

SCMagLev – Environmental Justice Communities

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The Baltimore-Washington Rapid Rail (BWRR) (the project developer) and the Northeast MagLev (TNEM) (the promotional entity) have the short-term goal of obtaining Federal Railroad Administration (FRA) approval to build a magnetic levitation (maglev) train between Baltimore and Washington, DC, with the long-term goal of extending the train operation to New York City by way of Philadelphia. Japan's Superconducting Magnetic Levitation (SCMagLev) train is the high-speed, ground-based transportation system TNEM is promoting to build in the northeast corridor of the United States.

Information about the SCMagLev and BWRR's plans to build and operate the system have raised many questions and concerns. This is one of a series of articles that identifies and discusses some of the many questions and concerns citizens and communities have identified with moving forward in building and operating the SCMagLev.

Article Summary

Environmental justice (EJ) is a grave concern of residents and communities potentially being disrupted and enveloped by the proposed Superconducting Magnetic Levitation (SCMagLev) Project.

SCMagLev project impacts to EJ communities include the following:

- Eighty (80) percent of the parcels that would be impacted by land use conversion, rezoning, and property acquisitions are in EJ communities.
- Nearly all the project ancillary facilities (those located above ground) are located within the EJ population areas (e.g., stations, viaducts, tunnel portals).
- Increase in runoff, stormwater, and flooding issues will disproportionately affect the EJ communities.
- Most cultural resources (historic and archaeological resources) impacts occur within EJ groups.
- Construction impacts would occur at varying locations and for varying durations during the construction period, 24 hours a day, seven days a week, for one to seven years.
- A decreased level of service in residential areas and changes to local access or mobility can be anticipated.
- The chance of high-speed collisions and other operational accidents is elevated in EJ communities because of the disproportionate construction impacts.
- Potential spills of hazardous materials are more likely to occur in EJ communities.
- Most of the frequent and severe noise and vibration impacts will occur in EJ communities.
- Air pollution will worsen around stations due to increased traffic and potentially harmful emissions from ventilation facilities.
- Visual changes in neighborhoods and the elimination of greenspace will occur.
- Negative impacts to neighborhood cohesiveness will be sustained.
- Negative impacts to recreational facilities and parklands will occur.

Furthermore, disconcerting questions arise as these impacts are considered by EJ communities that historically have been characterized by inequity and disproportionate impact from major transportation projects.

- Is it appropriate to place more potential pollutants and large disruptive construction footprints where minority, lower-income residents live?
- Will EJ communities enjoy any of the claimed SCMagLev benefits, such as temporary or permanent jobs, community investment, or improved accessibility?
- Is the quality of life of the residents in EJ communities considered less important than those in more upscale communities?
 - Would these more affluent residents and their communities be considered more deserving of careful consideration and appropriate environmental protection?
 - Would major, invasive transportation projects such as the SCMagLev realistically not be built in these more prosperous and potentially more influential areas because of the anticipated hue and outcry?

The demonstrable lack of measurable concern on the part of the project sponsors and in-depth research into how it will affect the quality of life of viable and thriving multiracial, multicultural, and lower-income communities along the Northeast Corridor is troubling. This article details and discusses many EJ concerns.

What is Environmental Justice?

The U.S. Environmental Protection Agency defines environmental justice (EJ) 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."¹

Environmental Justice Plan 2025 notes the disparities encountered in EJ communities:

Environmental justice is closely tied to health disparities in that low-income, and some communities of color are often differentially burdened by environmental hazards and have high exposure to pollution emissions. Consequently, this leads to an excess burden of illness and disease. ... racism and discrimination have been closely tied to the social and economic disadvantage experienced by low-income and economically underserved populations. *Furthermore, these communities are often disproportionately used as environmental sinks to host locally unwanted land uses (LULUs).* [Italics added.]²

¹ See www.epa.gov/environmentaljustice.

² *Environmental Justice Plan 2025*. The Program on Community Engagement, Environmental Justice, and Health (CEEJH) (Dr. Sacoby Wilson, Director). School of Public Health, the University of Maryland College Park. April 2018, p. 9. www.btbcoalition.org/index%20page%20images/ENVIRONMENTAL%20JUSTICE%20PLAN%202025_PrinceGeorges.pdf.

Environmental Justice and the SCMagLev Draft Environmental Impact Statement

In its January 2021 Draft Environmental Impact Statement (DEIS), the Federal Railroad Administration (FRA) broadly and inadequately addresses EJ issues along the proposed routes of the Superconducting Magnetic Levitation (SCMagLev) Project. Many questions are being posed in EJ communities, including about the destruction likely to be wrought by its building, the extensive footprint and invasiveness of the built environment on completion, and the associated hazardous waste and pollutants released during construction and in operation, including potentially from the ventilation facilities in EJ communities.

