Maryland Coalition for Responsible Transit

SCMaglev is Not the Answer

A presentation for the

GFWC Woman's Club of Linthicum Heights

February 8, 2022 @ 10:00am

MARYLAND COALITION FOR RESPONSIBLE TRANSIT

Welcome to All

Thank You:

Woman's Club of Linthicum President Joyce Houpe for inviting MCRT to meet and speak with you today. We hope you will find the information we are about to share with you informative.

Acknowledge: Bill Boone – Senior Member CATS and MCRT

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Today's Presenters:

Speakers:

- Suzzie Schuyler – Parliamentarian, the Maryland Coalition for Responsible Transit, Past President and Board member of the Linthicum-Shipley Improvement Association, and long-time Linthicum resident.
- Dan Woomer – Member of the Citizens Against the SCMaglev. Current Executive Board Member and Past President of the Maryland Coalition for Responsible Transit. Past Vice President and Board member of the Linthicum-Shipley Improvement Association, and long-time Linthicum resident.

Topics Include:

- What is SCMaglev?
- SCMaglev, Linthicum, and AA County
- Crashworthiness & Other Safety Concerns
- Greenhouse Gas Emission
- Road Congestion Would Persist
- Environmental & Ecological Impact
- Community Impact
- Health Concerns
- Amtrak (& MARC) - A Better Alternative
- BWRR Claims & Promises
- Summary
- Where to Find More Information

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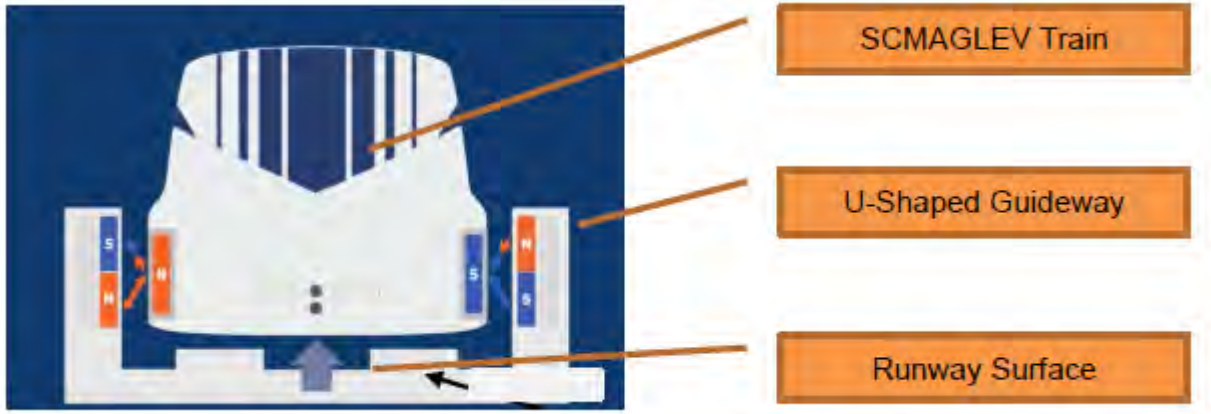
What is SCMaglev?

- Japan's Superconducting Magnetic Levitation (SCMaglev) train is a high-speed, ground-based passenger transportation system.
- SCMaglev trains run on a dedicated guideway, uses an automatic train control system, and has no at-grade crossings.
- The project is being promoted by the Northeast Maglev (TNEM) to introduce and build in the northeast corridor of the United States at a projected cost of $16 billion, with a $27.8 million grant to develop the concept and prepare the Draft Environmental Impact Statement (DEIS).



Source: DEIS Appendix D.06: Aesthetics, Visuals, etc.

- With the approval process started in November 2016, the short-term goal is to obtain Federal Railroad Administration (FRA) approval to build a SCMaglev train segment between Baltimore and Washington, D.C., with a stop and BWI airport, and no passenger stops in Prince George's County.
- The long-term goal is to extend the train operation to New York City by way of Philadelphia, and eventually to Boston.

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SCMaglev and AA County

- BWRR plans to tunnel from Baltimore (most likely Cherry Hill), under Linthicum and under Baltimore-Washington International (BWI) Airport, where the SCMaglev will make a passenger stop.
- The system will continue underground until it reaches southern AA County, where it transition to an elevated guideway.
- The system will run on an elevated guideway through most of Prince George's county, before going underground and on into Washington, D.C.
- As seen on the next few slides, BWRR's plans to tunnel under Overlook Elementary School, under the Veteran's Memorial, under the 100-year old homes on Camp Meade Road, very near Linthicum Elementary School, and under Lindale Middle School land.
- With the number of schools the SCMaglev will pass under or very close to in Anne Arundel County, the Anne Arundel County School Board issued a statement in opposition to building the SCMaglev, stating "that is disruptive to our schools and surrounding communities." (November 2017)
- In 2017, the Linthicum-Shipley Improvement Association (LSIA) also stated their opposition to building the SCMaglev.

