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Re: Comments on I-495 & I-270 Managed Lane Study Supplemental Draft Environmental Impact Statement and Updated Draft Section 4(f) Evaluation

On July 10, 2020, the Federal Highway Administration and the Maryland Department of Transportation State Highway Administration (the "Agencies") issued a draft environmental impact statement ("DEIS") for the I-495 and I-270 Expansion Project ("Project"). The Agencies then created and selected a new alternative, Alternative 9 Phase 1 South, as the preferred alternative for the Project. Subsequently, on October 1, 2021, the Agencies issued a supplemental draft environmental impact statement ("SDEIS") to consider the preferred alternative's environmental impacts.

The undersigned Organizations and City oppose the preferred alternative put forth in the SDEIS and support the no build alternative. The SDEIS (including its appendices) presents incomplete and inadequate analyses of environmental impacts and fails to achieve the fundamental objectives of the National Environmental Policy Act ("NEPA"). Even the inadequate information presented shows that the Project will harm Maryland citizens and their environment and cannot be justified.

The comments provided below refer specifically to the SDEIS, and do not repeat the comments on the DEIS that were provided to the Agencies on November 9, 2020, by the Maryland Chapter of the Sierra Club and other organizations. Unfortunately, the SDEIS disregards all the technical and procedural issues raised in the November 9 comments and does not present any information that would alter any of those comments or cause any to be removed from consideration. The comments on the DEIS therefore remain valid, and both they and the comments below on the SDEIS must be satisfactorily addressed.

These comments identify the Organizations' key concerns regarding the SDEIS, including but not limited to the following, and discuss them in detail in the body of this document:

- The SDEIS fails to disclose the preferred alternative's cost breakdown in any meaningful way. The SDEIS fails to disclose the significant financial costs the preferred alternative would impose on the state and its citizens, including a direct subsidy to a private developer, costs of relocation of utilities, decreases in property values, shortfall payments, and other significant financial risks associated with the Public Private Partnership ("P3") Program. Those risks are recognized by Maryland Department of Transportation ("MDOT") in signed contracts with the developer but not disclosed to the public in the SDEIS. Evaluating the entire Project's costs in the NEPA process is particularly important given that MDOT and Maryland's governor misled the public regarding the Project's costs.

- The reasons for dismissing non-private-toll lane alternatives from consideration (such as those alternatives not providing congestion reduction and not capable of being funded) no longer exist. The SDEIS needed to consider and meaningfully evaluate other viable, less costly, and less harmful alternatives that would relieve congestion, including public transit, multi-modal options, transportation demand management, and transportation system management. This must be done before the NEPA process can proceed to a final environmental impact statement ("FEIS").

- There are serious flaws in the traffic analysis. Moreover, even with these flaws, the information presented in the SDEIS shows that the preferred alternative will be only marginally effective at reducing congestion on the Beltway and I-270, will create new and larger traffic problems at key interchanges and merge areas, and will irreparably harm Maryland's irreplaceable natural, historical, and environmental resources. The limited benefits of the toll lanes, available only to those who can afford them, cannot justify the magnitude of harm they will cause.

- The SDEIS does not adequately analyze air emissions and ignores the harms the preferred alternative's construction and operation will cause from particulate matter, greenhouse gas, and carbon monoxide emissions locally, regionally, and nationally. In doing so, the SDEIS presents the decisionmakers and public with a one-sided view of the preferred alternative's costs and benefits.

- The SDEIS ignores the negative impacts of the preferred alternative on safety on the toll lanes, general purpose ("GP") lanes, and arterial roads. These environmental and human health impacts must be evaluated and presented for public review and comment.

- The SDEIS fails to adequately address the preferred alternative's significant adverse effects on historic and cultural resources, which include both direct and constructive uses of historic properties.

- The SDEIS fails to take the required hard look at environmental justice ("EJ") issues. The SDEIS fails to perform any meaningful analysis of impacts on EJ populations, let alone disproportionate impacts. The SDEIS ignores the harms that EJ communities will suffer during construction and operation of the preferred alternative, including air quality impacts from newly created bottlenecks and impacts from the loss of an otherwise free lane on I-270. The SDEIS also ignores that EJ communities are unlikely to experience the benefits of the high-priced toll lanes and that the preferred alternative will exacerbate cumulative disproportionate impacts borne by environmental justice communities from highway construction.

- Like the DEIS process, the SDEIS process has also violated NEPA. Seven of numbers in the SDEIS Executive Summary quantifying the impacts of the preferred alternative were incorrect for over 40 of the 60 days of the comment period, in contravention of NEPA regulations requiring accuracy in the summary. For those who relied on non-English versions of the Executive Summary, the Agencies left the incorrect documents online for at least seven more days before changing the links to a new file, giving those individuals fewer than 13 days to comment on the accurate SDEIS information. With all versions, the Agencies quietly changed the SDEIS without alerting the public they had been reviewing and commenting on an incorrect version.

- The Project has fundamentally changed so many times (including its footprint, phasing, and procurement type from fixed price to progressive predevelopment public-private partnership) that the public cannot understand what is going on, let alone which description is accurate. The SDEIS does little to clarify such issues and if anything muddles them even more by trying to

simultaneously exclude and include I-495 east of the eastern spur from the preferred alternative plan. The purpose of the NEPA process is to disclose information so the public and other agencies can make informed comments and decisions. This awkward and hastily prepared add-on to the DEIS does not achieve those ends.

- The SDEIS fails to perform significant analyses regarding nearly every single adverse impact of the preferred alternative, and instead postpones those analyses until either an FEIS is issued, or construction has begun. Contrary to promoting public participation and informed decision-making as required by NEPA, the SDEIS hinders the public's understanding of the preferred alternative and will lead to less informed decision-making.

- The SDEIS, in referencing the DEIS, continues to rely on documents and data that the Agencies have refused to release to the public, despite numerous requests from the public, in violation of NEPA.

The SDEIS appears designed to reach a pre-determined result—expand I-495 and I-270 with privately owned toll lanes—without meaningfully involving the public, considering viable alternatives, or considering the preferred alternative's environmental impacts. It also appears that the Federal Highway Administration ("FHWA"), despite its obligations and recent statements committing to environmental justice and climate justice, is not acting independently or properly evaluating the best available information, but merely serving as a rubber stamp for MDOT's biased preference to expand the highways.

The Organizations request that the Agencies select the no build option. Alternatively, the Agencies must not move forward with the preferred alternative or any of the DEIS's fundamentally flawed build alternatives without formulating a revised purpose and need statement; consideration of additional, less harmful and costly alternatives that address the real needs for transportation improvements in the region; conducting the many analyses that have been ignored or improperly deferred; and providing the public with a new DEIS that addresses the failures identified in these comments and comments on the DEIS and accords the public a meaningful opportunity to review and comment.

Sincerely,

Sierra Club Maryland Chapter[1]

350MoCo

Audubon Naturalist Society

Audubon Society of Central Maryland (Howard, Frederick, Carroll Counties)

Baltimore Transit Equity Coalition

Bikemore

[1] The Organizations would like to acknowledge Jill Grant & Associates, LLC, Norm Marshall (Smart Mobility, Inc.), and John Zamurs, PhD (Zamurs and Associates, LLC), for assisting the groups in drafting these comments. We would also like to thank the many organizations and volunteers who dedicated their time and expertise to these comments: Chesapeake Bay Foundation; Citizens Against Beltway Expansion; DontWiden270.org; Friends of Moses Hall; National Parks Conservation Association; Arthur Katz, PhD, Retired Scientist; Byron Bloch, National Vehicle and Traffic Safety Expert; Ole Varmer, Sr., Fellow, The Ocean Foundation; Sarah Lesher, PhD.

Carderock Springs Citizens Association

Cedar Lane Unitarian Universalist Environmental Justice Ministry

Central Maryland Transportation Alliance

Chesapeake Bay Foundation

Citizens Against Beltway Expansion

City of Rockville

Coalition for Smarter Growth

Conservation Montgomery

Defensores de la Cuenca

DontWiden270.org

DoTheMostGood

Downtown Residents Advocacy Network (Baltimore)

Elders Climate Action DMV

Friends of Lower Beaverdam Creek

Friends of Moses Hall/The Board of Trustees of Morningstar Tabernacle Number 88, Incorporated

Friends of Sligo Creek

Glen Echo Heights Mobilization

Greater Farmland Civic Association

Greater Greater Washington

Green Team of St. Vincent de Paul Church

Greenbelt Climate Action Network

Howard County Climate Action

Indivisible Howard County MD

Interfaith Power & Light (DC.MD.NoVA)

League of Women Voters of Maryland

Maryland Conservation Council

Maryland Legislative Coalition

Maryland Native Plant Society

Maryland PIRG

NAACP Maryland State Conference, Environmental and Climate Justice Committee

National Parks Conservation Association

Neighbors of the Northwest Branch of the Anacostia River

Northern Virginia Citizens Association

Our Revolution Maryland

Our Revolution Montgomery County

Policy Foundation of MD / Voices Maryland

Rock Creek Hills Citizens' Association

Save Our Seminary at Forest Glen Inc.

Sligo Creek Golf Association

Strong Future Maryland

Sunrise Movement Howard County

Takoma Park Mobilization Environment Committee

The Ocean Foundation

Transit Choices

Unitarian Universalist Legislative Ministry of Maryland

Washington Area Bicyclist Association

Washington Biologists' Field Club

West Montgomery County Citizens Association

Woodside Forest Civic Association

Wyngate Citizens Association

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A. NEPA Standards

An Environmental Impact Statement ("EIS") has "twin functions": preparation of the EIS is designed to require agencies to take a hard look at the consequences of their proposed actions, and distribution of the EIS is designed to provide important information about the proposed action to the public for notice and comment. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349, 356 (1989). The NEPA process relies on public scrutiny. *See* 40 C.F.R. § 1500.1(b) (2019). An EIS therefore must "detail the environmental and economic effects of proposed federal action 'to enable those who did not have a part in its compilation to understand and consider meaningfully the factors involved,' and to compel the decisionmaker to give serious weight to environmental factors in making discretionary choices." *Sierra Club v. Morton*, 510 F.2d 813, 819 (5th Cir. 1975) (citations omitted).

An EIS must "provide full and fair discussion of significant environmental impacts" arising from the proposed action and describe reasonable alternatives "that would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1 (2019).[2] Agencies must "[r]igorously explore and objectively evaluate all reasonable alternatives[.]" *Id.* § 1502.14(a) (2019). Agencies must consider the direct, indirect, and cumulative impacts of proposed actions, including health impacts. *Id.* § 1508.8 (2019); *see also id.* § 1508.7 (2019). General statements about possible effects and risks do not constitute the hard look required by NEPA without a justification for why the agency could not supply more definitive information. *Or. Nat. Desert Ass'n v. Rose*, 921 F.3d 1185, 1191 (9th Cir. 2019). Conclusory statements that the effects will be minimal or are inevitable are also insufficient under NEPA. *Del. Riverkeeper Network v. FERC*, 753 F.3d 1304, 1313 (D.C. Cir. 2014); *Defs. of Wildlife v. N. C. Dep't of Transp.*, 762 F.3d 374, 394 (4th Cir. 2014); *N.C. Wildlife Fed'n v. N.C. Dep't of Transp.*, 677 F.3d 596, 602 (4th Cir. 2012). Moreover, "an agency may not rely on incorrect assumptions or data in an EIS." *Native Ecosystems Council v. U.S. Forest Serv.*, 418 F.3d 953, 964 (9th Cir. 2005).

NEPA requires that an EIS contain high-quality information and accurate analysis. *See* 40 C.F.R. § 1500.1(b) (2019). If an agency relies on incomplete data, or if data relevant to the proposed project is unavailable, the EIS must disclose this shortcoming. *See Lands Council v. Powell*, 395 F.3d 1019, 1032 (9th Cir. 2005). Further, the use of inaccurate data to support the need for a proposed project is a violation of NEPA. *N.C. All. for Transp. Reform v. DOT*, 151 F. Supp. 2d 661, 688 (M.D.N.C. 2001) (DOT violated NEPA by premising the need for a transportation project on overstated traffic projection estimates).

An EIS must contain a detailed discussion of possible mitigation measures. *Protect Our Communities Found. v. Jewell*, 825 F.3d 571, 581-82 (9th Cir. 2016). "Without such a discussion,

[2] These comments cite to the Council on Environmental Quality's ("CEQ's") NEPA regulations in effect at the time the Agencies announced their intent to prepare an EIS and when the DEIS was released. Although new regulations were finalized on July 16, 2020, 85 Fed. Reg. 43,304, CEQ has begun a series of rulemakings to reconsider and revise those new regulations, *see* 86 Fed. Reg. 55,757 (Oct. 7, 2021). At all events, the comments on, and flaws identified in, the SDEIS apply no matter which CEQ regulations are considered.

neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects." *Methow Valley Citizens Council*, 490 U.S. at 352.

Agencies may not "postpone analysis of an environmental consequence to the last possible moment"; they must consider impacts "as soon as it can reasonably be done." *Kern v. BLM*, 284 F.3d 1062, 1072 (9th Cir. 2002). NEPA requires consideration of the potential impacts of an action *before* the action takes place. *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1380 (9th Cir. 1998). Because the need to engage in reasonable forecasting and speculation is implicit in NEPA, agencies may not shirk their responsibilities by labeling discussions of future environmental effects as "crystal ball" inquiries. *Del. Riverkeeper Network*, 753 F.3d at 1310; *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1079 (9th Cir. 2011).

NEPA's EIS requirement "guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision." *Dep't of Transp. v. Public Citizen*, 541 U.S. 752, 768 (2004) (quoting *Methow Valley Citizens Council*, 490 U.S. at 349). NEPA regulations explain that "public scrutiny [is] essential to implementing NEPA." 40 C.F.R. § 1500.1(b) (2019) Federal agencies shall to the fullest extent possible "[e]ncourage and facilitate public involvement in decisions which affect the quality of the human environment." *Id.* § 1500.2(d) (2019); *see also Center for Biological Diversity v. Gould*, 150 F. Supp. 3d 1170, 1182 (E.D. Cal. 2015) (agency's failure to include environmental information that it relied upon in its decision precluded plaintiffs from submitting more complete comments and thus violated NEPA).

An adequate EIS is essential to the informed agency decision-making and informed public participation required by NEPA. *S. Fork Band Council of W. Shoshone of Nev. v. U.S. Dep't of Interior*, 588 F.3d 718, 725 (9th Cir. 2009). To implement the latter requirement, any referenced material must be made available within the time allowed for comment. *Sierra Club, Inc. v. U.S. Forest Serv.*, 897 F.3d 582, 598 (4th Cir. 2018) (citing 40 C.F.R. §§ 1502.9(a), 1502.21).[3] When the information in the EIS is so incomplete or misleading that the decisionmaker and the public cannot make an informed comparison of the alternatives, revision of an EIS may be necessary to provide "a reasonable, good faith, and objective presentation of the subjects required by NEPA." *Animal Def. Council v. Hodel*, 840 F.2d 1432, 1439 (9th Cir. 1988), *amended*, 867 F.2d 1244 (9th Cir. 1989); 40 C.F.R. § 1502.9(a), (c) (2019). A "draft statement must fulfill and satisfy to the fullest extent possible the requirements established for final statements in section 102(2)(C) of the Act." 40 C.F.R. § 1502.9(a) (2019). "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." *Id.*

B. The SDEIS's 60-Day Public Comment Period Is Insufficient to Satisfy the Agencies' NEPA Obligations

On October 1, 2021, the Agencies released the SDEIS to the public with a 45-day deadline for review and comment. Many of the undersigned organizations requested an extension of that deadline. Others, including the City of Rockville, Montgomery County Council, Members of U.S.

[3] *See also Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, Council on Env't Quality, 46 Fed. Reg. 18,025 at # 25b (Mar. 23, 1981 as amended 1986), https://www.energy.gov/sites/default/files/2018/06/f53/G-CEQ-40Questions.pdf.

Congress Anthony Brown and Jamie Raskin, and U.S. Senators Benjamin Cardin and Chis Van Hollen also asked for extensions. Among other things, those letters explained that 45 days was insufficient because:

- The preferred alternative is a substantial project going through many communities and environmentally sensitive and culturally significant areas.
- There are serious questions about the validity of the traffic modeling performed in the SDEIS, requiring independent analysis which takes time.
- The SDEIS together with its appendices is over 8,000 pages; even reviewing the document on a full-time basis, assuming that were possible, would take longer than 45-days.
- The SDEIS continually references the DEIS and its appendices, which amount to over 19,000 pages; meaningful review of the SDEIS and its references would take well over 45 days.
- The SDEIS's public comment period overlapped with the toll rate range setting public comment period and the National Historic Preservation Act Section 106 comment period.
- COVID-19 creates additional challenges for the public to review materials.

The Agencies did not respond to these requests. However, three days before the comment deadline, the Agencies announced that the comment period was being extended by 15 days, to November 30, 2021. The Agencies did not explain why, nor did the Agencies respond to the issues identified that justified a need for a longer comment period, such as the deficiencies in the traffic analysis. This 15-day extension over the Thanksgiving holiday period, which occurred after the public hearing and after many commenters had already submitted rushed comments, violates the Agencies' NEPA obligations to encourage and facilitate public involvement and informed public participation, including public participation from environmental justice communities.

C. The SDEIS Unlawfully Omits Analyses of the Preferred Alternative's Environmental Effects

The SDEIS unlawfully omits many important discussions and analyses of the preferred alternative's environmental effects, stating that the Agencies will present that information to the public when the FEIS is released. For example, the SDEIS does not provide the following information and says it will be presented for the first time in the FEIS:

- A sensitivity analysis that will confirm the need for the preferred alternative and verify that the preferred alternative would provide benefits even if future demand for toll lanes is less than projected. SDEIS at ES-4. This statement not only indicates that the required analysis will be delayed but also shows that the Agencies have predetermined the results of that analysis, in violation of NEPA.

- An updated traffic analysis to determine the worst-case intersections and interchanges throughout the corridors of the preferred alternative and to provide for updated carbon monoxide air quality modeling. *Id.* at 4-43.

- An updated mobile source air toxics analysis. *Id.*

- An updated greenhouse gas ("GHG") emissions analysis. *Id.* at 4-44

- An analysis of construction related GHG emissions. *Id.*

- A determination of whether the preferred alternative has disproportionately high and adverse impacts to environmental justice populations. *Id.* at 4-104.

The SDEIS does not justify the delay for any of these analyses. Withholding analyses of environmental effects from the public until the FEIS is issued violates both the letter and spirit of NEPA.[4] Before moving forward with the preferred alternative, the Agencies must present their analyses of its environmental impacts for public review and comment, adjust any future NEPA documents based on those comments, and respond to all substantive comments.

D. The SDEIS Retains the DEIS's Narrow Purpose and Need Statement, which Unreasonably Restricts the Alternatives that Must be Evaluated

An EIS must "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives." 40 C.F.R. § 1502.13 (2019). Agencies may not define a project's "objectives in unreasonably narrow terms." *City of Carmel-By-The-Sea v. U.S. Dept. of Transp.*, 123 F.3d 1142, 1155 (9th Cir. 1997). A purpose and need statement must allow an EIS to be more than a "foreordained formality." *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991). An agency "may not circumvent the proscription" against defining its objectives in unreasonably narrow terms "by adopting private interests to draft a narrow purpose and need statement that excludes alternatives that fail to meet specific private objectives." *Nat'l Parks Conservation Ass'n v. Bureau of Land Mgmt.*, 606 F.3d 1058, 1072 (9th Cir. 2010). Further, a purpose and need statement premised on false or inaccurate information fails to provide a basis for "informed evaluation or a reasoned decision," and therefore does not satisfy NEPA's requirements. *Sierra Club v. U.S. Army Corps of Eng'rs*, 701 F.2d 1011, 1030 (2d Cir. 1983).

Our previous comments explained the numerous flaws with the purpose and need statement, including that it is unreasonably narrow, unlawfully constrains the range of considered alternatives, and is based on inaccurate traffic and financial assumptions.

Unfortunately, the SDEIS retains that flawed purpose and need without change:

> The Study's purpose is to develop a travel demand management solution(s) that addresses congestion, improves trip reliability on I-495 and I-270 within the Study limits, and enhances existing and planned multimodal mobility and connectivity.
>
> The needs for the Study are:

[4] The SDEIS states that "FHWA does not intend to issue a combined FEIS/ROD," SDEIS at PDF p.1, however other sources suggest FHWA still intends to do so, s*ee* Environmental, I-495 & I-270 Managed Lanes Study, Study Timeline, https://oplanesmd.com/environmental/, visited Nov. 3, 2021 ("Fall 2021 - Spring 2022" "Development of Combined Final Environmental Impact Statement / Record of Decision"). A combined FEIS/ROD would further prevent public review and comment on significant environmental effects prior to a final decision on the preferred alternative.

- Accommodate Existing Traffic and Long-Term Traffic Growth
- Enhance Trip Reliability
- Provide Additional Roadway Travel Choices
- Accommodate Homeland Security
- Improve Movement of Goods and Services

> Two goals for the Study were also identified in addition to the purpose and needs: (1) the use of alternative funding approaches for financial viability and (2) environmental responsibility.

SDEIS at ES-2, 1-2.

As explained in our DEIS comments, the purpose and need statement that the Agencies carried over to the SDEIS eliminates any alternative that does not involve managed lanes and does not attract highway toll concessionaires. By including "additional roadway travel choices" in the purpose and need statement, the Agencies foreclosed the possibility of meeting the broader Project goals by other reasonable means, such as transportation system management, transportation demand management, mass transit, or multimodal strategies. The purpose and need statement improperly limits alternatives to travel demand solutions that are financially profitable to a private sector investor and thereby unlawfully adopts the private interests of potential P3 investors and excludes alternatives that do not meet their specific private objectives. The Notice of Intent to prepare the EIS illustrates this problem by stating that "[m]anaged lanes are needed," and "[a]dditional roadway management options are needed."[5] Based on the purpose and need statement, the build alternatives studied as part of the traffic analysis for the DEIS and SDEIS included managed lanes to the exclusion of other alternatives. SDEIS at 3-4. This result did not allow a full and fair consideration of all reasonable alternatives and made the NEPA process merely a foreordained formality.

Our prior comments provided a reworded purpose and need statement that meets NEPA's requirements and would allow a reasonable comparison of alternatives:

> The Purpose of the Study is to develop infrastructure and policy solutions that will improve accessibility and mobility in the Northwest and Beltway corridors while reducing vehicle miles traveled, supporting sustainable land use and economic development, and promoting social, environmental, and economic equity.

This broader purpose and need statement reflects the broader objectives used in some past Maryland studies. For example, the 2004/2005 Capital Beltway Study purpose and need included objectives like: improve regional mobility; provide enhanced safety; maximize travel operational efficiencies; provide cost-effective transportation infrastructure; and support the area's economic

[5] Notice of Intent to Prepare Environmental Impact Statement, I-495 & I-270 Managed Lanes Study, 83 Fed. Reg. 11,812, 11,812 (March 16, 2018).

growth and the environment.[6] The Agencies should start the process over based on this or a similar purpose and need statement.

Relatedly, like in the DEIS, the purpose and need statement in the SDEIS is based on inaccurate traffic information. Instead of analyzing whether the purpose and need statement remained valid in light of current traffic, it appears the SDEIS asked only whether the purpose and need statement validated the preferred alternative. SDEIS at ES-2 to ES-3. This approach is backwards. The SDEIS does not evaluate the purpose and need statement in light of COVID-19, increased telework, or the results and projected results of the implementation of the I-270 Innovative Congestion Management Project ("ICMP").[7] The SDEIS and our comments in Section II below demonstrate that the Agencies are not performing an unbiased traffic analysis but rather seeking confirmation to support the preferred alternative. *See, e.g.*, SDEIS at ES-4.

The financial assumptions that underlie the preferred alternative's purpose and need are also inaccurate. The SDEIS repeats the DEIS's claim that a P3 is needed because Maryland "does not have the funds to construct improvements of this magnitude with an estimated cost of approximately $3 to $3.5 billion," nor does the state "have the bonding capacity to take out loans to pay for the Improvements." SDEIS at ES-10. MDOT has also previously justified eliminating other alternatives based on these claims. The SDEIS does not provide any support for these claims; in fact, they are contradicted by statements made by MDOT State Highway Administration ("SHA") indicating that the state can indeed issue new bonds backed by transit revenue streams, like tolls or transit fares, and can seek low-interest federal loans similar to those which concessionaires have access to.[8] Moreover, the Agencies must consider federal funding support, including the recently passed infrastructure bill.[9]

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[6] MDOT SHA, Capital Beltway Study Public Display Boards (May 6, 2004), https://web.archive.org/web/20170202174503/http://apps.roads.maryland.gov/WebProjectLifeCycle/AW518_11/HTDOCS/Documents/Informational_Public_Workshop/AW518%20Display%20Boards.FINAL.5-6-04a.pdf.

[7] *See, e.g.*, Bob Barnard, *Traffic Lights to I-270 Entrance Ramps Activated in Frederick, Montgomery Counties*, FOX5 (Sept. 15, 2021), https://www.fox5dc.com/news/traffic-lights-to-i-270-entrance-ramps-activated-in-frederick-montgomery-counties; Steve Bohnel, *Ramp Metering, for Traffic Control, Begins Along I-270*, Bethesda Magazine (Aug. 17, 2021), https://bethesdamagazine.com/bethesda-beat/traffic/ramp-metering-for-traffic-control-begins-along-i-270/; Sonia Demiray, *Opinion: Pricey Toll Lane Plan Won't Solve Regional Traffic Issues*, Maryland Matters (Nov. 1, 2021), https://www.marylandmatters.org/2021/11/01/opinion-pricey-toll-lane-plan-wont-solve-regional-traffic-issues/.

[8] Bruce DePuyt, *Purple Line Will be Delayed as MDOT Seeks Management Solution*, WTOPnews (Sept. 23, 2020), https://wtop.com/maryland/2020/09/purple-line-will-be-delayed-as-mdot-seeks-management-solution/; Katherine Shaver, *Maryland Would Have to Divert Money from Other Projects if Purple Line Builders Quit, State Transit Chief Tells Court*, Washington Post (Sept. 8, 2020), https://www.washingtonpost.com/local/trafficandcommuting/maryland-would-have-to-divert-money-from-other-projects-if-purple-line-builders-quit-state-transit-chief-tells-court/2020/09/08/85dd149a-ee22-11ea-99a1-71343d03bc29_story.html.

[9] *See Maryland Lawmakers, Bay Advocates React to Late-Night Passage of $1.2 Trillion US Infrastructure Bill*, Maryland Matters (Nov. 6, 2021), https://wtop.com/maryland/2021/11/maryland-lawmakers-bay-advocates-react-to-late-night-passage-of-1-2-trillion-us-infrastructure-bill/ Kevin Kinnally, *Here's What the Infrastructure Bill Means for Maryland*, Maryland Association of Counties (Nov. 8, 2021), https://conduitstreet.mdcounties.org/2021/11/08/heres-what-the-infrastructure-bill-means-for-maryland/.

E. The SDEIS Fails to Consider All Reasonable Alternatives

The alternatives analysis is the "heart" of an EIS. 40 C.F.R. § 1502.14 (2019). NEPA requires that an agency "[r]igorously explore and objectively evaluate *all* reasonable alternatives" to the proposed action. *Id.* § 1502.14(a) (2019) (emphasis added). An agency must consider a range of alternatives "sufficient to permit a reasoned choice among the options." *Wyoming v. U.S. Dep't of Agric.*, 661 F.3d 1209, 1243 (10th Cir. 2011) (quoting *Ass'ns Working for Aurora's Residential Env't v. Colo. Dep't of Transp.*, 153 F.3d 1122, 1130 (10th Cir. 1998)); *see also Sierra Club v. Watkins*, 808 F. Supp. 852, 872 (D.D.C. 1991) (agency is required to "consider a range of alternatives that covers the full spectrum of possibilities"). Also, NEPA does not allow an agency to eliminate alternatives "merely because they do not offer a complete solution" to the purpose and need of the proposed project. *Nat. Res. Def. Council v. Morton*, 458 F.2d 827, 836 (D.C. Cir. 1972).

The SDEIS fails to consider many reasonable alternatives to the preferred alternative, including multi-modal alternatives such as the multi-modal alternative presented in our comments on the DEIS, and is therefore inadequate. *Citizens for a Better Henderson v. Hodel*, 768 F.2d 1051, 1057 (9th Cir. 1985) ("[T]he existence of a viable but unexamined alternative renders an environmental impact statement inadequate."). The SDEIS analyzes only one alternative that proposes to add two high occupancy toll lanes in each direction on parts of I-495 and I-270. The SDEIS does not analyze any transit and other non-highway expansion alternatives but perpetuates the DEIS's failure to consider the full spectrum of possibilities. The SDEIS also does not analyze transportation demand management, transportation system management, or reversable lanes. Our prior comments presented a viable multimodal alternative for consideration, System Management/Accessibility/Rapid Transit (SMART), which the SDEIS continues to ignore. The SDEIS's proposal to allow bus use of the preferred alternative's toll lanes is not sufficient consideration of all reasonable alternatives.[10]

Additionally, the SDEIS provides an improper evaluation of alternatives. The SDEIS's preferred alternative adds toll lanes to shorter parts of I-495 and I-270 than were considered in the DEIS. Yet the SDEIS compares the preferred alternative to managed lane alternatives that involve a significantly larger portion of the two highways. *See, e.g.*, SDEIS at 5-56. Whatever the consequences of this mismatch, it does not allow a meaningful evaluation to be conducted. Further, the SDEIS's preferred alternative does not compare its environmental effects to alternatives such as public transit, transportation systems/demand management, contraflow lanes, and reversible lanes, which were eliminated from further study prior to the DEIS. If the Agencies wish to evaluate and approve the preferred alternative with its smaller scope, the Agencies must evaluate a full range of reasonable alternatives, including multimodal alternatives, with a similar scope.

[10] Moreover, the SDEIS does not consider any increases in actual transit routes, times, or frequency. If the transit planning preceded this DEIS/SDEIS focused on addressing the best mode to ease the transportation deficiency, perhaps the need for the extra lanes could be avoided and highway expansion could have been less of a foregone conclusion. The SDEIS discusses $360M in "transit improvements" throughout Montgomery County, but that seems more to placate local transit advocates to fund backlogged improvements rather than specific transit improvements addressing congestion in the corridor.

F. The SDEIS Considers an Unlawfully Segmented Part of the Overall Planned Highway Expansion

The SDEIS evaluates an unreasonably segmented portion of the overall planned highway expansion, thereby omitting analysis of other reasonable alternatives and reasonably foreseeable environmental impacts.

Agencies are required to discuss connected and cumulative actions in the same EIS. 40 C.F.R. § 1508.25(a)(1), (2) (2019). This requirement prevents agencies from engaging in segmentation, that is, circumventing NEPA by not studying the cumulative impacts of a single project. "This rule against segmentation was developed to prevent the piecemeal environmental analysis of interrelated projects, which could give an inaccurate impression of overall environmental effects." *N.C. All. for Transp. Reform*, 151 F. Supp. 2d at 680.

Courts consider three factors to determine if separate project segments are in fact cumulative actions that should be discussed in the same impact statement: (1) whether they are part of a single project; (2) whether they were announced simultaneously; and (3) whether construction of both portions was reasonably foreseeable. *N.C. All. for Transp. Reform*, 151 F. Supp. 2d at 684-85 (citing *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1214-15 (9th Cir. 1998)). There is no doubt that the overall I-495 and I-270 P3 managed lane expansion meets all of these criteria: The SDEIS limits its evaluation of alternatives and environmental effects to this segment despite acknowledging at various points that the preferred alternative is only the first phase of the Project and that the P3 agreement that Maryland has already entered into with a private party goes beyond the segment of the preferred alternative. *See, e.g.*, SDEIS at ES-16. The impacts of all segments should therefore be evaluated in one NEPA document.

In addition, under DOT regulations, three criteria must be met by any transportation action reviewed under an individual EIS. First, the action being reviewed must "[c]onnect logical termini and be of sufficient length to address environmental matters on a broad scope." 23 C.F.R. § 771.111(f)(1). Second, the action is required to "[h]ave independent utility or independent significance, *i.e.*, be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made." *Id.* § 771.111(f)(2). Lastly, the action must not "restrict consideration of alternatives for other reasonably foreseeable transportation improvements." *Id.* § 771.111(f)(3).

The SDEIS violates the regulations because the segment it addresses does not connect logical termini; it would create bottlenecks and worsen traffic at its endpoints if it were the only segment constructed. The SDEIS also violates the independent utility requirement because none of the segments would take place in the other's absence. *Defs. of Wildlife*, 762 F.3d at 395; *Webster v. U.S. Dep't of Agric.*, 685 F.3d 411, 426 (4th Cir. 2012). Finally, by limiting the scope of the SDEIS to a segment that is only part of the overall P3 Program, the SDEIS restricts consideration of partial or full public transportation options (such as expanding the Maryland Area Regional Commuter line) that would be viable if evaluated based on the entire P3 Program. Going forward with this segmentation will also prevent similar public transit options from being considered when the other two segments go through the NEPA process and will make approval of additional managed lanes a mere formality.

Further, the segmentation was implemented purposefully to ignore impacts of widening Upper I-270 until a later date, which already is part of the P3 agreement, while trying to get the first part of the larger Project approved and underway. Not addressing Upper I-270 issues in this SDEIS precludes an adequate evaluation of preferred alternative's direct impacts, indirect impacts, and cumulative effects and foreseeable Project risks (such as the private developer not being willing to complete Upper I-270 in light of the political risks, Section 4(f) risks, and the fact that that portion would not meet the narrow purpose and need for the Project or be profitable without state subsidy).[11] Former Transportation Secretary Pete Rahn disclosed during an October 2019 interview that I-270 was divided into two phases because of issues with the Monocacy Battlefield:

> the governor's direction was that I-270 be our first phase. And he didn't say 370 to the Beltway. He said 270. So we now have Phase 1A and 1B — 1B being north of 370. And what we're having to deal with there is a uniqueness to I-270, particularly impacted by the Monocacy battlefield. That's why 270 has been separated into two. We currently have [taken] the initial steps of the NEPA [National Environmental Policy Act] process for that section north. So we're not ignoring it.[12]

Monocacy National Battlefield, which directly touches the current Upper I-270, is on the National Register of Historic Places. Any attempts at expanding that highway would create significant environmental and Section 4(f) impacts. Attempting to avoid analysis of a section of the roadway because it contains a historic National Battlefield is not a valid reason to segment a proposal's NEPA review. End points may not be created simply to avoid proper analysis of environmental impacts.

No action on Lower I-270 should proceed without completing a NEPA-compliant evaluation of impacts arising from widening Upper I-270 and studying the cumulative impacts of this full plan.

G. The SDEIS's Claims of Reduced Impacts Are Invalid Given That the Removed Segment Remains a Reasonably Foreseeable "Future Phase"

The case has not been made that the footprint of the Project is actually smaller to justify this partially focused SDEIS and argument of reduced impacts. In fact, the Project is not smaller, it is just differently phased. The second phase is a reasonably foreseeable future action whose cumulative impact must be evaluated in the SDEIS.

By designating the future phase of I-495 east of the eastern I-270 spur as "no action at this time" rather than "no build," that segment is essentially no different than upper I-270 which is also

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[11] "From the very beginning, our statement of goal has been net zero cost to the state. The word 'net' is important here, because we know there are areas like 270 north that will have a cost that is going to exceed our projections for revenue generated by that section. That by itself would equal a subsidy or 'gap funding.'" *A Transportation Q&A: Rahn Talks I-270, Partnerships, Growth and More*, Bethesda Magazine (Oct. 24, 2019), https://bethesdamagazine.com/bethesda-beat/traffic/a-transportation-qa-rahn-talks-i-270-partnerships-growth-and-more/.

[12] *Id.* (alterations in original).

in essence "no action at this time" yet is still part of the plan as a reasonably foreseeable "future phase."

The "no action at this time" appears to be an attempt to dodge accepted NEPA terminology of "no build," which has a clear legal meaning. No action at this time appears to be an attempt to illegally segment the Project to receive clearances while biasing the rest of the Project in favor of toll lanes.

The essence of illegal segmentation is the intentional piecemealing of a single project to avoid compliance with federal and historic preservation environmental laws *See Md. Conservation Council v. Gilchrist*, 808 F.2d 1039, 1041 (4th Cir. 1986). Both the upper I-270 and eastern I-495 segments traverse environmentally sensitive areas and it was clear that the inclusion of these segments would potentially jeopardize approval of the Project as a whole.[13] By deferring review of the upper I-270 and eastern I-495 segments, MDOT has set up a bifurcated decision-making structure whereby the less environmentally controversial section is approved, and then construction of the other segments will be presented as necessary to the success of the Project as a whole.

Former Maryland Transportation Secretary Pete Rahn admitted in 2019 that I-270 was divided into two phases because of issues with the Monocacy Battlefield (see Section I.F for more).[14] He also stated: "I-270 does not work without the American Legion Bridge. The American Legion Bridge does not work without [Interstate] 495 over to 95. We have to be approaching this as a system."[15]

Governor Hogan, Comptroller Peter Franchot, MDOT, and Transurban have admitted there were likely to be or are problems moving forward with eastern I-495. Transurban North America President Jennifer Aument said in April 2019 that the Project had a "complex political and economic path ahead."[16] The pre-vote discussion at the Board of Public Works ("BPW") between Comptroller Franchot, Transportation Secretary Slater, and Governor Hogan displayed great frustration with the opposition and changes to the Project.[17] MDOT's description in the November

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[13] BPW Meeting Agenda, at 57-58 (Nov. 3, 2021), https://bpw.maryland.gov/MeetingDocs/2021-Nov-3-Agenda.pdf.

[14] *A Transportation Q&A: Rahn Talks I-270, Partnerships, Growth and More*, Bethesda Magazine (Oct. 24, 2019), https://bethesdamagazine.com/bethesda-beat/traffic/a-transportation-qa-rahn-talks-i-270-partnerships-growth-and-more/.

[15] Robert McCartney, Luz Lazo and Katherine Shaver, *Maryland and Virginia to rebuild and widen the American Legion Bridge, Governors Say*, Washington Post (Nov. 12, 2019), https://www.washingtonpost.com/local/trafficandcommuting/maryland-and-virginia-to-rebuild-and-widen-the-american-legion-bridge-governors-say/2019/11/12/6531d8fe-04c9-11ea-ac12-3325d49eacaa_story.html.

[16] Bruce DePuyt, *Transportation Management Giant Reverses Course, Eyes Bid for Md. Highway Project*, Maryland Matters (Dec 19, 2019), https://www.marylandmatters.org/2019/12/19/transportation-management-giant-reverses-course-eyes-bid-for-md-highway-project/.

[17] DontWiden270.org Newsletter, (Nov. 7, 2021), https://mailchi.mp/54329663960d/write-mdot-by-1115-another-45m-grab (Referencing pre-vote discussion at Nov 3, 2021 Board of Public Works meeting, Comptroller Franchot: "And I often say to the Governor who is the author of this project, I think we really need to do this initial part. And should you be happy with that? Give me the other two-thirds back, because that's what he wanted to do originally. And I can see that. So he's not happy, the Treasurer is not happy . . .").

3, 2021 BPW agenda of the tortuous, up and down path the Project faced indicates the depth and extent of problems with parts of the plan, particularly the eastern segment.[18]

Comptroller Franchot said in a podcast interview on May 10, 2021, that:

> [E]ast of 270 on 495 [would be considered in] five or six years [because it's] very controversial that requires some parkland and some residences and eminent domain, and there's a big hue and cry and uproar over there. . . . And, you know [by doing the American Legion Bridge to I-370], we'll be able to without completely turning the area on its head, we're going to be able to test a properly drafted P3, and we'll see how it goes.[19]

It seems that MDOT only dropped I-495 east of the I-270 eastern spur when it became clear that including that segment would stall or end the entire Project because it might or would not be able to receive agency concurrence from several cooperating agencies including M-NCPPC,[20] NCPC, [21] and the National Park Service.[22] It likely also would not have been able to receive concurrence from the U.S. Navy[23] as noted in our comments on the DEIS. The more extensive Project would have had major impacts on land and property owned by these agencies, and thus they pushed back.

I-495 to the east would have massive environmental and human impacts, including those listed in the right-most column in the table below:

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[18] Board of Public Works Agenda, at 57-58 (Nov 3, 2021), https://bpw.maryland.gov/MeetingDocs/2021-Nov-3-Agenda.pdf. Page 58 states: "The limits, type, and other aspects of the solicitation changed during the development of the Phase 1, requiring a greater magnitude of early services than originally anticipated. The project limits of the phases and type of P3 solicitation changed several times due to varying factors. . . ."

[19] https://web.archive.org/web/20210329030942/https:/s168.podbean.com/pb/fbfd15bd19f93abbcb0452fb6fa86d5b/60614351/data2/fs110/2708898/uploads/Everyday_Law_Peter_Franchot9jl3b.mp3?pbss=643a3775-6a6e-5302-8006-be00f401ef0c.

[20] Letter from Elizabeth M. Hewlett and Casey B. Anderson to Jeanette Mar and Time Smith re I-495/I-270 Managed Lanes Study – Notice of Non-Concurrence with Selection of Alternative 9 as the Recommended Preferred Alternative, (April 21, 2021), https://montgomeryplanningboard.org/wp-content/uploads/2021/04/Notice-of-Non-Concurrence_signed.pdf.

[21] NCPC Information Presentation: I-495 and I-270 Managed Lanes Study, at 3 (Oct 7, 2021), https://www.ncpc.gov/docs/actions/2021October/7984_I-495_and_I-270_Managed_Lanes_Study__Information_Sheet_Oct2021.pdf ("NCPC staff do not concur with the current State-preferred alternative based on 1) M-NCPPC's continuing non-concurrence with the study and 2) staff remain unclear about how the use of Capper-Cramton property (for managed lanes expansion) would benefit each park over and above potential impact mitigation measures as required by the Capper-Cramton Act. Current SEIS and draft EIS materials do not describe potential impacts nor applied mitigation/benefits in enough detail . . .").

[22] National Capital Planning Commission (USA) Meeting, Oct. 7, 2021, https://youtu.be/h7ItQFmbfwU?t=5754, Commissioner May comments, regarding NPS.

[23] Bruce DePuyt, *U.S. Navy Strongly Opposed To Capital Beltway Widening Project*, Maryland Matters (Nov. 20, 2020), https://www.marylandmatters.org/2020/11/20/u-s-navy-strongly-opposed-to-capital-beltway-widening-project/.

Table: Comparison of Impacts MLS DEIS, Phase 1 South SDEIS, 495 East (calculated)

		DEIS/Alt 9	Phase 1 South	495 East
1	Total Potential Impacts to Park Properties (acres)	133.1 *(page 4-3)*	36.1	97
2	Total Right-of-Way Required2 (acres)	323.5	115.9	207.6
3	Number of Properties Directly Affected (count)	1,475	501	974
4	Number of Residential Relocations (count)	34	0	34
5	Number of Business Relocations (count)	4	0	4
6	Number of Historic Properties with Adverse Effects	13[7] [effect cannot be determined]	11	2?
7	Noise Sensitive Areas Impacted (count)	133 *(page 4-138; 37 on I-270)*	49	84
8	Hazardous Materials Sites of Concern (count)	501 *(page 4-3, 4-73)*	255	246
9	Wetlands of Special State Concern	0	0	0
10	Wetlands° (acres)	16.3	4.3	12
11	Wetland 25-foot Buffer4 (acres)	53.1	7.1	46
12	Waterways° (square feet)	1,909,586 *(page 4-81)*	1,017,702	891,884
13	Waterways4 (linear feet)	155,922 *(page 4-81)*	46,553	109,369
14	Tier II Catchments (acres)	55.3	0	55.3
15	100-Year Floodplain (acres)	119.5	48.8	70.7
16	Forest Canopy (acres)	1,497	500.1	996.9
17	Rare, Threatened and Endangered Species Habitat (acres)	No information in DEIS	56.4	??
18	Sensitive Species Project Review Area (acres)	155 *(page 4-3)*	44.5	110.5
19	Unique and Sensitive Areas (acres)	408.2 *(page 4-3)*	168.5	239.7
20	Width pavement on I-495	194-198 (DEIS page 4-3, but not included in SDEIS)		
21	Width of pavement on I-270	218-222 (DEIS page 4-3, but not included in SDEIS)		

The May 12, 2021, announcement strongly inferred that the eastern part of I-495 had been dropped and this apparent decision was applauded by agency cooperating parties and the public.