According to the DEIS, “minority populations comprise 69.6 percent of the total population and low-income populations make up 12.7 percent of the SCMagLev Project Affected Environment.”³ See DEIS Table 4.5-2 below.⁴

Table 4.5-2: EJ Demographics in the SCMAGLEV Project Affected Environment

| Environmental Justice Identifier | Total Population | Percent of Total Population |
|--------------------------------------|------------------|-----------------------------|
| Black or African American | 105,072 | 46.6% |
| American Indian and Alaska Native | 620 | 0.3% |
| Asian | 15,205 | 6.7% |
| Native Hawaiian and Pacific Islander | 308 | 0.1% |
| Some other race | 822 | 0.4% |
| Two or more races | 5,3877 | 2.4% |
| Hispanic or Latino | 29,505 | 13.1% |
| Non-White Hispanic or Latino | 15,376 | 6.8% |
| Total Population (EJ and non-EJ) | 225,635 | 100% |
| Total Minority Population | 156,919 | 69.6% |
| Low-income population | 28,165 | 12.7% |

Source: American Community Survey Sample Data (ACS 2018)

The range of impacts includes construction in general, as well as transportation, community facilities, parkland, economic, aesthetics and visual quality, hazardous materials, noise, vibration, and land use, as referred to in Table 4.5-3 below.

³ U.S. Department of Transportation (USDOT), Federal Railroad Administration (FRA), and Maryland Department of Transportation (MDOT). Section 4.5, Environmental Justice, p. 4.5-5. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation*.

www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf.

⁴ Ibid. p. 4.5-6.

Table 4.5-3: Impacts Considered in Disproportionality Analysis

| Environmental Resource Areas | Type of Impacts Consideration | DEIS Reference Section |
|-------------------------------|---|------------------------|
| Transportation | Impacts that would decrease the Level of Service (LOS) in residential areas; impacts that would change local access or mobility | Section 4.2 |
| Community Facilities | Includes directly impacted community facilities | Section 4.4 |
| Parkland | Includes directly impacted parklands | Section 4.7 |
| Economic | Includes areas with the potential for changes to local economies | Section 4.6 |
| Aesthetics and Visual Quality | Includes Moderate (M) and Higher (H) Levels of visual changes in residential neighborhoods | Section 4.9 |
| Hazardous Materials | Includes directly affected areas with an existing Risk Ranking of 4 or more (Medium to High) | Section 4.15 |
| Noise | Includes areas that will result in a severe noise impact | Section 4.17 |
| Vibration | Includes areas that will result in frequent vibration impact | Section 4.17 |
| Land Use | Includes properties that would have permanent full parcel acquisitions, permanent partial parcel acquisition, and temporary full parcel acquisition | Section 4.3 |

Construction

The DEIS provides only a general approach to addressing potential construction issues related to transportation, which will have to be determined *after the final engineering design has been approved and the building progresses*.⁵

Construction will begin after completion of the final engineering design, and subject to Federal, state, and local permits. During this time, localized construction impacts, such as changes in traffic volume and circulation patterns, noise and vibration levels, visual effects have the potential to occur. As the engineering design advances, the Project Sponsor will develop a specific construction plan describing construction sequencing, equipment, methodologies, and safety practices. . . . As part of construction planning, the Project Sponsor will coordinate with affected property owners and stakeholders to ensure that the construction management plan accommodates their needs and concerns to the extent reasonably feasible. They will also develop and implement a variety of mitigation and minimization measures to be applied corridor wide and specific to each site and the local construction activities. Examples of these measures include locating the elevated structure piers outside floodplains and wetlands when possible, locating the piers to avoid roads and prevent sight distance issues, installing cofferdams will be required for in-water pier construction, preparing and implementing a plan to dispose of excavated soils, preparing and implementing a noise and vibration control plan, protecting local building foundations during construction, and implementing traffic management and control plans.

⁵ USDOT, FRA, and MDOT. Section 4.1: Introduction, pp. 4.1-4 and 4.1-5. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation*. www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf.

Transportation

In the DEIS, the FRA broadly evaluated current transportation systems and networks accessible to and used by EJ communities and likely to be affected to an unknown degree by the SCMagLev during construction and in operation:⁶