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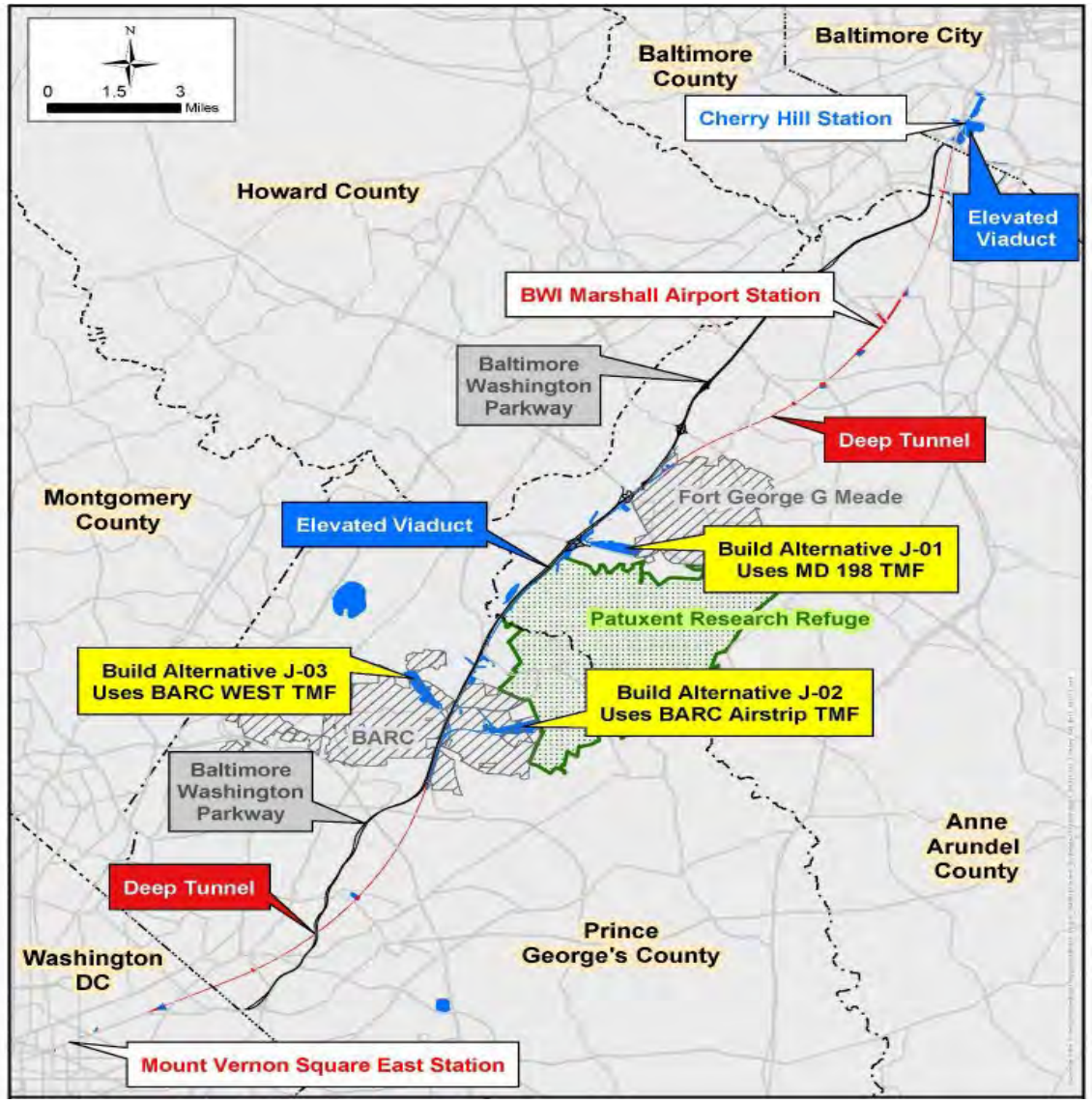

The Proposed SCMaglev Route

- To implement the system would include construction of power substations, ventilation facilities, one rolling stock depot (RSD), and other maintenance and/or ancillary facilities.
- Underground from Baltimore to BWI and underground through the Arundel aquifer.
- Back underground just outside Washington, D.C. through a known contaminated landfill.
- Two alternative elevated routes on either side of the Baltimore-Washington (BW) Parkway.
- Above ground through BARC, PRR, and the Greenbelt Forest Preserve.

◄ Build Alternatives J-01 through J-03 Projected Study Area Map source: Source: DEIS Appendix D.06: Aesthetics, Visuals, etc.

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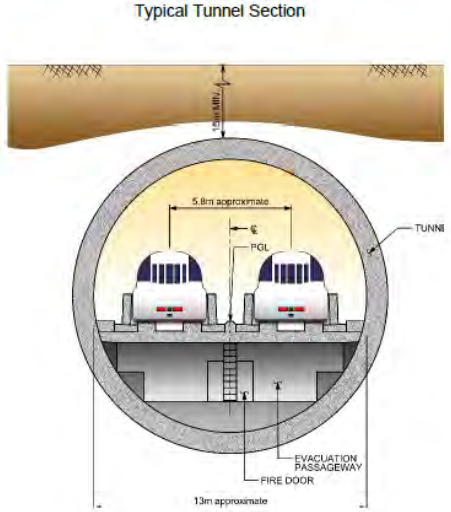
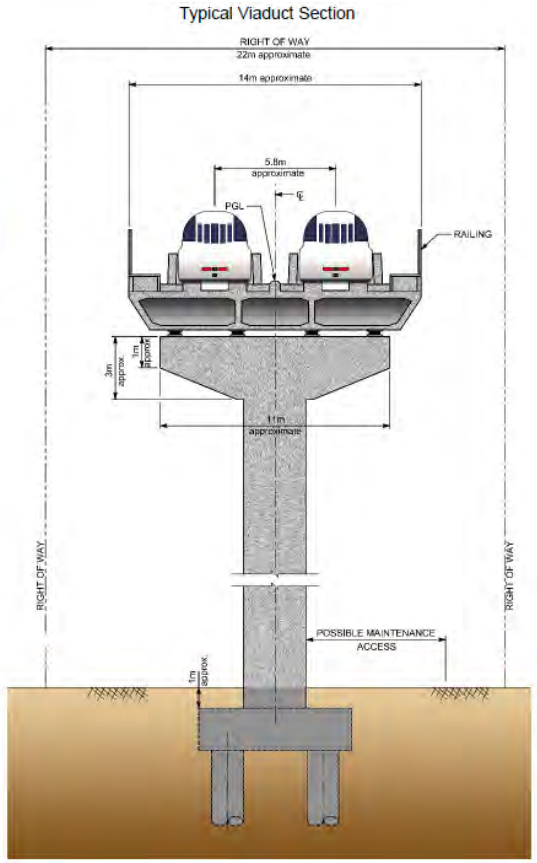
SCMaglev Tunneled and Above Ground Segment





