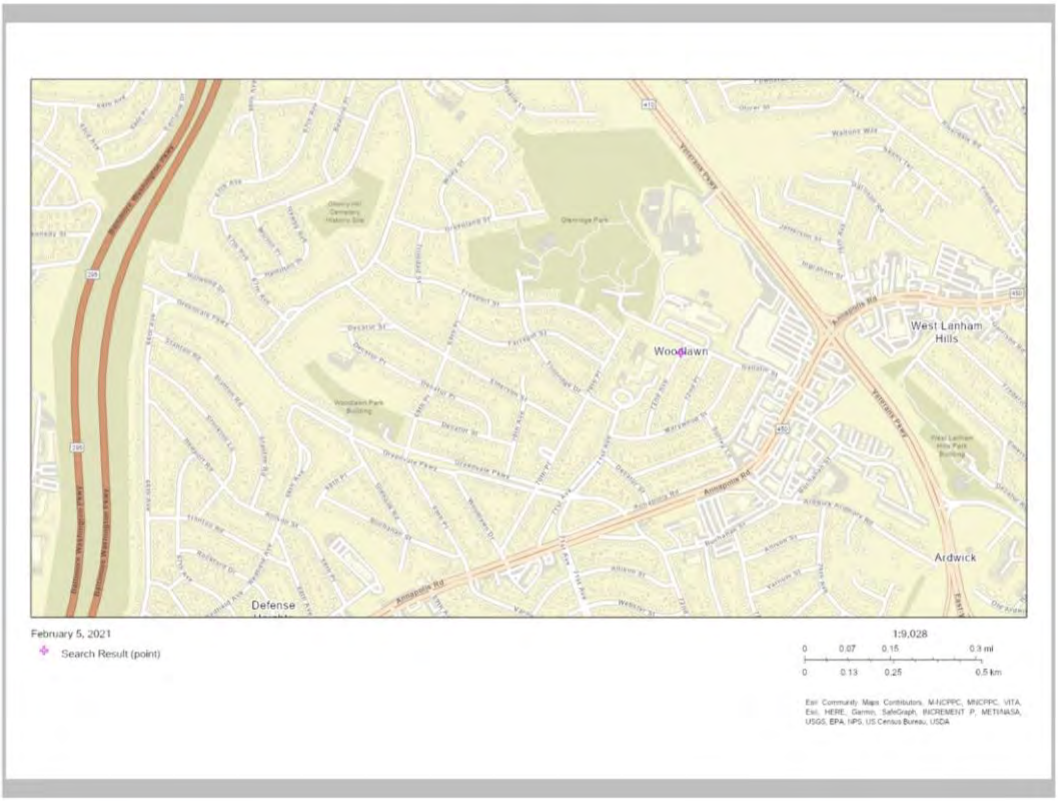
[222] EPA, *EJ Screen*, https://ejscreen.epa.gov/mapper/ (last visited Feb. 5, 2021) (Search "Woodlawn, MD, USA (Prince George's County)" in the map search tool and then click "Get Printable Standard Report...").

EJSCREEN Report (Version 2020)

1 mile Ring Centered at 38.951116,-76.890264, MARYLAND, EPA Region 3

Approximate Population: 22,605

Input Area (sq. miles): 3.14



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJSCREEN Report (Version 2020)