- Commuter Rail Network – Maryland Area Regional Commuter (MARC) commuter rail service between the City of Baltimore, Baltimore-Washington International Thurgood Marshall (BWI Marshall Airport) Station, and Washington, D.C. (the Penn Line between Baltimore Penn Station, BWI Marshall Airport Station and Washington Union Station and the Camden Line between Baltimore Camden Yards Station and Washington Union Station).
- Intercity Passenger Rail (Amtrak) – Amtrak Intercity Passenger Rail service between Baltimore Penn Station, BWI Marshall Airport Station, New Carrollton, and Washington Union Station. Three Amtrak services operate along the corridor between Baltimore and Washington, D.C.: Acela high speed express service, Northeast Regional Service, which makes more stops within the corridor than Acela service, and long-distance intercity rail which operates within the corridor but is destined for cities outside the Northeast corridor.
- Local Transit Systems – In Baltimore this includes MDOT Maryland Transit Administration (MDOT MTA) Citylink local bus routes, commuter bus, Light Rail Link (hereafter Light Rail) and Metro Subway Link heavy rail (hereafter Metro). In Washington, D.C. this includes Washington Metro Area Transit Authority (WMATA) local bus and Metrorail, commuter bus run by multiple agencies, and the DC Streetcar and Washington, D.C. Circulator, both run by the District Department of Transportation. In Prince George’s County local transit service includes the locally operated The Bus system, WMATA Metrorail and Metrobus service, and commuter bus service run by MDOT MTA; In Anne Arundel County, local transit service includes Baltimore Light Rail, local bus and commuter bus service run by MDOT MTA.
- Intercity Bus – Throughout the corridor, privately operated intercity bus service is provided by operators Greyhound, Peter Pan Trailways, and Mega Bus, each of whom provide service between Baltimore and Washington, D.C.
- Regional Roadway Network – Regional roadways that span the SCMAGLEV Project Affected Environment.

Community Facilities

The DEIS “considers the potential direct impacts, including permanent effects and short-term construction effects to neighborhoods and community facilities.”⁷ The concerning direct impacts for EJ communities include:⁸

- Property impact(s) – full (displacement – permanent use of more than 1/3 of the property or removal of structures), partial property acquisition (permanent use of less than 1/3 of the property), or temporary use of property (property only used during construction).
- Community cohesion effects – disruption or enhancement of interactions between people and groups within a community

⁶ USDOT, FRA, and MDOT. Section 4.2: Transportation, p. 4.2-2. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation.*

www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf.

⁷ USDOT, FRA, and MDOT. Section 4.4: Neighborhoods and Community Facilities, p. 4.4-1. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation.*

www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf.

⁸ *Ibid.* pp. 4.4-1 and 4.4-2.

- Community facility utilization – displacement of or changes in the utilization of community facilities
- Aesthetics and visual appearance – changes in the visual landscape
- Noise and vibration – changes in noise and vibration
- Air quality – changes to air quality including increases or decreases in pollutants and increases in fugitive dust during construction
- Health and safety – threats to public health and safety
- Changes to access and mobility – disruption in the ingress and egress to a community or community facility

Parkland

The DEIS states: “Nearly 2,000 acres of Federal, state, and local recreational facilities and parklands occur in the SCMAGLEV Project Affected Environment. Within the urbanized areas at either end of the SCMAGLEV Project Affected Environment, parks are generally small and meet local community recreational needs. Parks within the central portion of the SCMAGLEV Project Affected Environment tend to be larger, more regional in focus, and are generally significant for both active passive recreation as well as natural resource conservation.”⁹

These parks are used by the EJ community residents and a part of their communities. And yet, the “FRA considers several impacts to public recreational facilities and parklands to be difficult to mitigate due to extensiveness of impact and/or uniqueness of park features.”¹⁰

Economic

Several observations in the DEIS made about economic impact that would affect EJ communities include the following:

- The SCMAGLEV would have both a positive and negative impact on revenues, potentially impacting the local government services that rely on them. The increased accessibility of some properties would result in an increase in property values and therefore property taxes, while property acquisitions and losses of revenues by competing systems would result in a reduction of revenues. The net change in revenues would therefore impact the availability and scale of public services.¹¹
- Temporary negative construction impacts to business revenues in the affected areas may be significant, ranging from \$18.5 million to \$311.3 million (2018 dollars). This decrease in business revenues is due to lane closures, traffic delays, and limited accessibility that would reduce the number of people frequenting the area and supporting businesses.¹²
- While residential relocations are sensitive because they may alter households’ school and commute patterns, FRA also anticipates commercial acquisitions ... None of the acquisitions along the SCMAGLEV alignments are sufficiently unique in its commercial activity that the business could not find comparable building, resource, and transportation access elsewhere in the same jurisdiction.¹³

⁹ USDOT, FRA, and MDOT. Section 4.7: Recreational Facilities and Parklands, pp. 4.7-5 and 4.7-6. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation*. www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf.

¹⁰ Ibid. p. 4.7-7.

¹¹ USDOT, FRA, and MDOT. Section 4.06: Economic Resources, p. 4.6-3. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation*. www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf.

¹² Ibid. p. 4.6-8.

¹³ Ibid. p. 4.6-11.