- Tunneled section would run between 80 to 150 feet underground, as measures from the top of the guideway.
- Tunneled section will run through Washington, D.C., under the Anacostia River and into Maryland.
- SCMaglev will come above ground north of City of Greenbelt in a Forest Preserve.
- Elevated sections would be up to 150 feet above the travel lanes of the Baltimore-Washington Parkway. ***That's 50 feet above tree-top level.***
- A second tunneled section will travel from Fort Meade under the Patapsco River and into the terminal station in Baltimore.

Source: DEIS Appendix D.06: Aesthetics, Visuals, etc.

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Aesthetically Pleasing Image versus Reality

DEIS artist image of an aesthetically pleasing viaduct.

Reality - SCMaglev viaduct fencing in Japan

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The SCMaglev DEIS is significantly deficient in addressing Federal and State Laws

MCRT Found:

- The DEIS fails to adequately address the requirements of federal and state law.
- The DEIS Statement of Purpose and Need and Alternatives Analysis impermissibly favors the SCMaglev Project over Viable Transit Alternatives outlined in the No Build Alternative.
- The DEIS Violates NEPA Segmentation Principles by limiting the scope of analysis to the Washington-to-Baltimore Corridor and ignoring the Project's Sponsor's clear plan to eventually extend the SCMaglev to the New York and Boston.
- The DEIS fails to adequately address the greenhouse gas impact of the project.
- The Draft Section 4(f) Report to assess the project's use of parkland and historic resources was inadequate.
- The DEIS fails to adequately analyze the Project's impacts on meeting the Chesapeake Bay clean up goals.
- The DEIS inappropriately relies on future compliance with Federal and State Water Quality and Wetlands Permitting a burden that will be hard to meet given the Project's substantial impacts.
- The DEIS seriously understates the Project's impact on federal, and state Listed Rare, Threatened and Endangered (RTE) Species and their habitat.

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Crashworthiness & Other Safety Concerns

- Many safety concerns have been identified with the building and operation of the SCMaglev, including crashworthiness and safety of operation.
- Past proposals to build maglev systems in Florida, Pennsylvania and Maryland using the German system were not approved based on projected costs and negative impact on the area's environment.
- With the SCMaglev, BWRR states the system is safe and certified so by the Japanese government.
- The Japanese government seeks to assure us of the safety of their SCMaglev, despite the number of passengers carried to date on their test track being only half of the typical number carried by the Washington Metro (pre-COVID-19) in a single day.
- BWRR appears to conflate the safety success of the SCMaglev with their safety record for their high-speed bullet train. As these are two very different technologies, Japan's success with their steel-wheel rail trains does not automatically transfer to maglev technology.
- Note, the German government certified their maglev system was safe. On September 22, 2006, 70 percent of the passengers were killed and the rest injured in a maglev accident in Lathen, Germany.

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Crashworthiness and Other Safety Concerns

Photos of the September 22, 2006 German Transrapid International maglev crash in Lathen, Germany.

Justifications for the ongoing building of their SCMaglev are being questioned in Japan itself. The planned 2027 date for starting the first operation of the Tokyo to Nagoya is unlikely to be met. This would make the United States the first place where the safety of SCMaglev technology would be tested in high-frequency commercial operation.

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Crashworthiness & Other Safety Concerns

- The Japanese SCMaglev has many unresolved safety issues that need to be resolved. Safety Rules of Particular Applicability (RPA) need to be developed by the FRA before the project is authorized.
- The crashworthiness of the vehicles must be assessed for the safety of the passengers if something goes wrong. The SCMaglev should not evade the safety rules now required for Amtrak. Promoters of the SCMaglev argue the computer systems will prevent a crash, but so did the German government before 70-percent of people riding that fateful day were killed in the Lathen maglev accident.
- There is a risk of the levitated SCMaglev train rising out of the guideway that must be evaluated. Picture the train hitting a small object that momentarily lifts up the front end while travelling at over 300 miles-per-hour. Currently there are no physical restraints to prevent the train from rising out of the guideway.
- Below 93 miles per hour, the train will ride on retractable rubber tires, and this raises many safety issues. If there is a power interruption, the rubber wheels may need to support the train travelling at over 300 miles-per-hour instantaneously before it comes to a stop.