1 mile Ring Centered at 38.951116,-76.890264, MARYLAND, EPA Region 3

Approximate Population: 22,605

Input Area (sq. miles): 3.14

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	8.89	8.43	95	8.63	65	8.55	61
Ozone (ppb)	43.9	44.6	16	43.2	58	42.9	60
NATA* Diesel PM (µg/m^3)	1.02	0.633	94	0.477	95-100th	0.478	90-95th
NATA* Cancer Risk (lifetime risk per million)	37	32	92	31	80-90th	32	70-80th
NATA* Respiratory Hazard Index	0.54	0.44	94	0.4	95-100th	0.44	70-80th
Traffic Proximity and Volume (daily traffic count/distance to road)	1200	730	80	650	85	750	84
Lead Paint Indicator (% Pre-1960 Housing)	0.43	0.29	74	0.36	65	0.28	72
Superfund Proximity (site count/km distance)	0.12	0.13	67	0.15	64	0.13	71
RMP Proximity (facility count/km distance)	1.1	0.66	81	0.62	82	0.74	78
Hazardous Waste Proximity (facility count/km distance)	2.4	2.1	68	2	75	5	69
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	2.5E-06	4.4	52	34	31	9.4	42
Demographic Indicators							
Demographic Index	64%	35%	89	30%	91	36%	85
People of Color Population	94%	49%	87	33%	94	39%	92
Low Income Population	34%	22%	77	27%	68	33%	58
Linguistically Isolated Population	9%	3%	89	3%	91	4%	83
Population With Less Than High School Education	26%	10%	93	10%	93	13%	87
Population Under 5 years of age	9%	6%	78	6%	81	6%	78
Population over 64 years of age	9%	15%	27	16%	21	15%	25

* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

Beacon Heights Elementary School[223]

EPA United States Environmental Protection Agency

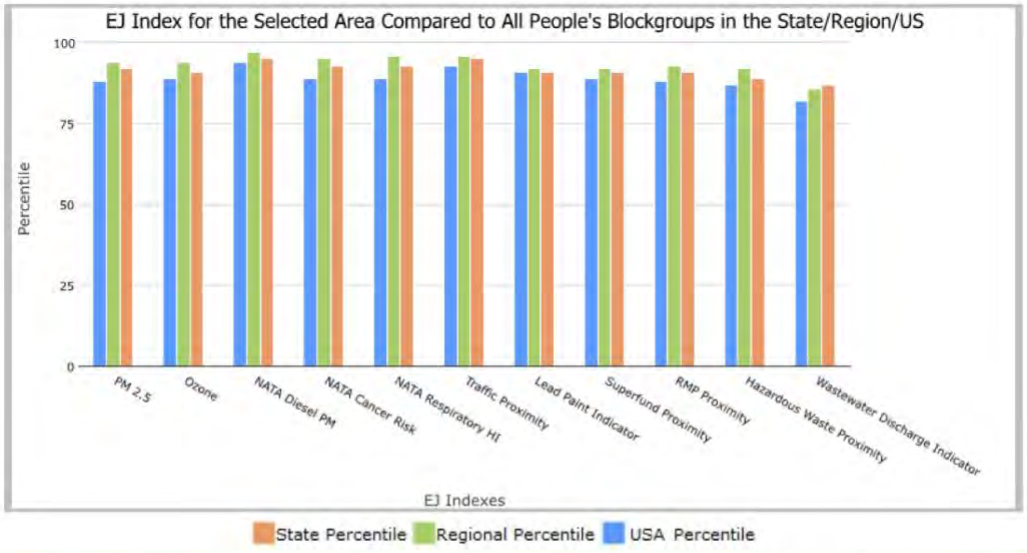
EJSCREEN Report (Version 2020)

1 mile Ring Centered at 38.957640,-76.898160, MARYLAND, EPA Region 3

Approximate Population: 23,409

Input Area (sq. miles): 3.14

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	92	94	88
EJ Index for Ozone	91	94	89
EJ Index for NATA* Diesel PM	95	97	94
EJ Index for NATA* Air Toxics Cancer Risk	93	95	89
EJ Index for NATA* Respiratory Hazard Index	93	96	89
EJ Index for Traffic Proximity and Volume	95	96	93
EJ Index for Lead Paint Indicator	91	92	91
EJ Index for Superfund Proximity	91	92	89
EJ Index for RMP Proximity	91	93	88
EJ Index for Hazardous Waste Proximity	89	92	87
EJ Index for Wastewater Discharge Indicator	87	86	82