Headlines on that day proclaimed:

1. *Maryland Scales Back Most Controversial Part of Beltway Toll Lanes Plan East of I-270: State Officials Say They Will Take 'No Action' on Further Studying How to Widen the Beltway East of I-270.*[24]

[24] Katherine Shaver, *Maryland Scales Back Most Controversial Part of Beltway Toll Lanes Plan East of I-270*, Washington Post (May 12, 2021), https://www.washingtonpost.com/transportation/2021/05/12/maryland-toll-lanes-plan/.

2. *Maryland's Controversial Highway Widening Proposal Scaled Back*.[25]
3. *Large Portion of Capital Beltway Removed from Highway Widening Plan, Leaving I-270*.[26]
4. *MDOT Removes Large Stretch of Capital Beltway from Toll-Lane Plan*.[27]
5. *Maryland Gov. Larry Hogan Scaling Back Plans For I-270 Widening*.[28]
6. *Capital Beltway Project Eliminates 30 Miles of Proposed Toll Roads*.[29]
7. M*DOT Cancels Plans to Widen Beltway East of I-270*.[30]

The terms used to describe the change are scale back, remove, eliminate, shrink, and cancel. From no outlet did the public receive any indication that review, and approval of the segment was merely deferred and that MDOT had simply changed the Project phasing.

Even the Project contracting language changed temporarily. For a time and during the period of contract review by the legislature, treasurer, and comptroller, the contract referred to "Phase South" and "Phase North" instead of Phase 1 with qualifiers as had been done before and has been done since.[31] This further implied that other phases had been dropped from the plan.

Elected officials and decision makers of every level bought in to the public narrative that MDOT had changed course and made a better, less damaging decision in order to allow the Project to progress. This narrative influenced subsequent decisions made by a portion of the Montgomery County Council, the Transportation Planning Board, the BPW, and Maryland Transportation Authority ("MDTA") to advance the Project.[32]

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[25] James Brasuell, *Maryland's Controversial Highway Widening Proposal Scaled Back*, Planetizen (May 13, 2021), https://www.planetizen.com/news/2021/05/113310-marylands-controversial-highway-widening-proposal-scaled-back.

[26] Briana Adhikusuma, *UPDATED: Large portion of Capital Beltway removed from highway widening plan, leaving I-270*, Bethesda Beat (May 12, 2021), https://bethesdamagazine.com/bethesda-beat/transportation/capital-beltway-removed-from-plan-to-widen-i-270/.

[27] Bruce DePuyt, *MDOT Removes Large Stretch of Capital Beltway From Toll-Lane Plan*, Maryland Matters (May 12, 2021), https://www.marylandmatters.org/2021/05/12/mdot-removes-large-stretch-of-capital-beltway-from-toll-lane-plan/.

[28] Lauren DeMarco, *Maryland Gov. Larry Hogan Scaling Back Plans for Capital Beltway and I-270 Widening*, Fox 5 DC (May 13, 2021), https://www.fox5dc.com/news/maryland-gov-larry-hogan-scaling-back-plans-for-capital-beltway-and-i-270-widening.

[29] Tyson Fisher, *Capital Beltway Project Eliminates 30 Miles of Proposed Toll Roads*, Landline (May 14, 2021), https://landline.media/capital-beltway-project-eliminates-30-miles-of-proposed-toll-roads/.

[30] Patrick Herron, *MDOT Cancels Plans to Widen Beltway East of I-270*, The Moco Show (May 12, 2021), https://mocoshow.com/blog/mdot-cancels-plans-to-widen-beltway-east-of-i-270/.

[31] Phase Public-Private Partnership Agreement for the I-495 and I-270 P3 Program, (June 2021), https://www.oplanesmd.com/wp-content/uploads/2021/06/Phase-1-P3-Agreement.pdf.

[32] Josh Tulkin, *Opinion: Toll Lanes on I-495 East of I-270 Were Put on Hold, But Remain in Overall Plan*, Bethesda Magazine (Nov 1, 2021), https://bethesdamagazine.com/bethesda-beat/opinion/opinion-toll-lanes-on-i-495-east-of-i-270-were-put-on-hold-but-remain-in-overall-plan/.

Yet, elsewhere, the contrary reality was evident. Governor Hogan on the same day disavowed the smaller footprint, saying it all needed to be done.[33] MDOT in its statement plainly stated:

> This RPA does not suggest that improvements will not be needed on the top side and east side of I-495. If the new RPA is selected at the conclusion of the MLS, consideration of improvements to remaining parts of the interstate system would advance separately, subject to additional environmental studies, analysis and collaboration with the public, stakeholders and agency partners.[34]

Even after the May 2021 decision to reduce the Project scope, the selected Transurban-led consortium Accelerate Maryland Partners still showed in its marketing materials the rest of I-495 as "future phases."[35] A September 11 article in *The Australian* states: "Transurban's Charlton says . . . delivering the first section of the road also sets his company up to win future stages of the project, valued at another $US9 billion to $US11 billion over the next decade or so. That would give Transurban a continuous network of roads through Maryland and Virginia that encircle Washington DC."[36]

In September 2021, MDOT rebranded its P3 toll lane website: the new home page showcases a map that labels I-495 east of the I-270 eastern spur as "future phases."

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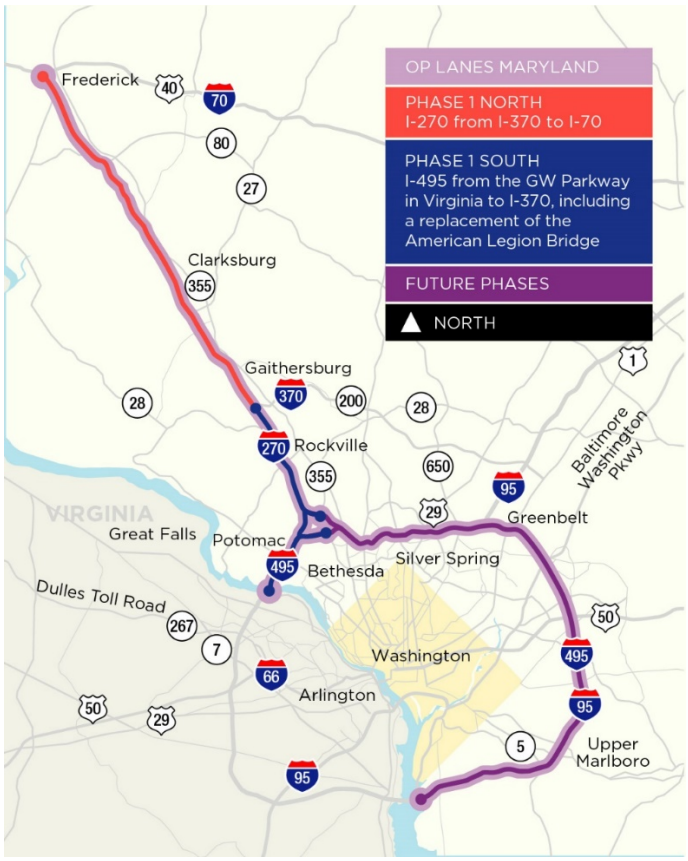
[33] Coleen Grablick, *Maryland Shrinks Plan To Add More Lanes To The Beltway*, DCist (May 12, 2021), https://dcist.com/story/21/05/12/maryland-reduces-beltway-expansion-plan-to-focus-on-northern-region/. .

[34] *New Recommended Preferred Alternative to Deliver Phase 1 South: American Legion Bridge I-270 to I-370*, (May 12, 2021) https://web.archive.org/web/20210512170303/https:/495-270-p3.com/environmental/alternatives/rpa/.

[35] Aileen Cho, *Maryland's $11B P3 Road Project Moves Forward With Outreach*, Engineering News-Record (June 14, 2021), https://www.enr.com/articles/51919-marylands-11b-p3-road-project-moves-forward-with-outreach.

[36] Patrick Hatch, *Roads to Riches: Transurban, Super Funds Vie for Bigger Slice of America's Pie*, The Age (Sept. 11, 2021), https://www.theage.com.au/business/companies/roads-to-riches-transurban-super-funds-vie-for-bigger-slice-of-america-s-pie-20210902-p58o5e.html.



Source: https://oplanesmd.com/, last accessed Nov. 27, 2021.

And, according to the contract signed in August,[37] Transurban will have the right of first refusal or "development rights" for future phases.

The press, however, acknowledged the self-fulfilling reality of the situation. The Washington Post, a toll lane booster, issued several editorials lamenting the smaller footprint but arguing the rest had to be done. The first one, dated May 30, 2021, said:

> By shrinking the plan . . . , while scrapping most of the Beltway widening, the governor has bowed to local political opposition. . . . Perhaps it will take some future Democratic governor, one with thick skin and a firm grasp of demographic and traffic forecasts, to convince recalcitrant local Democrats and get the job done.[38]

A July 6, 2021 *Washington Post* Editorial Board opinion talked of approval of only Phase 1 South of the Project as a threat to "downscale it to the point where it would be ineffective at

[37] Bruce DePuyt, *In Split Vote, Board of Public Works Approves Highway Design Contract*, Maryland Matters (Aug. 11, 2021), https://www.marylandmatters.org/2021/08/11/bulletin-in-split-vote-board-of-public-works-approves-highway-design-contract/.

[38] Editorial Board, *Opinion | Hogan is Backing Off His Plan to Widen the Beltway. Expect More Traffic.*, Washington Post (May 30, 2021), https://www.washingtonpost.com/opinions/hogan-is-backing-off-his-plan-to-widen-the-beltway-expect-more-traffic/2021/05/28/0ab489a4-bcb4-11eb-83e3-0ca705a96ba4_story.html.

blunting gridlock."[39] In a July 29, 2021, the Editorial Board remarked, "Mr. Hogan, who had already scaled back his ambitious public-private partnership to widen Interstate 270 and the Capital Beltway in the Washington suburbs by adding toll lanes and rebuilding the American Legion Bridge linking Montgomery and Fairfax counties over the Potomac, deployed carrots and sticks to revive his plan."[40]

On November 20, 2021, the Washington Post Editorial Board said:

> If those suburban toll lanes are not built — not just the first phase segments but along the entire length of the Beltway and farther north on I-270 — it's a sure bet that today's terrible traffic will become tomorrow's mind-bending gridlock. . . . Mr. Hogan was already forced to pare back his toll road plan to accommodate local opposition. That was followed by a state report suggesting[41] that the downsized project — covering just segments of the Beltway and I-270 — wouldn't do much for evening rush-hour traffic by 2045. . . . In fact, it should serve as a warning: Without a more farsighted project that would add capacity to Maryland's full length of the Beltway and I-270 to Frederick, everyone will suffer.[42]

The Transurban 2021 Corporate Report lists for North America in the next five years current projects as "Maryland Express Lanes Project Phase 1" and "Capital Beltway Accord."[43] It lists potential opportunities in the next five years as "Express Lanes enhancements and/or extensions" and "Future traditional toll road and Express Lanes acquisition opportunities."[44] For the 5+ years horizon, it lists potential opportunities as "Maryland Express Lanes Project future phases" and "Future traditional toll road and Express Lanes acquisition opportunities."[45]

Moreover, the Agencies violated NEPA by failing to include the upper I-270 portion of the Project in the NEPA process for the I-495 & I-270 Managed Lanes Study, and yet Transurban was given a right of first refusal to build the upper I-270 part of the Project in the August 2021 contract

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[39] Editorial Board, *Opinion | There Are Only Losers in Maryland's Dysfunction Over Highway Expansion*, Washington Post (July 6, 2021), https://www.washingtonpost.com/opinions/2021/07/06/there-are-only-losers-marylands-dysfunction-over-highway-expansion/.

[40] Editorial Board, *Opinion | A Washington-Region Traffic Armageddon Has Been Averted. For Now.*, Washington Post (July 29, 2021), https://www.washingtonpost.com/opinions/2021/07/29/maryland-highway-plan-larry-hogan/.

[41] Katherine Shaver, *Maryland Toll Lanes: Beltway, I-270 Lanes Wouldn't Improve Worst Evening Traffic in Regular Lanes, Study Says*, Washington Post (Oct. 1, 2021), https://www.washingtonpost.com/transportation/2021/10/01/maryland-toll-lanes-traffic/.

[42] Editorial Board, *Opinion | No One Welcomes Tolls on Maryland Highways, But the Alternative Would be Worse*, Washington Post (Nov. 20, 2021), https://www.washingtonpost.com/opinions/2021/11/20/no-one-welcomes-tolls-maryland-highways-alternative-would-be-worse/.

[43] Transurban 2021 Corporate Report, at 1 (Aug. 9, 2021), https://www.transurban.com/content/dam/investor-centre/04/2021-Corporate-Report.pdf.

[44] *Id.*

[45] *Id.*

with MDOT.[46] Now it is equally inappropriate and illegal to temporarily exclude I-495 east of the spur from the SDEIS to give the misleading appearance of reduced environmental impacts. Even if not widened with toll lanes immediately, that widening of the rest of I-495 remains a reasonably foreseeable future event and therefore must be counted as a cumulative effect of the MLS. The impacts of upper I-270 must also be quantified and disclosed to the public as part of the current NEPA process.

All of the public and all agencies should continue to regard the plan in that light. To do any less would be to close one's eyes to all the information coming in about the postponement and to be tricked out of an opportunity to respond to the facts on the ground. This entire SDEIS focused only on Alternative 9 Phase 1 South is essentially a decoy to distract from the overall plan. Segmenting the Project in this fashion appears calculated to de-fuse the opposition long enough to sneak this first phase through to construction and thereby obligate the other segments due to the new and worsened bottlenecks at the toll lane end points.

H. The SDEIS's Executive Summary is Inaccurate

"Each environmental impact statement *shall* contain a summary that *adequately and accurately* summarizes the statement." 40 C.F.R. § 1502.12 (emphasis added). This requirement is essential as members of the public do not have time to read and comment on thousands of pages in 45 days and must be able to rely on the Agencies' summary of that information. However, the SDEIS's executive summary incorrectly lists the environmental impacts of the preferred alternative. *Compare* SDEIS Table ES-1 at ES-13, *with id.* Table 4-1 at 4-3. The SDEIS's executive summary incorrectly states that the impacts to forest canopy from the preferred alternative will be over ten times less than the estimate in the body of the SDEIS: only 48.8 acres in the executive summary versus 500.1 acres in chapter 4. Similarly, the executive summary states that only 44.5 acres of unique and sensitive areas acreage will be impacted when chapter 4 estimates that number to be 168.5 acres. These gross inaccuracies, which downplay important environmental impacts, mislead the public and preclude meaningful review and comment.

At some point less than a week before the original written comment deadline, well after the public hearing, and fewer than three weeks before the extended comment deadline, FHWA or MDOT posted a new version of the English SDEIS that corrected these inaccuracies on the website: https://oplanesmd.com/sdeis/. Many commenters had downloaded the SDEIS already, had already completed their review, and even had already submitted their comments. The only way any of them would have known about these corrections is if they would have gone back to the website https://oplanesmd.com/sdeis/, and saw the text that says, "NOTICE of Revision on 11/10/2021: Table ES-1 Adjusted in Executive Summary." The Agencies provided no notice of these changes, either by email or other method. Further, despite making these changes and uploading a new English SDEIS containing them, the Agencies did not change the SDEIS Executive Summaries in Amharic, Chinese, French, Korean, and Spanish, leaving non-English speakers with inaccurate (and downplayed) environmental impacts to review and comment on.[47]

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[46] The Agencies have begun "pre-NEPA planning activities," but no analysis of environmental effects have been considered or presented to the public.

[47] *See* https://oplanesmd.com/wp-content/uploads/2021/10/SDEIS_00_Executive_Summary_AMHARIC.pdf; https://oplanesmd.com/wp-content/uploads/2021/10/SDEIS_00_Executive_Summary_CHINESE.pdf;

This omission violated Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d, and Executive Order 13166, "Improving Access to Services with Persons with Limited English Proficiency," 65 Fed. Reg. 50,121 (Aug. 16, 2000), which require that project sponsors be certain that Limited English Proficiency populations have meaningful access to review and comment on agency plans.

Moreover, the SDEIS posted on the U.S. Environmental Protection Agency's ("EPA's") website also remained inaccurate.[48] The new SDEIS, despite including these changes, still stated that it was signed and approved September 23, 2021, which is impossible since it was revised on November 10, 2021.

At a minimum the Agencies should withdraw the SDEIS and reissue one with an accurate executive summary for all of the public, including non-English speakers, to review and comment.

II. The SDEIS Relies on Flawed Traffic Modeling that Overstates the Preferred Alternative's Benefits and Understates and, in Some Cases, Entirely Overlooks Multiple Adverse Effects[49]

A. Summary

The SDEIS tells a simplistic traffic story. It claims that if the preferred alternative is not constructed, corridor traffic volumes will grow significantly, and delays will grow exponentially.

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https://oplanesmd.com/wp-content/uploads/2021/10/SDEIS_00_Executive_Summary_FRENCH.pdf; https://oplanesmd.com/wp-content/uploads/2021/10/SDEIS_00_Executive_Summary_KOREAN.pdf; https://oplanesmd.com/wp-content/uploads/2021/10/SDEIS_00_Executive_Summary_SPANISH.pdf. Some time on or after November 17, 2021, fewer than 13 days from the public comment deadline, MDOT and/or FHWA silently posted new Amharic, Chinese, French, Korean, and Spanish Executive Summaries that corrected the inaccuracies. Members of the public who relied on those translated versions and somehow became aware of the corrections therefore had a very limited time in which to comment. Again, no notice was provided of this change, so most people reviewing and commenting were unaware and commented on the original erroneous SDEIS. *Compare* https://web.archive.org/web/20211117153534/https://oplanesmd.com/sdeis (capture of SDEIS website from 3:35 PM on November 17 with links to old and incorrect Executive Summaries), *with* https://oplanesmd.com/sdeis/ (current SDEIS website with links to new Executive Summaries that include "FINAL_UPDATED-11_16_2021" in file name titles). It is disappointing that the Agencies would make changes to the SDEIS Executive Summaries so late in the public comment period and not even alert the public to these changes. It is also disappointing that the Agencies would provide an accurate SDEIS Executive Summary to the public with less than the minimum 45-day public comment period required under NEPA. *See* 40 C.F.R. §§ 1502.9(c)(4), 1506.10(c); 23 C.F.R. §§ 771.123(k), 771.130(d). And it is further disappointing that the Agencies would knowingly provide English readers and non-English readers with different amounts of time to review and comment on the correct SDEIS Executive Summaries, fewer than 13 days for non-English readers. FHWA should immediately stop the process from moving forward until this discrimination is investigated and fully remedied.

[48] U.S. EPA, Environmental Impact Statement (EIS) Database (Nov. 16, 2021), https://cdxapps.epa.gov/cdx-enepa-II/public/action/eis/details?eisId=345361.

[49] This section is based on the review of Norman Marshall, President, Smart Mobility, Inc. Mr. Marshall received a B.S. in Mathematics from Worcester Polytechnic Institute (1977) and an M.S. in Engineering Sciences from Dartmouth College (1982). Mr. Marshall's studies at Dartmouth College included graduate courses in transportation modeling. Mr. Marshall has 33 years of professional experience in transportation modeling and transportation planning including 14 years at RSG Inc. (1987-2001) and nearly 20 years at Smart Mobility Inc. (2001-now). Mr. Marshall's primary professional focus is regional travel demand modeling and related transportation planning. Mr. Marshall is a nationally known expert in this field and has completed projects in over 30 states including work for the U.S. government, state Departments of Transportation, Metropolitan Planning Organizations, cities, and non-profit

It claims that the preferred alternative will reduce congestion on the general-purpose lanes relative to traffic conditions today. It claims that the preferred alternative will alleviate congestion on other roads.

This simple story is wrong. The same promises were made in the Virginia I-495 Express Lanes FEIS, and the results were completely different. During the peak traffic periods, the Express Toll lanes created what is the worst bottleneck on I-495 today, at the northern terminus of the lanes. The FEIS either did not disclose this impact or it was not anticipated. As a result, the Virginia Department of Transportation ("VDOT") had to quickly open a shoulder lane to partially mitigate this bottleneck.

(Pre-COVID-19) travel times in the Virginia I-495 general-purpose lanes are higher today than they were before the Express Lanes opened and much higher than forecasted in the FEIS. The FEIS got this wrong. Otherwise in the peak periods, the effects of the Express Lanes are complex, causing both increases in traffic on some roads and decreases on others. The FEIS wrongly claimed only benefits to other roads.

Part of why things didn't turn out as anticipated is reliance on flawed modeling. Flaws in the Metropolitan Washington Council of Governments ("MWCOG") model include that it: (1) does not constrain traffic flow to capacity; (2) does not properly feed congested travel times back to non-work trip destinations; (3) assumes no increased traffic from road expansion; (4) fails to accurately forecast bottlenecks; (5) cannot calculate net congestion tradeoffs; and (6) cannot accurately model peak period conditions. It then takes these flawed "demand" estimates and inputs them into a capacity constrained VISSIM model that is overwhelmed and produces erroneous output. This "garbage" output from the VISSIM model is the basis for most of the SDEIS traffic metrics and is invalid.

The claims made in the Maryland SDEIS are the same as those made in the Virginia FEIS. The underlying modeling approach is the same.

Based on empirical data from Virginia and Maryland, understanding of model flaws, and data analysis, the reasonably foreseeable impacts of constructing managed lanes on I-495 and I-270 follow.

1) Expanding I-495 and I-270 will shift traffic from the shoulder hours into the peak hours and create and/or exacerbate bottlenecks. The flawed models employed in the SDEIS analyses are incapable of forecasting this type of problem. As bottlenecks are most likely at the terminus of the managed lanes, phasing is critically important as well as the final extent of the Project.

2) An improvement in general-purpose lane speed is unlikely because constructing the managed lanes will shift traffic from the shoulder hours into the peak hours, and the

organizations. One of his particularly notable projects is a $250,000 project with the California Air Resources Board where he led a team including the University of California in reviewing the state's regional travel demand models. Mr. Marshall has many peer-reviewed publications and conference presentations, including presentations at national Transportation Research Board conferences in 2017, 2018, and 2019. Mr. Marshall is an Associate Member of the Transportation Research Board. Mr. Marshall's resume is attached to these comments.

general-purpose lanes will be just as congested during the peak hours as they would have been otherwise. The foundational premise of this Project is that extreme congestion in the general-purpose lanes is needed to justify the high tolls that will be required to fund the preferred alternative.

3) Constructing the I-495 and I-270 managed lanes is likely to make arterial congestion worse. No trip begins or ends on a limited access highway, and traffic does not magically switch between limited access highways and arterials as is presented in the SDEIS. Any shifts between these roadway classes causes traffic increases on some arterials and traffic decreases on others. As managed lanes concentrate traffic in the peak hour, arterial roads at I-495 and I-270 interchanges will be severely impacted, and these impacts are likely to outweigh the congestion benefits of traffic diversion from other arterials. The SDEIS models are incapable of calculating these tradeoffs.

4) If the managed lanes are constructed, it is likely that there will be significant traffic growth (induced travel) and induced land use impacts.

5) Managed lane proponents stress "choice." In fact, the choice is between two bad options: extreme congestion vs. extremely high tolls. Only about 1/6 of the daily traffic is carried by the Virginia I-495 Express Lanes despite the Express Lanes having 1/3 of the roadway capacity. This is an inefficient use of infrastructure. The other 5/6 of traffic is carried by the general-purpose lanes. The estimates in the SDEIS are consistent with those ratios. The toll lanes are "chosen" primarily by high-income travelers and/or travelers who are having the tolls reimbursed. This elite group will remain small because increases in demand by other users will prompt the tolls to increase further, becoming even less affordable.

6) The managed lanes would benefit only the few who are able to outbid the majority of travelers. There would be no benefits for non-users of the toll lanes. Non-users of the toll lanes (most travelers) would face continued high congestion in the general-purpose lanes and increased congestion on arterial roadways accessing I-495 and I-270 interchanges. Nevertheless, a portion of their taxes likely would go toward subsidizing the private toll lanes as has occurred in Virginia.

7) The MDTA toll setting exercise was theater to mollify a skeptical public. The rates are set so high that the private operator will be able to maximize revenue through algorithms that cynically have been labeled "jam and harvest." These algorithms intentionally increase congestion in the general-purpose lanes prior to traffic peaking and then to charge higher tolls. It's the public that gets "jammed" as their money gets "harvested."

In conclusion, the flawed traffic models used in the SDEIS overestimate future congestion to justify the preferred alternative. The SDEIS then fails to acknowledge that the preferred alternative depends on peak period general-purpose lane congestion while also causing additional connecting arterial congestion and large bottlenecks where the toll lanes end. The proposed managed lanes in Maryland would make congestion worse for the majority of peak period drivers and push drivers to choose between extreme congestion and extremely high tolls to make the lanes profitable. The promised benefits for non-users of the toll lanes will not materialize, and taxpayers will likely have to subsidize the preferred alternative.

B. Flaws in the MWCOG and VISSIM Models Used in the I-495 and I-270 SDEIS

The SDEIS justifies the preferred alternative by comparing computer model outputs between the Alternative 9G Phase 1 alternative and the no build alternative. These SDEIS outputs are an example of the well-known expression "garbage in, garbage out."

The SDEIS employs a sequence of two computer models: 1) the MWCOG regional travel demand model, and 2) a VISSIM microsimulation model. As documented in Section II.B.2, the MWCOG model fails to constrain traffic flow to capacity and produces impossibly high traffic forecasts which the SDEIS calls "demand." Then these impossibly high traffic forecasts are input to a capacity constrained VISSIM model ("garbage in"). The VISSIM model is overwhelmed by the high inputs and produces meaningless ("garbage out") throughput numbers.

As documented in Appendix B, "demand" as presented in the SDEIS is an artificial model output represents nothing in the real world. Both the ridiculously high demand numbers and the ridiculously low throughput numbers in the SDEIS are not valid performance metrics; they are conclusive evidence of serious modeling errors.

The other traffic metrics presented in the SDEIS are similarly invalid. SDEIS model speed, delay and travel time are interrelated outputs of the VISSIM model. All the VISSIM metrics – including speed, delay and level of service – are interrelated with the throughput metrics. All the metrics are wrong. The only other traffic metrics used in the SDEIS, "effect on the local network." are from the MWCOG and do not properly represent capacity constraints. All the SDEIS traffic metrics are invalid

1. The Throughput Model Outputs Used to Justify the Preferred Alternative are Obviously Wrong

The most congested I-495 segment today is northbound in the inner loop in the afternoon peak hour, where the managed lanes end (documented in Appendix C). If the managed lanes are extended into Maryland, the most critical section similarly will be northbound in the afternoon peak hour upstream of end of the managed lanes. Severe bottlenecks will be created by the proposed preferred alternative where managed lane traffic will have to merge with the general-purpose lane traffic. The SDEIS acknowledges the presence of these bottlenecks, stating: "Congestion would be present during the PM peak period on the I-270 northbound and the I-495 inner loop in the design year of 2045 due to downstream bottlenecks outside of the Preferred Alternative limits . . ." SDEIS at 2-6.

The SDEIS fails to acknowledge that that preferred alternative would greatly worsen these bottlenecks but illustrates the bottleneck in the throughput metric. The SDEIS states: "Throughput represents the number of vehicles that pass by a given point in the roadway network in a set amount of time. SDEIS at 3-13. The throughput numbers presented in the SDEIS indicate that throughput in this section in the afternoon peak period in 2045 would be much lower than today whether the preferred alternative is constructed or not.

Figures 1 and 2 show throughput numbers for 5-6 p.m. and 6-7 p.m., respectively. The 2017 existing volumes are from the DEIS Appendix C and the 2045 no build and Alternative 9G numbers are from SDEIS Appendix A.

Figure 1: Northbound Inner Loop Throughput 5-6 p.m. – 2017 from DEIS, 2045 from SDEIS

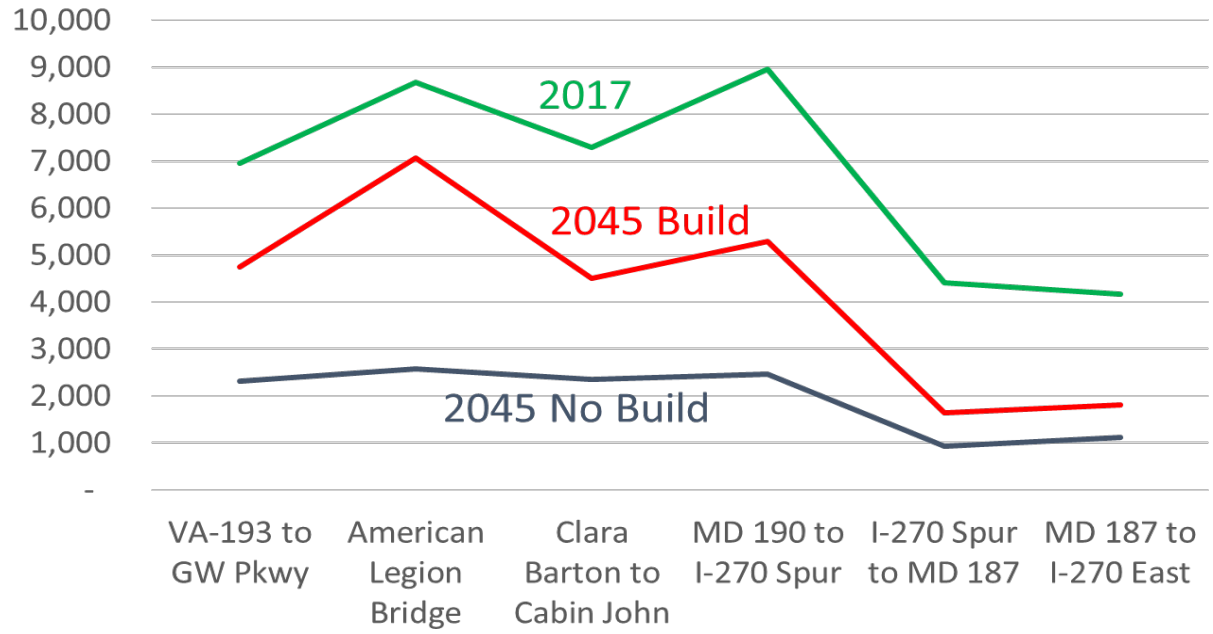
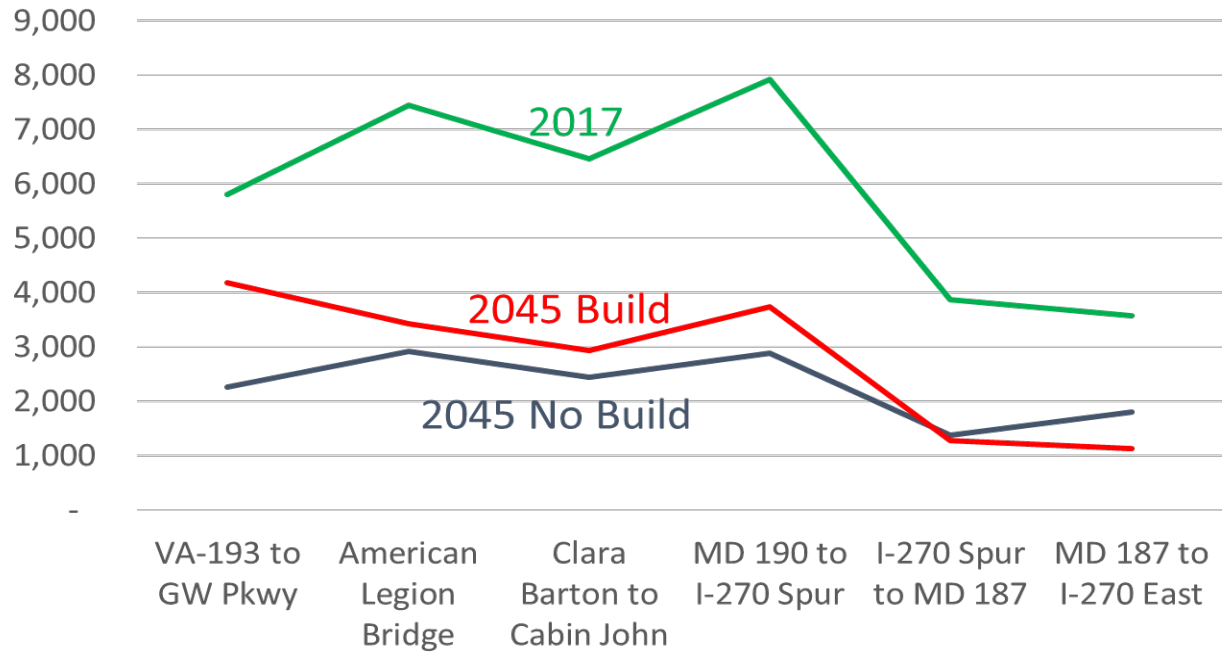


Figure 2: Northbound Inner Loop Throughput 6-7 p.m. – 2017 from DEIS, 2045 from SDEIS



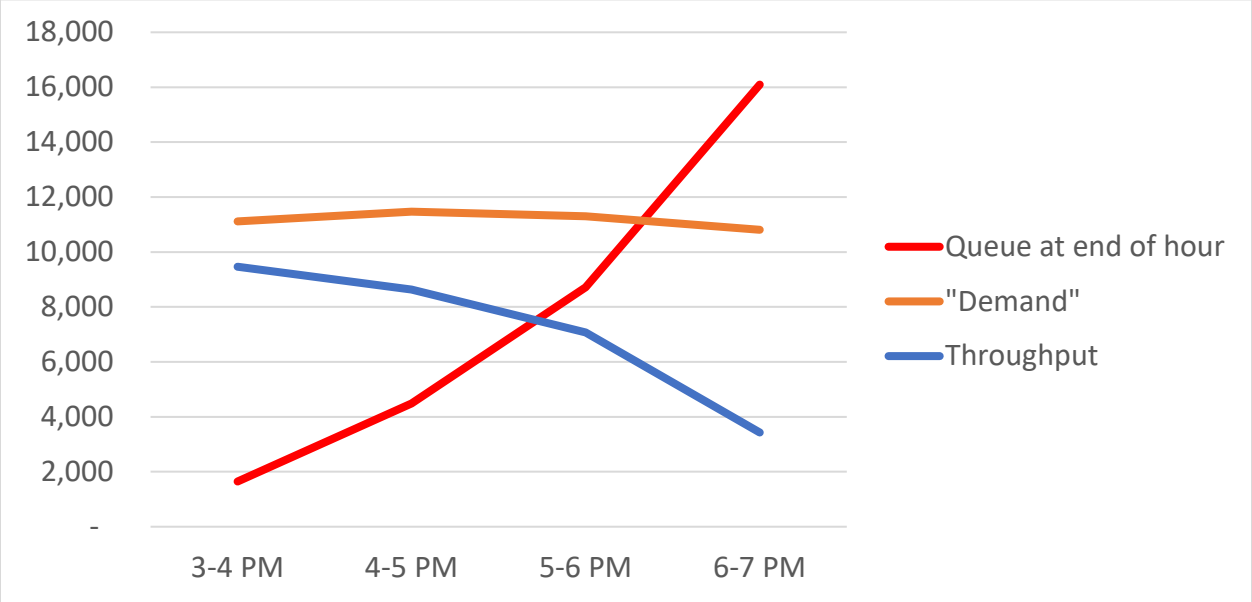
There is no real-world rationale for future throughput being significantly lower than today. Without widening, throughput will be very similar to today because the road is already congested. With widening, throughput also will be very similar to today because traffic flow will be metered by the downstream bottlenecks. The SDEIS compares two sets of wrong 2045 throughput numbers and presents the difference between them as a performance metric. This is invalid.

In the DEIS, the Inner Loop afternoon peak hour volume (5-6 p.m.) on the American Legion Bridge is reported to be 8,760 vehicles per hour. This segment has 5 travel lanes today, so the average volume is 1752 vehicles per lane per hour. In the SDEIS future Build model, 2 managed lanes are added so there would be a total of 7 lanes. The SDEIS reports the throughput as only 3,430 vehicles in the 6-7 p.m. hour, i.e., less than 500 vehicles per lane per hour – less than the traffic volumes on city streets interrupted by traffic signals. This is obviously wrong.

Although the throughput numbers are wrong, they are illustrative of a fatal flaw in the preferred alternative design. For the express toll lanes to operate effectively, the traffic in them must be able to merge back into the general-purpose lanes at the northern terminus. The very low throughput volumes shown in Figures 1 and 2 show that the VISSIM model is suggesting that this is impossible, and furthermore, that the merge point will cause traffic to spill back for miles in both the general-purpose lanes and the managed lanes.

The VISSIM model is overwhelmed by the "garbage in" "demand" and translates it into unrealistically- low throughput. The SDEIS calls the difference between "demand" and "throughput" "demand unserved." During the afternoon peak period (3 -7 p.m.) in the inner loop there is unserved demand in each of the four hours, and the VISSIM model queue becomes longer and longer through 7 p.m. This queue of cumulative unserved demand is not reported in the SDEIS but is easily calculated from the demand and throughput numbers. Figure 3 shows demand, throughput, and cumulative unserved demand.

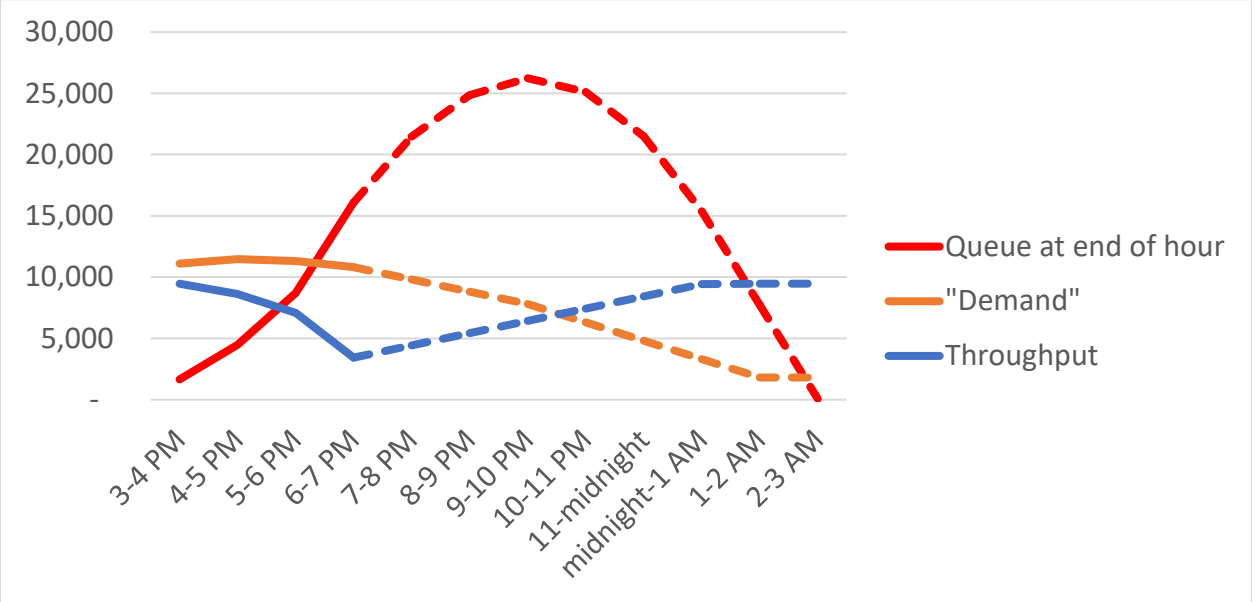
Figure 3: Preferred Alternative 2045 Inner Loop American Legion Bridge Demand, Throughput and Cumulative Unserved Demand (Queue) in the Afternoon Peak Period



Assuming that there is no traffic backed up at the beginning of the simulation (3 p.m.), the traffic backup (queue) grows exponentially over the 4 hours of the afternoon simulation to over 16,000 vehicles at 7 p.m. Clearing this accumulated queue in VISSIM would require many hours of additional simulation

Figure 4 illustrates what the VISSIM model might show if the simulation were extended far enough to eliminate the queue. As long as "demand" exceeds throughput the queue increases. In this illustration, the maximum queue is not reached until 10 p.m. Only after 10 p.m. does throughput exceed "demand" allowing the queue length to shorten and finally be eliminated after 3 a.m.

Figure 4: Preferred Alternative 2045 Inner Loop American Legion Bridge Demand, Throughput and Cumulative Unserved Demand (Queue) in the Afternoon Peak Period Illustrative Extension of VISSIM Simulation



This illustration is not realistic or the real world but is representative of what the VISSIM model would do if the simulation were extended overnight. Therefore, ending the simulation at 7 p.m. is arbitrary and greatly underreports the congestion problems in the VISSIM model.

For example, the SDEIS reports that the speed in the inner loop from G.W. Parkway to the I-270 West Spur in the afternoon peak period for the preferred alternative is 7 mph in the general-purpose lanes and 23 mph in the managed lanes. SDEIS Table 3-5 at 3-9. This really means is that the speed in the general-purpose lanes is much higher than 7 mph at the beginning of the simulation and much lower than 7 mph at the end of the simulation period (7 p.m.), and similarly that the speed in the managed lanes is much higher than 23 mph and much lower than 23 mph. at the end of the simulation period (7 p.m.). However, if the simulation were extended later, e.g., until midnight, the average VISSIM speeds reported midnight would be even lower than those reported in the SDEIS. 7 p.m. is an appropriate time to end the simulation relative to the real world, but it is not an appropriate time to end the deeply flawed VISSIM simulation.

The VISSIM model outputs are wrong. However, if MDOT insists that the model outputs are valid, the proposed preferred alternative fails to meet the purpose and need. The 23-mph managed lane speed in the most critical road segment is too low to meet the purpose of the Project.

Furthermore, if the simulation period were properly extended until the queue cleared, the calculated managed lane speed would be even lower than 23 mph.

2. MWCOG Model "Demand" Does Not Constrain Traffic Flow to Capacity

This section documents capacity constraint problems in the DEIS modeling because SDEIS modeling files were not made available. However, the same problems certainly are present in the SDEIS modeling.

The MWCOG model includes an hourly capacity value for each roadway segment. Modeling best practice is to use "ultimate capacity", i.e., the "maximum volume that should be assigned to a link by the forecasting model."[50] The MWCOG model sets freeway capacity at 2000 vehicles per lane per hour in lower-density areas and 1900 per-lane per hour in higher-density areas. As shown in Figure 5 reproduced from the DEIS, the maximum traffic volumes mostly max out around 8000 for the four-lane sections (not including segments with more lanes including the American Legion Bridge, the split south of the I-270 spur, the I-95 interchange area, and the approach to the Woodrow Wilson Bridge).

The MWCOG model capacity is, as is stated in the modeling reference the "maximum volume that should be assigned to a link by the forecasting model." Assigned volumes that exceed capacity are errors and assigned volumes that greatly exceed capacity are serious model errors. Alan Horowitz, one of the most respected experts in travel demand modeling wrote:

> *I am quite familiar with alternatives that assign traffic well beyond a volume-to-capacity ratios (v/c) of 1, and I cannot fathom why anybody would take any of this seriously, either as a realistic representation of the future or as a strawman case study . . .*
>
> *. . . do not publish any alternative/scenarios with facilities loaded beyond a v/c ratio of 1.1.*[51] *(Horowitz 2019)*

In the DEIS, many segments of I-495, I-270 and other roads are loaded with v/c greater than 1.1 (Figure 6). Horowitz admonishes that the DEIS modeling should not be published with v/c > 1.1. Therefore, these model results should not be used for planning purposes. The DEIS not only does publish these modeling results and uses them for planning, but even goes so far as to represent these over-capacity assignments as a performance measure. This claim is false and is rebutted in the Appendix B of this report section (Section II.F).

The MWCOG model relies on 40-year-old Static Assignment Algorithm (STA) that was adopted 40 years ago when computers were less powerful that today's smart phones. STA treats every road segment as independent of other road segments. In peak periods, traffic on I-495 and

[50] Cambridge Systematics, Vanasse Hangen Brustlin, Gallop, Bhat, C.R., Shapiro Transportation Consulting and Martin/Alexious/Bryson, *Travel Demand Forecasting: Parameters and Techniques*, National Cooperative Highway Research Program Report 716, 2012.