- The SCMAGLEV’s construction will cause travel disruptions as street lanes and sidewalks are closed, as parking space is reduced, as commercial establishments become less visible from the street, and as noise and dust levels in the vicinity of the building activity rise. There are two main types of construction impacts, defined by the groups who are most directly affected—traveler impacts and business community impacts.¹⁴

Aesthetics and Visual Quality

The DEIS notes many issues associated with aesthetics and visual quality and mitigation, including some of possible particular concern to our EJ communities, including:

- FRA assessed the visual effects of the alignment (viaduct and deep tunnel), stations, and miscellaneous fixed support facilities on adjacent and nearby communities, general public areas, sensitive viewsheds, historic sites, and other special features considered to be visually sensitive.¹⁵
- The greatest numbers of cultural sites are typically found in municipalities that date from the 18th to early 20th centuries and therefore contain older buildings and structures. Municipalities with many cultural sites include Baltimore City, MD, Washington, D.C., and the central Maryland suburban towns of Bladensburg, Greenbelt, and Linthicum.¹⁶
- Tunneling efforts, such as cut/ cover work, site clearing for buildings/facilities, grading, staging and work areas. At the end of construction, these elements would be removed and temporarily disturbed areas would be restored to the extent practicable.¹⁷
- Prior to construction, BWRR or its contractors would present visual impact mitigation strategies to the following neighborhoods (additional neighborhoods may be identified as the SCMAGLEV Project proceeds): Mount Vernon Square District, Ivy City, Langdon, Gateway, Brentwood, Bladensburg, Wildercroft, Woodlawn, West Lanham Hills, Montpelier, South Laurel, Woodbridge Crossing, Montpelier Hills, Evergreens at Laurel Apartments, Maryland City, Sudlersville South, Barbersville, Harmons Station, Baltimore Highlands, Lansdowne, Dorchester Heights, Cherry Hill, Westport, Otterbein, Downtown Baltimore Business District.¹⁸

Hazardous Materials

EJ communities have often been the location for the disposal of and exposure to hazardous materials. According to the DEIS, many sites and operations have a risk for encountering potentially hazardous materials and construction itself brings its own dangers.

- FRA identified and ranked more than 1,000 sites within the SCMAGLEV Project Affected Environment with the potential for hazardous materials site concerns. Most sites identified within the SCMAGLEV Project Affected Environment are designated a Risk Ranking of 1 or 2, meaning relatively low risk. FRA focused on sites with Risk Rankings of 3 or higher because they have the greatest potential for the SCMAGLEV Project to encounter contaminated soil, groundwater, or other hazardous materials during construction.¹⁹

¹⁴ Ibid. p. 4.6-15.

¹⁵ USDOT, FRA, and MDOT. Section 4.9: Aesthetics, Visual Quality, and Light Emissions, p. 4.9-2. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation*. www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf.

¹⁶ Ibid. p. 4.9-4.

¹⁷ Ibid. p. 4.9-28

¹⁸ Ibid. pp. 4.9-28 and 4.9.29.

¹⁹ USDOT, FRA, and MDOT. Section 4.15: Hazardous Materials Sites and Solid Waste, p. 4.15.4. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation*. www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf.

- The SCMAGLEV Project will involve the use of hazardous materials for construction and operation and will result in the generation of hazardous waste and other solid waste. This will require management of construction and operating activities to protect human health and the environment.²⁰
- Some C&D waste materials and products encountered or generated during construction present a known risk to human health and the environment. These include hazardous wastes (listed, characteristic and universal types identified by the USEPA); asbestos-containing materials (friable); asbestos-containing materials (non-friable); lead-containing materials (including lead-based paint); products containing polychlorinated biphenyls (PCBs); solvents, chemicals, paints, petroleum-derived products; diesel/gasoline; fluorescent and compact fluorescent lamps; electronics; and medical waste. The SCMAGLEV Project does have the potential to encounter naturally occurring asbestos during tunneling operations through bedrock ...²¹ [Note: C&D: construction and demolition.]
- The operation and maintenance of the SCMAGLEV Project would require the handling, transporting, generating, storing, and disposing of hazardous and solid waste. Hazardous materials including lubricants, hydraulic fluids and cleaning products would be used during the routine maintenance of rail vehicles and stations. Wastes that would require disposal include used oil, used cleaning products, solvents, and paint.²²

Noise and Vibration

Extended years of construction is a major concern for EJ residents. Their communities and municipalities along the routes, with dense populations and built environment, such as houses, apartment buildings, schools, and businesses, surrounded by roadways in various degrees of repair, already are affected by noise and vibration and would likely be more so with the construction and operation of the SCMagLev. As the DEIS observes to be the case for vibrations, even for a No Build option: “Traffic, including heavy trucks and buses, rarely create perceptible vibration unless vehicles are operating very close to buildings or there are irregularities in the road, such as potholes or expansion joints.”²³