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Greenhouse Gas Emission

- BWRR claims the SCMaglev should be built because it would reduce CO_2 emission by 2 million short tons. However, no details or information to substantiate this claim have been provided.
- Constructing the SCMaglev track between Baltimore and Washington would likely release 0.5 to 0.9 million short tons of CO_2, as discussed in Dr. Owen Kelley's Sierra Club blog post[1].
- The DEIS states the SCMaglev operations between Baltimore and Washington will be NOT be carbon neutral (see pages 4.19-7 through 4.19-15). Specifically, the DEIS states "the SCMAGLEV system and ancillary facilities will increase net transportation energy consumption by approximately 3.0 trillion Btus. For context, this would be enough energy to power around 88,900 average homes for one year."[2]
- Currently, according to Energy Information Administration's 2018 data, about 75 percent of Maryland's electricity is generated from nuclear and natural gas.[3] Generating the electricity needed to operate the SCMaglev, which one report out of Japan says requires ***five-times*** the energy needed for other high-speed trains, would increase CO_2 emission.

Reference: (1) Kelley. O. "Would the Proposed Baltimore-Washington Maglev Increase Greenhouse Gas Emission?" Issues Forum, PG County Group, Sierra Club. December 13, 2020. www.sierraclub.org/maryland/prince-georges/issues-forum.
Reference: (2) DEIS Chapter 4, section 19 "Energy." page 4.19-11.
Reference: U.S. Department of Energy, Energy Information Administration. "Maryland State Profile and Energy Estimates." October 15, 2020. www.eia.gov/state/analysis.php?sid=MD.

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Greenhouse Gas Emission

- The in the DEIS table 4.19-7 (Section 4.19.3.2) states “The anticipated decrease in energy expenditure from the diversion of auto, bus, and rail traffic to the SCMAGLEV Project is **not** expected to offset the increase in energy consumption from the SCMAGLEV system.”[1] [emphasis added]

Conclusion: SCMaglev Construction & Operation Would *Increase* Greenhouse Gas Emission.

Reference: (1) DEIS Chapter 4, section 19 “Energy.” page 4.19-11.

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Road Congestion Would Persist

- BWRR claims that the SCMaglev should be built because it would reduce road congestion.
- BWRR's claims that 165 million vehicle-miles of car travel would be avoided each year with the SCMaglev operated between Baltimore and Washington (Rogers 2015).
- Traffic on Maryland's highways increased by 1 percent annually, an increase of 500 to 600 million vehicle-miles annually (TRIP 2020).
- SCMaglev operations may increase transit delays in places such as the roads near the SCMaglev stations at DC's Mt Vernon Square and Baltimore's Cherry Hill (or Camden Yards) station and on the DC Metro, which was already near capacity during rush-hour, pre-COVID-19 (Kelley 2020).
- Operation of the SCMaglev will require maintenance vehicles using these same roads and highways.

Conclusion: The Proposed SCMaglev Would Provide Little to *NO* Relief of the Region's Road Congestion.

Reference: Rogers, W., 2015 April 17: "Direct testimony of Wayne L. Rogers", Case #9363, MD Public Service Commission, URL: https://www.psc.state.md.us/search-results/?q=9363&x.x=20&x.y=20&search=all&search=case.
Reference: TRIP, 2020: "Restoring Maryland's Interstate Highway System", URL: https://tripnet.org/wp-content/uploads/2020/08/TRIP_Maryland_Interstate_Report_August_2020.pdf.
Reference: Kelley, O., 2020 Dec 26: "Maglev Doubts". pg. A5, Letter to the editor, The (Annapolis) Capital Gazette.

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Environmental & Ecological Impact

- SCMaglev wishes to transfer public lands – federal conservation lands, county and municipal parks, and open space – to their private corporation.

  This includes: Patuxent Research Refuge, Beltsville Agricultural Research Center, BW Parkway (National Park Service property), NASA, Greenbelt Forest Preserve, and others.
- Precedent setting transfer opens the door to any corporation taking federal land.
- The land in question cannot be mitigated or replaced - it can only be destroyed.
- SCMaglev has targeted the largest remaining natural area in the region to:
  - Install a 200-acre industrial site
  - Expand rural roads
  - Destroy wetlands
  - Remove trees and other vegetation
  - Decrease ecosystem services that remove pollution and mitigate stormwater
  - Build multiple train trackways
  - Divert rivers and streams
  - Increase industrial runoff to the Chesapeake Bay
  - Expand powerlines
  - Introduce 24/7 light and noise
  - Impact nature study and human recreation areas

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Environmental & Ecological Impact

Building the SCMaglev would:

Take an area like this: → Turn it into this:

Patuxent Research Refuge – North Tract
Courtesy of the U.S. Fish & Wildlife Service

200 acre Train Maintenance Facility and Accompanying Chemical, Light and Noise Pollution, and Environmental Destruction

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Environmental & Ecological Impact

- **The land in question is:**
  - The largest conservation and research facilities in the Federal Government.
  - Retains almost all its original biodiversity.
  - Contains endangered, rare, unusual, and uncommon plants and animals.
  - Involves National Park Service, United States Geological Survey, United States Fish and Wildlife Service, National Aeronautics and Space Administration, Department of Defense, Secret Service, state, county, and local conservation lands.

Conclusion:

The Proposed SCMaglev Would Partially *Destroy* One of the Last Significant Conservation, Wildlife Habitat & Research Areas on the East Coast.

CATS & MCRT have developed a series of white papers identifying the negative consequences building the SCMaglev will bring. They can be found at www.mcrt-action.org.