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

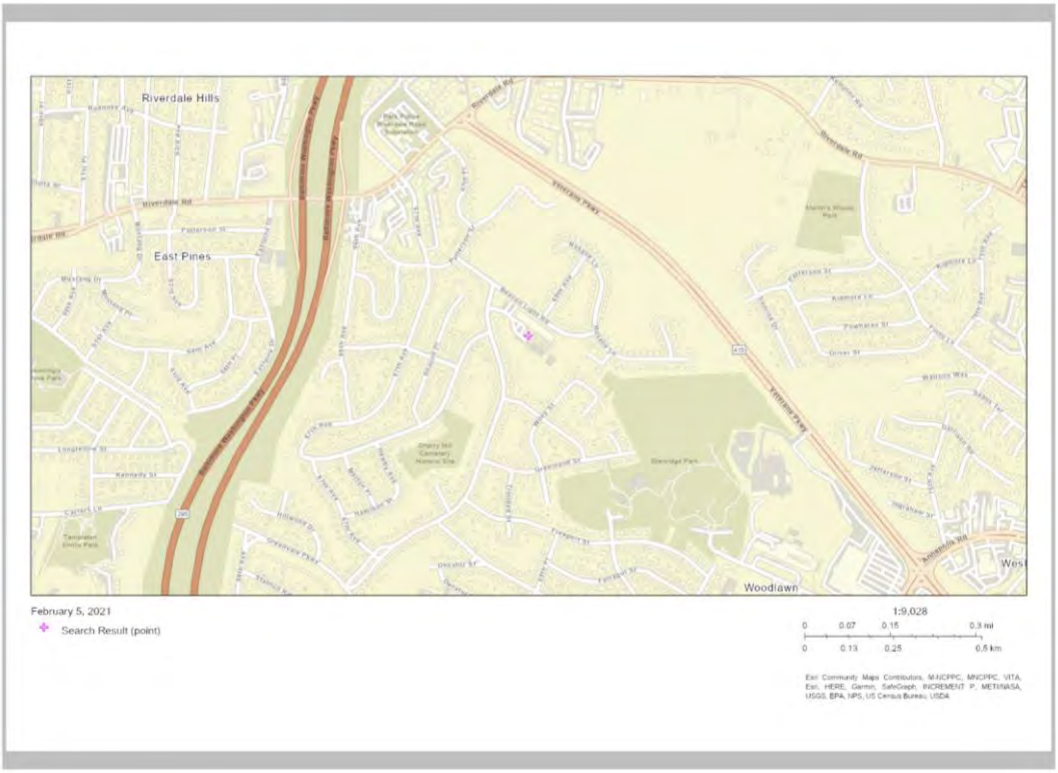
February 05, 2021 1/3

[223] EPA, *EJ Screen*, https://ejscreen.epa.gov/mapper/ (last visited Feb. 5, 2021) (Search "Beacon Heights Elementary School" in the map search tool and then click "Get Printable Standard Report...").

1 mile Ring Centered at 38.957640,-76.898160, MARYLAND, EPA Region 3

Approximate Population: 23,409

Input Area (sq. miles): 3.14



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EPA United States Environmental Protection Agency

EJSCREEN Report (Version 2020)