[51] Horowitz, Alan. Posting on the Travel Model Improvement Program (TMIP) listserv, March 2019.

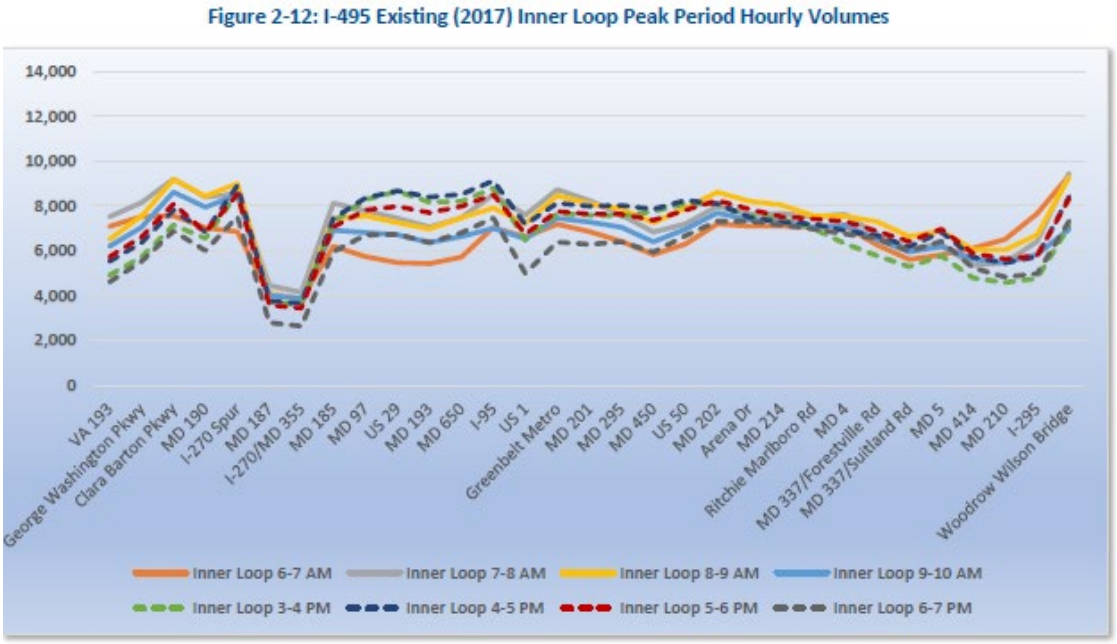
I-270 is characterized by queues behind bottlenecks. In STA there are no queues behind bottlenecks, and the MWCOG models cannot capture backups at the merges on I-270/I-495 or accurately model conditions during the peak of rush hour traffic

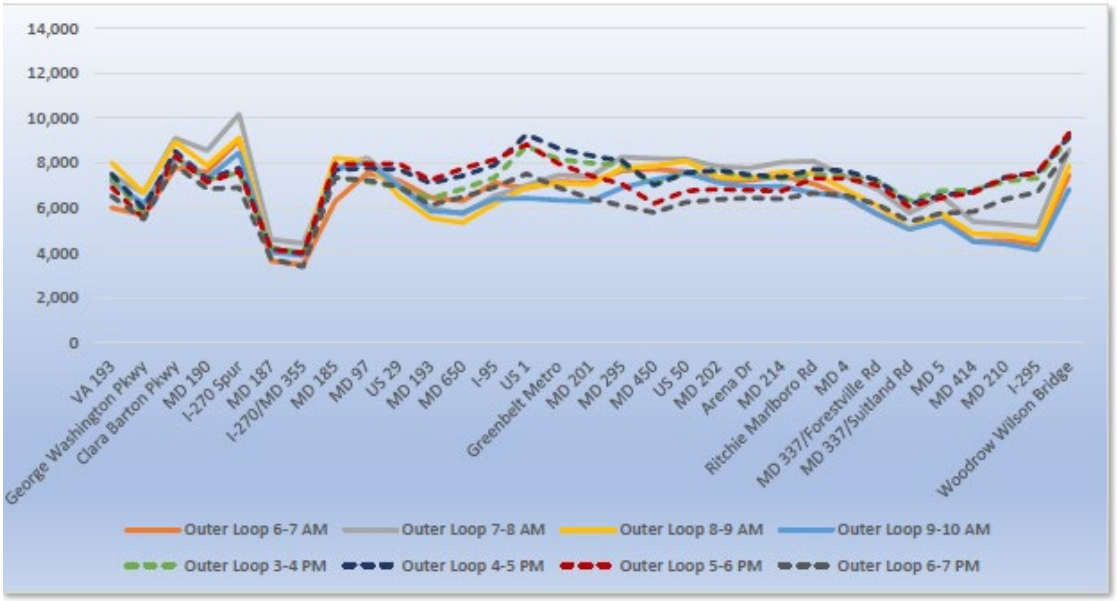
In my peer-reviewed journal article: *Forecasting the Impossible: The status quo of estimating traffic flows with static traffic assignment and the future of dynamic traffic assignment*,[52] I document that STA always produces impossibly high freeway traffic volumes in congested networks and cannot be relied on for planning. The only solution is to replace STA with a more modern Dynamic Traffic Assignment (DTA) algorithm. MWCOG has a long-term plan to replace STA with DTA. Alan Horowitz also wrote: "*Choose DTA over STA whenever possible."*[53]

[52] Marshall, Norman. Forecasting the impossible: The status quo of estimating traffic flows with static traffic assignment and the future of dynamic traffic assignment, *Research in Transportation Business & Management*, Volume 29, 2018, 85-92. https://www.sciencedirect.com/science/article/pii/S2210539517301232?via%3Dihub

[53] Horowitz, Alan. Posting on the Travel Model Improvement Program (TMIP) listserv, March 2019.

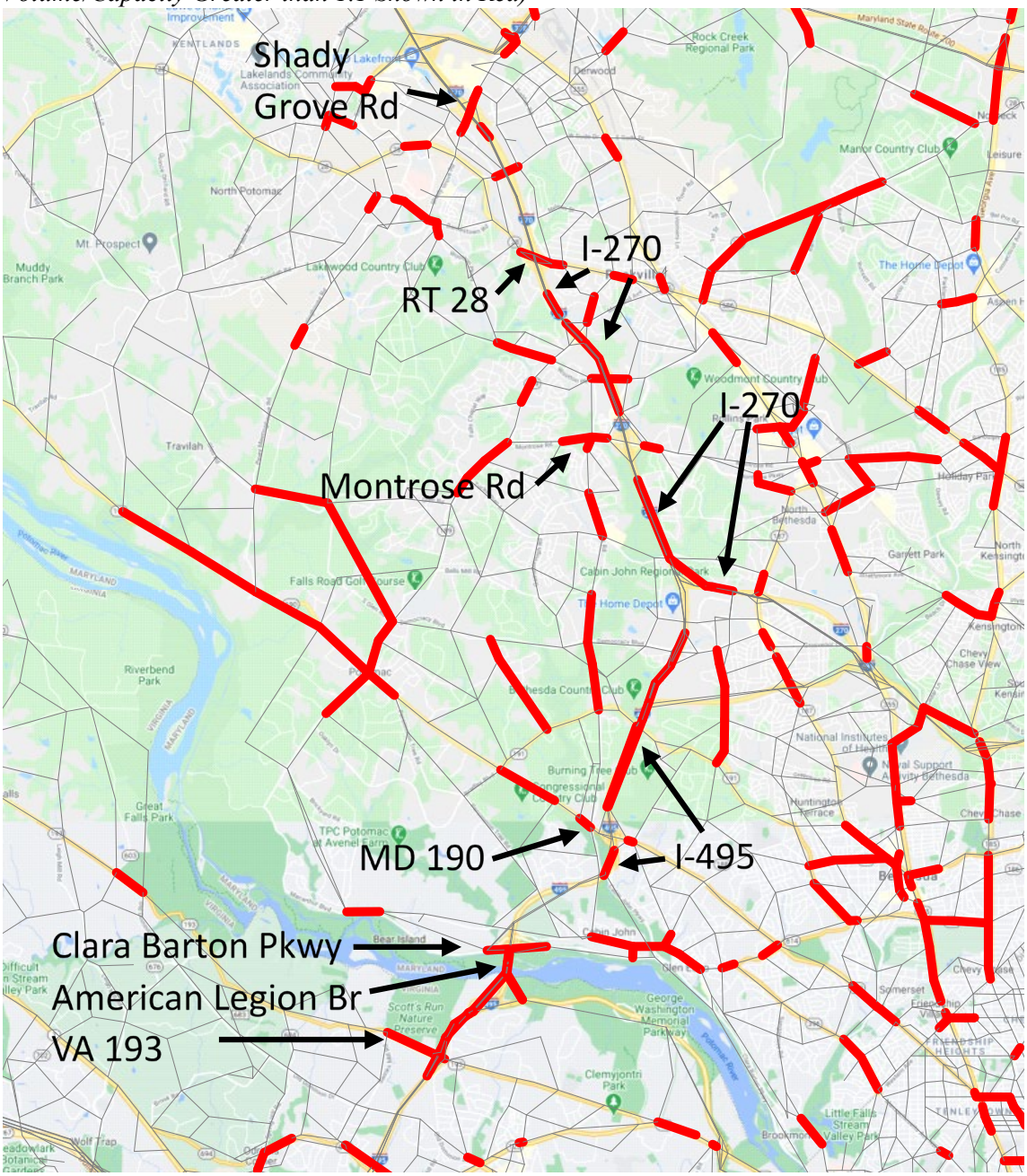
Figure 5: 2017 I-495 Inner and Outer Loop Peak Period Hourly Volumes





Source: DEIS, 2020.

Figure 6: Impossible Traffic Forecasts in MWCOG 2040 No Build Afternoon Peak Period (Segments with Volume/Capacity Greater than 1.1 Shown in Red)[54]



Source: I mapped from MWCOG model link in DEIS.

All the model traffic forecasts for roadway segments shown in red have volume-to-capacity ratios greater than 1.1. As Horowitz advises, these results should not be published – or used in planning. The AM peak period map is similar.

[54] Loaded network file downloaded from ftp://dtpcog:cog.dtp@ftp.mwcog.org/MD_SHA_TRP_Study_2040_Alt1_Model_Files.zip referenced in DEIS Appendix C, at 841.

3. MWCOG Model Does Not Properly Feed Congested Travel Times Back to Non-Work Trip Destinations

All good travel demand models employ a feedback process so that the destinations chosen are sensitive to congested travel time. The MWCOG model feeds back congested travel time from the morning peak period, but only for work trips. The destination choices for the other trip types are based on off-peak travel times. This is inadequate. As I commented about the MWCOG model in 2002:

> The TPB DCV2 model does include distribution feedback. However, the feedback mechanism is only applied to home-based work trips. Specifically, AM congested times are used to distribute HBW trips while off-peak uncongested times are used to distribute HBS, HBO, and NHB trips.[55] The underlying assumption by TPB staff is that congestion does not influence non-work trip making…
>
> In a publication by the Travel Model Improvement Program (TMIP) – a program sponsored by the EPA and U.S. DOT – entitled *Incorporating Feedback in Travel Forecasting: Methods, Pitfalls, and Common Concerns* dated March 1996, the authors provide technical guidance on incorporating feedback in the traditional four-step model. Some of the findings published in the report … [include] … Feedback should be implemented for the work-related trips at a minimum, and the other purposes should be examined for their percentage of peak travel.[56]

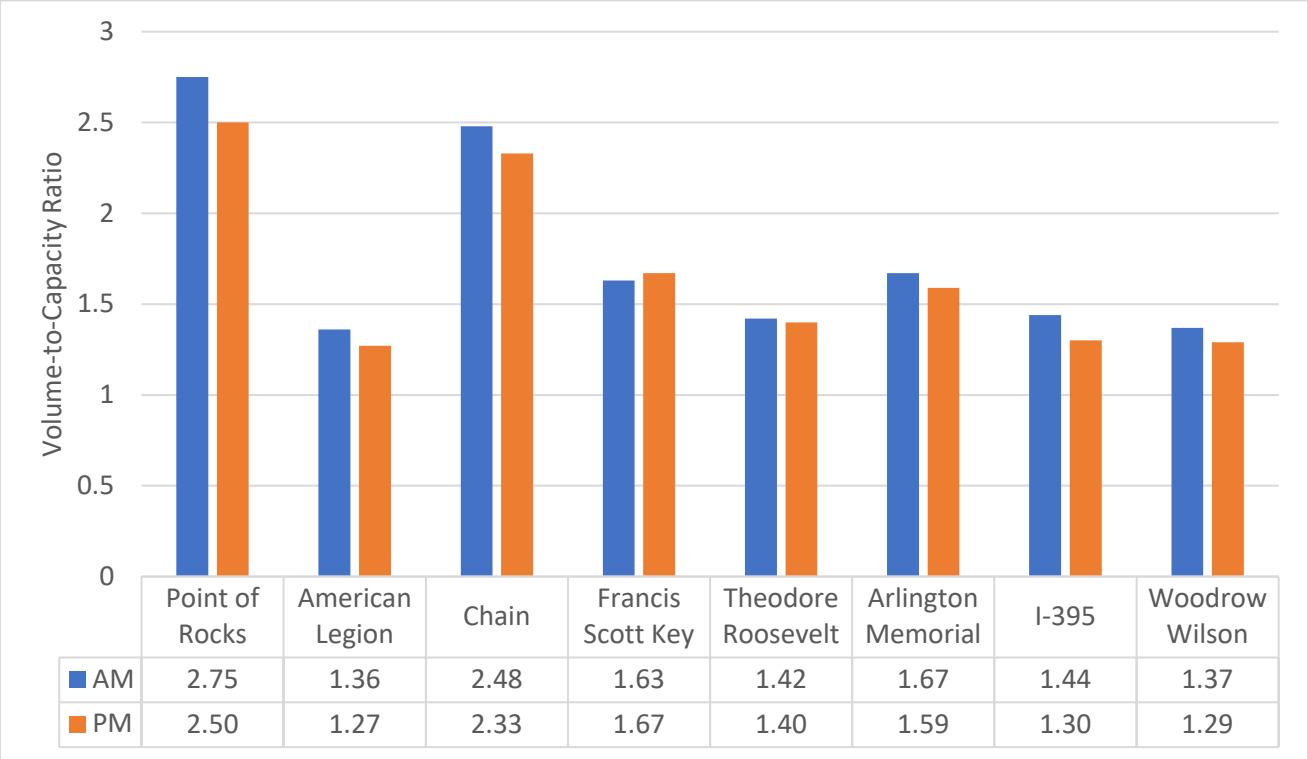
In my 2002 review, I found that in the forecast year, modeled congestion on the Potomac River crossings was severe. The MWCOG model assumed that non-work travelers, including those making shopping trips, would cross the river regardless of congestion, because peak period congestion did not affect their destination choices in the model. Perversely, these non-work travelers crowded out work trips from the Potomac River bridges in the model during peak times. It appears that these problems remain in the MWCOG model today and are especially relevant to modeling the American Legion Bridge. The MWCOG model over-assigns non-work trips to all the bridges during peak periods because the model is not representing travel times for these trips properly.

In the DEIS 2040 no build model, MWCOG morning and afternoon peak period traffic volumes for all Potomac River bridge crossings are ridiculously high (Figure 7). All greatly exceed the 1.1 volume-to-capacity ratio threshold, and range as high as 2.75, i.e., the bridge traffic volume is 275% of the highest possible volume.

[55] HBS - Home-based Shop; HBO - Home-Based Other, NHB - Non Home-Based.

[56] Letter concerning "Effects of Proposed Potomac River Crossings on Land Use and Traffic and Identification of Serious Deficiencies in TPB Version 2 Transportation Model." November 4, 2002. http://www1.mwcog.org/uploads/committee-documents/pF1eWV020040726152612.pdf.

Figure 7: Wildly Impossible Potomac Bridge Traffic Forecasts in MWCOG 2040 No Build Morning and Afternoon Peak Periods



	Point of Rocks	American Legion	Chain	Francis Scott Key	Theodore Roosevelt	Arlington Memorial	I-395	Woodrow Wilson
AM	2.75	1.36	2.48	1.63	1.42	1.67	1.44	1.37
PM	2.50	1.27	2.33	1.67	1.40	1.59	1.30	1.29

Source: I extracted data from MWCOG model link in DEIS.

4. MWCOG Model Assumes No Increased Traffic from Road Expansion

In general, freeway expansion causes induced travel. A review of the induced travel research by Handy and Boarnet (2014) concluded that induced travel is real, and that the magnitude is enough to prevent capacity expansion from reducing congestion:

> *Thus, the best estimate for the long-run effect of highway capacity on VMT [vehicle miles traveled] is an elasticity close to 1.0, implying that in congested metropolitan areas, adding new capacity to the existing system of limited-access highways is unlikely to reduce congestion or associated GHG [greenhouse gas] in the long-run.*[57]

The DEIS rejected Alternative 6 adding only general-purpose lanes because of the induced travel impacts:

> *The results of the Alternative 6 modeling indicated that latent demand, meaning trips from other routes, times and modes, would be expected to fill the GP lanes by 2040, resulting in worse traffic operations than all of the Screened Alternatives in several metrics, including network-wide delay and average travel time.*

[57] Handy, Susan and Marlon G. Boarnet. Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions: Policy Brief prepared for California Air Resources Board, September 30, 2014.

DEIS at 2-12.[58] Induced travel represents the difference between Build Vehicle Miles Traveled (VMT) and no build VMT. The SDEIS models cannot accurately account for induced travel because the MWCOG model overestimates traffic growth in the no build alternative.

In the long-term induced land use is an important cause of induced travel. Widening I-270 in the late 1980s is a classic case study.

> *In the five years before construction began, officials endorsed 1,745 new homes in the area stretching from Rockville to Clarksburg. During the next five years, 13,642 won approval.*[59]

By 1997, I-270 was routinely overrunning its designed capacity, and peak-hour traffic volumes on some segments had surpassed levels forecasted for 2010.

A primary cause of the inaccurate traffic forecasts was inaccurate land use forecasts which were assumed to be the same for both no build and build analyses. The total number of households forecast for the Washington region for the year 2000 was only off by 2 percent. However, the forecasts were completely wrong about the distribution of the households. [60] Growth was much lower in the region's core than forecast, and much higher in western suburban areas, especially in the I-270 corridor.

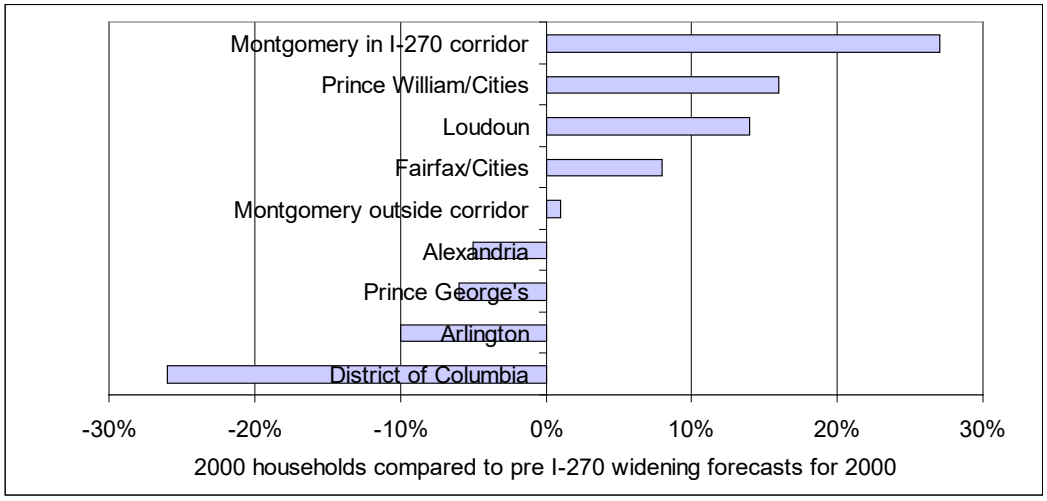
Figure 8 compares the 2000 forecast made before the I-270 widening with actual 2000 numbers. The largest forecasting error was for Montgomery County in the I-270 corridor, where the actual number of households in 2000 exceeded the forecast by 27 percent. Widening I-270 was a primary cause.

[58] See Appendix B of this report for a discussion of latent demand, induced travel and generated traffic.

[59] Sipress, Alan, *Md.'s Lesson: Widen the Roads, Drivers Will Come*, Washington Post, January 4, 1999. https://www.washingtonpost.com/wp-srv/digest/traffic4.htm.

[60] Data from National Capital Region Transportation Planning Board, MWCOG, "Comparison of 1984 Study Forecasts with Most Recent Data: I-270 Corridor, June 18, 2001.

Figure 8: Washington DC Region: Suburban Freeway Projects Shifted Households to Suburbs from Core[61]



Source: Data from National Capital Region Transportation Planning Board and MWCOG.

When the I-270 widening project was planned, forecast housing and employment growth in the corridor was moderate, and growth in the region's core was expected to be much stronger.[62] The forecasts were completely wrong about the distribution of the households. Growth was much lower in the region's core than forecast, and much higher in western suburban areas, especially in the I-270 corridor.

The other areas where growth exceeded the forecast are suburban Virginia areas where freeway capacity also was expanded. Projects in these areas include construction of the Dulles Greenway, the Route 234 Bypass and widening I-66.

The suburban increases were balanced by declines and slower growth in the core of the region, including D.C., Arlington, Prince George's County, and Alexandria.

The I-495 and I-270 DEIS states on page 144, "As the land use assumptions do not vary between Alternative 1/No Build and the Build Screened Alternatives, all the trip generators are equal among scenarios: there will not be new housing developments or new places of employment." Such assumptions are clearly debatable. Widening I-270 and I-495 likely will cause induced land use and induced travel. Induced travel causes increased energy use and air pollution, including greenhouse gas emissions.

The DEIS also asserts:

[61] National Capital Region Transportation Planning Board and MWCOG, *Induced Travel: Definition, Forecasting Process, and a Case Study in the Metropolitan Washington Region*, September 19, 2001.

[62] Data from National Capital Region Transportation Planning Board, MWCOG, "Comparison of 1984 Study Forecasts with Most Recent Data: I-270 Corridor, June 18, 2001.

> Induced demand represents new trips. While the project may generate some new trips, MWCOG modeling shows that the amount of induced demand caused directly by the project would be less than 1% of the total VMT in the region.

DEIS App'x C, at 144. Despite this assertion, due to its deficiencies, the MWCOG model cannot accurately account for induced travel. *See* Appendix B below, Section II.F.

5. MWCOG Model Fails to Accurately Forecast Bottlenecks

Figures 9 and 10 show the traffic increases in peak hour traffic on Virginia I-495 following the opening of the Express Lanes ("EL") and General-Purpose Lanes ("GPL"). The increases are calculated as the average of post-construction 2013-2019 to pre-construction 2005-2007. Appendix C provides details of how these numbers were estimated.

Figure 9: Change in Outer Loop GPL Peak Hour Traffic in Virginia After Express Lanes Opening (change per segment comparing 2013-2019 to 2005-2007 traffic volumes)

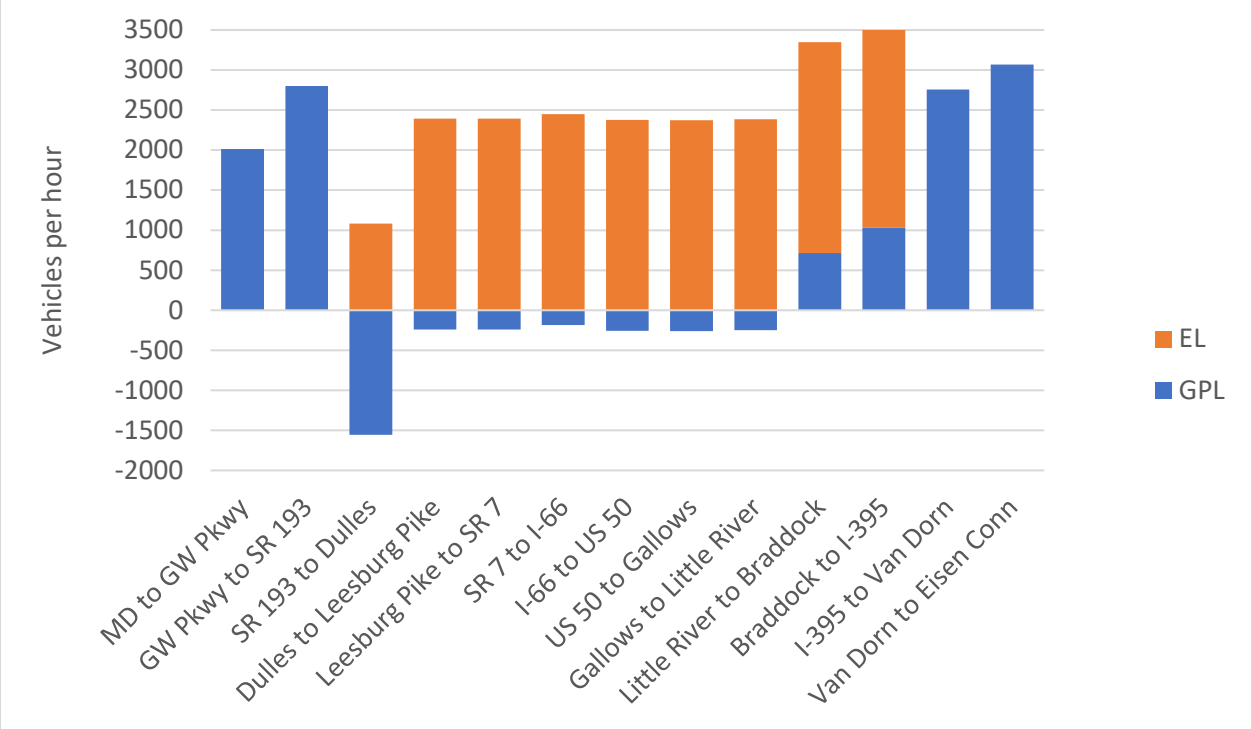
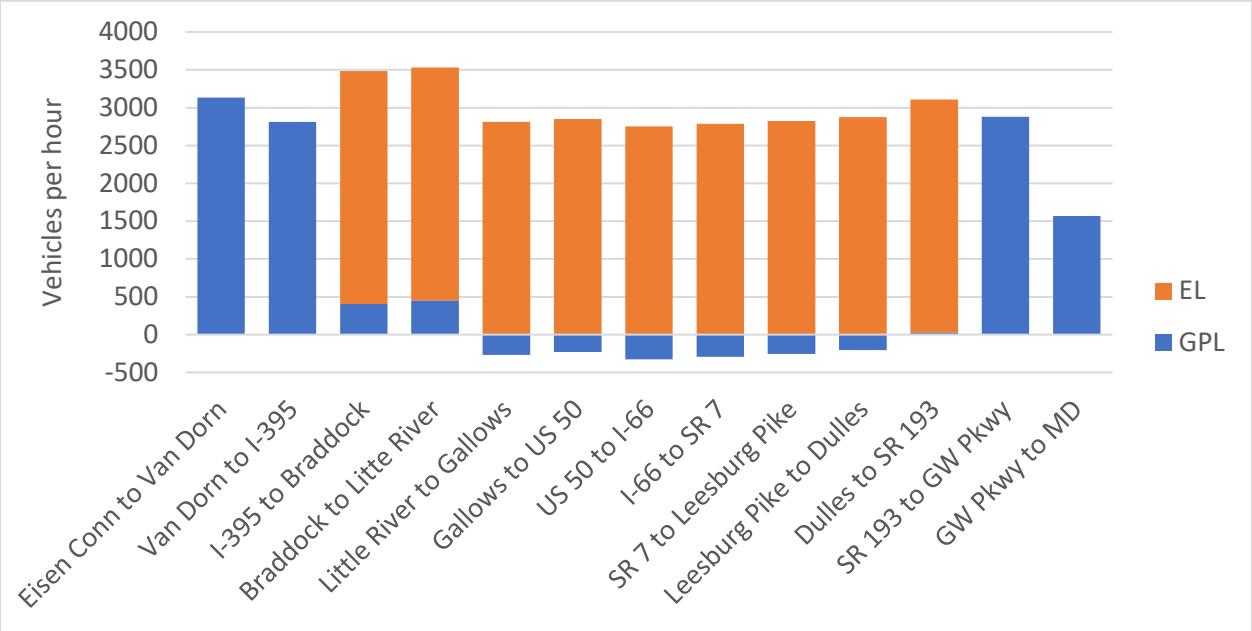


Figure 10. Change in Inner Loop GPL Peak Hour Traffic in Virginia After Express Lanes Opening (change per segment comparing 2013-2019 to 2005-2007 traffic volumes)



Source: Virginia Department of Transportation traffic count reports.

In general, the before and after decreases in peak hour GPL traffic volumes are small, on the order of 200-300 per hour, or less than 5% of the total GPL peak hour traffic volume. The one outlier shown in Figure 9 for the Outer Loop southbound between SR 193 to the Dulles Toll Road is not an exception but is just a quirk in the data. The Express Lanes begin in this section, and the VDOT traffic count is after the split. If the count were upstream of the split, no such large reduction would be shown.

What is most striking in the data is that the higher peak hour volumes carried in 6 lanes (4 GPL + 2 EL) also extend into the 4-lane GPL sections north and south of the endpoints of the Express Lanes. There is little, if any, congestion relief where the Express Lanes are parallel to the general-purpose lanes, but much worse congestion upstream and downstream. This large increase in peak hour traffic was caused by the opening of the Express Lanes and has resulted in the worst bottleneck on I-495 in the afternoon on the Inner Loop where the Express Lanes must merge back into the general-purpose lanes. (See Appendix C for more details.)

The Express Lanes opened in November 2012. This bottleneck problem was not anticipated or disclosed in the planning process. Only a few months later in June 2013, VDOT announced a plan to partially address these problems by opening a shoulder lane on the left side of the Inner Beltway to increase the effective width to five general-purpose lanes at the merge.

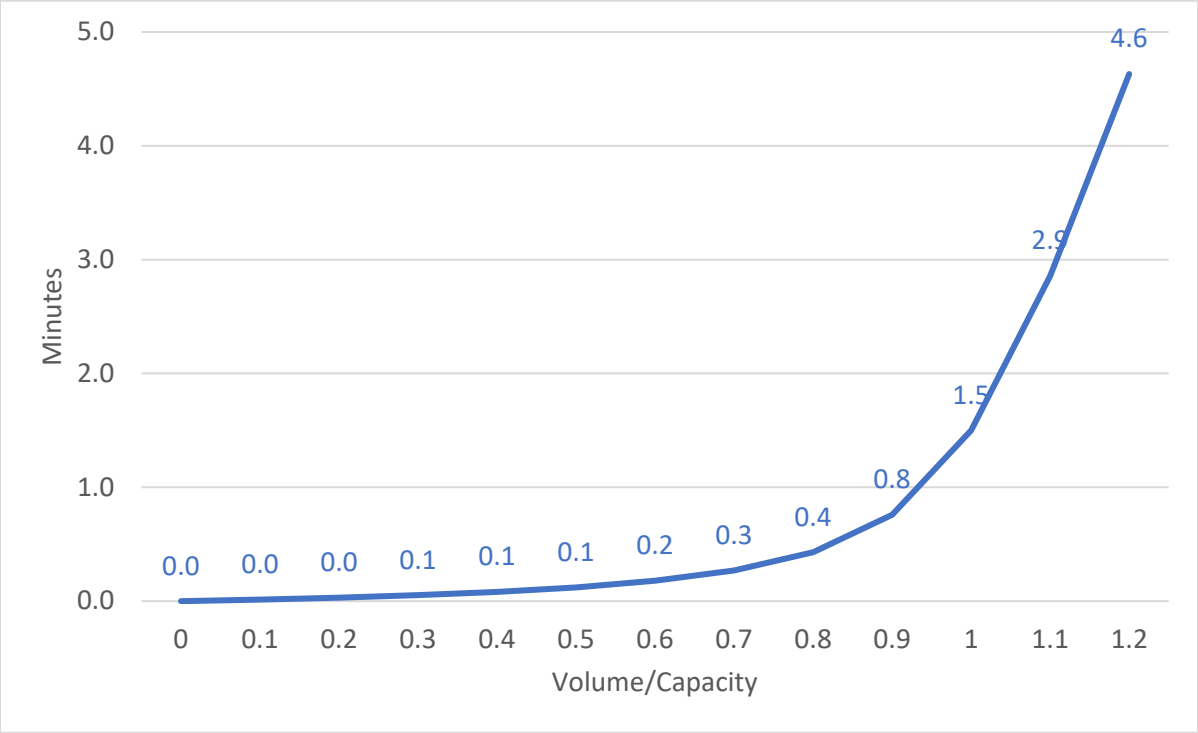
Expanding I-495 and I-270 in Maryland likely will result in similar unintended negative congestion impacts, creating and/or exacerbating bottlenecks. The Virginia modeling was not up to the task of forecasting these types of problems and the SDEIS modeling is not either.

6. MWCOG Model Cannot Calculate Net Congestion Tradeoffs

The MWCOG model treats daily traffic as a composite of four time periods[63] including a 3-hour morning peak period (6-9 a.m.) and a 4-hour afternoon peak period (3-7 p.m.). The time shifts that resulted from the opening of the Express Lanes in Virginia is mostly within these peak periods, i.e., it shifts traffic from what planners call the "shoulder" hours into the peak hour. The MWCOG model does not have any way of considering time shifts within the peak periods and cannot calculate the congestion changes related to such shifts.

Instead, it calculates vehicle hours of delay (VHD) as if traffic volumes are constant throughout the 3-hour morning peak period and 4-hour afternoon peak period. The calculated VHD grows exponentially as a function of the volume-to-capacity ratio (V/C) – especially when modeled V/C exceeds 1.0. As discussed above, V/C greater than 1.0 is impossible and represents model errors. Figure 11 shows MWCOG model arterial delay in minutes per mile as a function of V/C.

Figure 11: MWCOG Model Vehicle Minutes of Delay Per Mile for 40 mph Arterial[64]



Source: MWCOG model documentation.

In the figure, a road segment with calculated V/C = 1.0 has 1.5 minutes of delay per mile, and modeled delay grows exponentially with an impossible V/C > 1.0. V/C in the MWCOG model is not capped at 1.2, and there are higher V/C road segments in the model, including the value of 2.75 for the Point of Rocks Bridge shown in Figure 3. Beyond the V/C point shown in the Figure

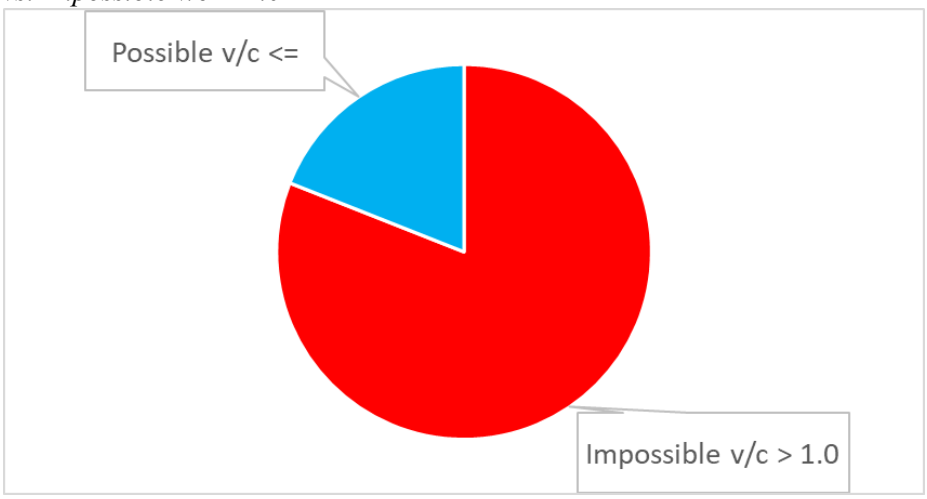
[63] Four time periods: morning peak, midday, afternoon peak, and overnight.

[64] Calculated from MWCOG. Calibration Report for the TPB Travel Forecasting Model, Version 2.3, on the 3,722-Zone Area System: Final Report, January 20, 2012.

7, MWCOG model VHD continues to increase exponentially – 6.6 minutes per mile at V/C = 1.3, 8.6 minutes per mile at V/C = 1.4, and so forth with MWCOG model table values as high as V/C = 3.0.

As shown in Figure 12, most (81%) of regional afternoon peak period VHD in the 2040 no build modeling is from impossible assignments with volume-to-capacity ratio exceeding 1.0. The exponential increases in modeled delay as a function of V/C makes MWCOG model VHD more of a metric of model errors than a metric of real-world performance.

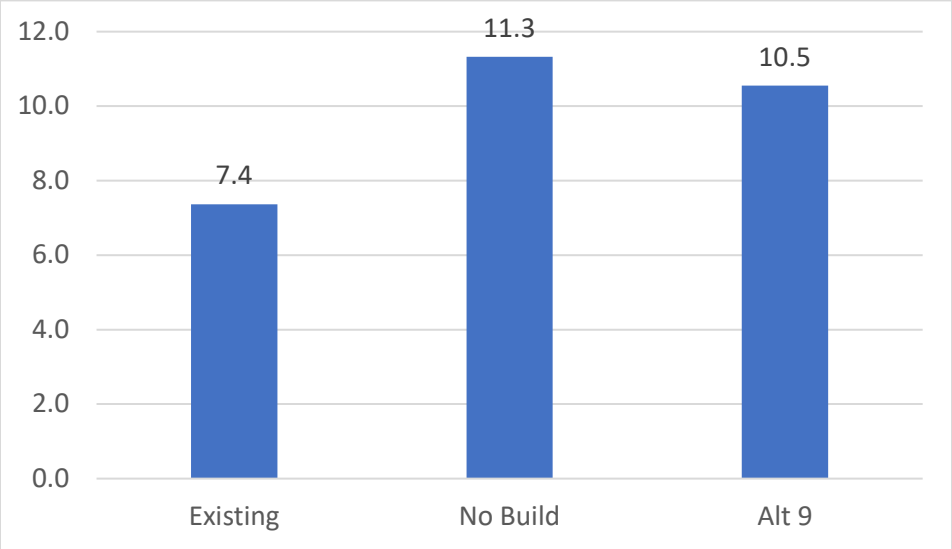
Figure 12: 2040 No Build Regional Afternoon Peak Period VHD – Road Segments with Possible v/c ≤ 1.0 vs. Impossible v/c > 1.0



Source: I extracted data from MWCOG model link in DEIS and calculated totals.

The DEIS VHD calculations are invalid. However, even if they were valid, they do not provide a compelling case for the proposed managed lanes Project. Figure 13 takes the DEIS VHD numbers for a combination of Montgomery and Prince George's Counties and divides by current and 2040 population so the alternatives can be compared on a per capita basis.

Figure 13: DEIS Vehicle Minutes of Delay Per Capita for Montgomery and Prince George's Counties[65]



Source: DEIS, 2020.

The DEIS and SDEIS modeling indicates that congestion is going to get much worse in the future, but that I-495/I-270 managed lanes will make it somewhat less bad. In fact, the real story the VHD outputs tell us is that the MWCOG model overestimates future traffic volumes and translates relatively small increases in VMT into larger increases in VHD. For example, for an arterial roadway in the model where the volume has reached capacity in the peak period, a 1% increase in traffic volume in the MWCOG model translates into a 10% increase in VHD per vehicle. This amplification of small VMT changes into large VHD numbers is just a way of making impacts look larger.

7. SDEIS Models Cannot Accurately Model Peak Period Conditions

As documented above, the peak period traffic volumes outputs from the MWCOG model are not capacity constrained. The model forecasts impossibly high volumes for many roadway segments including segments of I-495 and I-270 that are the focus of the SDEIS.

The SDEIS analysis takes these over-capacity assignments and uses them as inputs to a VISSIM microsimulation model that is capacity constrained. This is a useless exercise because the VISSIM model can only report that the inputs are impossible. The SDEIS tries to represent what are essentially VISSIM error messages as measure of latent demand. This claim is false and is rebutted in the Appendix B of this report.

This is an example of an old computer adage – "garbage in – garbage out." The two-model process is analogous to money laundering. Bad forecasts from the MWCOG model are filtered through the VISSIM model and come out as very detailed precise-looking numbers. However, the underlying MWCOG model forecasts are invalid, and the VISSIM outputs also are invalid.

[65] Numbers from DEIS Table 1-1 at 1-5 and DEIS Appendix C, Table 5-23 at 149.

The SDEIS framing of "demand" vs. "throughput" is fundamentally wrong. Demand is not a point, as anyone who has taken Economics 101 has had hammered into them repeatedly; demand is a curve with more demand when the price is lower and less demand when the price is higher. For un-tolled roads, this "price" is primarily based on the value of travel time. The generalized price for toll roads includes both cost and time. As shown in this illustration from the Federal Highway administration, there is a market equilibrium balance between demand and price/supply (Figure 14).

Figure 14: Market Equilibrium User Costs and Traffic Volumes (FHWA)[66]

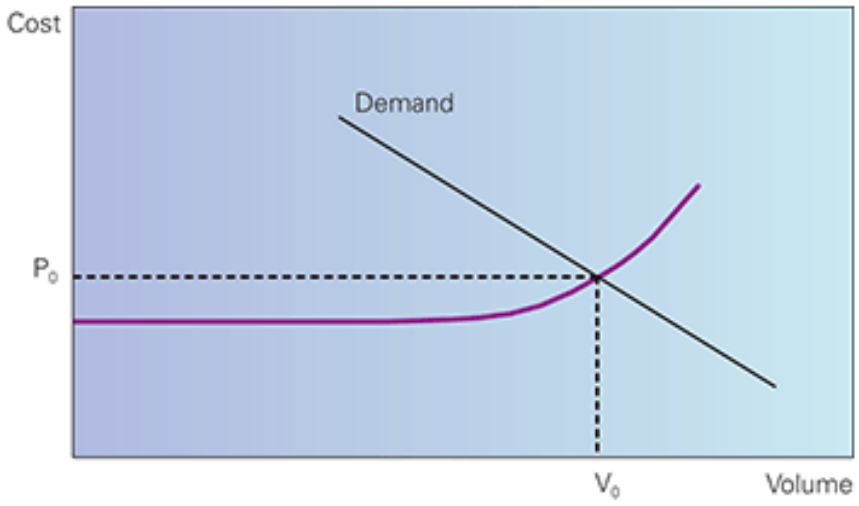


Exhibit 4. Equilibrium user costs and traffic volumes.
P = price. V = volume.

Source: Federal Highway Administration, 2017.

The narrative accompanying the figure reproduced above states:

> When supply and demand are in balance, a market is said to be in *equilibrium*. This is often represented as the intersection of a supply curve and a demand curve, which determines the market-clearing price and quantity (see Exhibit 4). At this point, everyone who purchases the good is willing to (collectively) buy that amount at that price, and producers are willing to supply that quantity at that price. If either the supply or demand curves shift, the market price and quantity will also change.
>
> For highway travel, demand is determined as described above. The "supply" curve, however, is essentially represented by the generalized cost curve. The intersection of these two curves determines how high traffic volumes will be and what the associated average highway-user costs will be at that volume level. When the level of demand is low relative to the capacity of the road, it will be uncongested, and prices will be relatively constant even as volumes increase (the "flat" part of the user cost curve in Exhibit 4). However, when demand levels are high and the road

[66] Federal Highway Administration. Economics: Pricing, Demand, and Economic Efficiency – A Primer. 2017. https://ops.fhwa.dot.gov/publications/fhwahop08041/cp_prim4_03.htm.

> is congested, both user costs and traffic volumes will be higher, potentially rising sharply as demand continues to increase.

The dichotomy put forward in the SDEIS of "demand" vs "throughput" does not exist. There are only traffic volumes at the equilibrium point. The volume V_0 represents the point on the demand curve where the cost equals P_0. The "throughput" should equal this equilibrium traffic volume.