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Community Impact

- BWRR plans to run the SCMaglev underground from Baltimore to BWI Airport, and underground to southern Anne Arundel County then above ground through Prince George's County, until the outskirts of Washington, D.C., where the train will again go underground.
- According to BWRR the 43-foor diameter tunneled sections will be 80- to 150-feet underground. To support the tunneled section, ventilation facilities, up to 1.5 acres in size, will be build every 3 to 4 miles. Also, the SCMaglev calls for large power substations to be built along the route.
- 43-foot interior diameter tunnel, running 80 feet underground (as measured from the top of the guideway), and say a 2-foot wall thickness, could be as close as 35 feet below residential structure foundations. As commercial buildings can have larger and deeper foundations, the top of the tunnel could be closer to these foundations.
- The vibration of the boring process will be transmitted into the surrounding earth. Masonry and concrete do not respond well to such vibration. They will crack. Cracks will not only weaken the foundation and foundation concrete block walls, but allow water penetration, causing additional weakness and potential health problems like mold growth.
- The need for the surface ventilation facilities is three-fold: (1) ingress and egress for maintenance workers, (2) ingress and egress of passengers and rescue personnel in case of an emergency, and (3) in case of a fire, ventilation of the tunnel section.

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Community Impact

- At 3 to 4 miles apart, in case of an emergency, passengers and emergency personnel would have to walk up to 2 miles and descend or ascend 80 to 150 feet from the surface. How is this going to work for a firefighter carrying 50 to 70 pounds of gear, or a person with disabilities trying to escape a fire?
- In case of a fire in the tunnel, BWRR will have the upstream ventilation facility push air into the tunnel, and the downstream facility exhaust the smoke into the atmosphere.

  A fire with the SCMaglev will be fueled by plastic, wire insulation and lubricants. When these compounds are burned they release “chemicals such as hydrochloric acid, sulfur dioxide, dioxins, furans and heavy metals, as well as particulates. These emissions are known to cause respiratory ailments and stress human immune systems, and they’re potentially carcinogenic.” (MIT 2013). These toxic and cancer-causing compounds will be released into the atmosphere surrounding the ventilation faculty threatening all who live nearby.
- Anne Arundel and Prince George's County are a “hot spot” for radon gas. Radon is a radioactive gas released from the normal decay of the elements uranium, thorium, and radium in rocks and soil. Many structures in our counties have radon gas ventilation systems to remove the build-up of this cancer-causing gas in our homes and businesses. A 43-foot tunnel, running for miles at 80 to 150 feet underground would make an excellent radon gas collector. This radioactive gas will be pushed out into the community through the ground-level ventilation facilities. While the level of radioactive gas will likely be low, the impact on the private property values near these facilities will be negatively affected.

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Human Health Concerns

- The adverse health effects of exposure to the increasing amount of electromagnetic fields (EMF) we are being exposed to are of great concern among a growing list of government and non-government public health organizations.
- Ongoing studies include an exploration of non-thermal effects of radiofrequency electromagnetic fields (RF EMF).
  - An article of the *Journal of the American Medical Association* (2020) reported the association between maternal exposure to magnetic field non-ionizing radiation during pregnancy and the risk of Attention-Deficit/Hyperactivity Disorder in their offspring.
  - Another recent study evaluated electromagnetic hypersensitivity (EHS) characterized by a variety of nonspecific symptoms that can vary with individuals. The symptoms were found to be real and to vary in severity, and can be disabling for affected individuals. Sweden has classified EHS as a functional impairment and Spain recognized EHS as a permanent disability.
- EMF from mobile phones is being found to increase the risk of intracranial tumors, mostly gliomas, particularly in the case of the same-side exposure. In 2019, the International Agency of Research on Cancer (IARC) recommended a reassessment of cancer risks involved with RF EMF exposure and recommended this research should be a “high priority.”

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Human Health Concerns

- EMF exposure is carefully controlled in medical diagnostic testing, specifically Magnetic Resonance Imaging (MRI). Patients with cardiac pacemakers, as well as implantable cardioverter-defibrillators (ICD) are cautioned about having a MRI. Current information from the Mayo Clinic and Johns Hopkins state that even with newer model pacemakers, MRI magnets can only be 1.0 or 1.5 Tesla in strength, along with other considerations. The same criteria also applies to ICDs. Exposure to EMF can heat up the leads on the older models of pacemakers and interfere with the functioning of these devices – including altering or stopping their functioning.
- People with pacemakers and ICDs should think seriously before riding the SCMaglev. Again, for an MRI 1.0 to 1.5 Tesla field strength is the maximum. Compare this MRI safety maximum to the 15 Tesla electromagnetic field strength needed to lift a multi-ton SCMaglev train.
- Although the BWRR *Final Alternatives Report* (2018) recommend people should not be within 20 feet of the guideway, section 4.18 of the DEIS states the Limits of Disturbance (LOD) reaches out to 500 feet.
- The SCMaglev brings with it potential exposure to unwarranted and dangerous human health levels of EMF.

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The SCMaglev DEIS is significantly deficient in addressing Impacts on Environmental Justice Communities

MCRT Found:

- The DEIS impacts and disproportionally on Environmental Justice (EJ) analyses are seriously deficient. The DEIS understates and fails to address the impact on and likely displacement of the residents and 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.

The SCMaglev does not fit with the Biden Administration's Buy America, Build American, Environmental Protection or Environmental Justice focus.