During construction, the DEIS noted: “In summary, there are no predicted noise impacts from the tunnel boring machine as all activities would be underground. However, the removal of spoils from the tunnel boring machine (TBM) launch areas (which typically occur continuously 24/7 during this phase) could cause impacts at residences in the Maryland City and Fort Meade communities. Localized noise impacts are also expected from station and FA/EE excavation as these will require deep boring, pile driving and possibly blasting.”²⁴ The same is stated for vibration.²⁵

FRA findings include the following that may have impact on EJ communities in SCMagLev operation:

- Along tunnel sections, FRA did not predict any airborne or community noise impacts since all train operations would be underground. Therefore, all predicted operational train noise impacts occur along the viaduct sections of the alignment due to the exposure of the train pass-bys along the elevated guideway.
- FRA also predicted noise impacts at residences adjacent to the proposed ancillary facilities, which include trainset maintenance facilities, fan plants, maintenance of way facilities and substations.

²⁰ Ibid. p. 4-15.5.

²¹ Ibid. p. 4-15.6.

²² Ibid.

²³ USDOT, FRA, and MDOT. Section 4.17: Noise and Vibration, p. 4.17.10. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation.*

www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf.

²⁴ Ibid. p. 4-17.18.

²⁵ Ibid.

- Unlike noise, FRA predicted vibration impacts from train operations along both tunnel and viaduct sections of the guideway.²⁶
- Mitigation strategies include the application of design features to minimize or eliminate potential noise and vibration impacts at residential communities within the SCMAGLEV Project Affected Environment. Features such as taller parapet walls could minimize noise impacts along viaduct sections but would not eliminate them. Similarly, concrete-lined tunnels and concrete viaducts would reduce vibration transmission but not eliminate them. Additional mitigation measures would be required to reduce noise and vibration impacts.²⁷

Land Use

As stated in the DEIS, land will be impacted to build the SCMagLev, a factor that clearly would affect EJ communities:

- Linear impacts to land use would be due to the viaduct, its support piers, and new roadways built to supplement access for construction and ongoing maintenance. Large area impacts to land use would be associated with SCMAGLEV Project related buildings such as substations, fresh air/emergency egress facilities (FA/EEs), TMFs, and systems support buildings; construction laydown areas; and areas for stormwater management.²⁸
- The construction of some SCMAGLEV Project features would be in contrast to current and surrounding land uses. The potential sites for the TMFs include large portions of BARC which currently includes open space, forested areas, and agricultural uses or an area of land off of MD 198 east of the BWP that includes forested land and institutional uses. In other areas, SCMAGLEV Project facilities would be located in proximity to residential and commercial uses and forested areas.²⁹ [Note: BWP stands for Baltimore-Washington Parkway.]
- The SCMAGLEV Project would require temporary property acquisitions and permanent partial (less than 1/3 of the property) property acquisitions from numerous residential properties. As the SCMAGLEV Project design is finalized, these property impacts may be refined.³⁰
- The aboveground structures associated with the alignment include the viaduct substations, fresh air/emergency egress facilities, and systems buildings (ancillary facilities). The viaduct would run only along the central portion of the SCMAGLEV Project corridor and generally parallels BWP and would impact the land that abuts it. The ancillary facilities would be dispersed throughout the SCMAGLEV Project corridor and would include larger footprints in comparison to the viaduct. Some ancillary facilities are located within and in close proximity to residential, commercial, open space, and forested land uses. The aboveground structures associated with Build Alternatives using the Build Alternatives J would result in permanent changes to land use of between 629 acres and 643 acres.³¹

²⁶ Ibid. p. 4-17.11.

²⁷ Ibid. p. 4-17.18.

²⁸ USDOT, FRA, and MDOT. Section 4.3, Land Use and Zoning, pp. 4-3.8 and 4-3.9. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation*. www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf.

²⁹ Ibid.

³⁰ Ibid. p. 4-3.10.

³¹ Ibid. p. 4-3.12.

Environmental Protection Agency Review of SCMagLev DEIS Environmental Justice Issues

The Environmental Protection Agency (EPA) makes several key observations and recommendations in its detailed review of how EJ issues are addressed in the FRA's SCMagLev DEIS.³²

Environmental Justice Screening and Mapping Tool³³ Reports in Appendix D.3

The FRA assessed the entire project corridor using the Environmental Justice Screening and Mapping Tool (EJSCREEN); however, the EPA indicates this is insufficient to adequately assess environmental impact on EJ communities: "While this approach may provide demographic and environmental data for the whole corridor, it risks obscuring and understating conditions of individual communities."³⁴ They recommend the EJSCREEN tool can be used to develop community-level metrics and should be used to review individual communities such as in "those areas identified within Attachment F of Appendix D.3."³⁵

Census Bureau Data

The EPA notes the FRA used the outdated 2010 Decennial Census and the 2018 American Community Survey five-year estimates in its identification of minority and low-income populations.³⁶ The agency "encourages the FEIS to utilize the most recent available respective U.S. Census and ACS data sets to promote accurate and up-to-date analyses regarding minority populations, low-income populations, and other demographics."³⁷