1 mile Ring Centered at 38.957640,-76.898160, MARYLAND, EPA Region 3

Approximate Population: 23,409

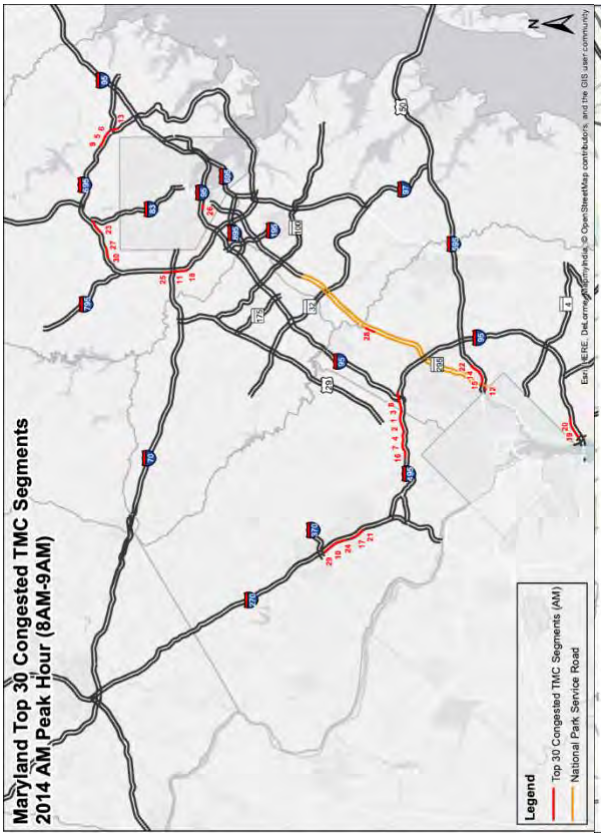
Input Area (sq. miles): 3.14

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m³)	8.89	8.43	95	8.63	65	8.55	61
Ozone (ppb)	43.9	44.6	16	43.2	57	42.9	60
NATA* Diesel PM (µg/m³)	1	0.633	93	0.477	95-100th	0.478	90-95th
NATA* Cancer Risk (lifetime risk per million)	37	32	90	31	80-90th	32	70-80th
NATA* Respiratory Hazard Index	0.53	0.44	93	0.4	90-95th	0.44	70-80th
Traffic Proximity and Volume (daily traffic count/distance to road)	1500	730	85	650	89	750	87
Lead Paint Indicator (% Pre-1960 Housing)	0.4	0.29	72	0.36	63	0.28	70
Superfund Proximity (site count/km distance)	0.12	0.13	70	0.15	67	0.13	73
RMP Proximity (facility count/km distance)	0.82	0.66	77	0.62	76	0.74	71
Hazardous Waste Proximity (facility count/km distance)	2.4	2.1	68	2	75	5	70
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	0.00015	4.4	71	34	50	9.4	56
Demographic Indicators							
Demographic Index	65%	35%	90	30%	91	36%	86
People of Color Population	93%	49%	86	33%	93	39%	92
Low Income Population	37%	22%	81	27%	73	33%	64
Linguistically Isolated Population	12%	3%	93	3%	94	4%	86
Population With Less Than High School Education	29%	10%	95	10%	95	13%	89
Population Under 5 years of age	9%	6%	80	6%	82	6%	79
Population over 64 years of age	10%	15%	34	16%	26	15%	31

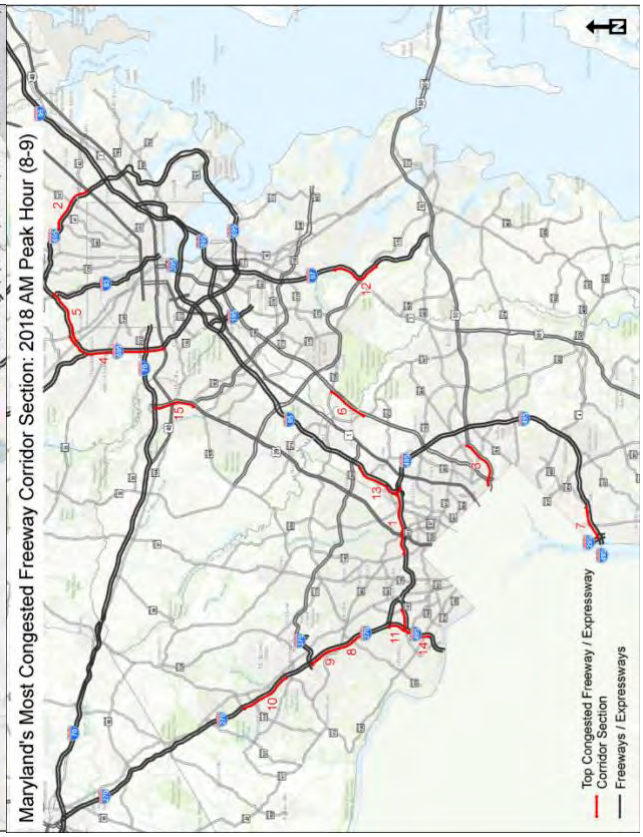
* The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice

Appendix B - Traffic Congestion Comparison



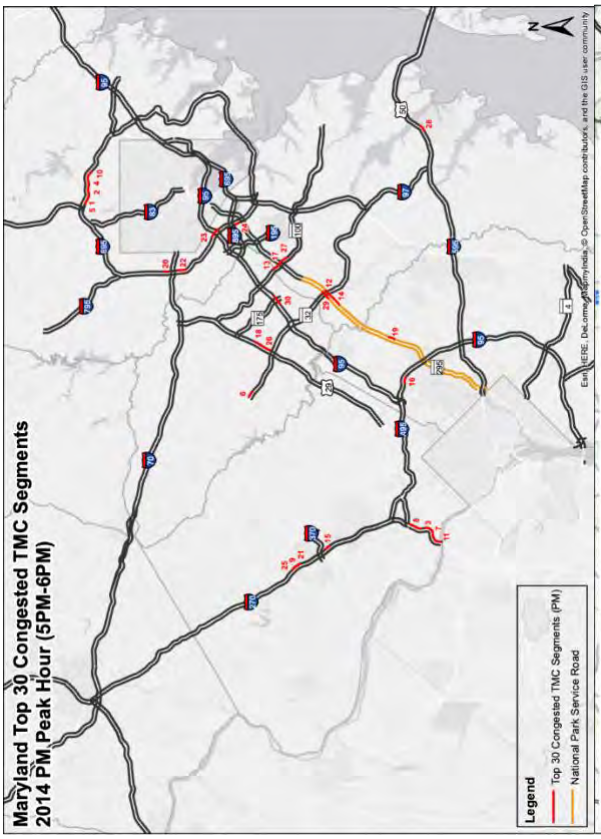
Congestion report from 2015[224]



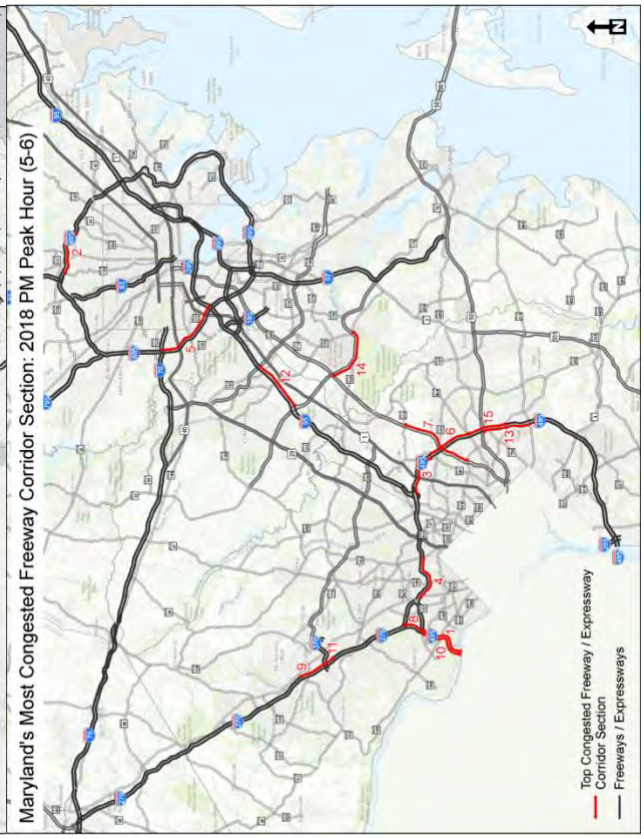
Congestion report from 2019[225]

[224] MARYLAND DEPARTMENT OF TRANSPORTATION, *Maryland State Highway Report 2015*, I.B.12 https://www.roads.maryland.gov/OPPEN/2015%20mobility%20report%20draft_highres_for%20website1.pdf (last visited Feb. 18, 2021).

[225] MARYLAND DEPARTMENT OF TRANSPORTATION, *Maryland State Highway Report 2019*, 27 https://roads.maryland.gov/OPPEN/2019_mobility_report.pdf (last visited Feb. 18, 2021).



Congestion report from 2015[226]



Congestion report from 2019[227]

[226] MARYLAND DEPARTMENT OF TRANSPORTATION, *Maryland State Highway Report 2015*, I.B.14 https://www.roads.maryland.gov/OPPEN/2015%20mobility%20report%20draft_highres_for%20website1.pdf (last visited Feb. 18, 2021).

[227] MARYLAND DEPARTMENT OF TRANSPORTATION, *Maryland State Highway Report 2019*, 29 https://roads.maryland.gov/OPPEN/2019_mobility_report.pdf (last visited Feb. 18, 2021).

Appendix C – Map of FA/EE Adjacent to Beacon Heights and Woodlawn

Appendix C: Map of Beacon Heights and Woodlawn Communities from Google Maps with Depiction of where FA/EE will be Located Adjacent to Communities