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Amtrak & Regional Rail - A Better Alternative

- Amtrak currently provides intercity passenger rail service with over 21,000 route-miles of track across 46 states, including the District of Columbia, and Canada.
- Amtrak's Acela Express, Northeast Regional, State Supported, and Long-Distance rail services between Boston, New York, Philadelphia, Baltimore, and Washington, DC, provide an expansive array of services for passengers and commuters.
- Amtrak provides coordinated passenger and freight rail service planning for the Northeast Corridor (NEC), as well as infrastructure access and operational support to eight commuter rail authorities — including the Maryland Area Rail Commuter (MARC) and the Virginia Railway Express (VRE) — and four freight rail operators.
- Amtrak has long experience as the U.S. high-speed operator, versus BWRR with no large, complex building or system operating experience.
- The Federal Railroad Administration (FRA) has already completed a lengthy and costly evaluation of future transportation needs and considered the capacity constraints of the total transportation system — including rail, highway, and air — to complete a programmatic Environmental Impact Study (EIS) of the NEC Future proposals and plans, and Amtrak received FRA's approval.

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Amtrak & Regional Rail - A Better Alternative

- During this study a new alignment (route) was considered. This option was ruled out as being unduly expensive and unnecessary. Instead, the preferred alternative focused on improving the existing rail alignment (route).
- Amtrak's NEC Future's EIS to renew and modernize the NEC infrastructure between Washington, D.C., Baltimore, Philadelphia, New York City, and Boston was approved by the FRA, and construction is progressing. As part of the secured $2.5 billion in loans, $4.7 million was expended to replace the Baltimore-Washington Airport rail station used by both Amtrak and MARC (2019).

New BWI Rail Station. Photo by B. Taylor

- Over the next 5 to 10 years, the cost for the upgrades to Amtrak will require substantial financial commitment from the federal government, Amtrak, and others. These commitments are in direct competition with the plans of BWRR and their proposed SCMaglev. If the SCMaglev is built, we will likely be subsidizing two competing systems.
- The January 2021 DEIS ignores the requirement for SCMaglev to compare and contrast itself with Amtrak services. This is an especially obvious omission and appears to acknowledge that Amtrak is already providing passenger and commuter transportation and improving their array of services, as well as the Northeast Corridor rail transportation facilities, equipment and systems.

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And . . .

- **All of the pain and none of the gain.**

  SCMaglev has only 3 passenger terminals: D.C., BWI and Baltimore. There is no way for Prince George's county residents to ride SCMaglev as local transit, as it plows under and flies through the county. Prince George's and Anne Arundel will be burdened with all of the construction and operations pain. Financing remains obscure. And, in case of failure/bankruptcy, there are no obvious solutions for how to recommission or decommission SCMaglev's ubiquitous exotic/toxic, non-standard proprietary facilities, nor binding obligations to restore or make our communities whole.

- **Note: A faster train is not a quicker trip.**

  SCMaglev claims it will enable a 15-minute trip between Washington, D.C. and Baltimore. But the proposed SCMaglev Route Alternatives do not directly connect (co-terminus) with existing Northeast Corridor (NEC) train terminals. So, realistically, an SCMaglev "trip" must add ground transportation time and walking time for passengers to actually get to/from the SCMaglev stations in D.C. and Baltimore, whereas existing NEC's ever faster trains and commuter services (Amtrak, Acela, and MARC) have stations in the heart of both cities and already stop at BWI Airport.

Don’t be Railroaded by SCMaglev Claims and Promises.

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SCMaglev Promises

- BWRR has stated that the system will pay for itself. On other occasion BWRR says it will need tax dollars.
  We have not seen any analyses to substantiate this claim.
- BWRR state they have projections which indicate a high level of ridership.
  We have not seen anything to substantiate their ridership claims.
  How will the results teleworking due to the pandemic and the growth of telework affect ridership projects?
- BWRR state the SCMaglev is green and reduce greenhouse emissions.
  The DEIS and independent analyses show the opposite.
- BWRR says the SCMaglev will create thousands of jobs. Since 2017, we have asked to see the basis of this projection, the work breakdown projections, and information to substantiate their statements.
  We have not seen anything to substantiate their jobs projection.
- Many high-speed and maglev train projects across the world have cost far more than promised by the promoters. In some cases (think California's high-speed train fiasco), up to three times the original projected cost (to date and growing), requiring increasing amounts of government (i.e., tax dollar) subsidies.
  From the world experience SCMaglev will cost far more, requiring large tax dollar subsidies.
- Few high-speed and maglev train projects across the world came in on schedule.
  From the world experience SCMaglev will likely experienced long schedule overruns.

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SCMaglev Promises

- Jobs created to build the SCMaglev will be short term. Once the system is built between Baltimore and D.C. the jobs in Maryland will end. The construction jobs will then move north if BWRR gains approval to build to New York. **Maryland will lose these jobs as the construction moves to PA and NY, and many will be unemployed**.
- If Beltsville Agricultural Research Center (BARC), Patuxent Research Refuge (PRR), and/or NASA's Optics Centers are put out of businesses, all the career, high-paying jobs will be lost from Anne Arundel & Prince George's Counties, and from the state of Maryland. **Net effect - Maryland will lose many career, high-paying jobs.**
- The tax dollars needed for high-priority transportation infrastructure projects will be used to subsidize the building and operation of the SCMaglev. After the SCMaglev is built, the construction jobs are finished, then the subsidies will be needed to maintain the operation of the system. These tax dollars should be used to maintain, repair, or enhance existing bridges, roads, and tunnels used by the vast majority to commute and travel, as well as commerce (think trucking and delivery vehicles), the financial lifeblood of Maryland.
  Tax dollars are better spent to help all residents, not the wealthy SCMaglev system owners and riders.
- The SCMaglev will take ridership for Amtrak and Acela, requiring increased subsidies to maintain the existing east coast rail system. **Tax dollars will be used to subsidize two competing train systems**.
- Tax dollars should be used for the infrastructure we all rely on and need. The construction jobs generated will be long-term, as there are miles and miles of roads, bridges, and tunnels that need maintenance, repair, and enhancement.
  A better choice - More long-term construction jobs in Maryland rebuilding our transportation infrastructure.