Council on Environmental Quality 1997 Environmental Justice Guidance Under the National Environmental Policy Act

The DEIS refers to the Council on Environmental Quality (CEQ) 1997 guidance to identify both minority and low-income populations. ". . . however, EPA observes that the methods that the DEIS uses to develop both the minority population and low-income population benchmarks is inappropriate. Adding an additional 10 percentage points to percent minority population and percent low-income averages is mathematically inappropriate and inadvisable. This methodology may cause areas of EJ concern to be missed due to unduly high benchmark values being set. EPA notes that the 1997 CEQ Environmental Justice Guidance does not call for the adding of additional percentages to the benchmarks for low-income populations."³⁸ They recommend instead using U.S. Census data.³⁹

The EPA points out that to help identify minority populations, the 1997 guidance calls for the following tests: (1) "identification of populations that exceed the 50% minority population benchmark established by CEQ" and (2) "the application of the significantly greater benchmark . . . used when local minority population averages are below 50%."⁴⁰ The EPA recommends the FRA return to the 1997 guidance and these important clarifications, indicating the agency "remains

³² United States Environmental Protection Agency (EPA). Technical Comments, pp. 2-4. Draft Environmental Impact Statement and Draft Section 4(f) Evaluation: Baltimore-Washington Superconducting MAGLEV Project. CEQ# 20210010. May 24, 2021.

³³ Environmental Justice Screening and Mapping Tool. www.epa.gov/ejscreen.

³⁴ EPA. Technical Comments, pp. 2-4. Draft Environmental Impact Statement and Draft Section 4(f) Evaluation: Baltimore-Washington Superconducting MAGLEV Project. CEQ# 20210010. May 24, 2021. p. 2.

³⁵ Ibid.

³⁶ USDOT, FRA, and. MDOT. Section 4.5, Environmental Justice. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation*. www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf. p. 4.5-3.

³⁷ EPA. Technical Comments. Draft Environmental Impact Statement and Draft Section 4(f) Evaluation: Baltimore-Washington Superconducting MAGLEV Project. CEQ# 20210010. May 24, 2021. p. 2.

³⁸ Ibid. p. 2.

³⁹ Ibid. p. 3.

⁴⁰ Ibid.

willing to coordinate with the lead agencies as needed to assist with interpretation and application of appropriate methods.”⁴¹

Most of the SCMagLev Project Affected Environment Qualifies as Environmental Justice

“ . . . most of the SCMAGLEV Project Affected Environment qualifies as EJ.”⁴² Regarding this statement in the FRA DEIS, the EPA comments: “Such a concentration of impacts in the described areas seems unnecessary and avoidable, as many areas that the DEIS characterizes as ‘No EJ’ do not appear to be subject to potential ancillary construction features (e.g., stations, TMF footprints, etc.) and consequent impacts on the same scale as the impacts that appear in ‘EJ’ areas. . . . The distribution of these impacts appears to be disproportionate, with a greater burden in areas with relatively higher minority and/or low-income populations.”⁴³

While recognizing the FRA indicates in the DEIS that it will address disproportionality in the Final Environmental Impact Statement (FEIS), the EPA “recommends that the Project limit and mitigate impacts within areas of potential EJ concern to the maximum extent possible and that it ensures the avoidance of disproportionate impacts to low-income populations and/or minority populations.”⁴⁴

Discussion

It is clear from our review of the EJ sections as pointed out in the DEIS and the EPA’s review of EJ issues therein, there will be permanent short- and long-term impacts from the SCMagLev Build Alternatives on EJ populations. As seen from Table 4.5-2 above, Black and African American and Hispanic or Latino minorities and low-income populations are at a higher risk of direct and disproportionate impacts of this project, as extrapolated from the DEIS discussion (see Table 4.5-3 above) that refers to the sections in which these concerns are at best superficially addressed and at worst ignored, partly because of the broad scope of unknowns associated with the unfocused review of more than one proposed route.⁴⁵

A major concern is that issues will be addressed after the engineering design has already been approved and as the construction progresses, a point at which the already marginalized municipalities and residents will have little or no impact on the planning and may have already suffered damages. It must be remembered that mitigation does not mean that irreparable harm will not be done. The depth and breadth of the environmental impacts is enormous. One can anticipate a situation of a shrug and an apology from developers at a point when it is too late for remediation.

The Maryland Coalition for Responsible Transit – Citizens Against the SCMagLev are concerned about “the industrial levels of pollution released into our watershed and communities” and point out the following: “The DEIS analyses and discussion of the disproportionate impacts on environmental justice (EJ) areas are seriously deficient. The DEIS understates and fails to address the impact on and likely displacement of the residents and

⁴¹ Ibid.