C. Toll Issues

1. The Preferred Alternative Creates Bad "Choice" Between Extreme Congestion and Extremely High Tolls

One of the SDEIS needs for the preferred alternative is: "Provide Additional Roadway Travel Choices." SDEIS at ES-2. This "need" has been carried over from the DEIS which states:

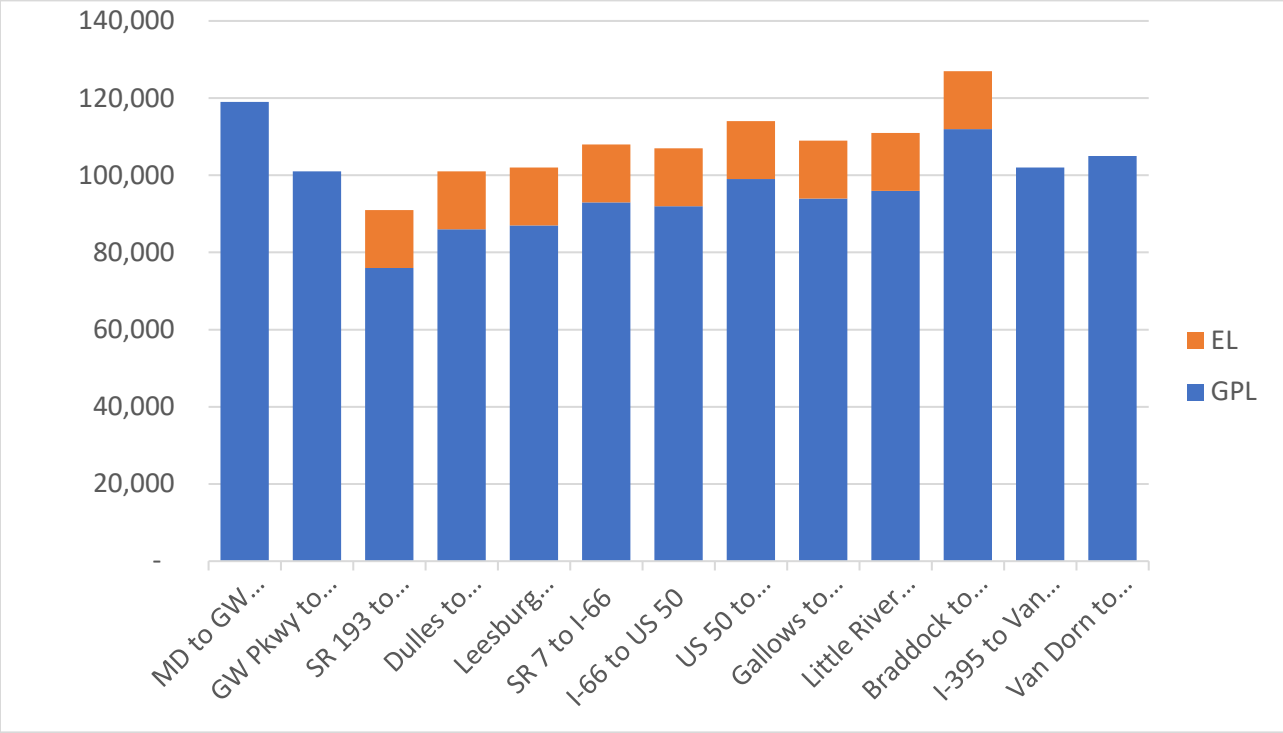
> Travelers on I-495 and I-270 do not have enough options for efficient travel during extensive periods of congestion. Additional Roadway management options are needed to improve travel choices, while retaining the general-purpose lanes.

DEIS App'x A at 13.

This is one of the reasons cited for rejecting a Transportation System Management/Transportation Demand Management (TSM/TDM) alternative. SDEIS at 5-49. Supplementing the general-purpose lanes with managed lanes for the monied few is not a valid project "need" because it is just a restatement of the preferred alternative.

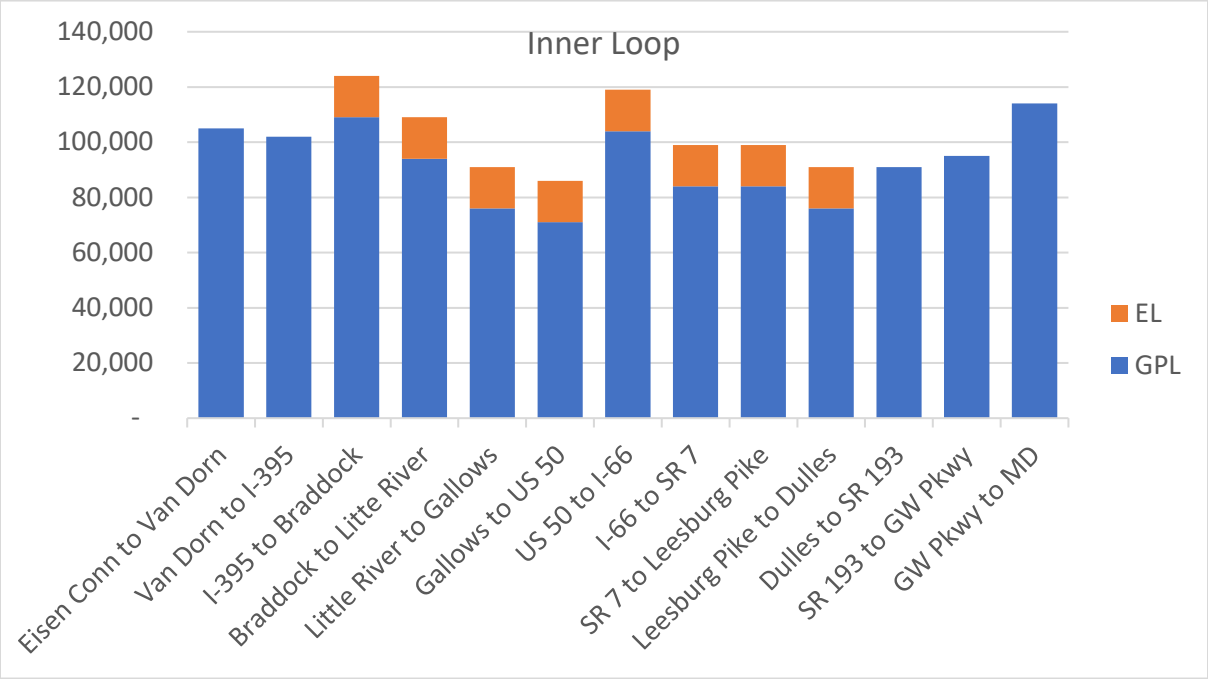
The proposed "choice" is between extremely high tolls and extreme congestion. Most travelers will end up choosing congestion over extremely high tolls. The Virginia I-495 Express toll lanes only carry about 1/6 of the daily traffic volume on the sections with Express Lanes despite being 1/3 of roadway capacity (Figures 15 and 16). The other 5/6 of traffic is carried in the general-purpose lanes. This is an inefficient use of infrastructure.

Figure 15: 2019 Daily Virginia Outer Loop Average Daily Traffic Volumes[67]



Source: Virginia Department of Transportation traffic count data, 2019.

Figure 16: 2019 Daily Virginia Inner Loop Average Daily Traffic Volumes



Source: Virginia Department of Transportation traffic count data, 2019.

[67] Commonwealth of Virginia Department of Transportation Average Daily Traffic Volumes with Vehicle Classification Data on Interstate, Arterial and Primary Route 2019. https://www.virginiadot.org/info/resources/Traffic_2019/AADT_PrimaryInterstate_2019.pdf.

The DEIS forecasts managed lane usage for Alternative 9 ranging from 10% to 31% during the 7-8 a.m. peak hour and from 12% to 35% during the 4-5 p.m. peak hour (DEIS, Appendix C, Figures 5-19 – 5-22, p. 99-100). These numbers are consistent with the estimate of 1/6 of daily traffic for Virginia because the managed lanes will attract a larger share of traffic during the peak hour. Only about 1/6 of the Maryland I-495 and I-270 traffic will be carried by the managed lanes despite being 1/3 of roadway capacity.

Notably, the SDEIS fails to provide any information about how much of the traffic will be carried by the managed lanes. This information is in redacted portions of the *Final I-495 and I-270 Phase 1 Priced Managed Lanes Comprehensive Traffic and Revenue Study* prepared for the MDOT and dated November 4, 2019.[68] However, this information is redacted. About 20 pages in the concluding Chapters 6 and 7 of this report are partly or completely blacked out. The public has the right to see this information which has been paid for by the public and is necessary to make an informed decision about the merits of the proposed preferred alternative.

2. Dynamic Tolls Will Be Set to Maximize Revenue – Not for Roadway Efficiency

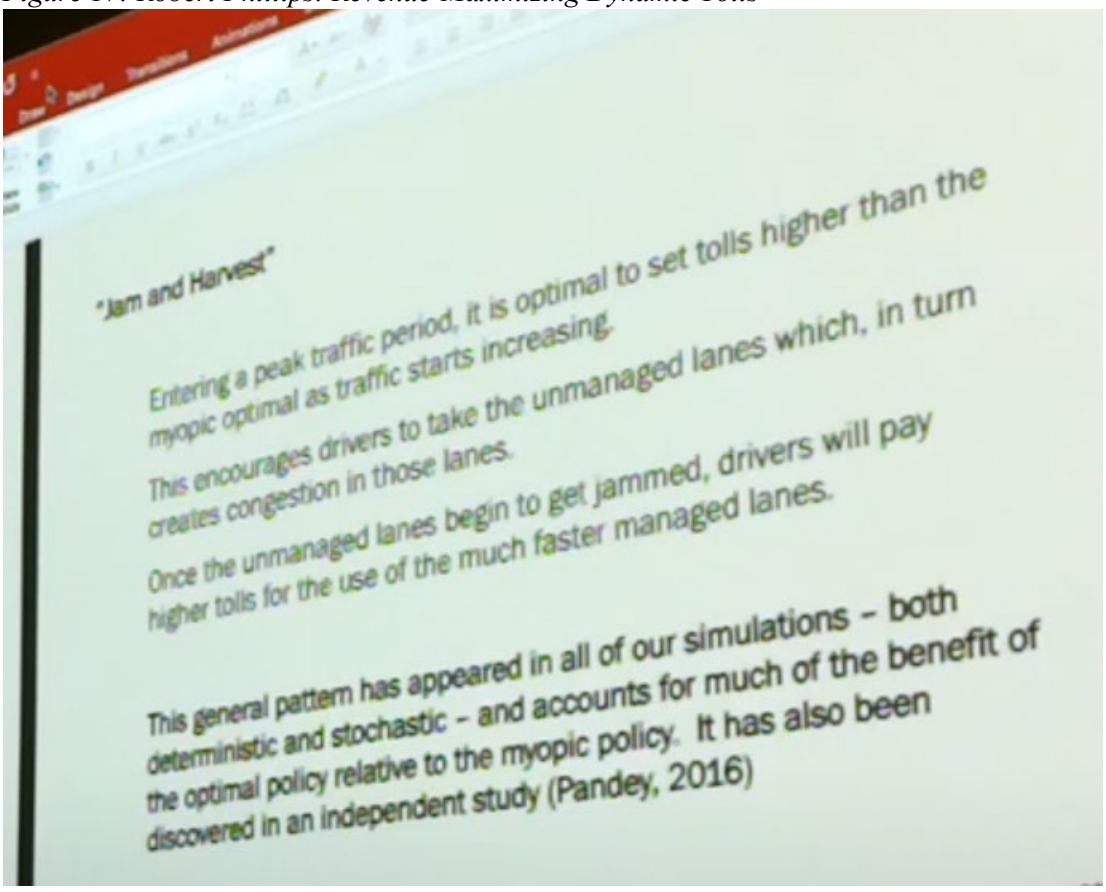
The SDEIS states that the P3 approach "is designed to . . . provide more-efficient pricing." SDEIS at 2-30. This statement means nothing. How is the pricing "more efficient"? What is it more efficient than? The SDEIS pretends that dynamic pricing is a benevolent "invisible hand" that serves the public. It states:

> Rather than solely focusing on revenue, the Preferred Alternative will be designed to maintain speeds of 45 mph or greater in the HOT lanes. The goal of the HOT lanes is to maintain free-flowing traffic and to use pricing factors to influence traffic flow. As such, the toll rate range will be set to ensure the HOT lanes operate to established operational metrics, which applies, the economic principles of supply and demand to influence the utilization of the HOT lanes.

SDEIS at ES-11. The 45-mph threshold is significant in that the private operator can charge tolls higher than the "soft cap" when speeds decline below 45 mph. In general, however, tolls will be set to maximize revenue and profit rather than for any public purpose. Algorithms to maximize managed lane toll revenue have been extensively studied and applied in real-world toll roads. Figure 17 shows a slide from a presentation by Robert Phillips

[68] MDOT, *Final I-495 and I-270 Phase 1 Priced Managed Lanes Comprehensive Traffic and Revenue Study* (Nov. 4, 2019), https://mdta.maryland.gov/sites/default/files/Files/ALB270/191104_Final_495270_Managed_Lanes_Traffic_Revenue_Study_Redacted_ADA.pdf.

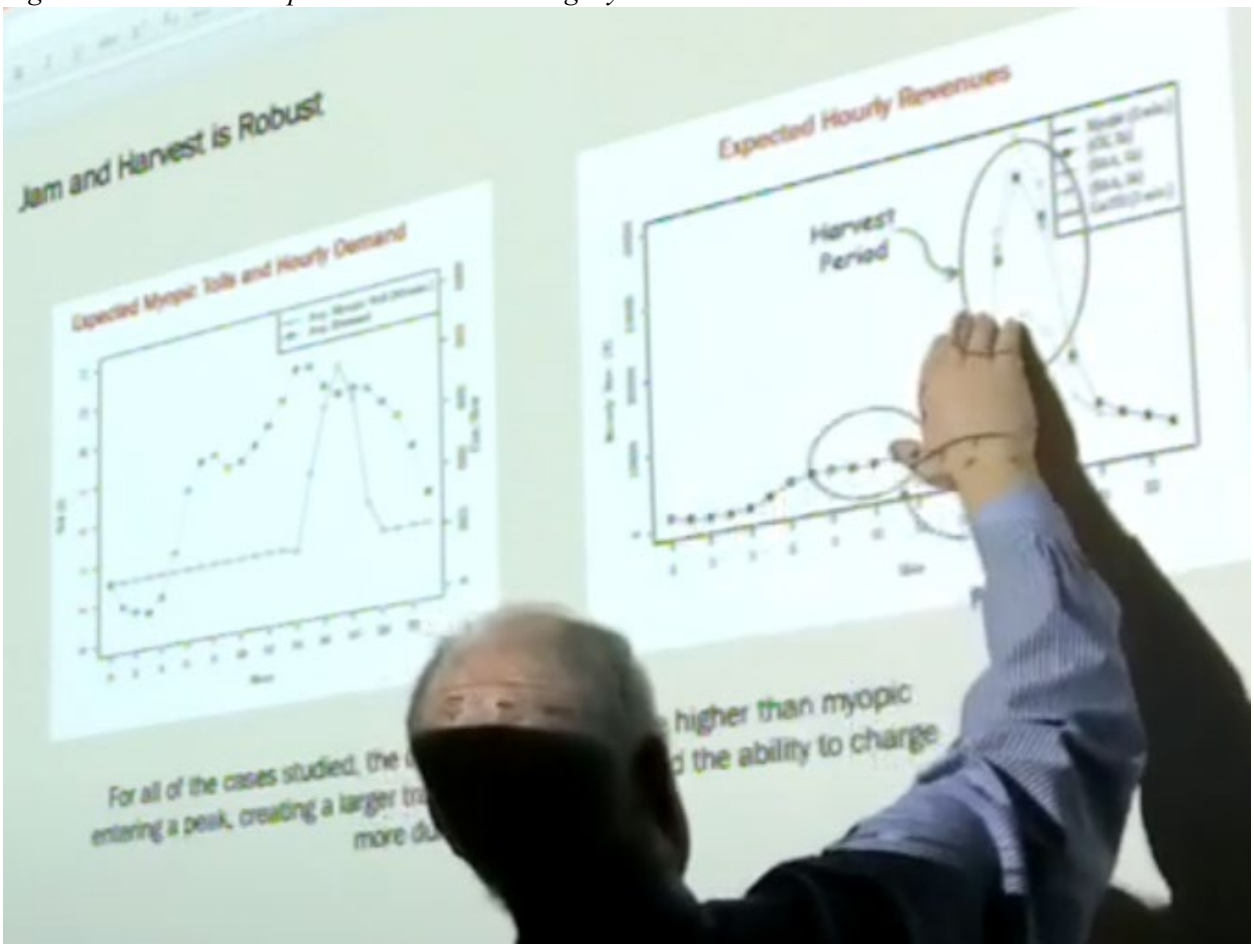
Figure 17: Robert Phillips: Revenue-Maximizing Dynamic Tolls[69]



The revenue-maximizing dynamic tolling strategy – which has been applied in toll roads in Texas and likely elsewhere – is to increase congestion in the general-purpose lanes prior to traffic peaking and then to charge higher tolls. Phillips calls this economically rational but socially perverse strategy "Jam and Harvest." It's the public that gets "jammed" as their money gets "harvested."

[69] Phillips, Robert, Director of Pricing Research at Amazon, Presented at the University of California, Berkeley ITS Transportation Seminar, February 28, 2020. Video at: https://its.berkeley.edu/news/revenue-maximizing-dynamic-tolls.

Figure 18: Robert Phillips: Revenue-Maximizing Dynamic Tolls[70]



For the private operator:

More congestion = More revenue

The interests of the private operator are not aligned with the public interest. True efficiency would be achieved by minimizing total delay across all travelers. This would be accomplished by setting the tolls only high enough to maintain 45 mph or higher flow in the managed lanes, i.e., a maximum of 1600 vehicles per lane per hour in the managed lanes. These most-efficient tolls would be significantly lower than the revenue-maximizing "jam and harvest" tolls.

The lengthy toll-rate range setting process conducted by the MDTA is just theater to mollify the public. The toll rate schedule is too high to protect the public. The caps are so high that most of the time the tolls will be set to maximize revenues as described. The private operator is free to "jam and harvest."

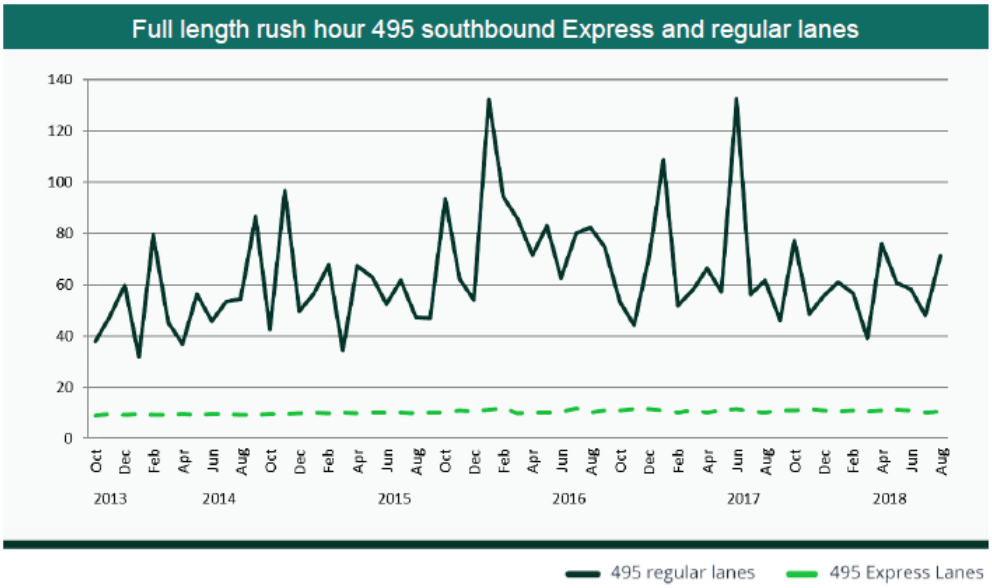
[70] *Id.*

D. Foreseeable Impacts of Building I-495 and I-270 Managed Lanes

1. Managed Lanes Are Unlikely to Reduce Congestion on the General-Purpose Lanes

The small reductions in Virginia I-495 general-purpose lane volumes shown in Figures 9 and 10 have not improved general-purpose lane travel times. As shown In Figure 20, The Express Lanes operator, Transurban, reports reliably fast travel times in the southbound Express Lanes and large average time savings compared to the general-purpose lanes.

Figure 20: Transurban Travel Time Data[71]



Source: Transurban, 2019.

Figure 20 shows average general-purpose lane travel times of about 60 minutes. Assuming that this is for the entire 14-mile length, this represents a speed of about 15 mph. However, Figure 20 could represent a shorter distance because the average time shown for the Express Lanes of about 10 minutes is impossible for the entire 14-mile length (because it would require an average speed of 84 mph). If the segment underlying the data is shorter than the full 14 miles, the actual general-purpose lane speeds may have been even lower than 15 mph.

Researchers at the University of Virginia found that in March 2018, average morning and peak hour travel times in the general-purpose lanes were typically 20-30 mph.[72] March 2018 was

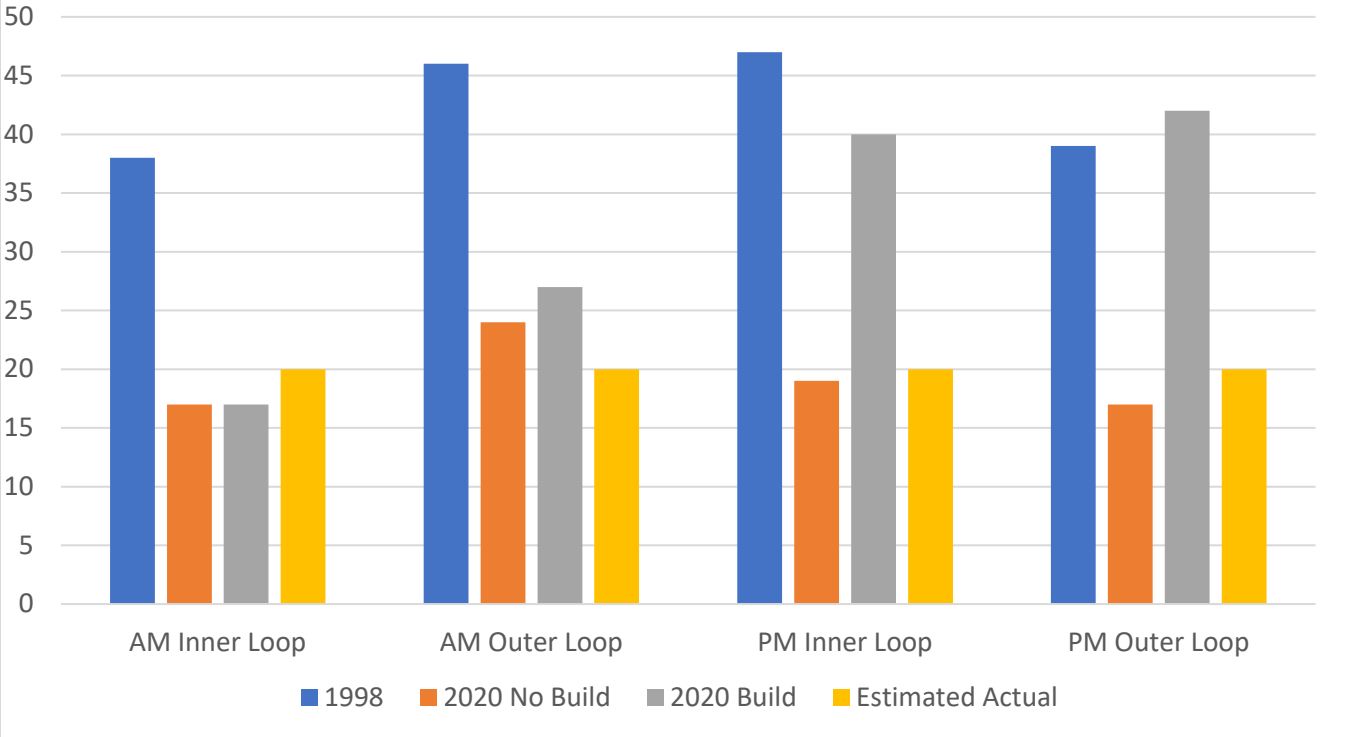
[71] Bell, Elisa, Transurban. 495 and 95 Express lanes: Customer choice regional benefit. Presented as part of the Transportation Research Board's Webinar on Ensuring Equity with Priced Managed Lanes in April 2019. http://onlinepubs.trb.org/onlinepubs/webinars/190429.pdf.

[72] Babiceanu, Simona and Donna Chen, Empirical Evidence for Estimating the Value of Travel Time on Express Lanes: Northern Virginia Regional Case Study, 2018.

one of the better months in the Transurban data. However, the discrepancy between the two sets of data is unexplained. An estimate of 20 mph is used in the figure below.

The Virginia I-495 Express Lanes FEIS reported pre-construction "Existing" speeds for the Outer Loop of 46 mph in the AM peak hour and 39 mph in the PM peak hour, i.e., twice the speeds reported for today by Transurban. This suggests that peak hour general-purpose lane speeds have declined significantly since opening the Express Lanes. As shown in Figure 21, current general-purpose lane speeds are generally much lower than was forecast in the FEIS.

Figure 21: I-495 General-Purpose Speed – Historical, FEIS Forecast, and Estimated Actual[73]



Source: Virginia Express Lanes 2006 FEIS and current data.

The DEIS general-purpose lane travel time forecasts are invalid because (as discussed above):

- The models overestimate no build traffic volumes.
- The models fail to account for the shift to the peak hours that would follow managed lanes construction.

These two factors cause the models to overestimate general-purpose lane congestion in the no build alternative and underestimate general-purpose-lane congestion in the build alternative.

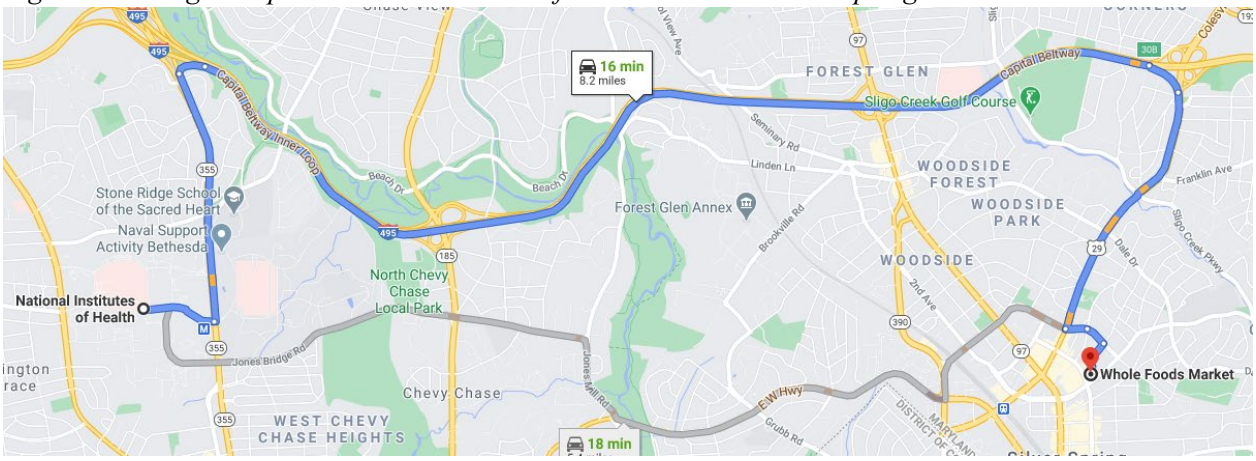
[73] Virginia Department of Transportation (VDOT), Capital Beltway Study: Final Environmental Impact Statement and Section 4(f) Evaluation, Table 2-9, at 45, (April 2006), http://www.virginiadot.org/VDOT/Projects/Northern_Virginia/asset_upload_file77_72985.pdf.

The Virginia experience suggests that constructing similar managed lanes in Maryland would do little or nothing to reduce congestion on the general-purpose lanes. In fact, as discussed in a subsequent section of this report, the entire premise of this Project is that extreme congestion is needed to justify the extremely high tolls required to pay for the Project.

2. Managed Lanes Are Likely to Make Arterial Congestion Worse

The SDEIS puts forward a simplistic and incorrect framing of diversion from arterial roadways to I-495/I-270. It pretends that traffic magically is subtracted from one class of roadway and added to the other. In fact, no trip begins and ends on a limited access roadway and a traffic shift from arterials to I-495/I-270 necessarily adds traffic to some arterials as it reduces traffic on others. Figure 22 shows a typical example from Google Maps comparing routes between Bethesda and Silver Spring.

Figure 22: Google Maps Recommended Route from Bethesda to Silver Spring



Source: Google Maps, 2020.

Google Maps recommends a route using I-495 over an arterial route even through the I-495 route is more than 50% longer in miles (8.2 miles vs. 5.4 miles) because it is 2 minutes faster (16 minutes vs. 18 minutes). The I-495 route reduces the traffic volume on Jones Bridge Road and East-West Highway, but it adds traffic to MD 355 and US 29. Whether this represents a net congestion benefit depends on the congestion levels on all these roads.

The DEIS assumes trips like this should be on I-495 and that the non-freeway route represents undesirable diversion. However, circuitous routing that adds vehicle miles traveled (VMT) and air pollution including greenhouse gas emissions is undesirable. Adding express toll lanes also is likely to make arterial congestion worse because it counteracts peak spreading and will increase peak hour arterial traffic in the areas around I-495 and I-270 interchanges. The increased peak hour traffic congestion in these areas is likely to outweigh the congestion benefits on other roads.

Here is real world example. As discussed above, the opening of the Express Lanes in Virginia in November 2012 caused the worst I-495 bottleneck. Several months later in June 2013, VDOT announced a plan to partially address these problems by opening a shoulder lane on the left side of the Inner Beltway to increase the effective width to five general-purpose lanes at the merge.

The public relations handout developed at this time stated that there would be "no impact to nearby bridges and neighborhoods.[74]

This change was implemented in 2015. Residents of McLean have complained that this seemingly minor change has had a large impact on their community as it shifts the bottleneck farther north and adds significant congestion to Georgetown Pike and other intersecting local streets.[75] Figure 23 shows traffic congestion at one of the key intersections where McLean residents are concerned about I-495 congestion spreading to local streets.

Figure 23: Georgetown Pike Westbound at I-495

Source: Google Maps, 2020.

As a response to these complaints, in 2018 VDOT analyzed returning to the original configuration. It found that such a return would improve operations at the SR 193 intersection [contradicting their 2013 public relations handout]: "as a result of the merge area for the Express Lanes moving back to the Old Dominion Drive area, which meters the traffic and provides a more consistent flow to the mainline near Route 193."[76] However, it also found that the closure of the shoulder lane would increase delay on the I-495 Express Lanes. The change was not made because Express Lanes traffic was prioritized over McLean traffic. Nevertheless, even with the use of the shoulder lane, this merge area remains the worst bottleneck on I-495.

The VDOT quote uses the word "meters." Traffic metering is an underappreciated congestion control measure. Peak period traffic bottlenecks are inevitable but can be used as a management tool by choosing the bottleneck locations, metering traffic there, and providing peak

[74] *VDOT 495 North Traffic Congestion to Get Better With New VDOT Shoulder-Use Lane Project*, Express Lanes (June 28, 2013), https://www.expresslanes.com/uploads/1000/382-Shoulder_use_Lane_Project_121013.pdf.

[75] Brian Trompeter, *Residents Fume Over I-495 Shoulder Lane in McLean*, InsideNova (Jan. 16, 2018), https://www.insidenova.com/news/arlington/residents-fume-over-i-495-shoulder-lane-in-mclean/article_da2f87a2-f871-11e7-8a7b-a7b93e288cea.html.

[76] VDOT. I-495 Auxiliary Lane Study, May 9, 2018.

period protection to other roadways. Constructing managed lanes focuses more traffic in the peak hours and undermines peak spreading and traffic metering.

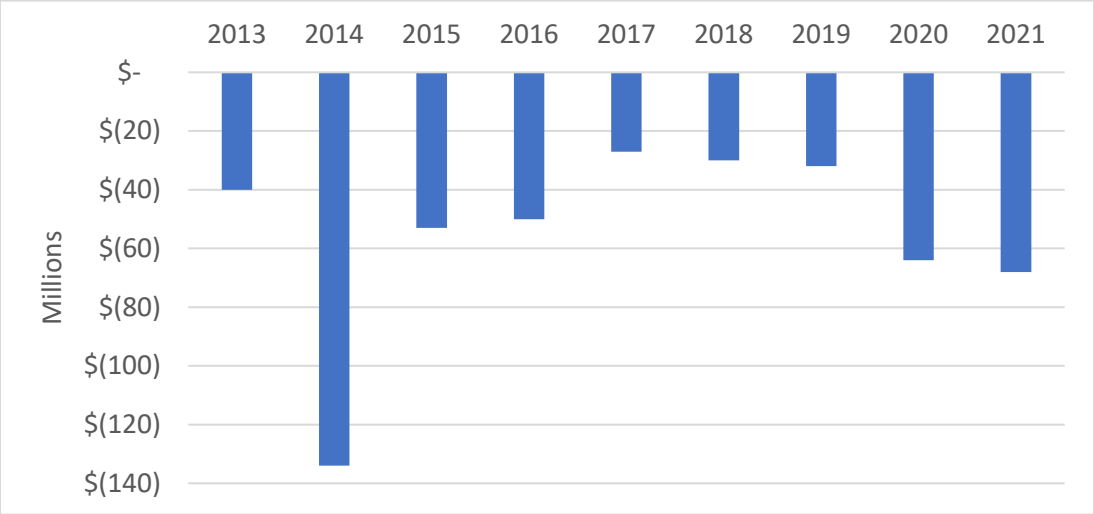
3. Taxpayers May Not Be Off the Hook for Managed Lane Costs

This choice between extreme congestion and extremely high tolls is fundamental to making the managed lanes attractive to private operators. They need high peak hour tolls to pay off bonds. They need extreme congestion to justify high tolls. Most toll roads including the Virginia I-495 Express Lanes lose money in the early years and count on increasing congestion in the future to allow them to raise tolls to the point that the investment finally pays off.

Overestimating future toll road traffic and revenue is an international problem. The Wall Street Journal reported that traffic counts were roughly 77% of what had been forecast.[77] Furthermore, this research predates the effects of COVID-19. The article quotes Gregory Erhardt, an author of a National Academies review: "There is some incentive for forecasts to be high if they make [a project] more likely to get built."

Figure 24 shows Transurban's Virginia I-495 losses by year since the project was opened.

Figure 24: Transurban's I-495 Express Lanes Losses[78]



Source: I created graph using information from Transurban financial reports.

The Virginia I-495 Express Lanes have never been profitable, and cumulative losses now are $498 million. The 2020 and 2021 fiscal years ending June 30th includes COVID-19impacts, but it doesn't appear the road was on its way to profitability even before this. If the Virginia I-495 Express Lanes are ever to break even, the worst toll rates are yet to come.

The I-95 Express Lanes (also managed by Transurban) were profitable pre- COVID-19 – but were not in FY 2020 or FY2021. It appears that a radial commuting route like I-95 is a better

[77] David Harrison, *Billons Spent on Roads and Transit Project s Are Often Based on Optimistic Forecasts*, Wall Street Journal (Sept. 21, 2021), https://www.wsj.com/articles/transportation-projects-often-rely-on-optimistic-forecasts-11632216602.

[78] Reporting Suite, Transurban. https://www.transurban.com/investor-centre/reporting-suite.

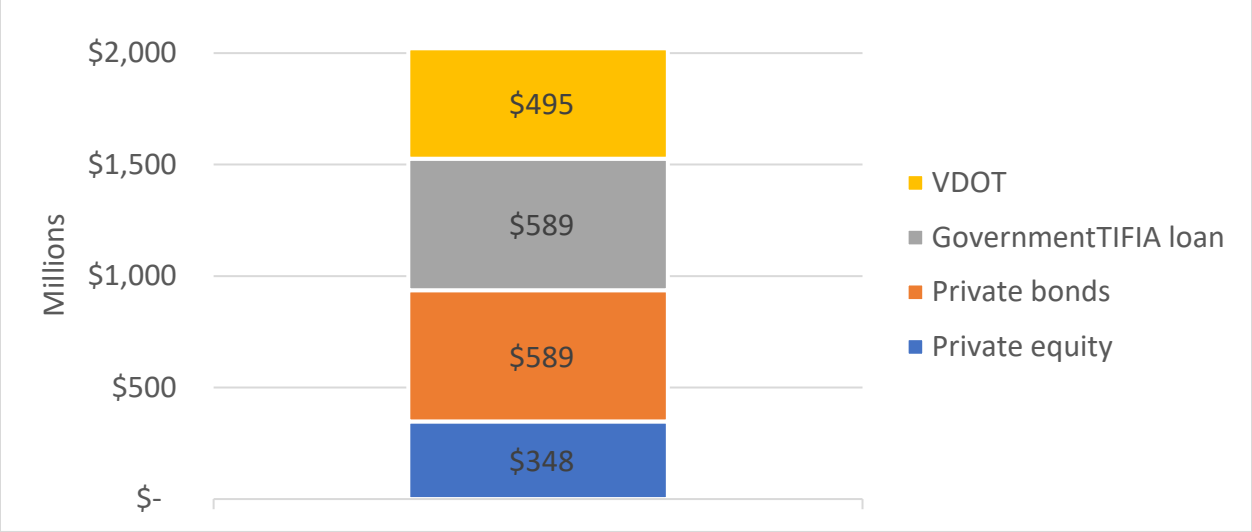
market than a circumferential highway like I-495. It is likely that the private operators are hoping to duplicate the I-95 success by extending the I-495 Express Lanes into Maryland to emphasize a radial north-south I-270/I-495 commuter route Maryland into Virginia. The larger I-495 segment likely was dropped, in part, because it was not as financially viable as the remaining "Phase 1" segment.

The SDEIS promises a free lunch where the entire preferred alternative is paid for by private funding. As shown in Figure 25, this is not what happened in Virginia. The Virginia I-495 Express Lanes were constructed at a cost of over $2 billion with private equity and private bonds providing less than half the total. The larger share (over $1 billion) came from a government Transportation Infrastructure Finance and Innovation (TIFIA loan) and $495 million from the Virginia Department of Transportation.

The VDOT $495 million contribution was, pre- COVID-19, supporting just 46,000 transactions per day for the VA I-495 Express Lanes.

Virginia did not plan to contribute to the Express Lanes but was pushed into it to make a deal that was acceptable to the private entities. Maryland likely will be in an even weaker bargaining position. The poor I-495 Express Lanes finances likely would have killed the east-west I-495 sections in Maryland, even without all of the other problems with that proposal.

Figure 25: Virginia I-495 Express Lanes Construction Cost[79]



Source: Federal Highway Administration project profile.

If the Maryland toll lane traffic volumes fall short of the forecasts, revenue will be insufficient to cover bond payments. The private operators have mechanisms in place to upend the toll rate schedule if this happens through a P3 Master Trust Agreement that requires Maryland to make payments and/or revise the toll rates to address the shortfall.

[79] Federal Highway Administration. Project Profile: Capital Beltway High Occupancy Toll (HOT) Lanes (I-495). https://www.fhwa.dot.gov/ipd/project_profiles/va_capital_beltway.aspx.

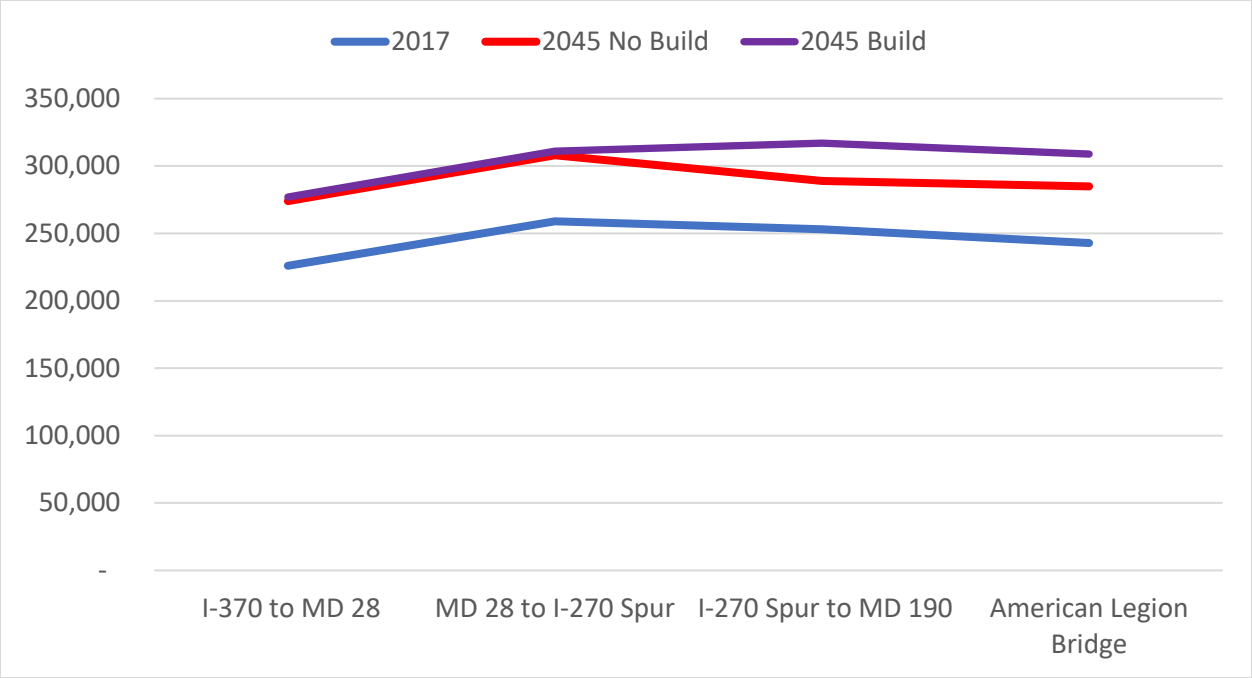
> The P3 Master Trust Agreement includes a rate covenant. If there is projected to be a Rate Covenant Shortfall (meaning the P3 Program revenues (including video surcharges, late payment fees, etc.) expected to be collected will be insufficient to cover the payments due to all Section Developers from the Operating Reserve Account and all principal and interest due on all MDTA Notes) in six or more consecutive months during the next 24 months, MDTA shall either (i) make administrative or operational changes that will eliminate the Rate Covenant Shortfall or (ii) if there are not administrative or operational changes that will eliminate the Rate Covenant Shortfall, then MDTA shall notify MDOT. Following such notification MDOT shall either (a) instruct MDTA to take no further action on the basis that MDOT elects to make supplemental payments at the time of the projected shortfall so that, if such supplemental payments were included as additional P3 Program Revenues in the calculation of the Rate Covenant calculation then no shortfall would exist or (b) instruct MDTA staff to present to the MDTA Board a toll proposal to commence the toll rate setting process intended to fix, revise, charge, and collect the tolls, fees or other charges in the P3 Program so that the Rate Covenant Shortfall is eliminated. Upon the conclusion of the toll setting process the MDTA Board may approve, adjust or reject the toll proposal.[80]

E. Appendix A: Traffic Forecasts

Figure A1 shows SDEIS daily traffic data and forecasts for I-495 and I-270. The SDEIS forecasts significant traffic growth in the 2045 no build alternative and only slightly higher growth for the build alternative.

[80] Maryland Transportation Authority Board Meeting, August 26, 2021. https://mdta.maryland.gov/sites/default/files/Files/Board_Meeting/2021_0826%20Board%20Materials%20-%20Posting.pdf.

Figure A1: Maryland DEIS Daily Traffic Data and Forecasts (Tables 3-1 and 3-2)



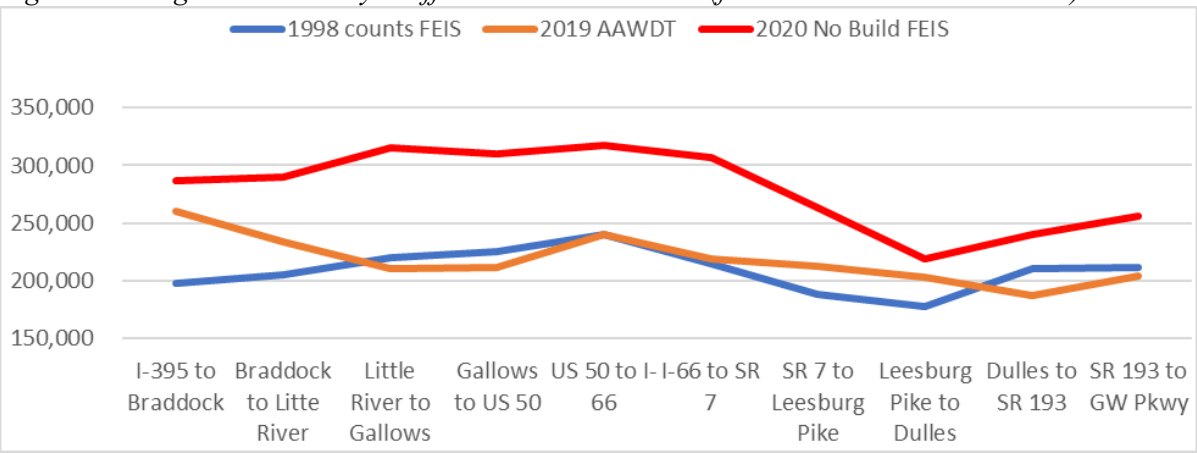
Source: SDEIS, Tables 3-2 and 3-2, p. 3-7 and 3-8.