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In Summary

- There are many questions and concerns with building the SCMaglev.
- The safety and crashworthiness of the train system itself is in question. Germany certified their maglev train and train system as safe, but it was proven not to be, with the crash on September 22, 2006, where 70 percent of the passengers were killed and the rest injured.
- While BWRR states it will reduce greenhouse gases, it is unlikely building and operating the SCMaglev will.
- The SCMaglev is not green – a report from Japan states the SCMaglev uses up to ***five times*** more energy as a high-speed, steel-wheeled train.
- The building of the SCMaglev will have extreme destructive impact on our environment and destroy one of the last wildlife preserves and plant research areas left on the east coast.
- The potential impact on communities along the SCMaglev route is extreme, e.g., loss of property, property value, dangerous emissions into the communities, exposure to electromagnetic radiation, pollution of streams and waterways, storm water runoff with pollutants, and an increase of invasive plants and vermin.
- Continuing to upgrade and enhance Amtrak, MARC and VRE is a far better alternative. Far fewer tax dollars, far more ridership, far more convenience, and already in place and operational.
- As other worldwide high-speed train and maglev projects, BWRR's claims of jobs and cost levels will likely not be realized. If it follows history of other such projects, expect fewer jobs in total with most construction short-term jobs, net loss of high-paying jobs, likely tax-dollar funded cost overruns, and building schedule delays.

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MCRT Recommendations

(1) Best Option: FRA select the No Build option.
Over $28 million of tax payer dollars have already been spent studying the cost and benefit of building the SCMaglev. The costs far outweigh any benefit. Stop the Project now and invest the saved tax dollars into fixing and upgrading existing transportation infrastructure (roads, bridges, tunnels) including Amtrak and regional rail systems such as MARC and VRE.

(2) Alternative Option 1 of 2: Establish Rules of Particular Applicability.
If the FRA decides to continue the consideration of building the SCMaglev - The FRA must establish American Safety Standards (Rules of Particular Applicability) and allow for public comment. The RPA MUST INDEPENDENTLY assess, evaluate and test support structures, support and operating systems, especially the cyber security strength, the crashworthiness and survivability of the train, and provide these analysis and findings to the public with a 180-day review and comment period, BEFORE any deliberation by the FRA on a decision to begin construction of the SCMaglev is considered.

(continued)

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MCRT Recommendations

(3) Alternative Option 2 of 2: Prepare a supplemental DEIS.
With all of the deficiencies, missing and obfuscated information, missing analyses and data, identified during the review and analysis of the SCMaglev DEIS by a team of experts, as well as local city and county governments, community, civic, and environmental organizations, a supplemental DEIS should be assembled to address the comments, concerns, and questions, identified and provided to the FRA. This supplemental DEIS needs to be provided to the public with a 180-day review and comment, BEFORE any deliberation by the FRA on a decision to begin construction of the SCMaglev is considered.

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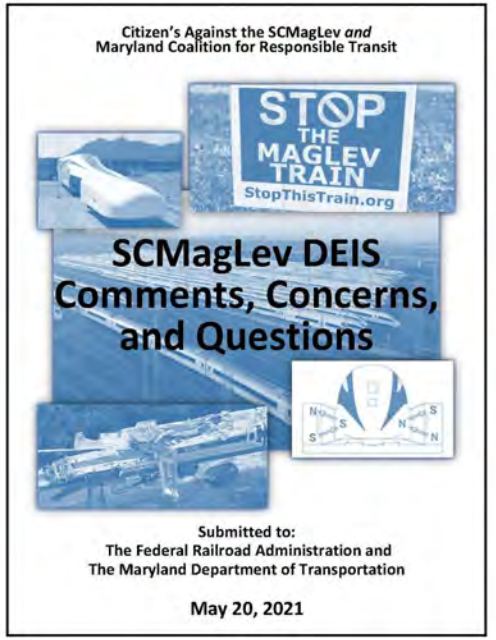
For More Information and How to Help Stop the SCMaglev

A copy of the MCRT submission can be downloaded from www.mcrt-action.org.
Go to the SCMaglev Opposition tab and click on:

"MCRT SCMaglev DEIS Comments"



CATS and MCRT have also produced a series of short position papers on various issues, concerns, and questions about the SCMaglev and the real cost to Anne Arundel County, Prince George's County, and the state of Maryland. These informative research papers can also be found at www.mcrt-action.org under the "SCMaglev Opposition" tab.

- Support the NO BUILD option -

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What are your Questions?

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Acronyms used in this presentation

- AA County – Anne Arundel County
- BARC - Beltsville Agricultural Research CenterBWI – Baltimore-Washington International Airport
- BWRR – Baltimore Rapid Rail
- CATS – Citizens Against the SCMaglev website: www.StopThisTrain.org, Facebook page: www.facebook.com/groups/CitizensAgainstSCMaglev.
- CO_2 – Carbon Dioxide - a colorless gas with a density about 53% higher than that of dry air. Carbon dioxide molecules consist of a carbon atom covalently double bonded to two oxygen atoms.
- D.C. – Washington District of Columbia
- DEIS – Draft Environmental Impact Statement
- DOD – United States Department of Defense
- EIS – Environmental Impact Statement
- EMF – Electromagnetic Field
- FRA – Federal Railroad Administration
- LSIA – Linthicum-Shipley Improvement Association
- MARC – Maryland Area Rail Commuter – Maryland's commuter rail system
- MCRT – Maryland Coalition for Responsible Transit email: MCRTaction@gmail.com, website: www.mcrt-action.org.