⁴² USDOT, FRA, and. MDOT. Section 4.5, Environmental Justice. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation*. www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf. p. 4.5-5.

⁴³ EPA. Technical Comments. Draft Environmental Impact Statement and Draft Section 4(f) Evaluation: Baltimore-Washington Superconducting MAGLEV Project. CEQ# 20210010. May 24, 2021. p. 3.

⁴⁴ Ibid. p. 4

⁴⁵ USDOT, FRA, and. MDOT. Section 4.5, Environmental Justice. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation*. www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf. p. 4.5-6.

communities through which the SCMagLev will travel. The DEIS ignores the potential and likely use of eminent domain to take property, especially in EJ communities.”⁴⁶

The DEIS states that prior to its FEIS, the FRA “will continue public outreach, stakeholder coordination, and mitigation identification efforts” and “will document the outcome of the disproportionality analysis.”⁴⁷ This does not obviate the more chilling DEIS statement referred to above: “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.”⁴⁸

EJ residents and communities cannot assume this basic premise will change dramatically should this project move forward, as it would reflect unlikely major changes in the proposed route considered and developed after the investment of years of project development and financial and lobbying commitment from Baltimore-Washington Rapid Rail and the Northeast Maglev to promote the SCMagLev project.

Bladensburg: A Case Study

We offer a brief case study to help focus the reader on the realities faced by an EJ community that would be directly affected by the building of the proposed SCMagLev project. Bladensburg is one of the Port Towns, an EJ area of concern at many levels. *Environmental Justice Plan 2025* offers a case study of its demographics and environmental status:

Bladensburg is a small town, comprised of 9,608 residents located outside of Washington, DC. This community has an average low median household income of \$44,125 and a poverty rate of 20.3%. Bladensburg residents are primarily people of color, with 51.9% African American and 31.7% Hispanic. The town has dense, heavy traffic along with numerous industrial sites within the radius of the town. ... The current concrete block plant has been in operation for over 90 years, yet, there have been no on-site assessments of contamination or monitoring of air pollution including diesel particulates at or near the site. This site presents a public health threat to local residents, particularly vulnerable populations such as children, the elderly, and individuals with underlying health issues such as asthma or heart disease.⁴⁹

One view recently attributed to SCMagLev sponsors by an interviewing reporter is that building a ventilation station in the Port Towns near the Bladensburg Waterfront Park is regarded as being of little intrusion because a 100-year-old industrial park is sited across from it.⁵⁰ One might inquire what this signifies as a justification to build this five-story structure that could likely be the source of dangerous pollutants and emissions into the community. Does this mean that the residents are part and parcel of an industrial park and not a viable and thriving community? EJ communities deserve the same careful consideration as do those in upscale communities.

⁴⁶ Maryland Coalition for Responsible Transit – Citizens Against the SCMaglev. Mini Press Release #6: E-Bulletin Board Version. SCMagLev DEIS Findings, Conclusions, and Recommendations. May 24, 2021. p. 1.

⁴⁷ USDOT, FRA, and MDOT. Section 4.5, Environmental Justice, p. 4.5-5. *Baltimore-Washington Superconducting Maglev Project: Draft Environmental Impact Statement and Section 4(f) Evaluation*. www.baltimorewashingtonscmaglevproject.info/images/document_library/deis/deis_full_download.pdf.

⁴⁸ Ibid.

⁴⁹ *Environmental Justice Plan 2025*. The Program on Community Engagement, Environmental Justice, and Health (CEEJH) (Dr. Sacoby Wilson, Director). School of Public Health, the University of Maryland College Park. April 2018, p. 13. www.btcoalition.org/index%20page%20images/ENVIRONMENTAL%20JUSTICE%20PLAN%202025_PrinceGeorges.pdf.

⁵⁰ McCutchen, Susan. Personal communication during a 2019 interview at the Bladensburg Waterfront Park with WUSA 9 reporter.

The Biden Administration and EJ Communities

Recently, the Biden Administration has directed its attention to EJ community concerns. According to President Biden's Climate Executive Order 14008:⁵¹

Agencies shall make achieving environmental justice part of their missions by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts. It is therefore the policy of my Administration to secure environmental justice and spur economic opportunity for disadvantaged communities that have been historically marginalized and overburdened by pollution and underinvestment in housing, transportation, water and wastewater infrastructure, and health care.