In fact, traffic can be expected to grow little in the preferred alternative corridor if the roadway is not widened, but likely will grow significantly if it is widened.

Figure A2 shows the traffic data and forecasts from the 1998 FEIS for the Virginia Express Lanes, along with 2019 actual Average Annual Weekday Traffic (AAWDT).

Officials offered a similar forecast of significant growth in the 1998 FEIS for the Virginia Express Lanes (Figure A2), but total daily I-495 traffic has changed little in 21 years and is much lower today than what was forecast in the FEIS no build scenario. Presumably, the 1998 FEIS modeling forecast even higher traffic volume for the build alternative, but those numbers are not reported in the FEIS and therefore are not shown in Figure A2.

Figure A2: Virginia FEIS Daily Traffic Data and Forecasts (from FEIS Tables 3-1 and 3-2)



Source: Virginia Express Lanes FEIS, 2006.

F. Appendix B: The SDEIS Wrongly Claims that Over-Capacity Assignments Indicate Latent Demand

Generated traffic is a critical concept that is explained by Litman in Box B1.

Box B1. Excerpt from Generated Traffic and Induced Travel: Implications for Transport Planning

> Todd Litman, Victoria Transport Policy Institute, July 1, 2020 https://www.vtpi.org/gentraf.pdf
>
> Traffic engineers often compare traffic to a fluid, assuming that a certain volume must flow through the road system, but it is more appropriate to compare urban traffic to a gas that expands to fill available space (Jacobsen 1997). Traffic congestion tends to maintain equilibrium: traffic volumes increase to the point that congestion delays discourage additional peak-period vehicle trips. Expanding congested roads attracts *latent demand*, trips from other routes, times and modes, and encourage longer and more frequent travel. This is called *generated traffic*, referring to additional peak-period vehicle traffic on a particular road. This consists in part of *induced travel*, which refers to absolute increases in vehicle miles travel (VMT) compared with what would otherwise occur (Hills 1996; Schneider 2018).
>
> This is not to suggest that increasing road capacity provides no benefits, but generated traffic affects the nature of these benefits. It means that road capacity expansion benefits consist more of increased peak-period mobility and less of reduced traffic congestion. Accurate transport planning and project appraisal must consider these three impacts:
>
> 1. Generated traffic reduces the predicted congestion reduction benefits of road capacity expansion (a type of rebound effect).
> 2. Induced travel imposes costs, including downstream congestion, accidents, parking costs, pollution, and other environmental impacts.
> 3. The additional travel that is generated provides relatively modest user benefits, since it consists of marginal value trips (travel that consumers are most willing to forego).
>
> Ignoring these factors distorts planning decisions . . .

Litman makes an important distinction between latent demand and induced travel, with generated traffic encompassing both.

- *Latent demand: Additional trips that would be made if travel conditions improved (less congested, higher design speeds, lower vehicle costs or tolls).*
- *Induced travel: An increase in total vehicle mileage due to roadway improvements that increase vehicle trip frequency and distance, but exclude travel shifted from other times and routes.*
- *Generated traffic: Additional peak-period vehicle trips on a particular roadway that occur when capacity is increased. This may consist of shifts in travel time, route, mode, destination and frequency.*[81]

[81] Litman, 2020, at 3.

The MWCOG Model Assignments Are Not Intended to Include Any Latent Travel

The SDEIS uses the phrase latent demand in the same way Litman does: ". . . latent demand refers to people who want to use I-495 or I-270 during the peak hours, but do not because of the congestion." DEIS App'x C at 76. The SDEIS then mistakenly assumes that over-capacity MWCOG model forecasts can be used to quantify latent demand. This assumption is not supported by MWCOG model documentation or by the professional travel demand modeling literature in general.

The DEIS used MWCOG Version 2.3.71 and the SDEIS used Version 2.3.75. The MWCOG website includes travel demand model documentation on the versions 2.3.70, 2.3.75 and 2.3.78. including:

- The TPB Version 2.3 Travel Model, Build 70, also known as the Version 2.3.70 Travel Mode became the adopted travel model on October 18, 2017.
  - User's Guide for the COG/TPB Travel Demand Forecasting Model, Version 2.3.70 (Volume 1)
  - Highway and Transit Networks from the VDOT and MDOT Off-Cycle Amendment to the 2016 CLRP (TPB Version 2.3.70 Travel Model)
- The TPB Version 2.3 Travel Model, Build 75, also known as the Version 2.3.75 Travel Mode became the adopted travel model on October 17, 2018.
  - User's Guide for the COG/TPB Travel Demand Forecasting Model, Version 2.3.75: Volume 1 of 2: Main Report and Appendix A (Flowcharts)
  - User's Guide for the COG/TPB Travel Demand Forecasting Model, Version 2.3.75: Volume 2 of 2: Appendices B (Batch Files), C (Cube Voyager Scripts), and D (AEMS Fortran Control Files)
  - Highway and Transit Networks for the TPB Ver. 2.3.75 Travel Model and Air Quality Conformity Analysis of Visualize 2045 and the FY 2019-2024 TIP
- The user's guide and the highway and transit networks documentation for the current model, Ver.2.3.78, were released April 14, 2020.
  - User's Guide for the COG/TPB Travel Demand Forecasting Model, Version 2.3.78. Metropolitan Washington Council of Governments, National Capital Region Transportation Planning Board, April 14, 2020.
  - Highway and Transit Networks used in the Air Quality Conformity Analysis of the 2020 Amendment to Visualize 2045 and the FY 2021-2024 TIP (Ver. 2.3.78 Travel Model). Metropolitan Washington Council of Governments, National Capital Region Transportation Planning Board, April 14, 2020.
- Validation reports:
  - Calibration Report for the TPB Travel Forecasting Model, Version 2.3, on the 3,722-Zone Area System. Final Report. Washington, D.C.: National Capital Region Transportation Planning Board, January 20, 2012.
  - In 2013, the Version 2.3 Travel Model was validated to year-2010 conditions. Updates to the model resulting from this validation work were part of Ver.2.3.52. The model validation effort was documented in the following memo: Milone, Ronald. Memorandum to Files. "2010 Validation of the Version 2.3 Travel Demand Model." Memorandum, June 30, 2013.

- In 2019, TPB staff conducted a re-validation of Version 2.3.75 to year-2014 conditions. The work was documented in the following memo: Feng Xie to Dusan Vuksan and Mark Moran, "Year-2014 Validation of TPB's Version 2.3 Travel Demand Model," Memorandum, March 12, 2019.

The version 2.3.75 documentation and validation report match the version used in the SDEIS.

None of the ten model documents on the MWCOG website make any reference to "latent", "induced" or "generated" demand, The MWCOG model's traffic volume outputs are intended to represent actual traffic volumes - either for the base year or for a forecast year. This is apparent in the latest validation report (2019). It compares traffic volumes assigned by the model to traffic counts – both for an entire day (Figure B1) and for each of the four model time periods (Figure B2). In each case, the target is an exact match.

Figure B1: MWCOG Model Daily Model Traffic Volumes vs. Counts[82]

Table A3-1. Estimated and Observed 2014 Daily VMT by Facility Type*

Facility Type	Links w/ Counts	Observed ("O")	Estimated ("E")	Ratio (E/O)	Standard †	
					Acceptable	Preferable
Freeway	517	29,419,832	31,618,131	1.07	±7%	±6%
Major Arterial	1,867	14,795,795	15,845,341	1.07	±15%	±10%
Minor Arterial	2,939	10,897,071	12,343,027	1.13	±15%	±10%
Collector	1,144	2,311,056	1,718,105	0.74	±25%	±20%
Expressway	224	5,063,294	4,826,940	0.95	±15%	±10%
Ramp	2	30,176	26,161	0.87	N/A	N/A
Total:	***6,693***	***62,517,224***	***66,377,704***	***1.06***	***±5%***	***±2%***

Source: MWCOG, 2019.

Figure B2: MWCOG Model Daily Model Traffic Volumes vs. Counts[83]

Table A4. 2014 VMT Estimated to Observed Ratio (E/O) by Time Period and Facility Type*

	Links w/ Counts	AM Peak	Mid-day	PM Peak	Night	*Daily*
Freeway	125	1.12	1.40	0.93	1.12	***1.13***
Major Arterial	543	1.05	1.08	0.87	1.15	***1.02***
Minor Arterial	596	1.33	1.12	1.17	1.37	***1.22***
Collector	319	0.81	0.68	0.71	0.72	***0.72***
Expressway	93	0.91	1.07	0.82	0.98	***0.94***
Total:	***1,676***	***1.09***	***1.20***	***0.92***	***1.12***	***1.07***

Note: * Based on 1,676 directional links with hourly traffic counts (none of them are ramps)

Source: MWCOG, 2019.

[82] Xie, Feng. "Year-2014 Validation of TPB's Version 2.3 Travel Demand Model," Memorandum, March 12, 2019.

[83] Xie, Feng. "Year-2014 Validation of TPB's Version 2.3 Travel Demand Model," Memorandum, March 12, 2019.

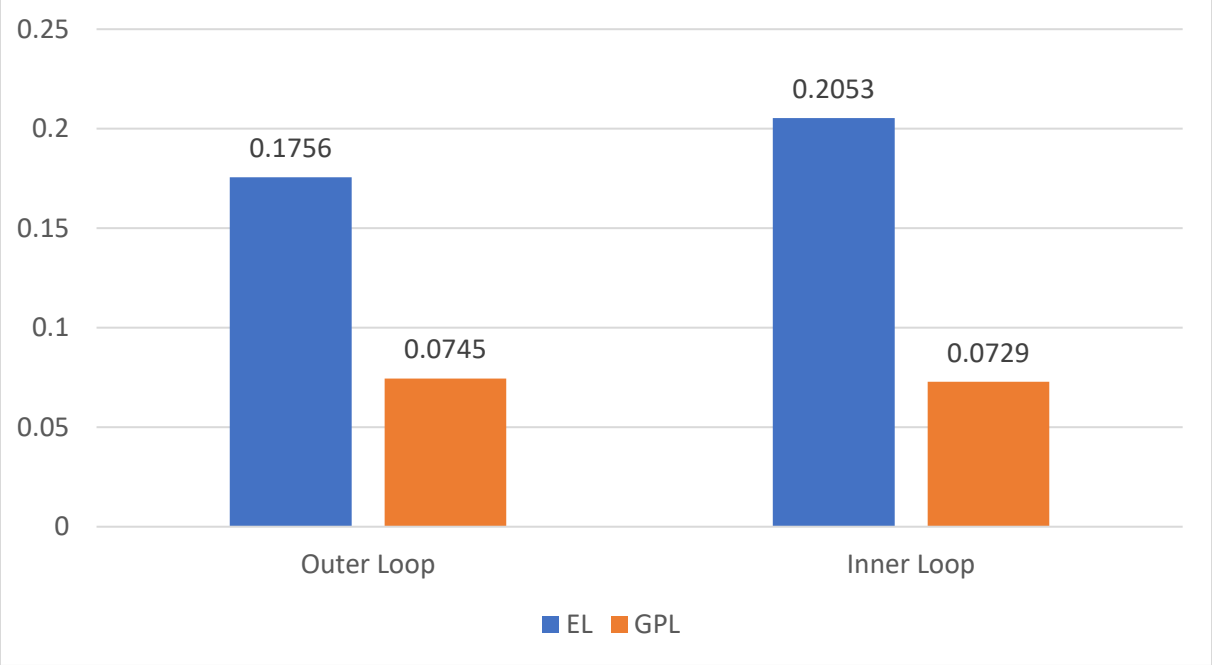
The model outputs summarized in the tables above include both overestimated and underestimated traffic volumes relative to counts. Some of the overestimated volumes are impossibly high because they exceed roadway capacity, but these errors are not an estimate of latent demand, they are just errors.

G. Appendix C: The Virginia Express Lanes Caused the Worst Bottleneck on I-495

Peak hour traffic volumes increased sharply after the Express Lanes opened. Peak hour traffic numbers were extracted from VDOT traffic reports by multiplying Annual Average Daily Traffic ("AADT") by the estimate of the portion traveling during the peak hour or design hour (K Factor).

The VDOT reports do not include AADT for the Express Lanes except for a 2019 value of 15,000 at the southern exit. This 15,000 per direction number is used as an estimate. The VDOT traffic reports include K factors for the Express Lanes at the southern end in both directions. In 2019, these K factors were 0.1756 for the Outer Loop and 0.2053 for the Inner Loop. As shown in Figure C1, these are over two times the average K factors for parallel general-purpose lane (GPL) segment. This is logical because there is much less incentive to use the Express Lanes during off-peak periods, even given lower toll rates.

Figure C1: I-495 K Factors Showing Concentration of Express Lanes Traffic in Peak Hour[84]



Source: Virginia Department of Transportation traffic count reports, 2019.

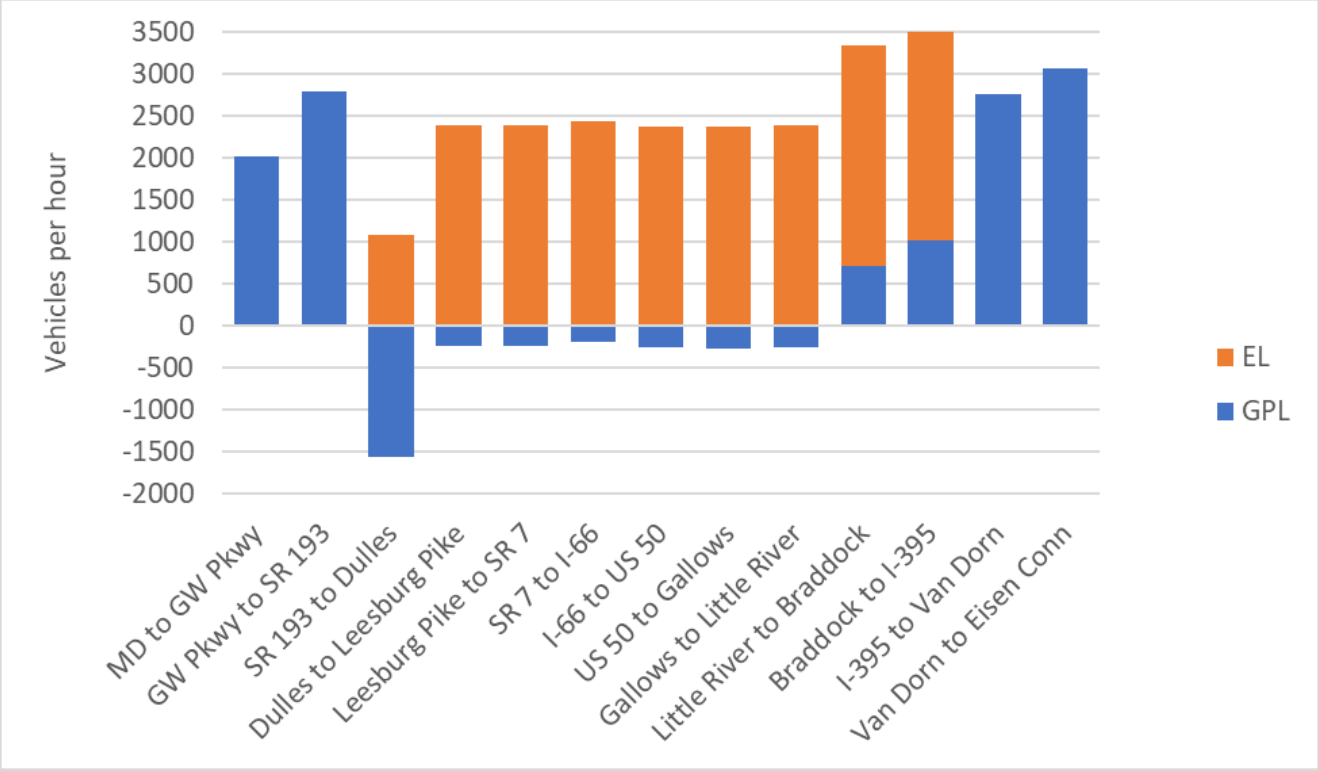
The K-factors in Figure C1 show that traffic on the general-purpose lanes is spread widely across the day. This is an efficient use of the roadway capacity. "Peak spreading" is an underappreciated congestion management strategy. In sharp contrast, a large proportion of traffic

[84] From VDOT traffic data report. General-purpose-lanes K Factor is average of segments parallel to Express Lanes.

on the Express Lanes is during the peak hours. This undermines the congestion relief that otherwise would result from peak spreading and causes unintended negative consequences.

Figures 5 and 6 earlier in this report (reinserted for convenience as Figures C2 and C3 show the estimated change in peak hour traffic volume[85] for the Outer and Inner Loop GPL before and after construction. The "Before" numbers are averages from 2005-2007. The "After" numbers are averages from 2013-2019. The period 2008-2012 is omitted due to the extended construction period.

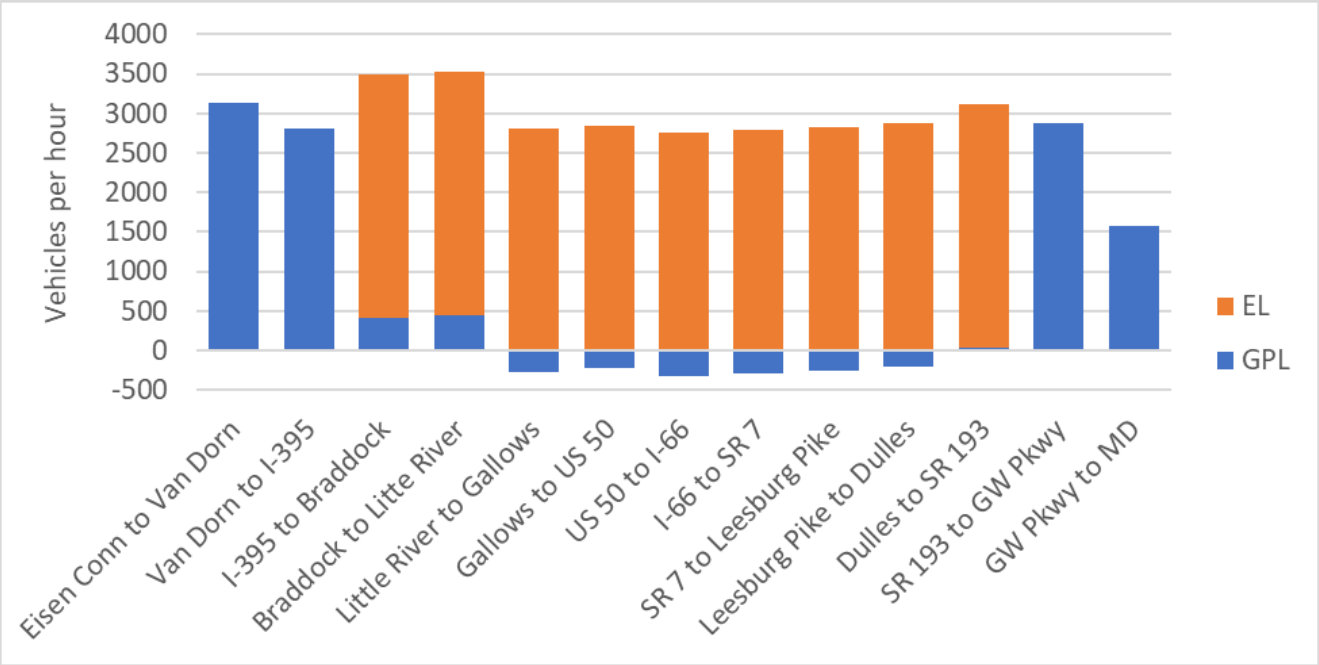
C2: Change in Outer Loop GPL Peak Hour Traffic in Virginia After Express Lanes Opening



Source: Virginia Department of Transportation traffic count reports.

[85] Calculated as AADT x K Factor.

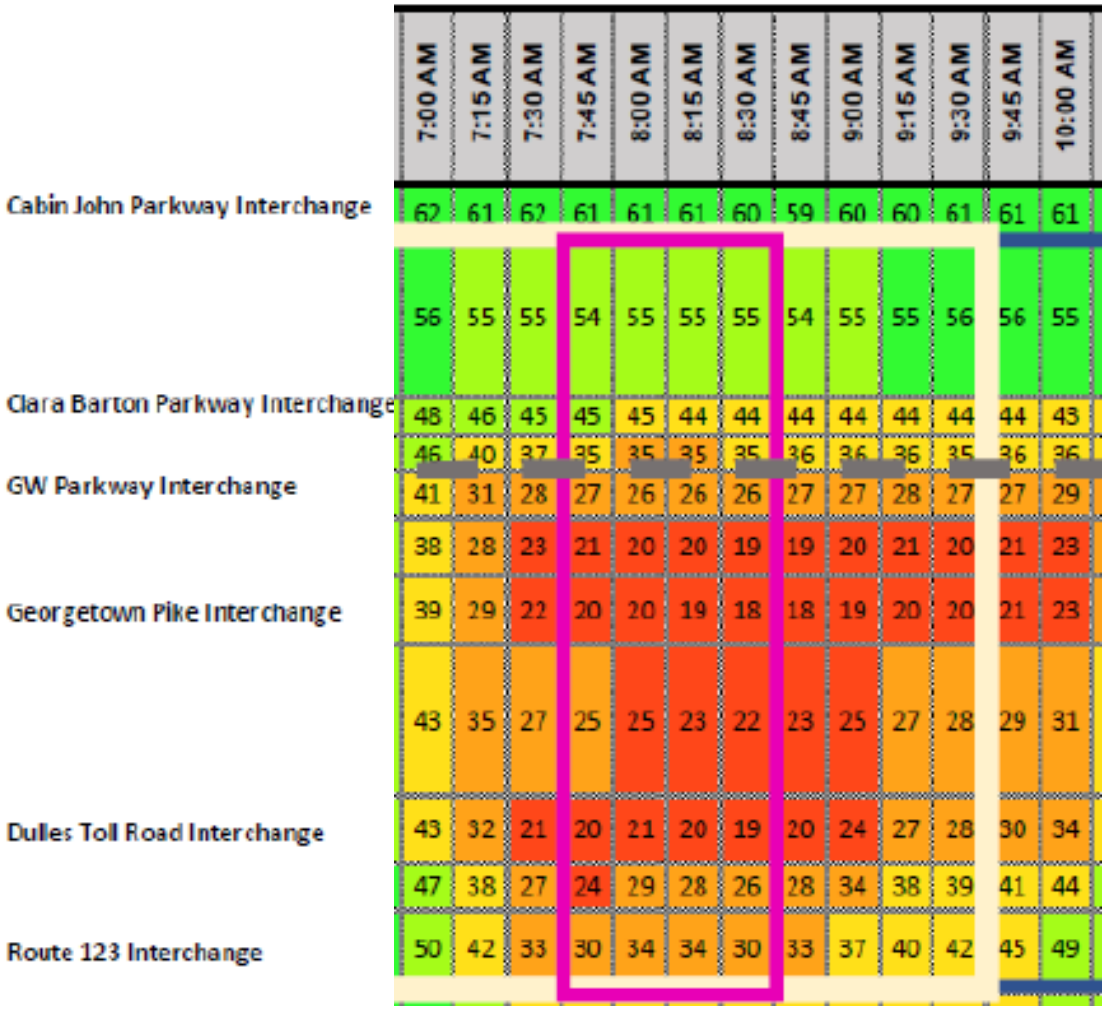
C3: Change in Inner Loop GPL Peak Hour Traffic in Virginia After Express Lanes Opening



The I-495 Inner Loop often is severely congested for several miles both north and south of the Potomac River in the afternoon. Therefore, the American Legion Bridge is often considered a primary bottleneck in the system. However, a close examination of speed data shows that the worst bottleneck is the first mile north of the end of the Express Lanes north of the Dulles Toll Road.

Figure C4 shows Inner Loop speeds for 15-minute intervals from 7 a.m. to 10 a.m. Speeds for 11 Inner Loop segments are shown – from the Route 123 interchange at the bottom/south to the Cabin John Parkway interchange at the top/north. The gray dashed line above the GW Parkway interchange line represents the state line. The northbound speeds at the Georgetown Pike interchange just north of the Express Lane merge are 20 mph or less for a 2-hour period, but the speeds at the American Legion Bridge (above the gray dashed line) never fall below 35 mph. The bridge is not the primary bottleneck in the morning peak period.

Figure C4: Inner Loop Morning Peak Period Speed Data (INRIX)[86]



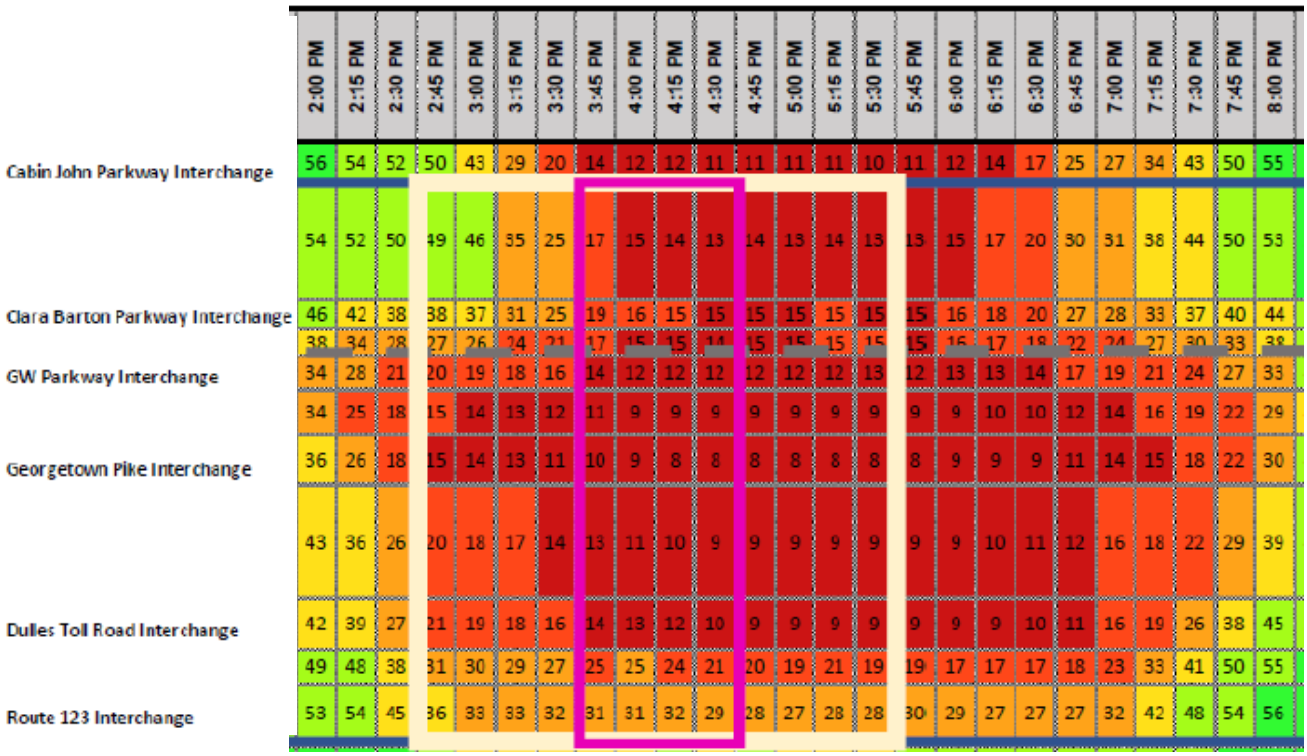
Source: Virginia Department of Transportation, 2018.
Legend: Purple box peak hour for core study area; white box longer study period.

The afternoon picture is murkier because queues behind bottlenecks spill back into upstream bottlenecks. Nevertheless, Figure C5 shows that the worst afternoon bottleneck in the system is also north of the Express Lanes merge. Compared to the American Legion Bridge, the Express Lanes merge area:

- becomes severely congested (red) about an hour earlier,
- is severely congested for about two hours longer, and
- has lower minimum speeds (8 mph vs 15 mph).

[86] Extracted from VDOT, I-495 Express Lanes Northern Extension Environmental Assessment Scoping Framework Document (November 15, 2018), Figure 7, p. 22. The purple box highlights the peak hour, and the white box is for the peak period.

Figure C5: Inner Loop Afternoon Peak Period Speed Data (INRIX[87]

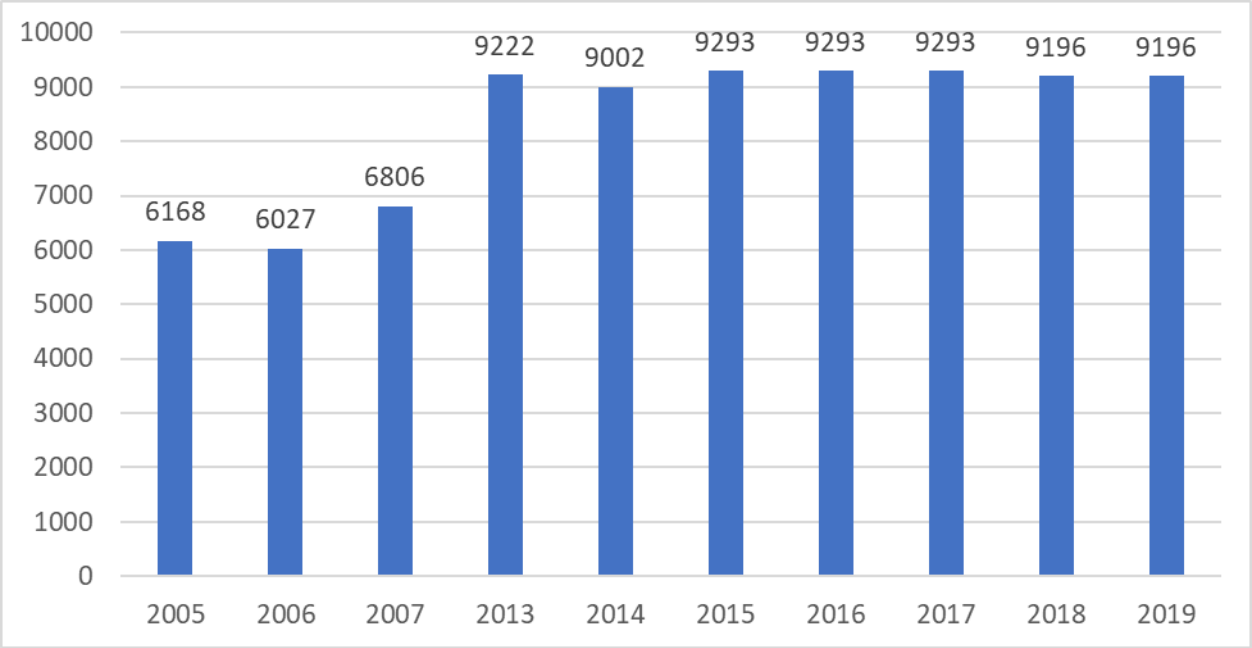


Source: Virginia Department of Transportation, 2018.
Legend: Purple box peak hour for core study area; white box longer study period.

Finally, Figure C6 shows Inner Loop peak hour traffic for the segment from Georgetown Pike (SR 193) to the George Washington Parkway (the first segment with VDOT data after the Express Lanes merge).

[87] Extracted from VDOT, I-495 Express Lanes Northern Extension Environmental Assessment Scoping Framework Document (November 15, 2018), Figure 7, p. 22. The purple box highlights the peak hour, and the white box is for the peak period.

Figure C6: I-495 Inner Loop from SR 193 to George Washington Parkway Peak Hour Traffic Volume (Vehicles) by Year[88]



Source: Virginia Department of Transportation traffic count reports.
Note: 2008-2012 omitted because of construction during this period.

Figure C6 shows that there was adequate capacity for the pre-Express Lanes traffic volume on four general purpose lanes (less than 8000 vehicles per hour) but not enough for the post-Express Lanes traffic volume. After the Express Lanes opened, the peak hour volume immediately shot up to about 9200 vehicles per hour and has stayed constant at that level from 2013 through 2019. This constant value indicates that this is the maximum capacity for this roadway segment, even with the use of the shoulder lane. The extreme delay results from the queue that spills back behind this bottleneck, a bottleneck that was caused by the Express Lanes project and the worst bottleneck on I-495 in Virginia.

H. Other Traffic Issues[89]

1. The Agencies Have Admitted and Demonstrated That There Are Feasible Alternatives that Would Effectively Reduce Roadway Traffic Congestion

As noted in Section I, the Agencies violated NEPA by failing to study reasonable alternatives that would avoid or reduce harmful impacts of the preferred alternative. Yet, the Agencies acknowledge in SDEIS Appendix B that other measures would effectively address

[88] Estimated from VDOT annual Daily Traffic Volume Estimates reports.

[89] Norm Marshall, national traffic modeling expert, has reviewed the Other Traffic Issues section and concurs on the traffic-related observations contained in the section. The data collected by the "Independent Traffic Recorder" was collected under the guidance of retired scientist Dr. Arthur Katz.

congestion. As noted below, the Agencies and MWCOG specify that flexible work schedules and ridesharing, including express bus service, would be effective alternatives to dynamic pricing:

> As may be seen from the compiled data, speed increases have been of a greater magnitude than the magnitude of traffic volumes. While traffic volumes regionally recently have been about 20% below pre-pandemic levels, peak period speed data remain near free-flow. Traffic flow theory and longstanding empirical data have established that when demand exceeds capacity and traffic operations are in unstable or saturated conditions, a small reduction in demand results in a disproportionate improvement in speeds. As such, strategies to marginally reduce single occupant vehicle (SOV) demand during peak demand via flexible work schedules, pricing or ridesharing (including express bus service) are effective ways to address peak period congestion, conserve energy and reduce emissions.

SDEIS App'x B at 146.

These and other traffic demand strategies have been studied and found to be effective by state and regional policy experts. In a 2017 report,[90] the regional Transportation Planning Board found that traffic demand management, including significant telework, would be more effective at reducing congestion than adding express toll lanes to local highways, including I-495 and I-270. In August 2020, the Maryland Transportation Institute testified[91] that a 5 percent increase in telework would reduce congestion by 32 to 58 percent. As for traffic systems management, even MDOT predicts[92] that its Innovative Congestion Management program, including restriping to add lanes at certain locations, ramp entrance and exit adjustments and ramp meters on I-270, will improve driving time by as much as 30 minutes between Frederick and I-495.

Previous studies by MDOT and FHWA have given prominence to Transportation System/Transportation Demand Management (TSM/TDM)."[93]

By contrast, the SDEIS mentions TSM/TDM on only one page (5-49) as an alternative within the Section 4(f) alternatives under consideration and rejects it. SDEIS at 5-49.[94] Traffic

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[90] *An Assessment of Regional Initiatives for the National Capital Region: Technical Report on Phase II of the TPB Long-Range Plan Task Force*, Transportation Planning Board (Dec. 2017), https://f0d3dd92-98e8-4a26-bc62-0ccf9ff9f227.filesusr.com/ugd/ecd536_28937c781136436ebf432adc5af39494.pdf.

[91] Bruce DePuyt, *Analysts: More Telework, Change in Habits Could Dramatically Ease Congestion*, Maryland Matters (Aug. 14, 2020), https://www.marylandmatters.org/2020/08/14/analysts-more-telework-change-in-habits-could-dramatically-ease-congestion/.

[92] I-270 Innovative Congestion Management Project, MDOT SHA, https://mdot-sha-i270-i70-to-i495-inno-cong-mgmt-mo0695172-maryland.hub.arcgis.com/.

[93] Capital Beltway Study Display Boards, at 7 (May 6, 2004), https://web.archive.org/web/20170202174503/http:/apps.roads.maryland.gov/WebProjectLifeCycle/AW518_11/HTDOCS/Documents/Informational_Public_Workshop/AW518 Display Boards.FINAL.5-6-04a.pdf.

[94] On that page, the SDEIS incorrectly argues that TSM/TDM would not enhance trip reliability, improve the movement of goods and services, or enhance multimodal connectivity. Clearly it would do these three things and could meet the project purpose and need except for being revenue generating. The proposed I-495 & I-270 toll lane Project will only be revenue generating for the private sector and will still have to be subsidized by taxpayers.

demand management strategies, including flexible work schedules, express buses, and telework, and transportation systems management strategies, such as ramp meters, lane and ramp adjustments, and queue-jumper lanes giving buses and trucks preference at ramp meters, would have less harmful impacts than the preferred alternative. They must be studied to fulfill NEPA's requirement that reasonable alternatives that avoid or minimize adverse impacts be reviewed and made available for public scrutiny and engagement.

2. The No Build has Faster Trips than the GP Lanes of the Toll Road for Round Trips and Afternoon Return Trips between I-370 and exits at River Road, Clara Barton and GW Parkway[95]

The SDEIS makes this conclusory statement that is unsupported by the study findings: "Overall, the Preferred Alternative provides tangible operational benefits that would be significantly better than the No Build." SDEIS at ES-12. This is not accurate in multiple different respects, from safety (*see* Sections II.H.7 to13) to travel time.

In fact, MDOT's own traffic data in the SDEIS Appendix A demonstrates that the no build has faster trips than the GP lanes of the toll road for round trips and afternoon return trips between I-370 and exits at River Road, Clara Barton and GW Parkway. This is also true if you start from Montrose Road.

The tables below show travel times advantage in minutes saved from data in the SDEIS Appendix A. SDEIS App'x A. For example, a round trip between I-370 and River Road has the no build 5 minutes faster (travel time is shortened by 5 minutes). The PM trips is faster by 6.4 minutes. The reason the no build afternoon travel time has a larger time advantage than the round trip is because the GP lanes in the morning trip are 1 to 2 minutes faster. But the evening travel time is so large it overwhelms the small morning advantage.

Travel Time Difference Between No Build (NB) and GP Alternative (GP), Starting from I-370

I-370 to	Round Trip (minutes)	PM trip from Exit to 370
River Road	5	6.4
Clara Barton	8.6	11.3
GW Parkway	7.3	9.9

Travel Time Difference Between No Build (NB) and GP Alternative (GP), Starting from Montrose Rd

Montrose to	Round Trip (minutes)	PM trip from exit to 370
River Road	5.3	6.6
Clara Barton	8.5	11.1
GW Parkway	7.6	10

[95] This analysis was done by retired scientist Dr. Arthur Katz.

The reason for the time advantage for the no build in the afternoon is the chokepoint from ending the Beltway toll lanes between the I-270 spurs. That can be seen in examining the trip time for the no build and GP lanes.

The afternoon trip from River Road to Democracy Boulevard, the first northbound exit on the I-270 west spur after River Road, is 6.3 minutes slower in the GP lanes than under the no build. This reflects the fact that the planned end point of the toll lanes on the Beltway between the east and west spurs and the reduction in the number of GP lanes on that portion of the west spur—from the current three lanes to two—has created so much congestion that it backs up traffic into the I-270/I-495 split and beyond, causing major slowdowns for the drivers in the GP lanes eastbound on the Beltway and northbound on I-270. The impact of the toll lanes can be seen in the fact that the DEIS 2040 projections for travel times for the no build and GP lanes to Democracy from the River Road exit were almost identical.

Comparison Between Travel Times from River Road in 2040 vs. 2045

River Road to		**2040**	**2045**
Democracy Exit, Spur	No Build	6.6	10.4
	Toll	7.4	16.7
Difference		0.8	6.3

3. The Need for the Project is Undercut by the Success of I-270 Innovative Congestion Management in Virtually Eliminating Congestion on I-270 below I-370 and The Increasing Trend Toward Teleworking

The traffic modeling in the SDEIS relies on outdated traffic data for I-270 from 2018. That data preceded the enormous move to teleworking and the completion of the SHA's $132,000,000 Innovative Congestion Management Project ("ICMP") improvements on I-270, which have added lanes and substantially reduced travel time on I-270 south of I-370, where the proposed toll road would be built.[96]

The new traffic management system on I-270 has solved many of the traffic issues on lower I-270 without new construction. The data in the SDEIS shows that southbound AM trips in 2045 from the beginning of the toll road expansion on I-270 at I-370 to destinations such as River Road, Clara Barton Parkway and GW Parkway will be 40-50% faster for the no build alternative than pre-pandemic trips. In other words, this is occurring now with traffic management, even without added lanes, much less toll lanes.

[96] According to DEIS App'x C at 16, "The I-270 Innovative Congestion Management (ICM) initiative is a Progressive Design-Build project to construct improvements along I-270 between I-70 and I-495, including the East and West Spurs. This project was announced in April 2017 as a series of targeted improvements with the goal of reducing congestion at key locations, with a scheduled completion in 2021. The project includes fourteen roadway improvements that increase capacity and vehicle throughput and address safety concerns and bottlenecks. The project also includes innovative technologies and techniques, including adaptive ramp metering and active traffic management strategies, including dynamic message signs and dynamic speed limits."

For example, as a result of these changes, the trip from I-370 to River Road on the Beltway will take half the time it took pre-pandemic (13 minutes vs. the pre-pandemic 26.2 minutes, average speed for the trip 46 mph vs. 21 mph pre-pandemic). *See* SDEIS App'x A, Table 2. The same dramatic improvement was also seen in the results of the DEIS for 2040. The no build improvement is happening today, in 2021, and will continue at least to 2045. This raises questions about why toll lane construction is being proposed.

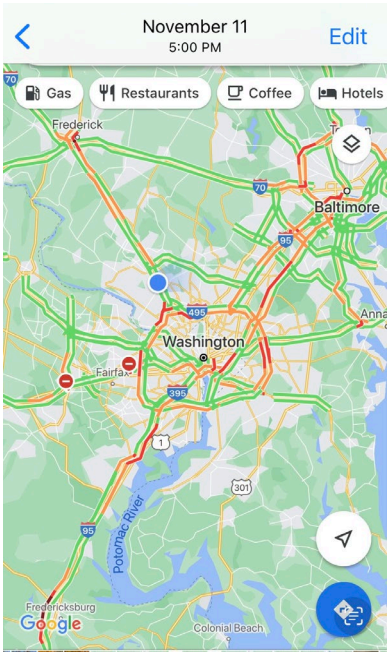
An independent daily recording of traffic speeds on I-270 between July 2021 and November 2021 gave further evidence that the ICM has already been successful. With guidance from an expert traffic engineer, an independent traffic recorder took daily screenshots of the traffic overlay on the Google Traffic App at 7:30, 8:00 and 9:00 in the morning and at 4:00, 5:00 and 6:00 in the afternoon. Screen shots were taken of 1) The whole metro area, from Frederick in the north to Fredericksburg in the south, to show all the places that had congestion 2) the entire length of I-270, from Frederick to the split at Democracy Blvd. and 3) just Lower I-270 from I-370 to the split at Democracy Blvd., which is where the proposed toll road would be.

The speed of the traffic is color-coded: green indicating at or above the speed limit, orange indicating moderate speed reduction and red indicating severe speed reduction.