(continued on next page)

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Acronyms used in this presentation (continued)

- NASA – National Aeronautics and Space Administration
- NEC – Northeast Corridor
- NEC Future – Amtrak's FRA reviewed and approved plan to upgrade passenger rail equipment, facilities and services along the northeast corridor.
- NPS – National Park Service
- PG County – Prince George's County
- PRR - Patuxent Research Refuge
- RPA – Rules of Particular Applicability – U.S. Rail Safety Standards.
- RSD – Rolling Stock Depot
- SCMaglev – Superconducting Magnetic Levitation
- Short Ton - In the United States and Canada, a ton is defined to be 2,000 pounds (907.18474 kg). A short ton is equal to 2,000 pounds avoirdupois (907.19 kg). It is also a measure of gross internal capacity, equal to 100 cubic feet (2.83 cu. m). Where confusion is possible, the 2240 pound ton is called a "Long Ton."
- USFWS – United States Fish and Wildlife Service
- USGS – United States Geological Survey
- VRE – Virginia Rail Express – Virginia's commuter rail system

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Biographies of the MCRT Presenters

Suzzie Schuyler – is a retired Pet/Ct; Nuclear Medicine; Mammographer: Radiologic Technologist, having worked 38-years in conjunction with CT and MRI units. Ms. Schuyler holds a Bachelor's of Science in Professional Health, and she has expertise with ionizing and non-ionizing radiation, and the acute precautions taken to protect employees and the public. She also taught courses in Radiologic Technology. Ms. Schuyler is an active member of community organizations, including the Linthicum-Shipley Improvement Association, where she has served as a voting Board member, held elected officer positions, including President.

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Biographies of the MCRT Presenters

Daniel "Dan" Woomer, PhD (ABD) – Is a community activist and technical expert. He retired after a long career, including positions with Westinghouse Defense Center, Johns Hopkins University's Applied Physics Laboratory, and the U.S. Department of Energy (DOE). During his career with the DOE, he worked in various positions with the Energy Information Administration, and the Office of Congressional and Intergovernmental Affairs. Dan also helped set up DOE's Office of Technology Transitions. He also served as an adjunct faculty member with the University of Maryland University College, where he developed and taught mathematics, supervisory, and leadership classes. Dan is a MCRT senior board member and the past president. He lives in Linthicum Heights, Anne Arundel County, Maryland, and is married to his college sweetheart, Patti Filaseta. For additional information, see: https://www.linkedin.com/in/daniel-woomer-11829613.

MARYLAND COALITION FOR RESPONSIBLE TRANSIT

Who is the MCRT?

The Maryland Coalition for Responsible Transit (MCRT) formed in 2020, as more and more communities and organizations joined forces to oppose the building and operation of the SCMaglev. The MCRT's mission is to evaluate transit projects for social equity, environmental justice, environmental impact, economic viability, and community accessibility. The MCRT believes the Baltimore-Washington SCMaglev must be stopped in order to implement future transit projects that meet these criteria at a much lower price, and much less risk and impact to communities and the environment.

Thus, we support the No Build option and are working to stop this project through the National Environmental Policy Act process, specifically by building public capacity to respond to the Federal Railroad Administration's Draft Environmental Impact Statement.

The MCRT is actively gathering and sharing information on the environmental, ecological, community, and financial impacts that building and operating the SCMaglev will have on communities, counties, and Maryland. For more information about the MCRT and to make a donation to support opposition to building the SCMaglev, go to: www.mcrt-action.org.

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Who is CATS?

Citizens Against the SCMaglev (CATS) formed in 2016 to address the initial Baltimore-Washington Rapid Rail (BWRR) and the Northeast MagLev (TNEM) proposal to build the first phase of Japan's Superconducting Magnetic Levitation (SCMaglev) train between Baltimore and Washington, D.C. BWRR's long-term goal is to build the SCMaglev systems to New York City by way of Philadelphia, Pennsylvania. As community residents and activists attended BWRR presentations describing their construction plans and the operation of the SCMaglev, many questions and concerns were raised that BWRR could not, or would not, answer. Residents came together to represent the interests of their communities and form CATS.

CATS has evolved into a confederation of scientists, engineers, experts, community organizations, and citizens in support of mass transportation infrastructure improvements that benefit our communities and region. CATS opposes the construction of an expensive transportation system serving a small minority of the wealthy people at the cost of taxpayer funds. CATS leadership have written numerous articles and provided testimony on legislation in Annapolis, the seat of Maryland government, and have met with elected officials in Washington, D.C. to share information challenging the promises and claims made by BWRR. CATS has presented analyses on the extreme environmental, ecological, community, and financial costs and impacts building and operating of the SCMaglev will have on communities, counties, and the state of Maryland. Importantly, CATS has identified better high-speed rail and commuter rail alternatives to better serve all residents, businesses, and commercial entities. For more information, go to the CATS Facebook page: www.facebook.com/groups/citizensagainstSCMaglev, and the Stop This Train website at: www.stopthistrain.org.