In response to this executive order, the Administration created the "Justice40 Initiative" that underscores its attention to revitalizing and providing resources to EJ communities. The following orders were made to "secure environmental justice and spur economic opportunity":⁵²

- The order formalizes President Biden's commitment to make environmental justice a part of the mission of every agency by directing federal agencies to develop programs, policies, and activities to address the disproportionate health, environmental, economic, and climate impacts on disadvantaged communities.
- The order establishes a White House Environmental Justice Interagency Council and a White House Environmental Justice Advisory Council to prioritize environmental justice and ensure a whole-of-government approach to addressing current and historical environmental injustices, including strengthening environmental justice monitoring and enforcement through new or strengthened offices at the Environmental Protection Agency, Department of Justice, and Department of Health and Human Services. The new bodies are also tasked with advising on ways to update Executive Order 12898 of February 11, 1994.
- The order creates a government-wide "Justice40 Initiative" with the goal of delivering 40 percent of the overall benefits of relevant federal investments to disadvantaged communities and tracks performance toward that goal through the establishment of an Environmental Justice Scorecard.
- The order initiates the development of a Climate and Environmental Justice Screening Tool, building off EPA's EJSCREEN, to identify disadvantaged communities, support the Justice40 Initiative, and inform equitable decision making across the federal government. [Note: The tool would be created by the Council on Environmental Quality.]

These actions acknowledge and underscore concerns expressed by EJ residents as proposed transportation projects compete to establish themselves along the densely populated Northeast Corridor, undoubtedly affecting EJ communities that are its mainstay.

⁵¹ The White House. Executive Order on Tackling the Climate Crisis at Home and Abroad. January 27, 2021. www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/.

⁵² The White House. Fact Sheet: President Biden Takes Executive Actions to Tackle the Climate Crisis at Home and Abroad, Create Jobs, and Restore Scientific Integrity Across Federal Government. January 27, 2021. www.whitehouse.gov/briefing-room/statements-releases/2021/01/27/fact-sheet-president-biden-takes-executive-actions-to-tackle-the-climate-crisis-at-home-and-abroad-create-jobs-and-restore-scientific-integrity-across-federal-government/.

Findings/Conclusions

This article highlights concerns about the impacts of building and operating the proposed Superconducting Magnetic Levitation (SCMagLev) train system on environmental justice residents and communities. It should give the reader pause when considering that only a small number of people will use this transportation system, one that does not provide services to our communities. The reader may ask whether, along with the deleterious effect on the quality of life in environmental justice communities, the destruction of the irreplaceable natural research areas and lands, unanswered questions about the safety of the train system and structures, and the potential of impacts on human health, is it worth building a transportation system only the few can easily access and the wealthy can afford to ride?

Need More Information? Want to Help?

- (1) Learn more about the concerns and impacts the SCMagLev will have on our communities at www.stopthistrain.org/ and mcrt-action.org.
- (2) Contact your elected officials to express your opposition to building the SCMagLev, go to: myreps.datamade.us.
- (3) Share this information with your family, friends, neighbors, and your community.
- (5) Sign our petition and share on social media: tinyurl.com/4rks5rk7.
- (4) Facebook pages: www.facebook.com/groups/CitizensAgainstSCMaglev and <https://www.facebook.com/MCRTaction>.
- (5) Contact the Maryland Coalition for Responsible Transit (MCRT) at mcrtaction@gmail.com with questions.
- (6) Make a contribution to support the MCRT and CATS at mcrt-action.org. Thanks for your support!

About the Authors

Pat Jackman served as the National Equal Opportunity Program Manager and held various civil rights positions for the U.S. Forest Service before retiring. An environmentalist and community activist, she is a co-founder and is currently treasurer of the Maryland Coalition for Responsible Transit. Pat is a resident of New Carrollton in Prince George's County.

Susan McCutchen retired as a senior research associate from the National Academies of Sciences, Engineering, and Medicine. She assisted in the production of more than 50 publications on policy issues, including science and technology for international development, technology transfer, aeronautics and the U.S. space program, natural disaster mitigation, U.S. education policy and science curricula, needle exchange, the scientific merit of the polygraph, human factors/engineering, research ethics, disability compensation programs, health hazard evaluation, and medical and public health preparedness for catastrophic events, including nuclear detonations. Ms. McCutchen is a community activist on many issues, including the SCMagLev.

Citizens Against the SCMagLev (CATS) is a confederation of scientists, engineers, experts, community organizations and citizens in support of transportation infrastructure improvements that benefit our communities, state, and nation. CATS opposes the construction of an expensive transportation system serving a small minority of the wealthy at the cost of taxpayer funds far better used to maintain and improve the transportation infrastructure needed and used daily by all citizens, businesses, and commerce. For up-to-date information on the SCMagLev opposition, see our Facebook page at: www.facebook.com/groups/CitizensAgainstSCMaglev.

The Maryland Coalition for Responsible Transit (MCRT) is a nonprofit organization formed in 2020. MCRT's mission is to evaluate transit projects for social equity, environmental justice, economic viability, and community accessibility. See MCRT's Facebook page www.facebook.com/MCRTaction and our website at www.mcrt-action.org. Contact the MCRT at mcrtaction@gmail.com.