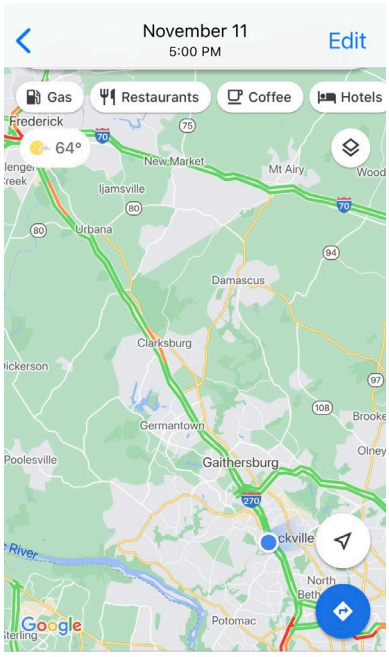
The independent traffic recorder then noted that from late July to late November, while much of the metropolitan area highways consistently experienced red or orange, Lower I-270 was nearly always green. When Lower I-270 was orange or red, the cause of slowdowns was identified, first by looking for an accident icon. If found, an extra screenshot of it was taken. If not found, the independent traffic recorder checked the weather radar at the exact times. If a weather disturbance was found, the independent traffic recorder took a screenshot of the radar, noting the existence of a heavy thunderstorm or other disturbance. Typical screenshots are shown in the figures below:

Representative screenshots of Google Map with Traffic Overlay

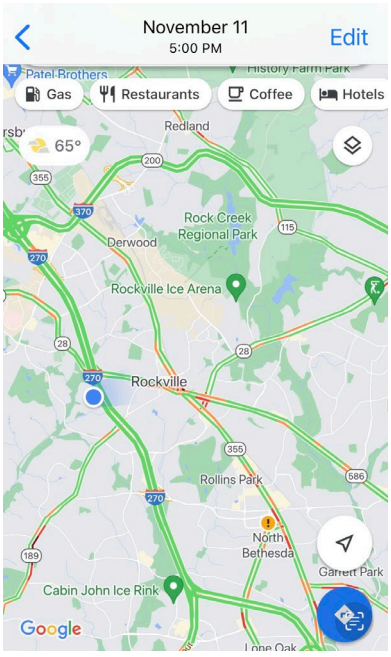
Whole Area



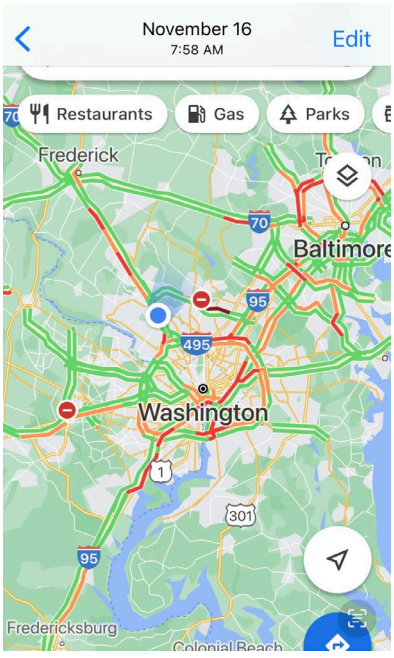
Entire I-270



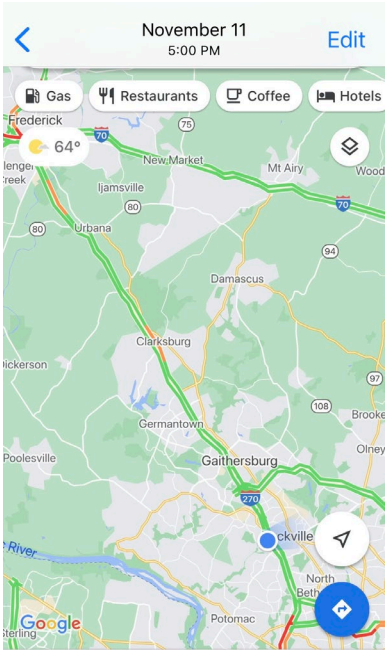
Lower I-270*



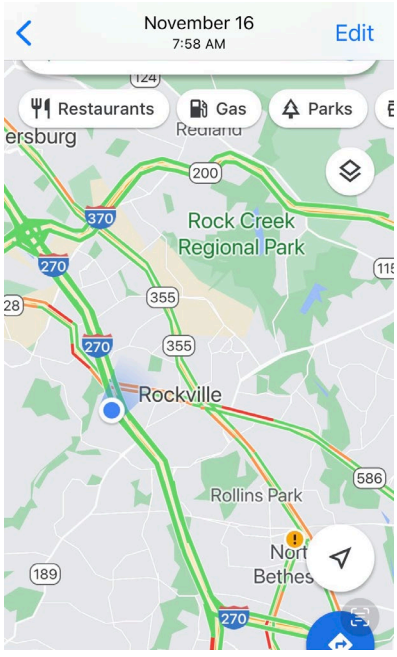
Whole Area



Entire I-270



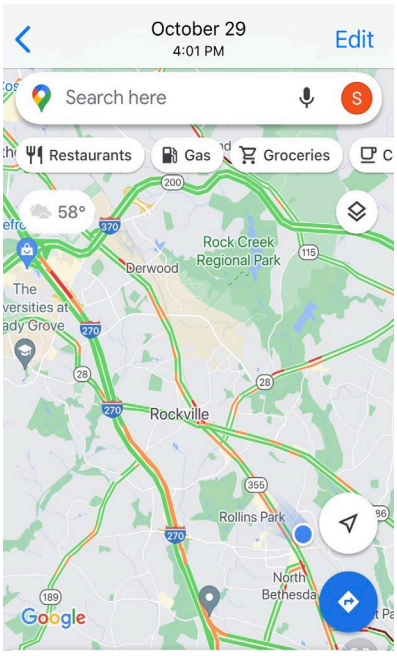
Lower I-270*

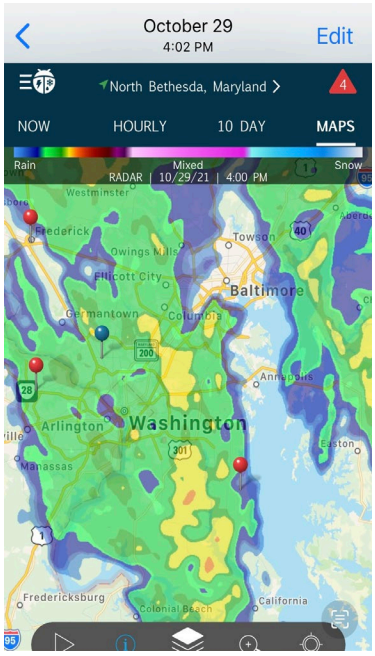


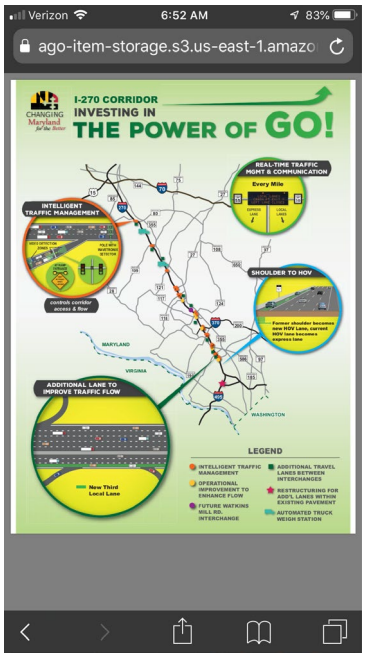
Key: Green = Free-flowing, Orange = Moderate slow-down, Red = Extreme slow-down

Storm-related slow-down and ICMP visual

Whole Area | Entire I-270 | Lower I-270*







Lower I-270 slows moderately | Radar show a thunderstorm | ICM I-270 Overview**

Key: Green = Free-flowing, Orange = Moderate slow-down, Red = Extreme slow-down

*Where Phase 1 South toll lanes would be built

** Large circle shows 8 lanes

The independent traffic recorder summarized that traffic speeds during peak travel times on Lower I-270 were normally free-flowing at or above the speed limit. This could not be said about I-495 or I-95 south in Virginia, where managed lanes have recently been built. The independent traffic recorder noted that those roads were frequently orange and red.

The independent traffic recorder observed that the traffic between Democracy Blvd and I-370 is currently *not* congested, even during rush hours, and noted that imposing toll lanes would likely create congestion because it would reduce the number of existing free lanes; the five years of construction would also create congestion. The recorder further noted that if traffic issues on the upper portion of I-270 were addressed through investments including transit,[97] more cars would be removed from both I-270 and the Beltway, helping further reduce congestion on both highways. The need to recognize that the I-270 ICMP has already addressed congestion on lower I-270 has been pointed out in various editorial pieces.[98]

[97] Transit options could include increasing MARC service via a third track and all-day service, extending the Metro Red Line, or a dedicated bus lane on I-270.

[98] Arthur Katz, *Opinion: The Myths Surrounding the I-495/I-270 Highway Expansion*, Maryland Matters (Aug. 21, 2020), https://www.marylandmatters.org/2020/08/21/opinion-the-myths-surrounding-the-i-495-i-270-highway-expansion/; Sonia Demiray, *Opinion: Pricey Toll Lane Plan Won't Solve Regional Traffic Issues*, Maryland Matters

The success of the I-270 ICMP was confirmed on November 10, 2021, by MDOT Secretary Greg Slater at the MDOT Consolidated Transportation Plan Tour ("Road Show") in Montgomery County. When asked about having "successfully fixed the problem from 370 to 495 [on I-270]", he said: "The transportation systems and management operations strategies that we've put out on 270 are absolutely working. They have been an effective strategy. They've been able to manage the traffic as they can in those kind of areas."[99]

MDOT's ICMP website, in the General Concrete, Inc. Contract (page 20) relates that the ICM improvements will relieve congestion on lower I-270 through 2040.[100] The findings of the DEIS confirm that there is no advantage of toll lanes on lower I-270 over the no build alternative through 2040. DEIS App'x C at 123-124. Data in the two tables on page 123 are explained with an asterisk: "Improved travel times along I-270 in Alternative 1/No Build are a result of the I-270 ICM initiative." In the northbound PM peak direction on I-270, the toll lanes might go three minutes faster than 2017 in 2040. In the southbound direction, building toll lanes would offer no travel time advantage over 2017 times.

The DEIS also says of the I-270 PM peak period:

- Conditions are generally projected to be acceptable under Alternative 1/No Build in the northbound and southbound directions due to the Financially Constrained Long-Range Transportation Plan (CLRP) programmed improvements, including the Innovative Congestion Management (ICM) initiative, except for congestion along the I-270 Southbound East Spur due to spillback from I-495

(Nov. 1, 2021), https://www.marylandmatters.org/2021/11/01/opinion-pricey-toll-lane-plan-wont-solve-regional-traffic-issues/.

[99] MDOT Consolidated Transportation Program Presentation (Nov. 10, 2021), https://www.youtube.com/watch?v=0rFAps6rNpo&t=4460s.

[100] Technical Proposal Progressive Design-Build (PDB) IS 270 – Innovative Congestion Management Contract, at 20 (Jan. 19, 2017), https://ago-item-storage.s3.us-east-1.amazonaws.com/0e429362abe24844beeef29a92d50959/I-270_Innovative_Congestion_Management_Tech_Proposal_and_Analysis.pdf?X-Amz-Security-Token=IQoJb3JpZ2luX2VjECUaCXVzLWVhc3QtMSJGMEQCIDddFBFtpeF0ii%2F8laQA9jD9I62Ip7CzKtA%2FmamkgFHbAiAuslXx0MrfMTmTju6zNf3YnGuaHJkZxpv9Z5t3KxLn8SqDBAjt%2F%2F%2F%2F%2F%2F%2F%2F%2F%2F8BEAAaDDYwNDc1ODEwMjY2NSIM0l6jCzjcQhtmnPnaKtcDqrG0H8ZBOML4mNkY2f07YfSiNTILloEZgXvnDZbBm97et%2FEfL993DnbTY2i9TtKmLscF5GV6j5zY6Ai6BmS%2Bsig%2BSgyc33cjMwq5%2Fktc25C70yycix4KMma6DUExJxvhswuD75c9%2BYpRqGm2GkLeu1%2Fds55Kmay5NKPfzLx7Fc07tqmCCfbEiSajUKnj9euN6A%2FZi7wSNrLQdWUNnw96Ijb%2BU20Z9MRBWzXIH5koHroUBWr3vc8D6dAFHkPpFz9b6io7sPKBq2SZfWEGQgWuToExgzC9TNp%2BGqJnK0I4U1kkR3g%2F73an%2FmNKQJcvE5y9JMRYnPRyvGORlc3iVMzr%2F53CO49X4Lyleb3fX18nGpsJTVZY%2B9zV8NWAgMBCZTaGNNXkJcb32OiBwQWhEmiUHup8AvzQaTXeBexiwmJ%2B8s2xpMXQZkRsxAIESoReG5O63DWwpVNV440gSSf%2F1bTg98%2FaOtWI0xcoUOAsgUHA0oP0C9IzkckWQej1sX3Gm23%2BgZXgtX7LLNfusxvidczQDKJero7XqMkpHFcuUmCTuVp8hn46unLLEVxpvtqGmoKafpqCfHPFeJtq1d%2Bbb1vo15d1IZDB9wpBBPnwMbT6WVp6IPmj9f4JMLismI0GOqYBoEPVFH54yQwJWyrVxSIN79yfAMYlVoJte4IMZ1UBbZA%2Bq%2FpOrwH9FlpTLfqjwpntGL4UpRp0aCo%2BynyHClg%2FpCsmaVjRzWHpmk3ipQaPyd%2BpvuUHmv7%2BMCf09upFXlvmOUysCvOEUpmW%2BlJd5bSgVXKcdfxuEwucZnTHYd%2FUSuUpyVRG5pVgjiGa7tmL4KW3cPzPfwe3a1GoatgRLqIbN3gqs5X%2F5g%3D%3D&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Date=20211130T130236Z&X-Amz-SignedHeaders=host&X-Amz-Expires=300&X-Amz-Credential=ASIAYZTTEKKE6XNNRSU2%2F20211130%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Signature=b865201572e77bfa4806ae4d1e663db53e93f5b629e1b801458d96694b5d5eba.

- In some cases, the Build Screened Alternatives are projected to operate worse than Alternative 1/No Build along I-270 due to increased volumes in the system and/or reduced capacity in the off-peak direction from the removal of the HOV lanes.

DEIS App'x C at 124-125.

The SDEIS shows the preferred alternative will not lessen the worst evening traffic.[101] The clearly unfavorable outcomes of toll lanes on lower I-270 as spelled out in the DEIS and SDEIS raise questions about why toll lanes are even being considered for I-270 from I-495 to I-370. Governor Hogan himself said of the current plan to go from the ALB to I-370 is "not going to do much to solve the traffic."[102]

Accordingly, the I-270 portion of the proposed expansion should be removed from further consideration. The toll road has no discernable transportation benefits in relation to the no build alternative. The GP lanes using MDOT's own numbers show no significant transportation improvement over the no build southbound in the AM or northbound in the PM. This is also true of the toll lanes. The toll lanes have a small, 2- or 3-minute advantage over the no build for the trips between I-370 and I-495 in the morning and evening peaks, but that is not significant enough to justify the community and traffic impacts elsewhere, the contractual liabilities in the likely event that the Project does not generate the expected revenue for the private multinational company, and the multibillion-dollar cost of all the interchanges that will need to be rebuilt in the project area.

4. Innovative Congestion Management Initiatives Have a Demonstrated Ability to Address Congestion and Must Be Considered as or Part of a Project Build Alternative

As the foregoing demonstrates, the effectiveness of the ICMP proves that there are alternatives to the proposed build option that would adequately address the purpose and need of the Project while avoiding or significantly reducing adverse environmental impacts, including impacts on environmental justice populations and Section 4(f)-protected resources.

The demonstrated effectiveness of the ICMP requires a reconsideration of alternatives that were eliminated from consideration under NEPA. Even a very limited package of improvements is sufficient to partially address the purpose and need of the Project in terms of accommodating current traffic levels and relieving current traffic congestion. A fuller package of improvements that included additional investments in transit and more, would fully address the purpose and need for the Project. Implementing ICMP and similar strategies on the Capital Beltway would be a prudent and feasible alternative that would avoid the serious section 4(f) impacts we have identified. Such an alternative must be considered under NEPA, and Section 4(f) requires its selection.

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[101] Katherine Shaver, *Toll Lanes on Beltway, I-270 in Maryland Wouldn't Lessen Worst Evening Traffic Without Other Improvements, Study Says*, Washington Post (Oct. 1, 2021), https://www.washingtonpost.com/transportation/2021/10/01/maryland-toll-lanes-traffic/.

[102] Colleen Grablick, *Maryland Shrinks Plan To Add More Lanes To The Beltway*, DCist (May 12, 2021), https://dcist.com/story/21/05/12/maryland-reduces-beltway-expansion-plan-to-focus-on-northern-region/.

5. MDOT Selected Misleading Traffic Endpoints that Obscure the Seriousness of the Traffic Failures Produced by the New I-270/I-495 Toll Lanes

In collecting/analyzing traffic data, MDOT in SDEIS Appendix A selected misleading traffic endpoints that obscure the seriousness of the traffic failures produced by the new I-270/I-495 toll lanes. To give an example, SDEIS Appendix A uses the VA 193 exit as the starting point on several trips, which is not even controlled by MDOT. If the GW Parkway is chosen as the starting point, the no build trip is 10 minutes faster than the Build GP trip.

As shown earlier, if trips beginning at the GW Parkway, the American Legion Bridge, Clara Barton Parkway, or River Road to I-370 were shown, they would reveal the Build GP lanes are significantly slower than the no build—6.5 to 11 minutes—for those trips. These trips represent the essence of this construction plan.

The point above is demonstrated by data from Virginia.[103] The 495 NEXT Revised Environmental Assessment (May 2021) included this paragraph regarding Build GP lanes.

Screenshot from the 495 Next Environmental Assessment

PM Peak Period: General Purpose Lanes—Under 2045 Build conditions, travel times along the northbound I-495 GP lanes between Route 123 and the ALMB decrease by approximately five minutes when compared to 2045 No Build conditions. Travel times along southbound I-495 GP lanes between the ALMB and Route 123 remain generally consistent compared to 2045 No Build Conditions.

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This data demonstrates that the travel time reduction in the general-purpose lanes comes from the travel time improvements in Virginia rather than from building toll lanes in Maryland.

6. Further Traffic Model Issues: The Traffic Model Used in the SDEIS Gives Results that Defy Logic

Multiple expert members of several groups concluded that the output of the SDEIS's traffic model is contrary to common sense, logic, and accepted traffic forecasting methodologies.[104] The traffic model results also contradicted results by MDOT itself, before Maryland suddenly changed its preferred alternative in May 2021. The SDEIS traffic model fails at the merge at Wisconsin Avenue and several other notable locations, predicting traffic increases or decreases that do not

[103] I-495 Express Lanes Northern Extension Revised Environmental Assessment, at 2-9 (May 2021), www.495northernextension.org/documents/studies/070121/i-495_next_revised_ea_-_may_2021.pdf.

[104] See more here: Letter from MTOC, CABE, and DontWiden270 to Acting FWHA Administrator Stephanie Pollack, (Oct. 18, 2021), https://transitformaryland.org/sites/default/files/pollackletter.pdf.

make sense and are not credible.[105] For illogical results to come from a model, they must be explained. The SDEIS does not explain the surprising and logic-defying model results.

As a result, the SDEIS provides no basis for determining whether the preferred alternative satisfies the Project's purpose and need, what the air pollution and noise impacts will be, and whether it will disproportionately harm environmental justice populations.

The expert comments demonstrate that the projections for areas many miles away from the toll roads are incorrect. The SDEIS estimates that for trips going east during the peak afternoon period that pass through the Old Georgetown Road to the 355 Beltway segment represent half the volume in the next segment 355 to Connecticut Avenue. "We then have a dramatic change of doubling traffic in that short distance. And we are supposed to know what that means 30 miles later."

The peak afternoon travel volumes for each hour from 3 to 7 PM for the road segments – 355 to Connecticut Avenue and Connecticut Avenue to Georgia Avenue. The difference in the volume between the no build and GP lanes is 1.5 to 2.5 percent, except in the 4 to 5 PM hour, where it is slightly higher. Nevertheless, the projected travel times show a 30% travel time advantage for the GP in the segment from 355 to Connecticut Avenue and a 40% travel time advantage in the Connecticut Avenue to Georgia Avenue segment. It is difficult to see how that is possible.

The SDEIS Appendix A incorrectly shows that the travel time is faster for the build GP lanes than for the no build until it reaches the I-270/I-495 Beltway split. Elsewhere, MDOT's own numbers show that by the time you reach the Clara Barton Parkway the GP lanes are slower than the no build. The SDEIS also incorrectly shows the no build and build GP lane travel times are essentially the same, 50 minutes for the no build and 51 for the build GP lanes. However, MDOT's own numbers for the PM trip from GW Parkway at the American Legion Bridge to I-370 shows the no build is 10 minutes faster: 42 minutes for the no build and 52.1 for the build GP lanes. SDEIS App'x A Attachment E Table "Commute from the American Legion Bridge to ICC (PM)," at PDF p. 142.

It does not appear that the Agencies performed any routine checks to examine whether the traffic model needed updating or fixes to be adequate. This is contrary to accepted practice, as set forth in the AASHTO *Practitioner's Handbook #3: Managing the NEPA Process for Toll Lanes and Toll Roads*,[106] which discusses "Traffic Forecasting for Tolled Alternatives" as a key technical document, and the first question on the checklist is: "Are improvements to the model needed before the NEPA forecasts are developed?"

Comparison of alternatives, the fundamental purpose of an EIS, is impossible when the traffic model lacks credibility. Moreover, the public cannot intelligently comment on key aspects of the environmental analysis, among them whether the preferred alternative satisfies the purpose

[105] See more here: Letter from MTOC, CABE, and DontWiden270 to Acting FWHA Administrator Stephanie Pollack, Oct. 18, 2021, https://transitformaryland.org/sites/default/files/pollackletter.pdf.

[106] *Practitioner's Handbook #3: Managing the NEPA Process for Toll Lanes and Toll Roads,* AASHTO (Aug. 2016), https://environment.transportation.org/wp-content/uploads/2021/05/ph03-2-1.pdf.

and need, and the extent of air and noise pollution, and the extent to which the preferred alternative will impact environmental justice populations. The traffic model presented in the SDEIS is not credible and needs to be replaced in a future environmental impact statement with one that is corrected and uses a thoroughly validated traffic model. The traffic modeling done for this SDEIS cannot be a basis for advancing a project of this scale adjacent to the nation's capital.

7. Improving Safety Is Not Part of the Purpose and Need of this Project and Is Largely Unanalyzed and Unaddressed in the DEIS and SDEIS[107]

As will be discussed further in subsequent sections, the Maryland toll-lane plan would make the general purpose less safe than they are today.

Unlike some past highway projects, improving safety is not a part of this Project's purpose. This Project's purpose and need as stated in the SDEIS is:

> The purpose of the Study is to develop a travel demand management solution(s) that addresses congestion, improves trip reliability on 1-495 and 1-270 within the study limits and enhances existing and planned multimodal mobility and connectivity.
>
> The needs for the Study are:
>
> - Accommodate Existing Traffic and Long-Term Traffic Growth
> - Enhance Trip Reliability
> - Provide Additional Roadway Travel Choices
> - Improve Movement of Goods and Services
> - Accommodate Homeland Security.
>
> Two goals for the Study were identified in addition to the needs: (1) the use of alternative funding approaches for financial viability and (2) environmental responsibility.

SDEIS at 1-2 to 1-3.

This contrasts for example with a previously considered project purpose for managed lanes on the Maryland Capital Beltway, which was

> To determine the most feasible and effective means to:
>
> - Improve regional mobility
> - Provide enhanced safety
> - Maximize travel operational efficiencies
> - Provide cost-effective transportation infrastructure

[107] This section was reviewed and refined under the guidance of Byron Bloch, a national vehicle safety and crashworthiness expert. Mr. Bloch is a national court-qualified vehicle safety expert, has testified at U.S. Congressional hearings on vehicle and traffic safety, and was awarded the Lifetime Achievement Award at the 2001 World Traffic Safety Symposium in New York.

- Address current and forecasted travel demand in the Capital Beltway corridor
- Support the area's economic growth and the environment.[108]

This is a serious omission, particularly given that the overall mission of FHWA is "to enable and empower the strengthening of a world-class highway system that *promotes safety,* mobility, and economic growth, while enhancing the quality of life of all Americans."[109] It is therefore wholly unacceptable that the SDEIS fails to disclose serious safety impacts and impermissibly defers their identification and analysis, saying:

> The FEIS and Interstate Access Point Approval (IAPA), which is an FHWA approval to ensure safety, operations, and engineering acceptability on the interstate system, will include a more detailed assessment of the future mainline and localized operational impacts of the Preferred Alternative. Opportunities to further address safety and operations will be evaluated on the Selected Alternative after the conclusion of NEPA and during final design.

SDEIS at ES-12.

The SDEIS includes a statistical review of historic crash data along I-270 and I-495 to help identify potential safety impacts of the Managed Lane Study. However, the SDEIS fails to include any suggestions or insights about how to mitigate or prevent the continuation of such crashes. In the five-year study period of 2012-2016, there were a total of 2,918 crashes along 1-270. There was no breakdown of the types of injuries, nor their severity, nor was there information about how many were crashes of large trucks and tractor- with passenger vehicles (cars, minivans, SUVs).

8. The SDEIS Fails to Disclose the Project's Serious Adverse Safety Impacts for Users of the Post-Project General Purpose Lanes[110]

The SDEIS and project materials suggest as a general matter, improvements in safety on tolled lanes,[111] but fail to disclose the reductions in safety of future post-toll lane general purpose lanes compared to today for general purpose lane travelers.

Under the preferred alternative, the GP lanes would become less safe due to additional traffic and congestion; new and worsened bottlenecks with end merge-point congestion; loss of the left lane shoulder; a higher concentration of 18-wheelers due to avoidance of high tolls and the post-COVID-19 boost in trucking; and removal of an existing non-tolled lane in each direction of

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[108] Capital Beltway Study Display Boards, at 6 (May 6, 2004), https://web.archive.org/web/20170202174503/http:/apps.roads.maryland.gov/WebProjectLifeCycle/AW518_11/HTDOCS/Documents/Informational_Public_Workshop/AW518 Display Boards.FINAL.5-6-04a.pdf.

[109] About, U.S. Department of Transportation Federal Highway Administration (Sept. 17, 2012), https://www.fhwa.dot.gov/about/ (emphasis added).

[110] This section was reviewed and refined under the guidance of Byron Bloch, a national vehicle safety and crashworthiness expert.

[111] http://495northernextension.org/documents/pim092021/2021-09-29_495_next_pim_presentation_final.pdf, at 15; https://mdta.maryland.gov/sites/default/files/Files/ALB270/201118_Letter_AMP_to_MDTA_Toll_Rates_ADA.pdf, at 2.

I-270, squeezing more traffic into fewer free lanes. Each of these changes to the GP lanes as a result of the preferred alternative is associated with an increase in crashes and decrease in safety.

As a result of policy and other decisions made for the preferred alternative, the GP lanes would not see improved traffic flow in many places during peak travel and would in fact become more, not less, congested. As one news article put it, "Toll Lanes Won't Help Regular Lane Drivers at Evening Peak."[112] Only a small fraction of drivers, those paying the high tolls,[113] would experience a relatively small reduction in evening congestion in the peak direction.[114] Some drivers would face worse congestion due to worsened traffic bottlenecks.

Early toll-lane promotional information in Virginia advertised the express lanes as a "safer ride" because of the absence of trucks and because—for those who pay the toll—express lanes "reduce congestion, the greatest cause of Beltway accidents." In other words, the private partners in Virginia have publicly acknowledged that only users of the toll lanes would experience improvements in safety.

In Maryland, unaffordable tolls for truckers[115] would discourage them from using the toll lanes and keep trucks on the GP lanes, where an increased concentration of trucks and increased congestion would be expected to cause more accidents. Heavy trucks and tractor- trailers need much greater stopping distances than do cars. If the cars ahead need to suddenly slow or stop, the large trucks may be unable to avoid the crash.

Furthermore, truck concentration on highways has increased in most of the country post-COVID-19.[116] Truck traffic is up 13% in Maryland compared to 2019.[117] Truck accidents in Maryland have also increased post-COVID-19[118] and the safety of first responders has been under

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[112] Colleen Martin, *Toll Lanes Won't Help Regular Lane Drivers at Evening Peak: Study*, Patch (Oct. 1, 2021) https://patch.com/maryland/silverspring/toll-lanes-wont-help-regular-lane-drivers-evening-peak-study.

[113] *TOLLS: Drivers Could Pay $50 for a Trip Around The Beltway*, WNCT9 (July 14, 2021), https://www.wnct.com/news/national/tolls-drivers-could-pay-50-for-a-trip-around-the-beltway/.

[114] Katherine Shaver, *Maryland Toll Lanes: Beltway, I-270 Lanes Wouldn't Improve Worst Evening Traffic in Regular Lanes, Study Says*, Washington Post (Oct. 1, 2021), https://www.washingtonpost.com/transportation/2021/10/01/maryland-toll-lanes-traffic/.

[115] Tyson Fisher, *Capital Beltway Toll Rates Draw Scrutiny From Residents and Elected Officials*, Land Line (July 15, 2021), https://landline.media/capital-beltway-toll-rates-draw-scrutiny-from-residents-and-elected-officials/.

[116] Michael Sivak, *States with the Highest and Lowest Truck Traffic on Interstate Highways*, Green Car Congress (March 16, 2021), https://www.greencarcongress.com/2021/03/20210316-sivak.html ("During the week of March 1 through March 7, 2021 (the latest available data), truck traffic on all interstates increased by 12% compared with the corresponding week in 2019, while passenger-vehicle traffic decreased by 9%.").

[117] Alex Argiris, *Environmental Lessons for Maryland in Wake of COVID-19*, Baltimore Fishbowl (Nov. 18, 2021), https://baltimorefishbowl.com/stories/environmental-lessons-for-maryland-in-wake-of-covid-19/.

[118] Bruce Leshan, *36 Truck Crashes on Beltway's 'Big Curve' and Crews Can't Figure Out How to Make it Stop*, WUSA9 (Sept. 15, 2020), https://www.wusa9.com/article/traffic/three-dozen-truck-crashes-on-beltways-big-curve-highway-officials-cant-stop-it/65-a45b0402-c344-465d-a9e1-91a5f0984684.

greater threat.[119] Members of the Bethesda-Chevy Chase Rescue Squad report, "Since March [2020] we've had an increase in calls involving tractor-trailers—so much so the state has started to pay attention. Rain almost guarantees running a jackknifed big rig . . ."

Under the proposed Maryland toll-lane plan, the GP lanes would become less safe due to additional traffic and congestion; new and worsened bottlenecks with end merge-point congestion; loss of the left lane shoulder; a higher concentration of 18-wheelers due to avoidance of high tolls and the post-COVID-19 boost in trucking; and removal of an existing non-tolled lane in each direction of I-270, squeezing more traffic into fewer free lanes.

Each of these changes to the GP lanes as a result of the preferred alternative is associated with an increase in crashes and decrease in safety.

The HOT lanes in Virginia in pre-COVID-19 times carry about one-sixth[120] of the vehicles while the GP lanes carry five-sixths or 85%. That is despite the fact that the HOT lanes would take up about one third of the space. At present, the Virginia HOT lanes are transporting far less than one sixth of the vehicles on I-495.

In short, while the proposed toll lane scheme may have some benefits for an affluent minority, it places the lives of some 85% of travelers at greater risk than before.

The new configuration puts not only drivers and passengers at greater risk but first responders. Safety has not been considered at all, let alone considered as a criterion for making choices in the SDEIS.

This is a serious deficiency for a road project adding 42 new lane miles; it shows a lack of engagement with the public welfare and public safety and must be addressed thoroughly and transparently for the public prior to a FEIS which becomes the basis for making final decisions.

Consider what happened to the general-purpose lanes in Virginia after the toll lanes were added. The Infrastructure Justification Report[121] for I-495 NEXT project in Virginia reported that for the northbound I-495 general purpose lanes: "The crash rate for northbound I-495 GP lanes from Route 7 to the ALMB [American Legion Memorial Bridge] is approximately 100 percent higher than the statewide crash rate. The injury crash rate is 25 percent higher than the statewide injury crash rate. … The northbound section includes the current northern terminus of the I-495 Express Lanes, 5 merges, 4 diverges, and a dynamic shoulder use lane."

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[119] Jacob Sorensen, *Less Traffic, More Trouble: Truck Crashes Spike During COVID-19*, EMS World (Sept. 2020) https://www.hmpgloballearningnetwork.com/site/emsworld/article/1224774/less-traffic-more-trouble-truck-crashes-spike-during-covid-19.

[120] Norm Marshall, Review of Maryland I-495 & I-270 Managed Lanes Project Draft Environmental Impact Statement and Draft Section 4(f) Evaluation, Oct. 2020. https://www.sierraclub.org/sites/www.sierraclub.org/files/sce/maryland-chapter/MD%20Managed%20Lanes%20DEIS%20Traffic%20Review%2010-29-2020.pdf.

[121] I-495 Express Lanes Northern Extension (NEXT) Interchange Justification Report, VDOT (Apr. 2021), https://495northernextension.org/documents/studies/070121/i-495_next_ijr_report_and_exhibits_combined_2021-04-26_with_all_signatures_ne.pdf.

Given the known decrease in safety for the post-build GP lanes and 85% of road users, and the example of what occurred in Virginia, much more care needs to be given to safety considerations for post-toll lane general purpose lanes and new merge-point bottlenecks at the ends of the toll lanes. Deferring consideration of such impacts to a time when the public is unable to review is not appropriate and threatens public safety.

9. End Merge Point Congestion Safety Risks and Associated Environmental Justice Impacts Were Not Disclosed

The Virginia Express Lanes opened in 2012. End merge point congestion quickly became a major problem that was not adequately foreseen or recognized in impact statements. The 2014 VDOT report entitled "I-495 Northern Section Shoulder Use Project Traffic Forecasting and Analysis Report" explains the decision to use a shoulder lane to alleviate merge point congestion and safety issues near the northern terminus of the toll lanes. The report (page 86) says the decision to use the shoulder lane from 7–11 AM and 2–8 PM was to "allow VDOT to optimize the performance of the existing I-495 roadway infrastructure, enhance its traffic carrying capability, and *improve the safety of the merge between the general purpose lanes and Express Lanes* [italics added] without substantial widening of I-495 and other impacts."

Seven years later, the problem of merge point congestion is intended to be addressed by Virginia's 495 NEXT project with Transurban. 495 NEXT is described by VDOT as a "2.5-mile extension of the 495 Express Lanes north to the American Legion Bridge to reduce congestion" that would "[help] address one of the worst bottlenecks in the region and reduce cut-through traffic in local McLean neighborhoods."[122] And yet, Virginia's decision to do this extension before Maryland finalizes its plans and clears the NEPA process could cause more of the same merge point congestion in Virginia, unless the merge point congestion is moved to Maryland:.

> [Supervisor John] Foust, who represents the McLean area which is most impacted by congestion caused by the merge of the current toll lanes into the main lanes approaching the American Legion Bridge, said moving forward without a commitment from Maryland to widen or replace the American Legion Bridge "is exposing us to permanent impacts that worsen the situation."
>
> "For many years, I have supported widening or replacing the American Legion Bridge because I know it is important to our residents and it's important to our economy," said Foust. "But I honestly believe that until Maryland replaces the bridge and widens its side of the Beltway, 495NEXT provides those who can afford to pay the tolls a way to cut in line and arrive a few minutes sooner to the congestion at the bridge while adversely impacting everyone else."[123]

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[122] *Virginia and Transurban Sign Agreements to Invest More Than $1 Billion in Northern Virginia Transportation*, VDOT Newsroom (Jan. 29, 2019), https://www.virginiadot.org/newsroom/northern-virginia/2019/virginia-and-transurban-sign-agreements-to-invest-more-than-1-billion-in-northern-virginia-transportation1-29-2019.asp.

[123] Ken Moore, *Pressure Mounts, Opposition Remains; Virginia Predicts Maryland Will Have Additional Toll Lanes Running Across the American Legion Bridge by 2027*, Connection Newspapers (April 21, 2021), http://www.connectionnewspapers.com/news/2021/apr/21/pressure-mounts-opposition-remains/.

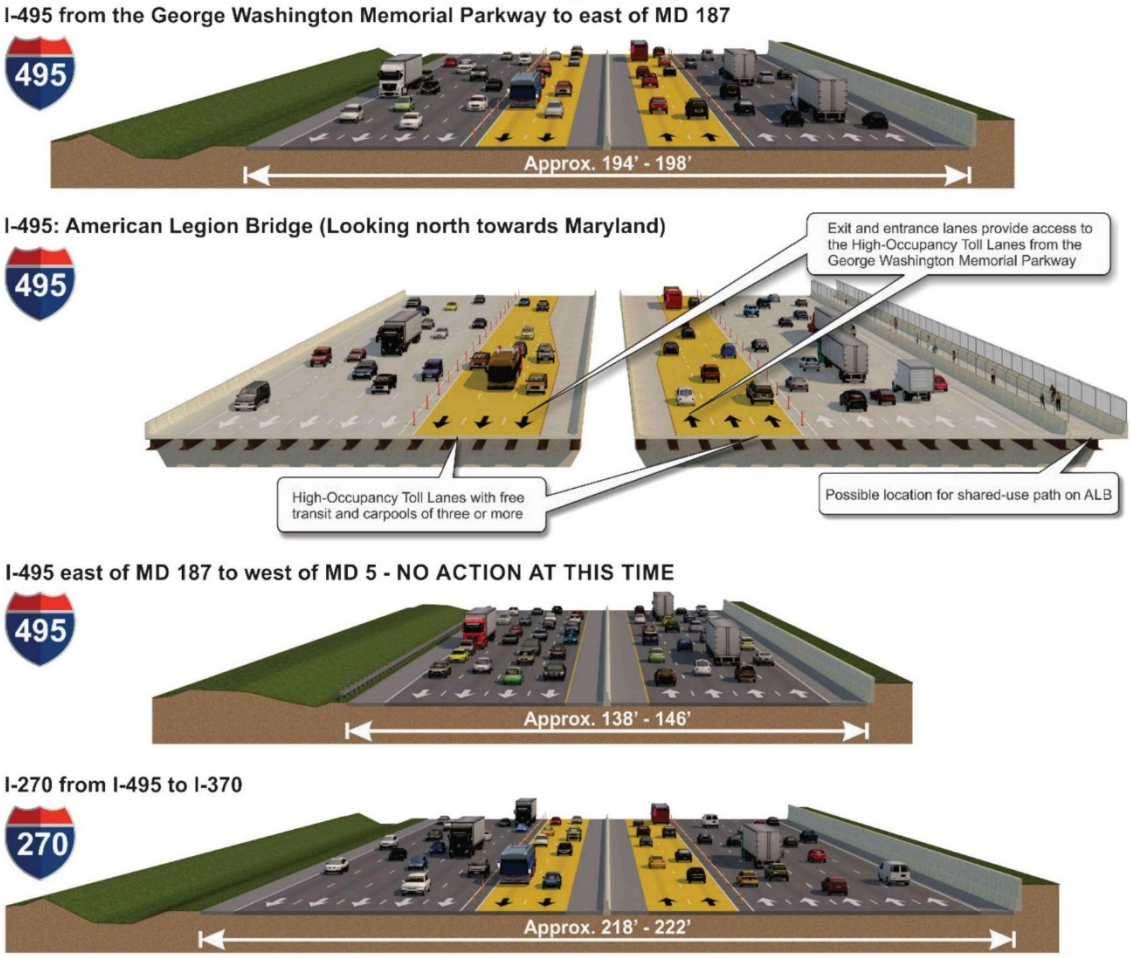
This will similarly be the case with the merge point congestion and new larger bottlenecks at the termini of the toll lanes in Maryland around the Wisconsin Avenue merge on 495 and around Shady Grove on I-270.

In Maryland, the I-270 end point of the toll lanes is in a location high in environmental justice populations. Therefore, the congestion, air quality and safety impacts will disproportionately impact environmental justice populations. This was not considered in the SDEIS. Also, environmental justice populations in eastern Montgomery County and Prince George's County who work in the more job-rich western part of the region would also have to endure a large traffic bottleneck where the toll lanes end on their commutes home. This was also not considered in the SDEIS.

10. The SDEIS Failed to Disclose Reduction in Safety on General Purpose Lanes Due to Preferred Alternative's Removal of General Purpose Inside Shoulder Lanes

The SDEIS failed to disclose that the preferred alternative's new configuration with the HOT lanes will remove inside shoulder lanes from the Maryland general purpose lanes, thereby reducing the safety of the GP purposes. The 2014 VDOT "I-495 Northern Section Shoulder Use Project Traffic Forecasting and Analysis Report" acknowledges that important safety function performed by the inside shoulder lanes when it considered shoulder lane use to alleviate merge point congestion and safety issues near the northern terminus of the toll lanes. That report also says (p. 83) that during off peak times the shoulder lane "will not be open to traffic in order *to provide the safety and operational benefits of an inside shoulder including providing access for emergency vehicles and a location for motorists to stop in an emergency situation*." (emphasis added). The SDEIS failed to disclose the safety issues posed by removing the inside shoulder lanes from the Maryland general purpose lanes in the new configuration with the HOT lanes.

Figure ES-1: Alternative 9 – Phase 1 South Typical Sections (HOT Managed Lanes Shown in Yellow)



Proposed configuration for HOT lanes in Maryland, SDEIS page ES-8

11. The SDEIS Failed to Estimate the Impacts of Toll Lanes on Accident Rate

Knowing the safety issues discussed above and the likelihood of increased accidents on the regular lanes due to the new configuration of the general-purpose lanes after building toll lanes, the accident rate for the preferred alternative needs to be estimated and disaggregated to show the accident rate by lane type (toll or GP). Since there will be a significant increase in exit and entrance ramps needed for the toll lanes, that needs to be a major factor in the estimates as well. The public needs to see a clear presentation of baseline numbers for accidents and fatalities on the two highways as well as the post-project estimates.

12. Slip Lanes Create Known Safety Hazards Yet the SDEIS Failed to Disclose or Address Them

The SDEIS (pages 3-4) says that there will be:

> A Set of Exchange Ramps, including one (1) slip ramp per direction: [on the] Outer loop exchange ramp from Maryland high-occupancy toll (HOT) managed lanes to Virginia GP lanes south of the ALB [and on the] Inner loop exchange ramp from Virginia GP lanes to Maryland HOT managed lanes north of Clara Barton Parkway.

SDEIS at 3-4. Yet the SDEIS says nothing of the safety issues associated with using slip ramps.

Left entrance slip lanes are dangerous and lead to increased accidents. This was admitted in a VDOT December 15, 2020 Technical Memorandum entitled "I-495 Express Lanes Northern Extension (NEXT) Project Left-side Express Lane Entry/Exit Slip Ramps."[124] It specifically identifies "the increase in frequency and severity of crashes and operational issues as a result of speed differentials and six-lane weaving maneuvers required" as reason not to do them and as reason to subsequently replace slip ramps with interchanges.

It states:

> Left-side entry/exit slip ramps have a number of constraints and challenges which make their use challenging and typically undesirable. VDOT and Transurban have been removing these types of ramps where possible along the I-95 Express Lanes corridor due to safety and operational issues observed in the field and confirmed with analysis data.[125]

It continues:

> As demonstrated by the previously mentioned issues identified along the I-95 corridor, notable safety and operational issues are associated with a configuration where faster flowing traffic from the ELs must merge suddenly with congested and slower-moving traffic in the GP lanes in a short distance, with little or no storage area. This configuration increases the potential for, and frequency / severity of, the following problems:
>
> - Sideswipe and rear-end crashes due to speed differentials between ELs traffic attempting to merge and congested GP lanes traffic;
> - Queuing on the proposed transition ramp area that spills back from the GP lanes due to merging traffic, and that potentially causes dangerous back-ups onto the through lanes of the mainline ELs;
> - "Hot-spot" speed reductions on both the ELs or the GP lanes that occur suddenly and are driver expectancy issue."[126]

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[124] VDOT, I-495 Express Lanes Northern Extension (NEXT) Project Left-side Express Lane Entry/Exit Slip Ramps, PDF pp. 21-25, https://495northernextension.org/documents/pim092021/2021-09-29_495_next_pim_meeting_notes.pdf.

[125] *Id.* at 21.

[126] *Id.* at 25.

In response to a question posed at an informational meeting on September 29, 2021,[127] VDOT further explained: "At-grade entrances require vehicles in the general purpose lanes to maneuver from the right side to the left side to access the slip lanes. This causes major weaving issues immediately downstream of interchange on-ramps for vehicles trying to access the Express Lanes – causing congestion hot spots and safety issues."

The 2020 DEIS mentions additional uses of slip lanes on the eastern part of I-495 – "At-grade slip ramps along I-495 between the Baltimore-Washington Parkway and MD 450" (page 2-34) and "At-grade slip ramps along I-495 between MD 214 and Ritchie Marlboro Road" (page 2-35). The traffic analysis (Appendix C) says: "slip ramps would not be needed except at termination points. These termination points are: • The northern end of I-270 • The southern end of I-495 east of the Woodrow Wilson Memorial Bridge • Near the American Legion Bridge in Maryland and the Dulles Toll Road in Virginia." It is interesting that the DEIS is talking about slip ramps well outside of the study area east of the Woodrow Wilson Memorial Bridge.

Slip ramps to the managed lanes are clearly a part of the proposed plan in Maryland yet neither the main document nor appendices of DEIS or SDEIS mention the safety issues and undesirability of slip ramps.

Furthermore, the location for the preferred alternative's slip ramps is around the junction where the trucks allowed on Maryland's HOT lanes will have to merge into Virginia's general-purpose lanes (because big rigs are banned from Virginia's HOT lanes), further raising risk of rapid truck lane changes in the area surrounding the American Legion Bridge. Likewise, and also increasing peril for drivers, on the Inner Loop in the northbound direction, tractor trailer trucks would be making quick movements to merge to enter the Maryland HOT lanes via slip lanes.

The I-495 & I-270 MLS SDEIS says nothing about the safety issues with slip ramps. The word "slip" does not occur in the SDEIS traffic appendix (Appendix A) and occurs only a single time in the SDEIS to mention the use of slip ramps on pages 3-4. Once again, the SDEIS has failed to mention an important safety issue requiring attention, discussion, and mitigation.

13. The SDEIS Fails to Disclose Safety Risks of Narrowed Lanes Width During Construction of the Toll Lanes

The 2014 VDOT "I-495 Northern Section Shoulder Use Project Traffic Forecasting and Analysis Report" about shoulder lane use to alleviate merge point congestion and safety issues near the northern terminus of the toll lanes also talks about measures "intended to offset any negative impacts on safety from the reduction in lane and shoulder widths required to implement the shoulder use lane." During construction of HOT lanes in Virginia, the lanes were narrowed from the nationally accepted 12 feet to 11 feet. Construction in many places lasts years, often up to five years. Lanes narrower than 12 feet are associated with more accidents. Clearly, reductions in lane width present an increased safety risk for lane users.[128] The potential safety risks to lane

[127] I-495 NEXT September 29, 2021 Project Information Meeting – Summary of Questions and Answers, https://495northernextension.org/documents/pim092021/2021-09-29_495_next_pim_meeting_notes.pdf.

[128] Mitigation Strategies for Design Exceptions - Safety, FHWA (Oct. 15, 2014), https://safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/chapter3/3_lanewidth.cfm.

users during construction in Maryland due to narrowed lane widths is not raised or addressed in the SDEIS.

During the 3 to 5 years (or more) of the de-construction and then construction phase for the I-270 and I-495 segment, plus all the bridges and sound-walls, the local traffic will have to be re-routed to the surrounding local streets, which will greatly increase travel times and distances. Emergency response may be delayed during this time period. For a preview of the disruption and congestion resulting from construction, simply drive on Virginia's I-66 which is under construction for toll lanes right now. The SDEIS's failure to clearly disclose these serious traffic and safety issues is misleading and deprives the public and decision-makers of correct and complete information about the Project's impacts.

14. Public Health Hazard of Toxic Silica Construction Dust Is Not Disclosed in SDEIS[129]

In the 3 to 5 years of I-270 and I-495 road widening and re-building, the road and bridges deconstruction processes will create massive amounts of toxic crystalline silica construction dust.[130] Such toxic air pollution (especially for those closer to the highways) is known to cause respiratory diseases, including asthma, silicosis, chronic obstructive pulmonary disease (COPD), and lung cancer. This is an urgent public health issue that is neither fully disclosed nor addressed in the SDEIS.

According to the National Cancer Institute and OSHA, and various other U.S. and British sources, workers in such environments must wear respiratory protection masks, and other precautions are also required. As the 1-270 and I-495 road and bridge construction persists, with the continuous generation of harmful silica dust, precautions (i.e., staying indoors, keeping all windows closed, and wearing of facemasks to go outside) may be needed to protect schools (Julius West Middle School, Farmland Elementary, Carderock Springs Elementary, and Walter Johnson High) and other sensitive sites close to the highways.

The massive and continuous generation of toxic silica dust will require major mitigation measures such as vacuum systems and watering by tanker trucks, which are only marginally effective; disposal issues; and environmental impacts. Mitigation measures will require more equipment and workers and will generate more traffic and pollution (and costs) during the deconstruction phase. Yet, none of this is covered in the SDEIS.

The SDEIS superficially states that "State and local regulations regarding dust control and other air quality emission reduction controls would be followed." SDEIS at 4-103. Then the SDEIS lists some examples of practices that "may" be followed. *Id.* The failure to mention federal regulations suggests that OSHA and other federal regulations on "dust control and other air quality emission reduction controls" would not be required to be followed. Yet, workers on federal

[129] This paragraph was reviewed and refined under the guidance of Byron Bloch, a national vehicle safety and crashworthiness expert.

[130] David J. Valiante, MS, CHI, Donald P. Schill, MS, Kenneth D. Rosenman, MD, and Edward Socie, MS, *Highway Repair: A New Silicosis Threat*, Am J Public Health. 2004 May; 94(5): 876–880, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1448352/.

construction projects must comply with OSHA. This issue of silica construction dust must be addressed as a project impact requiring attention and mitigation.[131] Furthermore, these are not just issues of occupational safety with fugitive dust but of particle drift, as has been noted in past Maryland environmental assessments.[132]

The health risks of toxic silica dust generated by construction were raised in DEIS comments, and are known in the road and construction industry, and known to Transurban. Examples of mitigation plans in large infrastructure projects show these risks are known and real.[133] Yet the SDEIS makes no mention of toxic respirable crystalline silica construction dust.

15. Health Risks of Widened Highways Are Minimized and Ignored in the SDEIS

During public hearings on the toll lanes and in the media, doctors and health experts have repeatedly weighted in on this proposed project. They repeatedly support the no build option and point out that there are other, better alternatives[134] to this plan. In the most recent article, a physician and board member of the Chesapeake Physicians for Social Responsibility stated: "Prioritization of highway expansion in Maryland is not only willfully dismissive of the scientific consensus on climate change, but ultimately of limited and transient benefit to reducing traffic in our metro area."[135] The links between the climate crisis and human health risks are becoming increasingly clear. Climate change is an impact multiplier, including in the area of risks to human health.

According to the SDEIS, there would be 154.7 acres of new impervious surface (Table 4-33 on page 4-71) as a result of the proposed Phase 1 South.

As a result of the preferred alternative, 17.7 acres (770,788 square feet) of new impervious surface would impact the Potomac River/Rock Run watershed. Some 98.2 acres (4,276,484 square feet) of new impervious surface would impact the Cabin John Creek watershed. Meanwhile, the preferred alternative would destroy 500 acres of forest canopy. Alone or combined, this amount of new impervious surface and forest canopy loss would represent an astonishing impact to these

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[131] Anh-Tai Vuong, *OSHA Silica Regulations One Year In: The Latest Developments and How Businesses Can Remain Compliant*, Occupational Health & Safety (Feb. 1, 2020), https://ohsonline.com/Articles/2020/02/01/OSHA-Silica-Regulations-One-Year-In-The-Latest-Developments-and-How-Businesses-Can-Remain-Compliant.aspx.

[132] *I-270/US 15 Multi-Modal Corridor Study Frederick and Montgomery Counties, Maryland Alternatives Analysis/Environmental Assessment*, MDOT & FHWA, at IV-91 (May 2009), https://www.oplanesmd.com/wp-content/uploads/2019/07/AA_EA_for_I-270_US-15_Multi-Modal_Corridor_Study_2009.pdf.

[133] MetroTunnel Environmental Management Framework (Dec. 2019), at 32-33, https://web.archive.org/web/20210317004101/https:/metrotunnel.vic.gov.au/__data/assets/pdf_file/0006/96135/Environment-Management-Framework-updated-December-2019.pdf.

[134] For example, *see* Barbara Coufal, *Opinion: Maryland's Toll Plan Won't Reduce Congestion*, Washington Post (Nov. 25, 2021), https://www.washingtonpost.com/opinions/letters-to-the-editor/marylands-toll-plan-wont-reduce-congestion/2021/11/24/11f18be0-4bc0-11ec-a7b8-9ed28bf23929_story.html.

[135] Dr. Nishanth Khanna, *Opinion: State Should Prioritize Climate-Conscious Policies*, Fund Mass Transit (May 11, 2021), https://www.marylandmatters.org/2020/05/11/opinion-state-should-prioritize-climate-conscious-policies-fund-mass-transit/.

watersheds. The forest canopy loss amplifies and accelerates the negative impacts already associated with the new impervious surface.

Just in the area of harm to water quality, the SDEIS says this:

> Initial roadway construction would result in is the removal of trees and other riparian buffer vegetation. The removal of riparian vegetation, including forest and tree cover, greatly reduces the buffering of nutrients and other runoff materials and allows unfiltered water to directly enter a stream channel (Trombulak and Frissell, 2001). Tree removal during the construction process can reduce the amount of shade provided to a stream and raise the water temperature of the affected stream. In addition to tree removal, stormwater discharges also have the potential to increase surface water temperatures in nearby waterways. The effects of the temperature change depend on stream size, existing temperature regime, volume and temperature of stream baseflow, and the degree of shading.
>
> Impacts associated with the use of the road after construction are mainly based on the potential for contamination of surface waters and related drinking water supplies by runoff from new impervious roadway surfaces. Potential contaminants to surface waters include heavy metals, deicing compounds, organic pollutants, contaminants of emerging concern, hazardous chemical spills, pathogens, and sediment.
>
> The most common heavy metal contaminants are lead, aluminum, iron, cadmium, copper, manganese, titanium, nickel, zinc, and boron. Most of these contaminants are related to gasoline additives and regular highway maintenance. Other sources of metals include mobilization by excavation, vehicle wear, combustion of petroleum products, historical fuel additives, and catalytic-converter emissions. Generally, heavy metals from highways found in streams are not at concentrations high enough to cause acute toxicity (CWP, 2003).

SDEIS at 4-69 to 4-70.

The assertion that heavy metal contaminants from highways generally are not in concentrations high enough to cause acute toxicity is pure distraction that deflects from these serious issues. The SDEIS fails to acknowledge that these contaminants (heavy metals, hazardous chemicals, persistent organic pollutants and more) would not just be flowing into streams, which is alarming, but directly untreated[136] into a channel next to a biodiversity hotspot/endangered species island studied by eminent scientists, and into the region's drinking water supply. The surface area the new influx of contaminants would come from 17.7 acres (770,788 square feet) of new impervious surface for the Potomac River/Rock Run watershed.

[136] *See* SDEIS at ES-10. The SDEIS states: "For the Preferred Alternative, the water quantity management requirement will be met within each drainage segment, except one: the ALB drainage segment. Based on typical practice, a quantity waiver could be granted for the ALB due to the direct discharge to the Potomac River, a major waterway." The American Legion Bridge drainage segment will not meet water quality management requirements but is intended to be addressed with a waiver of the water quality management requirements.

No specific efforts are mentioned to mitigate such risks. Efforts and specific techniques to keep these toxins from polluting these sensitive water resources ("Rock Run Culvert, also called Plummers Channel, and the Potomac River), if any, need to be disclosed so they can be commented on by the public. Passing references to mitigation doesn't fulfill the purpose of NEPA for these kinds of impacts and for stormwater management as well. Mitigation needs to be specified. Plummers Island is a sensitive receptor, and such pollutants or a hazardous chemical spill could destroy their long-term research plots (refer to Plummers Island discussion in 4(f) section of these comments).

Unmentioned in the SDEIS are risks to human health from flash flooding associated with these massive land transformations. Air quality and the association of polluted air with worse COVID-19 health outcomes are also not mentioned. The risks to construction workers and adjacent populations of crystalline respirable silica construction dust are not mentioned. Federal laws have been enacted, implemented, and enforced in relation to this toxic dust; it can no longer be omitted from consideration in discussion of health impacts and safety measures.[137]

Consider these three comments made by Marylanders during the DEIS public hearings.[138] The points they make remain fully relevant and are unaddressed in the SDEIS. The first speaker is a fourteen-year-old Montgomery County Public School student. The second is an experienced public health professional. The third is the mayor of what would be the Project's most impacted jurisdiction.

> **MCPS student:** "I oppose expanding Highway I-270. I was a student at Julius West Middle School last year and from researching over 700 studies done by the Health Effects Institute, they learned that if you live 300 to 500 meters away from a highway, you are at a higher risk of getting asthma as a child, and if you have asthma, it may increase asthma attacks. Also, it causes impaired lung function, premature death, and deaths from cardiovascular diseases. Julius West Field is only 35 meters away from I-270. Before Corona, the students were required to run the track lap before PE. The school building is only 253 meters away from the highway. It is already too close. I believe that we should do air quality tests that are done outside, not just inside. Currently, they only do indoor air quality tests. Despite the lack of testing, they're telling us it is safe [inaudible] to increased cars on the highway. This can only make air quality worse. This is a problem, especially since they are planning on expanding it and turning it into a for profit highway that benefits an Australian corporation at the expense of American children and American families that live right next to the highway. Don't ruin the lives of children for the sake of profit."
>
> **Ron Bialek**: "I am a public health professional more than 35 years of experience, including 10 years on the faculty of Johns Hopkins School of Public Health and 25

[137] Anh-Tai Vuong, *OSHA Silica Regulations One Year In: The Latest Developments and How Businesses Can Remain Compliant*, Occupational Health & Safety (Feb. 1, 2020), https://ohsonline.com/Articles/2020/02/01/OSHA-Silica-Regulations-One-Year-In-The-Latest-Developments-and-How-Businesses-Can-Remain-Compliant.aspx.

[138] MDOT SHA & FHWA November 1, 2021 Virtual Public Hearing Materials, https://oplanesmd.com/your-participation/past-public-outreach/.

years as CEO of the Public Health Foundation. Well, we've helped more than 500 organizations around the country in their efforts to achieve healthier communities.

I support the no build option. Moving forward with any of the alternatives retained and evaluated in this EIS will impact my health, my family's health and the health of individuals and communities in and around the study area and areas not studied, such as roads to and from the Beltway and 270. By law and reinforced by the CDC, an EIS must consider human health. Simply stating in the EIS, quote, human health has been considered end quote, with no backup facts, no data, data sources being provided does not meet the legal requirements for considering human health. The study must be redone using facts and data, respected valid and reliable data sources and modeling of impacts of human health.

I know what it means to consider human health in a study and how agencies can skirt the issue when they don't want damaging information exposed. The study is either negligent in not adequately considering human health or a decision was made to hide the facts.

One of the most grievous examples of how human health was not adequately considered is found in Chapter 4 in Appendix 8, both addressing environmental justice and the impact on minority communities. The study notes that there are 199 block groups within the Environmental Justice Analysis area and 107 have minority populations equal to or greater than 50 percent. Unfortunately, the health impacts of minority communities have been excluded from the document. Chapter 4 in Appendix E states that excess emissions may be reduced. Even in the unlikely event this is true, those emissions will be closer where people live and play with many fewer trees to filter the pollutants. And what about emissions increases on the roads to and from the Beltway to 270? In Chapter 4 dash 61 the following statement is made: Information is currently incomplete or unavailable to credibly predict the study's specific health impacts. This is an inaccurate statement. Valid and reliable data exist and science exists to model and predict the health impacts. Unfortunately, none of these are addressed in the study.

And looking at the study team of over 70 individuals, I was unable to find a single individual with an MPH or degree in epidemiology with the expertise to analyze the data and human health impacts. The absence of facts, data, and data sources about the impacts on human health and no evidence sound public health science has been used in developing the DEIS is unacceptable, and it's an embarrassment to the state and to the citizens. In the event that any of the build alternatives continue to be considered, this DEIS must be redone. That is a legal requirement. Thank you."

Rockville Mayor Bridget Donnell Newton: On behalf of the Council and our community [70,000 individuals] – I appreciate the commitment of Director Choplin in her letter of July 15, 2020 that "no homes, businesses, or community facilities will need to be relocated within Rockville." Additionally she writes: "Furthermore, the MDOT SHA is committed to avoiding and minimizing any property needed and

impacts to environmental features such as greenspace and mitigating for noise where possible."

With all due respect – what exactly does this mean? What does "where possible" mean when you are talking about someone's home? Play space for children and enjoyment of a conversation in your own back yard? A track and field space for students at Julius West Middle School? A peaceful night's sleep for residents of The Rockville Nursing Home?

What does "mitigating for noise where possible mean" when residents of Rockville's West End neighborhood have been striving for over 20 years to get a sound wall built after the widening of 1-270 25 years ago made being outside untenable?

. . . I am here to tell you again – as the 9th most livable city in America – the City of Rockville is equally committed to protecting and supporting our residents, our environment and our quality of life. Let's ensure that MDOT/SHA leads the way on the values that all Marylanders hold dear. Make the fiscally, environmentally and socially responsible decision. The No Build Alternative is the only truthful and defensible alternative in compliance with the National Environmental Policy Act.[139]

I. The Toll Rate Setting is Unfair

1. The Estimated Toll Costs Were Not Disclosed in the SDEIS

The SDEIS does not include a presentation or discussion of any specific toll rates or toll numbers. The toll rates represent an impact in terms of the preferred alternative's viability, purpose and need, and environmental justice impacts and should have been presented with more than just a process explanation.

The dynamic tolling structure contemplated by this Project is not easily understood without explanation and illustration and specific examples and numbers. It took 87 pages just to explain it to even those whose profession relates to road tolling.[140] The numbers of people responding to toll rate range setting was a fraction of the number responding to the DEIS and SDEIS. The NEPA documents are where most people look to for Project information and the toll information should have been in the NEPA document. Between the first and second toll rate range setting, only one

[139] Full remarks here: https://dontwiden270.org/s/495-I-270-Testimony-09102020.docx.

[140] Bruce DePuyt, What Will it Cost To Use New I-495/I-270 Toll Lanes? That Depends, *Maryland Matters* (May 21, 2021), https://www.marylandmatters.org/2021/05/21/what-will-it-cost-to-use-new-i-495-i-270-toll-lanes-that-depends/ ("Maryland residents will have nearly two months — until mid-August — to offer their thoughts on a set of proposed tolls for the 'managed lanes' that the Hogan administration wants to build along portions of the Capital Beltway and Interstate 270. It may take the public that long to decipher the Maryland Transportation Authority's 87-page 'dynamic-pricing' scheme. . . . Board member W. Lee Gaines Jr. suggested the public will grasp the system 'maybe eventually.'"). The 87-page document can be viewed here: https://mdta.maryland.gov/sites/default/files/Files/2021_0514%20Board%20Book_final.pdf. It was made available online at the MDTA website for the toll rate range setting, https://mdta.maryland.gov/ALB270TollSetting.

change was made (a 3-cent reduction in the minimum toll). The toll rates are a huge element of the preferred alternative and of high concern to Maryland residents. The toll rate details could and should have been disclosed in the SDEIS.

2. The Toll Rate Pricing Scheme Is Highly Inequitable with High Tolls, High Social Costs, and Public Interest Concerns

The proposed tolls for the preferred alternative are excessively high, with high social costs, and will serve to deepen inequities in Maryland while failing to serve the public interest.[141]

High Tolls: Amid all the permutations in the proposed dynamic toll pricing for 63 different scenarios, there are some things that particularly stand out. In 2026, when the toll lanes would open, the maximum toll for a passenger car to drive from the George Washington Parkway to the I-270/I-370 interchange would be $50 in 2021 dollars. During evening rush hour 4–7 p.m. the tolls for that trip will match or exceed the soft cap nine (9) weekdays out of ten (10) (see image below at right). The maximum toll rate for a big rig trucker with no transponder or other payment plan is $42.33 per mile, or $296 for a 7-mile trip. Those toll rates—from passenger car to big rig—will be far too high for average drivers on a daily basis. They are exclusive, inequitable, and discriminatory. It bears mentioning that even these exceedingly high toll rates and escalations now under discussion will not satisfy Transurban, which is seeking even higher rates.[142]

Table IV-5: Estimated Frequency Soft Rate Cap is Exceeded and Prevented from Increasing (

Segment	5:00AM to 6:59AM		7:00AM to 8:59AM		9:00AM to 9:59AM		10:00AM to 2:59PM		3:00PM to 3:59PM		4:00PM to 5:59PM		6:00PM to 6:59PM	
	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed	$1.50 Exceeded Due to Traffic Conditions	$1.50 Reached But Not Allowed to Exceed
George Washington Parkway to River Road (ALB IL)	-	-	13%	24%	1%	1%	-	-	1%	1%	67%	32%	61%	29%
River Road to George Washington Parkway (ALB OL)	-	-	-	-	1%	1%	-	-	2%	2%	13%	9%	2%	2%
River Road to I-495 (East of I-270 West Spur) (IL)	-	-	-	2%	-	-	-	-	-	-	1%	12%	14%	74%
I-495 (East of I-270 West Spur) to River Road (OL)	-	-	-	-	-	-	-	-	1%	2%	5%	20%	1%	3%
River Road to Westlake Terrace (MD I-495 IL / I-270 W Spur NB)	-	-	-	-	-	-	-	-	-	-	62%	29%	34%	34%
Westlake Terrace to River Road (MD I-495 OL / I-270 W Spur SB)	-	-	-	-	1%	1%	-	-	-	-	2%	6%	1%	2%
I-270 East Spur to I-270 @ East Spur/West Spur Interchange (NB)	-	-	-	-	-	-	-	-	-	-	-	-	-	1%
I-270 @ East Spur/West Spur Interchange to I-270 East Spur (SB)	-	-	-	-	-	1%	-	-	-	-	-	-	-	-
Westlake Terrace to Wootton Parkway (I-270 NB)	-	-	-	-	-	-	-	-	-	-	14%	19%	12%	19%
Wootton Parkway to Westlake					[illegible]	[illegible]								

[141] Maryland Sierra Club Toll Rate Setting Testimony, (July 12, 2021), https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u25361/MDSierraClub-TollRateSettingTestimony-2021July12_0.pdf.

[142] A November 18, 2020 letter from Transurban-led Accelerate Maryland Partners to MDTA's Deb Sharpless requests various revenue-increasing alterations to the numbers and escalations for the toll lanes, https://mdta.maryland.gov/sites/default/files/Files/ALB270/201118_Letter_AMP_to_MDTA_Toll_Rates_ADA.pdf.

High Social Costs: The Hogan Administration and MDOT claim this private toll lanes plan comes at virtually no cost to taxpayers. That is not true.[143] The people who will pay the tolls are mostly Maryland taxpayers. Further, building P3 toll lanes will have significant costs that will have to borne by the state and impacted jurisdictions (*see* Section X.D). Maryland taxpayers and likely ratepayers will also be forced to absorb the cost of billions in utility relocations.[144]

The costs of the highway expansion will also be paid by individuals, school children, and communities harmed by significantly increased greenhouse gas and other health-damaging air pollution, significantly increased stormwater runoff, and the loss of property value, historic places, wildlife habitat, parkland, and tree canopy.

To see the many additional costs the preferred alternative will have for generations, view Maryland Sierra Club's June 29, 2021, testimony.[145] It explains the strong argument that a FEIS is necessary to know the impacts and costs of the preferred alternative and must be completed before making toll rate or other commitments, including signing a contract with a developer.[146]

The private toll operators have no incentive to reduce congestion on the free lanes since congestion on the GP lanes will further drive traffic to the toll lanes. But since the toll lanes are unaffordable to the majority of travelers, they will experience congestion the same or worse than before, particularly since an existing lane on I-270 will become a toll lane, squeezing more drivers onto fewer general-purpose lanes.

This toll lane proposal and the high tolls will further deepen the regional east-west racial and economic divide and societal inequities.[147] This plan turns public land over to private investors for the benefit of the affluent. Those who can afford to take the HOT or Express lanes will experience a faster, safer commute while everyone else experiences high congestion. The SDEIS

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[143] Jeremy Mohler, *Opinion: The True Cost of Maryland's Toll-Road Plan*, Washington Post (Nov. 12, 2021), https://www.washingtonpost.com/opinions/2021/11/12/true-cost-marylands-toll-road-plan/; Josh Tulkin and Klaus Philipsen, *Maryland Needs More Info on Toll Lane Contract; Vote Must be Delayed*, Baltimore Sun (Aug. 9, 2021), https://www.baltimoresun.com/opinion/op-ed/bs-ed-op-0810-hogan-toll-lanes-20210809-qtety5ezcncdrkt4ewaqpuaz4q-story.html.

[144] Bruce DePuyt, *Labyrinth of Pipelines and Cables Could Face Major Disruption by Highway Plan -- And Who Would Foot the Bill?*, Maryland Matters (Oct. 28, 2020), https://www.marylandmatters.org/2020/10/28/labyrinth-of-pipelines-and-cables-could-face-major-disruption-by-highway-plan-and-who-would-foot-the-bill/.

[145] Maryland Sierra Club Testimony on Phase 1 P3 Agreement, (June 29, 2021) https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u25361/Testimony-495-270ReliefPlan-P3Agreement-2021June29.pdf.

[146] *See also* Josh Tulkin and Klaus Philipsen, *Maryland Needs More Info on Toll Lane Contract; Vote Must be Delayed*, Baltimore Sun (Aug. 9, 2021), https://www.baltimoresun.com/opinion/op-ed/bs-ed-op-0810-hogan-toll-lanes-20210809-qtety5ezcncdrkt4ewaqpuaz4q-story.html.

[147] *See* Stewart Schwartz, Hogan's Transportation Priorities Reflect His Bias, Baltimore Sun (July 9, 2021), https://www.baltimoresun.com/opinion/readers-respond/bs-ed-rr-hogan-beltway-widening-letter-20210709-qiwy5hycanagfangmiha5q42du-story.html.

concedes at that "the travel speed and trip reliability benefits offered by the tolled lanes could be a less feasible choice for EJ populations due to cost burden." SDEIS at 4-102.

The tolls will not be accessible to working class families. Articles and statements from neighboring Virginia show this. A November 15, 2021 article in *Virginia Business* reports that Virginia and the private sector partner (which includes Macquarie, the other private partner with Transurban on the Maryland toll lane proposal) have partnered to expand a toll relief program.[148] Virginia Governor Northam states: "This will make it significantly more affordable for working people to use the tunnels in Hampton Roads."[149] The private sector partner says: "This is our commitment to easing the financial burden that we know our tolls have on income-restrained residents."[150] The 2022 toll relief program is open to Portsmouth and Norfolk residents who earn less than $30,000 a year. Regarding trying to expand relief to even more people going forward, Northam said, "This is a start. We know that we have more work to do."[151]

In effect, the State of Virginia is subsidizing a multinational corporation with Virginia taxpayer dollars so Virginia commuters can afford a toll facility that is built on a public asset that Virginia turned over to the multinational until 2070. This subsidy is needed so that the everyday person can afford to get to work. These toll lane deals seldom stop at the initial agreement, they require deal upon deal upon deal to make the toll lanes work or keep working. MDOT is not at present contemplating a similar subsidy to remedy this injustice.

The Maryland toll lanes, due to the spacing between the access points, are designed to serve longer distance and pass-through traffic rather than locals. Thus, Maryland residents are not necessarily the beneficiaries these lanes. An additional matter is what the tolls would cost to cross the American Legion Bridge generally and during peak congestion. According to the Regulation of Tolling provision of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (P.L. 100-17), bridge tolls "shall be just and reasonable."[152]

The plans for the toll lanes evidence a heavy anti-transit bias and it remains a problem that the Project would primarily benefit the affluent at the expense of the broader public and not be affordable for economically disadvantaged environmental justice populations. These issues and many more were raised by community members and elected officials during public testimony on the toll rate range setting.[153] These issues were not addressed in the DEIS or SDEIS with any

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[148] Katherine Schulte, Va. expands Elizabeth River Tunnels toll relief program, *Virginia Business* (Nov. 15, 2021), https://www.virginiabusiness.com/article/va-expands-elizabeth-river-tunnels-toll-relief-program/.

[149] *Id.*

[150] *Id.*

[151] Nathan Crawford et al., Eligible Drivers to Save up to $650 a Year at Downtown, Midtown Tunnels as Toll Relief Program Expands, *WAVY* (Nov. 15, 2021), https://www.wavy.com/news/local-news/portsmouth/northam-announces-toll-reductions-in-portsmouth/.

[152] *See* Tolling U.S. Highways and Bridges, *EveryCRSReport* (Aug. 4, 2017), https://www.everycrsreport.com/reports/R44910.html.

[153] *Locals at Beltway/I-270 Toll Rate Hearings Target High Tolls, Inequity, and Climate*, Maryland Sierra Club (July 20, 2021), https://www.sierraclub.org/maryland/blog/2021/07/locals-beltway-i-270-toll-rate-hearings-target-high-tolls-inequity-and-climate.

mitigation measures or programs specifically designed to make the toll lanes affordable for low income and environmental justice populations. The lanes are knowingly designed for the affluent. MDOT SHA and MDTA did not make any apparent attempt to negotiate or lower the soft rate cap or toll maximums; they accepted what the developer (who demanded a higher rate of return than other bidders) wanted.

Public Interest Concerns: We must also reiterate our concern that this deal is not in the public interest.[154] Privatizing roadways can lead to significant control of regional transportation by private companies accountable to their shareholders rather than the public. The monopoly power Transurban would have in our region would also allow toll markups[155] exploiting their monopoly power as well as give Transurban inordinate influence on our politics and planning.[156] There is simply a misalignment between the goals of good government and the goals of P3 toll lane companies such as Transurban. Transurban is on record saying its goal in our region is to "maximize the tolls" and admitted that: "An increase in the number or improvement in quality of alternative roads, public transportation or mass transit options, . . . and their relative convenience, affordability and efficiency, could reduce traffic volumes on our toll roads and therefore reduce our earnings."[157] Thus, improvements that would be good for and desired by Marylanders and sensible in the midst of a climate crisis are undesirable for Transurban and shareholders.

This toll lane proposal sets up a perverse incentive for a private company and Maryland's own government to lock in car-dependency and act against the public interest for generations. The contract is also set up so that Maryland pays the Transurban-led developer in Maryland if there is a breach by the Transurban-led developer in Virginia or VDOT of "certain defined interface obligations set forth in the Section P3 Agreement."[158]

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[154] Many other researchers and national entities have found these kinds of deals not to be in the public interest. Examples of such findings include: https://jubileedebt.org.uk/wp-content/uploads/2017/02/The-UKs-PPPs-disaster_Final-version_02.17.pdf; https://www.pwc.com.au/legal/assets/reimagining-ppps-oct17.pdf; https://www.cbo.gov/system/files/2020-01/56003-CBO-PPP.pdf; http://www.ncsl.org/Portals/1/Documents/transportation/P3_State_Statutes.pdf; https://canada.constructconnect.com/dcn/news/government/2019/11/study-finds-p3s-to-be-more-expensive-in-the-long-term; https://www.smh.com.au/national/nsw/westconnex-the-toll-road-that-ate-sydney-20210323-p57d9y.html; http://www.thenewspaper.com/news/24/2458.asp.

[155] Ian Parry, *Green Tax Design in the Real (Second-Best) World*, 3 Encyclopedia of Energy, Natural Resource, and Environmental Economics, at 161-168, (2013), https://www.sciencedirect.com/science/article/pii/B9780123750679000310.

[156] There are already concerning indications of this in the toll lanes solicitation process. Benjamin Ross, Testimony on Toll Lane P3 Contract (June 29, 2021), https://f0d3dd92-98e8-4a26-bc62-0ccf9ff9f227.filesusr.com/ugd/9cb12f_498e67c0295a4f218ea005ae8a9e2e78.pdf.

[157] Transurban Prospectus at 13 (Sept. 16, 2020), https://links.sgx.com/FileOpen/Transurban%20Finance%20Company%20Pty%20Ltd_Secured%20Euro%20MTN%20Programme%20OC.ashx?App=Prospectus&FileID=46449.

[158] *See* Maryland Sierra Club Testimony on Phase 1 P3 Agreement, (June 29, 2021) https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u25361/Testimony-495-270ReliefPlan-P3Agreement-2021June29.pdf.

3. Key Details of Toll Pricing Scheme Were Hidden from Public by Being Contained in Agreements Not Listed Among the Review Materials[159]

The proposed and now approved[160] toll scheme is even more inequitable and costly for would be toll lane users than what was proposed during the first toll rate range setting.

The August 26, 2021 "First Amended and Restated I-495 & I-270 Public-Private Partnership Program (P3) Interagency Agreement (IAA) between Maryland Department of Transportation (MDOT) State Highway Administration (SHA), MDOT and MDTA" reads:

> If there is projected to be a Rate Covenant Shortfall (meaning the P3 Program revenues (including video surcharges, late payment fees, etc.) expected to be collected will be insufficient to cover the payments due to all Section Developers from the Operating Reserve Account and all principal and interest due on all MDTA Notes) in six or more consecutive months during the next 24 months, MDTA shall either
>
> (i) make administrative or operational changes that will eliminate the Rate Covenant Shortfall or
> (ii) if there are not administrative or operational changes that will eliminate the Rate Covenant Shortfall, then MDTA shall notify MDOT. Following such notification MDOT shall either
> (a) instruct MDTA to take no further action on the basis that MDOT elects to make supplemental payments at the time of the projected shortfall so that, if such supplemental payments were included as additional P3 Program Revenues in the calculation of the Rate Covenant calculation then no shortfall would exist or
> (b) instruct MDTA staff to present to the MDTA Board a toll proposal to commence the toll rate setting process intended to fix, revise, charge, and collect the tolls, fees or other charges in the P3 Program so that the Rate Covenant Shortfall is eliminated. Upon the conclusion of the toll setting process the MDTA Board may approve, adjust or reject the toll proposal.[161]

This appears to mean that Maryland taxpayers and especially toll road users or would-be users will be penalized in the event MDOT's traffic projections are incorrect and for other agency errors. It appears to mean quality of service (in the form of "administrative or operational changes") provided by MDTA, a state agency, can be decreased in the interest of paying the developer (Australian toll lane giant Transurban) its promised profit, which it is owed even if the

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[159] Also available at Maryland Sierra Club Testimony on Toll Rate Range Setting Process #2, Phase 1 South: American Legion Bridge I-270 to I-370 (Oct. 28, 2021), https://www.sierraclub.org/sites/www.sierraclub.org/files/sce/maryland-chapter/MDSierraClub-TollRateSettingTestimony-2021Oct28.pdf.

[160] Katherine Shaver, *Maryland Board Approves Final Rates for Toll Lanes Planned on Part of Beltway*, Washington Post (Nov 18, 2021), https://www.washingtonpost.com/transportation/2021/11/18/maryland-beltway-270-toll-rates/.

[161] MDTA Board Meeting (Aug. 26, 2021), https://mdta.maryland.gov/sites/default/files/Files/Board_Meeting/2021_0826%20Board%20Materials%20-%20Posting.pdf.

toll lanes are not well utilized. This scheme and contract appear strongly biased in favor of the private sector at the expense of Maryland residents.

In addition to the shortfall payments being a potential trigger for a new toll rate range setting process, the interagency agreement explicitly requires that MDTA not make any changes that could reduce P3 program revenues, saying: "MDTA agrees that it shall not (unless compelled to by law), reduce the civil penalty for late payment of tolls, citation fees, or enforcement fees applicable to the P3 Program, or take other rate setting action that causes P3 Program revenues to decrease."

It is imperative that the public be told that this is just the first of the potential P3 toll rate range settings and that the only direction these tolls, fees, and escalations can go is up.

The information in the Interagency Agreement pertaining to the I-495 & I-270 toll lane contract is in direct contradiction to what is being presented publicly. As of November 21, 2021, MDTA reported on its webpage that "The approved toll rate ranges are intended for the duration of the Phase 1 South agreement."[162] One would reasonably think these are the toll rates and escalations for the duration of the concession. But instead of saying "will apply," the misleading wording is "are intended for." So, the public is being told that these toll rate ranges with escalations are intended for the term of the concession. But in reality, the Interagency Agreement says the toll rate ranges and escalations can be changed as needed going forward to keep the Project sufficiently profitable for the developer. Full public disclosure of this hidden escalation clause as part of the SDEIS is imperative, particularly since the public will be paying for the tolls and for hidden taxpayer costs of the toll lanes

These strings-attached agreements, which are not subject to public comment, some of which were or will be executed after the reviews required by the P3 law and after the BPW vote, undermine public trust in agency processes, agency authority, and transparency. Some of these arrangements will be made without any further opportunity for the public to comment or even be aware of future changes regarding the tolls.

The Governor and MDOT have made repeated representations that the Project risk would be transferred to the private sector. That it would cost taxpayers nothing or virtually nothing.[163]

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[162] Toll Rate Range Public Comment Period Opens for Phase 1 South American Legion Bridge I-270 to I-370, MDTA (May 20, 2021), https://mdta.maryland.gov/blog-category/mdta-news-releases/toll-rate-range-public-comment-period-opens-phase-1-south-american. The full statement is: "*Escalation Factors:* The approved toll rate ranges are intended for the duration of the Phase 1 South agreement (anticipated to be 50 years). For the toll rates to effectively manage demand and ensure reliability for users of the HOT lanes into the future, the maximum toll rate range, soft rate cap and unregistered video surcharge will escalate over time to account for inflation, population employment, and income growth."

[163] Robert McCartney, Luz Lazo, and Katherine Shaver, *Maryland and Virginia to Rebuild and Widen the American Legion Bridge, Governors Say*, Washington Post (Nov. 12, 2019), https://www.washingtonpost.com/local/trafficandcommuting/maryland-and-virginia-to-rebuild-and-widen-the-american-legion-bridge-governors-say/2019/11/12/6531d8fe-04c9-11ea-ac12-3325d49eacaa_story.html ("'In any case, toll payers and not taxpayers will pick up the entire tab, officials said. 'As a taxpayer, there will be no cost,' Rahn said. 'It will be a cost to someone as a driver if they choose to use the express toll lanes.'"); Jordan Pascale, *Regional Transportation Board Vote May Quash Hopes For Maryland Toll Lane Project On I-495/I-270*, DCist (June16, 2021), https://dcist.com/story/21/06/16/regional-board-vote-may-quash-hopes-for-maryland-toll-lane-

Yet, at each step, it is clear that the state is taking on more risk, including by changes made *after* the August 11, 2021, BPW vote. (*E.g.*, "In connection with financial close of each Section, MDTA will issue bonds or notes to fund certain costs in which the State is best equipped to manage and reduce the overall risk," August 26, 2021, Interagency Agreement.)

The August 2021 P3 contract[164] and August 26, 2021, interagency agreement[165] have many examples of the state assumption of this financial risk. Still more than the state itself, it appears that the taxpaying public will be on the hook for dozens of compensation and relief events, toll road subsidies, monopoly markups, billions in utility relocations, and then even shortfall payments for mistakes made by MDOT, MDOT SHA, MDTA, and Transurban. The toll payers themselves will surely pay for those mistakes.

Every day there are articles about the high tolls and woes Transurban is causing in Australia. Look at these articles as a cautionary tale that should send a strong warning sign that the same will occur here, to the extreme detriment of Maryland and the transportation system serving our nation's capital.

1. NRMA Calls for Toll Price Transparency (riverineherald.com.au),[166]
2. 'Cost Outweighs Benefit': Trucking Giant's Toll Message to Drivers (theage.com.au),[167]
3. WestConnex: The Toll Road That Ate Sydney (smh.com.au).[168]

Under the interagency agreement, it seems that MDTA designates MDOT SHA as its agent. Then the contract stipulates: "No Party shall interfere with or impede any other Party's performance of its obligations under this Agreement or any P3 Agreement." In other words, following execution of the tolling agreement, MDTA will have no real say in future rate increases and escalations, with its role confined to rubberstamping MDOT SHA requests. And all individuals in the parties are indemnified, so no individual who participated in this agreement can be held

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project/ ("The project is using a public-private partnership, though, which Hogan says will not cost taxpayers and won't need federal funding."); *see also* Jeremy Mohler, *Opinion: The True Cost of Maryland's Toll-Road Plan*, Washington Post (Nov. 12, 2021), https://www.washingtonpost.com/opinions/2021/11/12/true-cost-marylands-toll-road-plan/.

[164] Phase Public-Private Partnership Agreement for the I-495 and I-270 P3 Program, (June 2021), https://www.oplanesmd.com/wp-content/uploads/2021/06/Phase-1-P3-Agreement.pdf.

[165] MDTA Board Meeting (Aug. 26, 2021), https://mdta.maryland.gov/sites/default/files/Files/Board_Meeting/2021_0826%20Board%20Materials%20-%20Posting.pdf.

[166] AAP Newswire, NRMA calls for toll price transparency, Riverine Herald (Oct. 25, 2021), https://www.riverineherald.com.au/national/2021/10/25/5511055/nrma-calls-for-toll-price-transparency.

[167] Tom Rabe, *'Cost Outweighs Benefit': Trucking Giant's Toll Message to Drivers*, The Age (Sept. 28, 2021), https://www.theage.com.au/national/nsw/cost-outweighs-benefit-trucking-giant-s-toll-message-to-drivers-20210928-p58vi1.html.

[168] Deborah Snow & Matt O'Sullivan, *WestConnex: The Toll Road That Ate Sydney*, Sydney Morning Herald (March 26, 2021), https://www.smh.com.au/national/nsw/westconnex-the-toll-road-that-ate-sydney-20210323-p57d9y.html.

accountable. Again, it is toll road users and Maryland residents who will pay the price for the errors that are virtually certain to occur.

In a November 18, 2020 letter, the developer told MDTA that even the exorbitant tolls being put forth during the rate settings are not high enough.[169] That developer letter casts doubt on the currently-identified toll rate ranges, and the information about the interagency agreement further raises questions about just how fast the tolls might rise and when and how the conditions for exceeding the toll soft cap may change.

On October 13, 2021, the Metropolitan Washington Council of Governments approved two resolutions that would "prioritize equity in transportation, housing and funding."[170] Equity is a regional value, and it is violated by $50 toll lanes benefitting only the most affluent residents of the most affluent part of the region. MDOT has said that those driving on the toll lanes will have increased trip reliability and increased safety.[171] That sets up a two-class system that people in Maryland don't want and don't buy into. On lanes right next to each other, only those who can afford the private lanes get a safer commute, with the general-purpose lanes available to those who can't afford the toll lanes made less safe and even more congested than before.

4. Local Concerns Were Dismissed in the MDTA Toll Rate Range Setting but Remain Valid

Although 67% of commenters were opposed to the toll rates in the first toll setting comment period during the summer[172] and 75% opposed the toll rates and escalations during the second toll setting[173] (which had no in person public hearing), local voices[174] giving testimony have not had much attention in this ongoing controversy over Governor Hogan's proposed toll lane expansion.[175] Neither has State Treasurer Nancy Kopp, who most recently voiced concerns[176] about the toll rates in her comments on the predevelopment contract. The issues raised in the

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[169] Letter from Aaron Singer to Deborah Sharpless (Nov. 18, 2020), https://mdta.maryland.gov/sites/default/files/Files/ALB270/201118_Letter_AMP_to_MDTA_Toll_Rates_ADA.pdf.

[170] Katherine Shaver, *D.C.-Area Leaders Prioritize Equity in Transportation, Housing and Funding Decisions*, Washington Post (Oct. 13, 2021), https://www.washingtonpost.com/transportation/2021/10/13/racial-equity-planning-dc-region/.

[171] Public Information Meeting (Sept. 29, 2021), http://495northernextension.org/documents/pim092021/2021-09-29_495_next_pim_presentation_final.pdf.

[172] Katherine Shaver. *Maryland Toll Lanes: Authority Recommends Lowering Minimum Rates for Beltway, I-270*, Washington Post (Sept. 30, 2021), https://www.washingtonpost.com/transportation/2021/09/30/maryland-beltway-270-toll-rates/.

[173] Tyson Fisher, *I-270/I-495 Toll Rates in Maryland Will be Slightly Cheaper*, Land Line (Nov. 23, 2021), https://landline.media/i-270-i-495-toll-rates-in-maryland-will-be-slightly-cheaper/.

[174] Locals at Beltway/I-270 Toll Rate Hearings Target High Tolls, Inequity, and Climate, Sierra Club Maryland Chapter (July 20, 2021), https://www.sierraclub.org/maryland/blog/2021/07/locals-beltway-i-270-toll-rate-hearings-target-high-tolls-inequity-and-climate.

[175] Public comments on the toll rate range setting can be found at https://mdta.maryland.gov/ALB270TollSetting/PublicParticipation.

[176] Office of the State Treasurer: Review of Proposed Public-Private Partnership, July 9, 2021, http://www.treasurer.state.md.us/media/151465/20210709_sto_p3_agreement_report_final.pdf.

testimony are serious and merit consideration so excerpts from the first toll rate range setting in-person hearing are reprinted below:

> Thank you for the opportunity to once again – share the unanimous agreement of the Rockville City Council and our Staff that this hearing is an example of a government burying its head in the sand – refusing to turn away from 20 year old ideas - and a complete denial of climate change and social justice. ... I've long believed that government is there to provide that which an individual alone cannot do. Well – members of MDTA – why are you all not providing safe and equitable transportation services for the public in Montgomery County? Why should we be forced to accept a toll road when the governor stated that tolls in other parts of Maryland were regressive? - Rockville Mayor Bridget Newton
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> These tolls are just plain too high. The maximum toll from the G W Parkway to Shady Grove starts at $50 when the highway opens, and it keeps going up. It hits $141 – that's right, $141 – by the time Transurban's contract runs out. And these numbers go up even higher with inflation. But these sky-high tolls aren't enough for Transurban. Its demands are revealed in a November letter that MDTA waited months to release and then buried in fine print on its website. In that letter, the profit-hungry company told the state what it really wants. The tolls need to go up even faster than the Hogan administration proposes. ... This is what you get when you turn our highways over to a company that, in its own country, gets called "an untouchable, blood-sucking monopoly." That's from Joe Aston in the Australian Financial Review – hardly a left-wing paper. This proposal is a betrayal of the public interest. These tolls and the contract behind it must be rejected. - Ben Ross, Maryland Transit Opportunities Coalition
>
> Transurban, the Australian company MDOT selected for this project, needs congestion to make money. For about ten years they prevented the Virginia Department of Transportation from building an additional southbound lane on I-95 at the Occoquan River crossing because it would relieve congestion. Yes, that is right. They blocked it because it would relieve congestion. Embedded in the fine print of their contracts are "non-compete clauses" that block efforts to relieve congestion. Anything the local government wants to do to relieve congestion either incurs a huge payment to Transurban or is completely blocked. ... This P3 is a soul-crushing plan. It is soul-crushing to think anyone would want to unleash it on us. It is NOT "traffic relief" and NOT FREE! It's an unconscionable regressive tax. A wolf in sheep's clothing. We absolutely must not let Marylanders fall victim to it. - Sally Stolz
>
> Privatizing roadways can lead to significant control of regional transportation by private companies accountable to their shareholders rather than the public. Transurban is on record saying its goal in our region is to 'maximize the tolls'. Road and mass transit improvements that would be good for our climate and desired by Marylanders are considered undesirable by Transurban and its shareholders. This toll lane proposal sets up a perverse incentive for a private company and our own government to lock in car-dependency and act against the public interest for

generations. . . . We strongly disagree with the high tolls that are proposed that surely will substantially increase over time, with the high cost the project will have on our health, environment and pocketbooks, and the way this toll lane proposal will deepen inequities in Maryland and fail to serve the public interest. - Brian Ditzler, Sierra Club Maryland Chapter

This is a public private partnership. A corporation's mission is to bring in more MONEY. Their goal is NOT bring us less congestion, NOT to worry about what working families can afford, and NOT to worry about the environment. These FOR-PROFIT HOT lanes have a REVERSE incentive. If there is MORE traffic on the rest of the highway, they can CHARGE MORE for their toll lanes. And don't forget, LESS TRAFFIC IS what we were trying to achieve. The tolls revenue will go to a private company and not to the government or to fund other transportation options. I do not support any plan that allows wealthier people to bypass traffic, while low wealth people are subjected to more traffic. This is a short sighted plan and a tax on the poor and middle class, for not being able to afford to live close to their jobs or public transit. - Patrice Davis

Here's an example of how the needs of middle- and lower-income people were discounted in the toll-setting process from the beginning. Among the documents released by MDTA is the study used to determine how much people are willing to pay to take the toll lanes. Problem is, only certain sorts of people were invited to take part in the study. Of the 2,383 participants, 54% were male, the median age was 55-64, and 43% lived in 2-person households. Fewer than 12% had a household income under $75,000. The median income was between $125,000 and $150,000. A whopping 23% earned $200,000 or more. Where are the majority of working families in this study? They aren't there because MDOT and MDTA never intended the toll lanes for them. But that doesn't mean lower-income and middle-income people don't have a designated role in this toll-lane scheme. They – we – are the congestion fodder. We are the people who fill up the reduced number of free lanes until congestion is so intolerable that the few who can afford it pay the sky-high tolls to escape. It's been baked in from the beginning. - Janet Gallant, DontWiden270.org

There's been inadequate conversations about mass transit and the opportunities that those options offer. We have got to be careful as we do this, because I can tell you there are constituents of mine who might happily pay $67 to ride in a fancy toll lane; I assure you that as you go further north into Gaithersburg, into Germantown, those folks for the most part are not going to be able to afford the tolls. Yet they are the ones who'll be driving more miles and paying higher tolls. - Senator Cheryl Kagan

Although public payments are made through the MDTA which is a subsidiary of MDOT, the pre-agreement contract guarantees a profit margin for the private partner. This has the effect of the State of Maryland enforcing a conditional burden on Maryland residents to the benefit of a non-elected partner of the governing body. There may be little legal redress that can be sought by the citizens of Maryland once

the contract is put into effect. Lower and middle class citizens may find better opportunity out of the State, particularly if saddled with deprivation during economic downturns in the future. If this condition is realized, it could have obvious consequences on Maryland's tax base. - Ollie Ellison

Under MDOT's design, if you are on a toll lane when you cross the American Legion Bridge and plan to drive all the way up to I-370, you can transition directly to the general lanes only at the Clara Barton Parkway. For the rest of the trip up to I-370, the only way to exit the toll lanes is to exit the highway altogether and drive on local roads until you get to the next entrance ramp for the general lanes. This kooky design not only creates havoc on local roads, it will lock some people into the toll lanes and force them to give more of their hard-earned dollars to Transurban. - Barbara Coufal, Citizens Against Beltway Expansion

The most important thing I can tell you is that no one will drive in these toll lanes unless the public lanes are crowded. And the higher the tolls go, the more crowded those public lanes will be. So the toll lanes will fail, because the only way they will raise substantial amounts of money is if the public lanes are so congested that people feel forced to pay through the nose to get out of them. - Ellen Ryan

My fear is that under the P3 model, the private concessionaire will have every incentive to push Maryland and MDTA to perpetuate or expand harmful and predatory tolling policies that hurt consumers but fatten their bottom line. - Delegate Al Carr

This is a very risky project for Maryland taxpayers and setting tolls without a tally of the physical and environmental costs is flawed and shows poor stewardship and lack of restraint. - Elliot Levine

This P3 is not an acceptable deal for Maryland and its taxpayers. Good government demands that full fiscal, environmental, and social impacts of this project be determined before locking into a long-term exclusive contract. No contract should be voted on, much less approved, until the environmental impact statement has been finalized. It is premature to develop toll rate ranges at this time. - Linda Rosendorf, DontWiden270.org

The scheme to widen 270 rather than focus on public transit would escalate the climate crisis. Climate change is causing extreme weather catastrophes throughout the world. Temps in the pacific NW and parts of CA are higher than they have ever been in history. People are dying because of climate change right now. - Becky Batt

Virtual Information Room . . . has small print that says: 'Toll rates are for illustrative purposes only,' and 'Actual toll rates will be set in the future by the Phase 1 South Section Developer.' How does this support an informed decision? The October 20, 2020 Preliminary Due Diligence document states . . . 'the rate can be set to maximize throughput or revenue. In order to achieve the P3 program goals, the rate must be set to maximize revenue . . .' What are the actual P3 program goals,

and how does maximizing revenue serve the public interest? Last, the March 12, 2021 Preliminary Due Diligence Report . . . mentions the Capital Beltway Accord. But no version of this document has ever been made available to the public. Finally, I want to comment on the behavior of some of the supporters of the P3 Project. It does not help when the Governor accuses those with legitimate issues of being 'far-left, pro-traffic activists.' And it does not help when an MDOT Deputy Secretary threatens jurisdictions with loss of funding if they oppose the P3 project. - Andrew Gallant

Each of you has been handed a dilemma: How can I fulfill my fiduciary responsibility to the people of Maryland, Montgomery and Prince George's counties when I have no final information from the EIS [environmental impact statement] to weight the pros and cons, benefits and costs of this project? - Arthur Katz

III. The SDEIS's Water Quality Discussion Violates NEPA

A. The SDEIS Insufficiently Analyzes How Stormwater Runoff Would Affect Surface Water Quality

Like the DEIS, the SDEIS does not sufficiently analyze how stormwater runoff from construction would affect surface water quality and fails to identify stormwater volume and pollutant loads. *See Methow Valley Citizens Council*, 490 U.S at 349 (agencies must "carefully consider[] detailed information concerning significant environmental impacts" and make the public aware of those environmental effects before a proposed action is chosen). It is well-recognized that stormwater can degrade water quality, particularly in urban settings.[177] In fact, Maryland has already faced such degradation,[178] and that degradation will continue with the preferred alternative.

The SDEIS shows that the preferred alternative will further degrade local water quality and make it harder for Montgomery County, Prince George's County, and Fairfax County to meet their requirements under the Chesapeake Bay Total Maximum Daily Loads ("TMDLs"). The SDEIS does not explain how TMDLs will be met. Rather, the SDEIS simply assures the public that stormwater management and TMDL compliance "will be accounted for in the stormwater design and water quality monitoring," SDEIS at 4-71, which have not yet taken place and so are not available for comment. Similarly, the Agencies have not yet determined whether there will be rare, threatened, or endangered ("RTE") species in the areas set aside for compensatory stormwater management, SDEIS App'x C Part 1 at 9, and, if such species exist, how risks to them will be mitigated. The Agencies may need to reopen the consultation process when "new information

[177] *See, e.g.*, National Academies of Science, Committee on Reducing Stormwater Discharge Contributions to Water Pollution, Urban Stormwater Management in the United States (2009), https://www.nap.edu/read/12465/chapter/1; *see also* Hallie Miller, *Report Faults Maryland for Failings in Chesapeake Bay Pollution*, Washington Post (Aug. 18, 2020), https://www.washingtonpost.com/local/report-faults-maryland-for-failings-in-chesapeake-bay-pollution/2020/08/18/8c4421f2-e193-11ea-b69b-64f7b0477ed4_story.html.

[178] Hallie Miller, *Report Faults Maryland for Failings in Chesapeake Bay Pollution*, Washington Post (Aug. 18, 2020), https://www.washingtonpost.com/local/report-faults-maryland-for-failings-in-chesapeake-bay-pollution/2020/08/18/8c4421f2-e193-11ea-b69b-64f7b0477ed4_story.html.

reveals effects of the action that may affect listed species or critical habitat." 50 C.F.R. § 402.16(a)(2).

The Agencies continue to rely on water trading credits for stormwater management and do not sufficiently analyze how relying on compensatory stormwater management, rather than onsite pollution reduction, will impact local waterways. As we noted in our comments on the DEIS, the Agencies acknowledge that any amount of stormwater that cannot be managed and treated by a stormwater management facility within the limits of disturbance ("LOD") will not be addressed onsite for the American Legion Bridge ("ALB") drainage segment. SDEIS at 2-11. The offsite compensation needs are substantial: the SDEIS estimates that 351 acres of impervious areas offsite will require treatment. SDEIS App'x C Part 1 at 5.

The Agencies are delaying too many elements of stormwater management until after a FEIS is issued. Instead of including any compensatory stormwater design in the NEPA process so that the public has an opportunity to review and comment on it, the Agencies ask the public to wait for final design, noting only that "[d]etailed stormwater management design, to be performed during final design, and/or use of innovative technologies may reduce the compensatory stormwater management requirements." SDEIS at 2-11. The "anticipated" compensatory mitigation measures are "a variety of means including, but not limited to, new SWM [stormwater management] facilities to provide water quality treatment for untreated existing impervious surfaces, stream restoration, outfall stabilization, existing SWM facility retrofits, pavement removal, or generation of water quality credits as provided in applicable sections of the [Sediment and Stormwater Guidelines and Procedures]." *Id*. In our previous comments, we asked why the Agencies were not considering additional methods of onsite storage, including whether underground storage or stormwater swales could be used to manage stormwater, and we continue to ask why those options are not being considered.

The lack of detail on stormwater treatment and impacts is less surprising when one considers that the SDEIS does not even identify with precision the level of construction and reconstruction that would take place. The amount and type of stormwater management required under the Maryland Stormwater Management Act of 2007 is dictated in part by the amount of impervious surface area created and reconstructed by the preferred alternative. Md. Code Ann., Env't §§ 4-201.1, 4-203 (2014). The SDEIS bases its stormwater management requirements on an unsupported assumption that only the road shoulders and one to two of the existing lanes would need to be reconstructed, without having to reconstruct the other existing lanes. The SDEIS, moreover, is even vaguer than the DEIS in this regard. The DEIS, for its part, identified that 25% of the lanes would need to be reconstructed. We critiqued that estimate as unsupported, but the SDEIS is even vaguer because the amount of reconstruction would vary considerably based on whether one or two lanes are reconstructed. [179]

[179] There appears to be little basis for arriving at the 25% figure, particularly in light of a statement by former Maryland Secretary of Transportation Pete Rahn that "the Washington Beltway [] can no longer be expanded and it needs to be reconstructed because we have mush underneath it and the system frankly has got to be taken right down to the dirt and brought back up." Sean Slone, *Transportation Policy Academy 2015 – DC – Maryland Secretary of Transportation Pete Rahn*, The Council of State Governments (May 19, 2015), https://web.archive.org/web/20200906121216/https://knowledgecenter.csg.org/kc/content/transportation-policy-academy-2015-%E2%80%93-dc-%E2%80%93-maryland-secretary-transportation-pete-rahn.

The ambiguous nature of the SDEIS goes beyond just how many lanes will be reconstructed: the Stormwater Appendix indicates that the Agencies intend to construct more than just the preferred alternative. The appendix explains that the first alternative is only the first "phase" of the Beltway Expansion Project:

> The MLS [Managed Lanes Study] Phase 1 South JPA is being submitted for approval first. The Draft EIS covers the entire MLS while the Supplemental DEIS covers Phase 1 South; therefore, this document will cover requirements for the entire MLS, with a breakdown of Phase 1 South requirements versus potential future phases. In this document, MLS Phases will refer to Phase 1 South and potential future phases along I-495 outside Phase 1.

SDEIS App'x C Part 1 at 1. Throughout the SDEIS, the Agencies cite the limited impact of the preferred alternative, *see, e.g.*, SDEIS at 4–57, 4-60, 4-106, but if the Agencies are planning to construct beyond this "phase," they cannot tout the limited impacts of this one phase. If additional construction is selected beyond the preferred alternative, then a new NEPA process must occur to allow the public to participate in the review process. Moreover, the SDEIS must analyze reasonably foreseeable future actions, 40 C.F.R. §§ 1508.7, 1508.25, and if the Agencies are already planning for further construction, they must address the impacts.

B. The SDEIS Fails to Analyze Indirect Effects on Surface Water Quality as Well as the Impact of Climate Change

Climate change is not addressed, despite it being well accepted that climate change can increase stormwater and therefore increase impacts on surface water quality. Both the U.S. EPA[180] and the Maryland Department of Environment ("MDE")[181] have concluded that climate change will increase flooding, and MDE further notes that this impact will be exacerbated by "increases in impervious surface attendant with development," as would occur with the preferred alternative. Nor are other potential temperature changes—such as those from tree removal—sufficiently analyzed. SDEIS at 4-69. Once again, the public is asked to take on faith that proper mitigation will be conducted.

Relatedly, indirect impacts are insufficiently analyzed; for example, the SDEIS states only that indirect impacts to wetlands and waterways "could result" and that a "detailed assessment of hydrologic effects will occur once final limits of cut and fill are determined in the final phase of engineering design." SDEIS at 4-57. The Agencies must analyze all environmental impacts, including indirect ones. 40 C.F.R. § 1502.16. Deferring such an important consideration to final design is unacceptable because it prevents public participation on the issue. *See* 40 C.F.R.

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[180] EPA has said that "climate changes, such as the amount, timing, and intensity of rain events, in combination with land development, can significantly affect the amount of stormwater runoff that needs to be managed." EPA, Stormwater Management In Response To Climate Change Impacts: Lessons From The Chesapeake Bay And Great Lakes Regions (Final Report), EPA/600/R-15/087F (Mar. 2016), at 1, https://cfpub.epa.gov/si/si_public_file_download.cfm?p_download_id=536300&Lab=NCEA.

[181] MDE, University of Maryland, Maryland Department of Natural Resources, Comprehensive Assessment of Climate Change Impacts in Maryland, Chapter Two (July 2018), at 2, https://mde.state.md.us/programs/Air/ClimateChange/Documents/FINAL-Chapt%202%20Impacts_web.pdf.

§§ 1500.1(b) ("public scrutiny [is] essential"), 1500.2(d) (the agency must "encourage and facilitate public involvement").

C. The SDEIS Does Not Sufficiently Consider Alternatives or Onsite Mitigation Options for Wetlands

The SDEIS does not demonstrate that there is no practicable alternative that will have less extensive impacts to wetlands and streams than the preferred alternative, though the Agencies were required to do so. Exec. Order 11990, 42 Fed. Reg. 26,961 (May 24, 1977). This failure is something we criticized in our comments on the DEIS, but the Agencies still have not evaluated anything beyond the alternatives that they already identified in the DEIS, apart from explaining different ALB bridge reconstruction locations. SDEIS App'x G at 36-37. Thus, the SDEIS's assertion that impacts to wetlands were avoided where practicable is unsupported. *See Id.* at 31. Moreover, this assertion does not satisfy NEPA because it does not consider whether the overall Project—including the selection of lanes to be constructed—can be done in a way that is less impactful on wetlands.

Further, as is true throughout the SDEIS, far too much meaningful analysis, including a detailed assessment of hydrologic effects, is delayed until the "final phase of the engineering design." SDEIS at 57. It appears this "final phase" and analysis will not even occur until after a FEIS and ROD is released and the NEPA process is complete. This delay contravenes the underlying purpose of the NEPA process: an EIS shall provide "a full and fair discussion of [the project's] significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1. Referenced material must be made available within the time allowed for comment. *Sierra Club, Inc. v. U.S. Forest Serv.*, 897 F.3d at 598 (citing 40 C.F.R. §§ 1502.9(a), 1502.21). The EIS must again be supplemented so that the public can review and comment on these issues related to the full scale of wetlands impacts. *Animal Def. Council v. Hodel*, 840 F.2d at 1439, *amended*, 867 F.2d 1244; 40 C.F.R. § 1502.9(a), (c).

The Floodplain and Wetland Statement of Findings included with the SDEIS also does not discuss onsite mitigation. This omission seems to stem at least in part from the SDEIS's assumption that many impacts to wetlands and waterways would be self-mitigating, but the SDEIS does not explain how it reached that determination. *See* SDEIS at 2-12; SDEIS App'x C Part 1 at 7. (From the SDEIS: "Self-mitigating sites are sites where the potential design would improve the function of the environmental resources and would not require impacts to be mitigated." SDEIS at 2-12 to 13.) In fact, to the extent that the SDEIS assumes any stream restoration site impacts would be self-mitigating, stream restoration projects throughout the area have resulted in long-term tree canopy loss, are associated with uncontrolled growth of impervious surfaces upstream, and a general lack of nutrient and sediment removal efficiency as compared to modeled predictions.[182]

[182] *See, e.g.*, Antonio Olivo, *Polluted, Damaged Streams in Chesapeake Region at Center of Debate over Cleanup*, Washington Post (Jan. 25, 2020), https://mgaleg.maryland.gov/mgawebsite/Committees/Media/false?cmte=t%26e&clip=TAE_6_29_2021_meeting_1&ys=2021rs; Timothy B. Wheeler, *Stream Restoration Techniques Draw Pushback*, Bay Journal (Oct. 7, 2020),

The 43,000+ acre impact to Tier 2 catchments in the DEIS is now zero in the SDEIS. SDEIS at 4-68. The SDEIS does not explain the difference in these impacts. Maryland's anti-degradation policy requires a specific review of Tier 2 stream impacts with a public checklist and Social and Environmental Justification for reducing water quality. COMAR 26.08.02.04-1. According to the SDEIS, the public will only know of the outcome of those negotiations from the FEIS.

Finally, we emphasize that the Agencies are bound by several federal and state regulations that are not discussed in any detail here. For example, the Army Corps of Engineers ("Corps") regulations at 33 C.F.R. § 320.4(b)(5) require the Corps to consider Maryland's wetland protection laws, including the state's goal to achieve "no net overall loss in nontidal wetland acreage and function, and to strive for a net resource gain in nontidal wetlands." Md. Code Regs. 26.23.04.03. Yet this regulation appears nowhere in the SDEIS.

D. The SDEIS Fails to Provide Basic Information About Impacts on Floodplains and Corresponding Mitigation Efforts

Despite devoting a section of the SDEIS—and part of the Floodplain and Wetland Statement of Findings—to floodplains, the SDEIS nevertheless fails to provide basic information about the impacts the construction will have on floodplains. *See* SDEIS at 4-74 to 76. The SDEIS does not analyze how the construction and footprint of the preferred alternative would increase flood risks by changing the hydraulic function and elevation of floodplains. This failure occurs despite an acknowledgement that 48.8 acres of floodplain will be impacted (this figure combines permanent and temporary impacts). SDEIS at 4-75.[183] Instead, the analysis of the effect stormwater will have on floodplains continues to be delayed until the "final design," presumably after completion of the NEPA process, providing no way for the public to judge whether any yet-to-be proposed mitigation will be effective. SDEIS at 4-75. As we explained in our discussion on wetlands impacts, this outcome is unacceptable. The public must be given an opportunity to review and comment on floodplains impacts once they are known.

The Agencies have not yet determined existing storm discharge, floodplain impacts, whether mitigation is required, and what mitigation would be implemented. Without this information, the preferred alternative should not be authorized: the Corps is required to avoid authorizing floodplain development whenever practicable alternatives exist outside the floodplain because they "possess significant natural values and carry out numerous functions important to the public interest." 33 C.F.R. § 320.4(l)(1). The Agencies must conduct a floodplain impact analysis that looks at direct and cumulative effects in the SDEIS and the public must be afforded the opportunity to comment on the Agencies' findings.

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https://www.bayjournal.com/news/pollution/stream-restoration-techniques-draw-pushback/article_ffc96960-0895-11eb-b36f-efa466158524.html.

[183] It is difficult to determine what changes were made resulting in the different accounting of impacts between the DEIS and SDEIS. For example, floodplain impacts were zero in the DEIS, but are now more than 48 acres. What was the specific design change that resulted in this increased impact?

IV. The SDEIS's Minimal Air Quality Discussion, which Lacks Any Analysis of Air Emissions and Their Impacts, Violates NEPA

The comments provided below are supplemental to the comments provided on November 9, 2020, by the Maryland Chapter of the Sierra Club and other organizations. The SDEIS did not address previous air quality and greenhouse gas emissions comments. The SDEIS did not present any information that would alter any of these comments or cause any to be removed from consideration. They remain valid, address issues of concern in the DEIS and must be satisfactorily addressed. Unfortunately, the SDEIS seems to disregard all the technical and procedural issues initially raised in the November 9 comments.

The SDEIS contains no analysis of the preferred alternative's air quality effects, precluding meaningful review and comment from the public and violating NEPA. The lack of analysis of the air emissions caused by the preferred alternative and the human health and environmental harms from those emissions also prevents proper evaluation of mitigation. The SDEIS air quality discussion therefore does not meet the NEPA requirement to describe the impacts of a proposed action so that the agency may take a hard look at its consequences, nor does this discussion provide full and accurate information to the public for its review and comment. For these reasons alone, a new SDEIS must be prepared. Moreover, it is clear from the DEIS and well-established highway expansion modeling techniques that any expansion of the Beltway and I-270 will increase emissions of harmful air pollutants, including greenhouse gases, and cause significant human health and environmental harms; a thorough review of this information would show that the no build alternative is the only justifiable selection.

A. The SDEIS Does Not Evaluate the Preferred Alternative's Greenhouse Gas Emissions

Federal courts consistently have held that NEPA requires agencies to disclose and consider climate impacts in their reviews.[184] The Council on Environmental Quality ("CEQ") explains that "[c]limate change is a fundamental environmental issue, and its effects fall squarely within NEPA's purview."[185] The CEQ further explains that "when addressing climate change agencies should consider: (1) The potential effects of a proposed action on climate change as indicated by assessing GHG emissions (e.g., to include, where applicable, carbon sequestration); and, (2) The effects of climate change on a proposed action and its environmental impacts."[186] The SDEIS fails at both.

The SDEIS does not provide any evaluation of the GHG emissions of the preferred alternative, either from construction or operation. The SDEIS merely references the insufficient operational phase GHG emission discussion presented in the DEIS regarding proposed build alternatives that in any event are substantially different from the preferred alternative discussed in the SDEIS. SDEIS at 4-43 to 44. The SDEIS also provides no analysis of construction related

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[184] *See, e.g.*, *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172 (9th Cir. 2008); *WildEarth Guardians v. BLM*, 8 F. Supp. 3d 17 (D.D.C. 2014).

[185] Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews, 81 Fed. Reg. 51,866 (Aug. 5, 2016))

[186] *Id.* (footnote omitted).

GHG emissions. *Id.* at 4-44. The SDEIS claims that these analyses will be presented in the FEIS. There is no justification for withholding this important information and preventing the public from reviewing and commenting on it.

Moreover, the SDEIS's discussion of the DEIS's GHG analysis is inaccurate, further violating NEPA. The SDEIS states:

> [R]ecognizing the importance of GHG emissions, and consistent with CEQ's 2016 Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews, MDOT SHA utilized the best available data and EPA approved emissions model available at the time of development of the DEIS air quality analysis to estimate GHG emissions associated with the Build Alternatives.

SDEIS at 4-43 to 44. It is incorrect to claim that the DEIS was consistent with CEQ's 2016 Guidance. The DEIS does not once mention that Guidance and in fact the DEIS, and by extension the SDEIS, conflict with it in numerous ways. For example, contrary to the Guidance, neither the DEIS nor the SDEIS:

- Attempts to fully quantify any alternative's GHG emissions or explain why they could not be quantified. The DEIS avoided quantifying the build alternatives' construction GHG emissions and the SDEIS avoided quantifying the preferred alternative's construction and operation GHG emissions entirely.

- Attempts to assess potential climate change human health and environmental effects of the projected GHG emissions.

- Discusses methods to appropriately analyze reasonably foreseeable direct, indirect, and cumulative GHG emissions and climate effects. Neither the DEIS nor the SDEIS considers the effects of connected actions, such as the construction of additional segments of the highway expansion.

- Considers the ways in which a changing climate may impact the build alternatives or preferred alternative.

- Considers environmentally differentiated alternatives or mitigation measures to reduce GHG emissions.

The SDEIS also violates the February 2021 National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions, which directs agencies to "consider all available tools and resources in assessing GHG emissions and climate change effects of their proposed actions, including, as appropriate and relevant, the 2016 GHG Guidance."[187] On the contrary, there

[187] 86 Fed. Reg. 10,252 (Feb. 19, 2021) (citing 81 Fed. Reg. 51,866 (Aug. 5, 2016)).

is a complete lack of analysis of these issues in the SDEIS, despite the availability of numerous well-established tools for performing such an analysis.

Relatedly, the SDEIS claims that: "Statewide analyses do not indicate that the HOT lanes will impede Maryland's ability to meet our GHG emission reduction goals. In fact, the Greenhouse Gas Reduction Act Plan documents Maryland's existing and future emissions reductions under several scenarios, all of which include this project." SDEIS at 4-44. It is not clear what information the SDEIS is relying on to reach this conclusion and it does not cite to any sources or analyses to support its conclusion, precluding meaningful review and comment. Since the SDEIS acknowledges that the Agencies have not yet performed a GHG emissions analysis for the preferred alternative, how can the SDEIS say whether the expansion will impede Maryland's ability to meet its GHG emission reduction goals? Moreover, Maryland's Final Greenhouse Gas Emissions Reduction Act Plan makes no mention of the proposed expansion, any of the build alternatives considered in the DEIS, or the preferred alternative.[188] That Plan does not appear to include the GHG emissions increase from the preferred alternative.[189]

Finally, the SDEIS contains no discussion of the human health and environmental effects of the increased greenhouse gas emissions, in direct violation of NEPA.

It is deeply disappointing to read in the SDEIS that the project sponsor is dismissing the NEPA process by not providing greenhouse gas emission estimates of the new alternative, Alternative 9-Phase 1 South, and calling it the "preferred" alternative without any comparison to the other alternatives. Alternative 9-Phase 1 South is a new alternative, different than the other alternatives studied in the DEIS, yet it is impossible for the public and decision makers to evaluate this alternative among the others for many important issues, including greenhouse gas emissions which may be the most critical issue going forward.

The public will not be able to evaluate:

- how this alternative compares to other alternatives with respect to future greenhouse gas emissions and weigh in on the selection of a "preferred" alternative, given its impact on greenhouse gas emissions

[188] *See* The Greenhouse Gas Emissions Act 2030 GGRA Plan, Maryland Dept. of the Environment (Feb. 19, 2021), https://mde.maryland.gov/programs/Air/ClimateChange/Documents/2030%20GGRA%20Plan/THE%202030%20GGRA%20PLAN.pdf; Appendix J 2020 MDOT Greenhouse Gas Reduction Act Plan, https://mde.maryland.gov/programs/Air/ClimateChange/Documents/2030%20GGRA%20Plan/Appendices/Appendix%20J%20-%20MD%20Department%20of%20Transportation%20Plan.pdf.

[189] The Final Plan departs significantly from the Draft Plan, which claimed that the addition of toll lanes on I-270 and I-495 would reduce GHG emissions, a claim MDOT-SHA has repeated publicly to gain support for the expansion. That claim was contradicted by the DEIS which showed the operations of the build alternatives would increase GHG emissions (without even considering GHG emissions caused by construction of the build alternatives). An important purpose of NEPA is to provide the public with accurate information for its consideration and comment and it is even more essential for the SDEIS to clearly present the GHG impacts when the project sponsor has been misleading the public on those impacts elsewhere.

- what the construction and maintenance greenhouse emissions will be from this alternative, or from any other alternative

- how the completion and operation of this alternative will impact the State of Maryland's ability to meet legislative and Climate Action Plan requirements and goals.

Further, climate change is real and is occurring and its effects will continue into the future. Yet neither the SDEIS or the DEIS address the issue of the effects of climate change on the preferred alternative area and the preferred alternative itself. The project sponsor should conduct a vulnerability assessment of the preferred alternative area and use that assessment to determine which parts of the preferred alternative area may be vulnerable to the various impacts of climate change (e.g., sea level rise, flooding from extreme rainfall, extreme temperatures, etc.). Having such an assessment will allow the project sponsor to consider location and/or design changes that may be necessary to accommodate or mitigate the impacts of climate change. Significant changes to location and design of the preferred alternative as currently shown in the various alternatives in the DEIS and SDEIS may also trigger a re-do of the NEPA process. Consideration of the impacts of climate change may also allow the project sponsor to avoid costly last-minute design or location changes or more frequent reconstruction and repair of the roadway further into the future. It would be in the project sponsor's and the public's best interest to consider and evaluate climate change effects and impacts at this stage of the project development and NEPA process.

B. The SDEIS Does Not Evaluate the Preferred Alternative's Criteria Pollutant and Other Pollutant Emissions

1. Particulate Matter and Nitrogen Dioxide

The SDEIS incorrectly states that "transportation conformity requirements pertaining to $PM_{2.5}$ do not apply for this Project and no further analysis of $PM_{2.5}$ was required." SDEIS at 4-43.[190] First, as prior comments pointed out in detail, the preferred alternative is a new non-exempt project in an "orphan area," an area designated as maintenance for the 1997 $PM_{2.5}$ National Ambient Air Quality Standards ("NAAQS") at the time that NAAQS was revoked, and therefore transportation conformity requirements apply before approval.[191]

Second, regardless of conformity requirements, further $PM_{2.5}$ analysis, such as a localized hot-spot analysis, is required by NEPA. PM_{10} and $PM_{2.5}$ are both transportation-related pollutants that have been shown to have short-term negative impacts in areas proximate to their release. The NAAQS attainment status of the region is not representative of the PM_{10} and $PM_{2.5}$ concentrations near the preferred alternative, as none of the monitoring sites are located near the preferred alternative. Regardless of the NAAQS status, the preferred alternative will increase local emissions

[190] $PM_{2.5}$ refers to particulate matter measuring 2.5 micrometers or smaller. Likewise, PM_{10} refers to particulate matter measuring 10 micrometers or smaller.

[191] *See South Coast Air Quality Management District v. E.P.A. (South Coast II)*, 882 F.3d 1138 (D.C. Cir. 2018); Transportation Conformity Guidance for the *South Coast II* Court Decision, U.S. EPA, EPA-420-B-18-050 (Nov. 2018), https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100VQME.pdf.

of $PM_{2.5}$ and PM_{10} experienced by nearby populations, which will affect human health and the environment. The SDEIS unlawfully ignores these effects.

Further, it is well established that there are human health harms from increases in $PM_{2.5}$ concentrations even below the annual and 24-hour NAAQS. Prior comments document some of this evidence. EPA staff recently explained "we reach the conclusion that the available scientific evidence, air quality analyses, and the risk assessment . . . can reasonably be viewed as calling into question the adequacy of the public health protection afforded by the combination of the current annual and 24-hour primary $PM_{2.5}$ standards."[192] EPA staff explained that the current annual "primary" limit of 12 micrograms per cubic meter ($\mu g/m^3$) is inadequate to protect public health and advocated tightening the standard to a stricter level between 8 $\mu g/m^3$ and 12 $\mu g/m^3$.[193] $PM_{2.5}$ is associated with increased mortality and cardiovascular problems in populations with exposure to the particles at levels below that of the current NAAQS. There is no evidence of a safe threshold for $PM_{2.5}$, and the risk/exposure relationship appears "linear" down to levels as low as 5 $\mu g/m^3$.[194] The SDEIS ignores the latest science regarding $PM_{2.5}$ human health harms and presents the public with a misleading picture that the preferred alternative will cause no particulate matter-related harms. Given the latest evidence, it is likely that EPA will lower $PM_{2.5}$ NAAQS standards, which the SDEIS also fails to consider.

To comply with NEPA and make a decision on the preferred alternative with a true understanding of its impacts, we request that the Agencies conduct $PM_{2.5}$ and PM_{10} monitoring near I-495 and I-270; analyze the current concentrations and model increases that would be caused by the preferred alternative (and other reasonably foreseeable highway expansion segments); and study the health impacts of the likely $PM_{2.5}$ increases.

Nitrogen Dioxide ("NO_2") can irritate airways in the human respiratory system which in turn can aggravate respiratory diseases, particularly asthma, as evidenced by respiratory symptoms (such as coughing, wheezing or difficulty breathing), and lead to hospital admissions and visits to emergency rooms. Regardless of regional attainment status, increased NO_2 concentrations near highway expansion projects are guaranteed.[195] The SDEIS improperly ignores the increased NO_2 emissions and health effects that the preferred alternative will cause.

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[192] Policy Assessment for the Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, External Review Draft, U.S. EPA, EPA-452/P-21-001, at 3-188 (Oct. 2021), https://www.epa.gov/system/files/documents/2021-10/draft-policy-assessment-for-the-reconsideration-of-the-pm-naaqs_october-2021_0.pdf.

[193] *Id.* at 3-188. ("Compared to the current annual standard, meeting a revised annual standard with a lower level is estimated to reduce $PM_{2.5}$-associated health risks in the 30 annually-controlled study areas by about 7-9% for a level of 11.0 $\mu g/m^3$, 15-19% for a level of 10.0 $\mu g/m^3$, 22-28% for a level of 9.0 $\mu g/m^3$, and 30-37% for a level of 8.0 $\mu g/m^3$").

[194] *Id.* at 3-24 ("Studies evaluated in the 2019 [Integrated Science Assessment] and draft [Integrated Science Assessment] Supplement examine this issue, and continue to provide evidence of linear, no-threshold relationships between long-term $PM_{2.5}$ exposures and all-cause and cause-specific mortality.").

[195] *See, e.g.*, Anna Font, et al., *Degradation in Urban Air Quality from Construction Activity and Increased Traffic Arising from a Road Widening Scheme*, Science of the Total Environment 497–498, at 123-32 (Aug. 14, 2014), https://www.sciencedirect.com/science/article/pii/S0048969714010900.

In addition to the sources and studies cited in the November 9 comments, ongoing and current research continue to discover the detrimental effects of exposure to traffic-generated emissions, and resulting concentrations, of particulate matter and NO_2. For example:

The Global Burden of Transportation Tailpipe Emissions on Air Pollution-Related Mortality in 2010 and 2015.[196] This study estimates 385,000 deaths globally in 2015 from transportation related emissions. One of highest areas of transportation attributable fraction of PM deaths was the NAFTA corridor, which include the US and the preferred alternative area. Of these, on-road diesel emissions contributed the most to the health impacts, pointing out the need to estimate the concentrations of both PM_{10} and $PM_{2.5}$ with and without the preferred alternative.

Health Effects of $PM_{2.5}$ Emissions from On-Road Vehicles During Weekdays and Weekends in Beijing, China.[197] This study considered $PM_{2.5}$ exposure in an urban area. It found 4435 premature deaths from $PM_{2.5}$ exposure under weekday exposure conditions with the greatest impact attributable to the AM rush hour period. The air quality studies for this preferred alternative must find the locations with increases in traffic for the rush hour periods and estimate PM concentrations for those locations with the greatest increase in traffic and congestion.

Impacts of Transportation Emissions on the Risk of Mortality: Findings from the Literature and Policy Implications.[198] This study found that mortality rates increase by 5% per 10 $\mu g/m^3$ increase in NO_2 concentration, 2% per unit of traffic intensity on the road, and 7% per unit of distance closer to the road. The findings of this study describe the importance of estimating the NO_2 concentrations that residents of, and visitors to, the project area will be exposed to because of the preferred alternative. It is especially important to identify those locations where the source (highway lanes) – receptor distance is reduced.

Evaluating the Cumulative Impacts of a Long Range Regional Transportation Plan: Particulate Matter Exposure, Greenhouse Gas Emissions, and Transportation System Performance.[199] This study found that health effects of exposure to high levels of toxic vehicle emissions cannot be reversed by future reductions in emission levels. The authors also found that in the largest activity centers, more population and employment, and correspondingly greater traffic congestion and air pollutant concentrations, than by the modeling method used by most MPOs and state DOTs. The implications for this Project's study are twofold; 1) that it is critically

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[196] Susan C Anenberg et al., *The Global Burden of Transportation Tailpipe Emissions on Air Pollution-Related Mortality in 2010 and 2015*, 2019 Environ. Res. Lett. 14 094012 (Sept. 6, 2019), https://iopscience.iop.org/article/10.1088/1748-9326/ab35fc/pdf.

[197] Ruipeng Tong et al., *Health Effects of $PM_{2.5}$ Emissions From On-Road Vehicles During Weekdays and Weekends in Beijing, China*, 223 Atmospheric Environment 117258 (Feb. 15, 2020), https://www.sciencedirect.com/science/article/abs/pii/S1352231019308969.

[198] Razieh Nadafianshahamabadi et al., *Impacts of Transportation Emissions on the Risk of Mortality: Findings from the Literature and Policy Implications*, European Society of Medicine (Aug. 11, 2021), https://esmed.org/MRA/mra/article/view/2502.

[199] Mohammad Tayarani et al., *Evaluating the Cumulative Impacts of a Long Range Regional Transportation Plan: Particulate Matter Exposure, Greenhouse Gas Emissions, and Transportation System Performance*, Transportation Research Part D: Transport and Environment (Aug. 2018), https://www.sciencedirect.com/science/article/abs/pii/S136192091730706X.

important to determine the exposure to traffic-related pollution at the opening year of the preferred alternative because the health impacts cannot be reversed; and 2) that the traffic levels for the outyears (2040 and 2045) of the preferred alternative are likely to be underestimated leading to higher pollution levels and population exposures than that described in the SDEIS. This again highlights the need for an understanding of the concentration levels for these pollutants.

The Health Impacts of Weekday Traffic: A Health Risk Assessment of $PM_{2.5}$ Emissions During Congested Periods.[200] This study found traffic congestion in the greater Toronto/Hamilton area has a substantial impact on human health and the economy, especially at the most congested periods. Results showed an impact of 206 deaths per year with an economic impact of approximately $1.3 billion. This study points out again the importance of an accurate assessment of both species of PM and of NO_2 for the preferred alternative.

Air Pollution and Health Risks Due to Vehicle Traffic.[201] This study focused on NO_2 concentrations and looked at both freeway and arterial scenarios which are present in the project area. The results showed an approximately ten-fold increase in health effects (doctor visits/hospital admissions) and mortality as traffic volumes increased from 1000 vehicles per hour (vph) to 10000 vph in the freeway scenario and from 1000 vph to 4000 vph in the arterial scenario. These levels of traffic volumes are present in the project area in many locations at both the freeway and arterial facilities. Increases in traffic volumes from the preferred alternative will occur, reaching levels beyond that considered in the NIH study. Therefore, the air quality analyses for this preferred alternative must look at NO_2 concentrations in the project area and understand how they will change as a result of the completion of the preferred alternative and what the health effects will be.

Mortality-Based Damages Per Ton Due to the On-Road Mobile Sector in the Northeastern and Mid-Atlantic U.S. by Region, Vehicle Class and Precursor.[202] This study looked at emissions from 5 vehicle classes for 12 states and DC. Found that, light duty trucks ("LDT") are responsible for the most $PM_{2.5}$-attributable premature mortalities with 46% of those mortalities from directly emitted primary particulate matter. In the District of Columbia metro area, LDT trucks accounted for 1.71 million miles of travel in 2016.[203] Depending on the inclusion of sport utility vehicles (the

[200] Weeberb J. Requia et al., *The Health Impacts of Weekday Traffic: A Health Risk Assessment of $PM_{2.5}$ Emissions During Congested Periods*, Environment International (Feb. 2018), https://www.sciencedirect.com/science/article/pii/S0160412017318263.

[201] Zhang and Batterman, *Air Pollution and Health Risks Due to Vehicle Traffic*, Sci. Total Environment (2013), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243514/.

[202] Calvin A. Arter, *Mortality-Based Damages Per Ton Due to the On-Road Mobile Sector in the Northeastern and MidAtlantic U.S. by Region, Vehicle Class and Precursor*, 2021 Env. Res. Lett. 16 065008 (Jun. 8, 2021), https://iopscience.iop.org/article/10.1088/1748-9326/abf60b/pdf.

[203] Air Quality Conformity Analysis of the 2020 Amendment to Visualize 2045: Full Report, MWCOG (March 18, 2020), https://www.mwcog.org/file.aspx?D=y1L01XsWB%2fML7NuRhyH0FPC9fk07eX9zabki%2fGWjG9I%3d&A=rrfYR9JzOYNizTRfbVg0KKBcrd%2fxu4VMJKhU9156M%2fM%3d.

classification of LDT is based on vehicle weight), LDTs account for 42% of the vehicle fleet in the DC metro area.[204] This study again highlights the importance of a microscale PM analysis.

Notwithstanding DEIS comment 1a of Section H regarding particulate matter conformity and PM maintenance orphan areas, NEPA would also require an analysis of PM and NO_2 impacts from the preferred alternative. Under NEPA, project sponsors must take a "hard look" at the potential impact to the natural and human environment, including human health. The science behind the numerous studies cited in the November 9 comments and additional studies cited above clearly demonstrate the potential impact of these transportation-related pollutants upon public health. USEPA recognized this by setting short-term National Ambient Air Quality Standards for these pollutants (1-hour for NO_2 and 24-hours for both PM_{10} and $PM_{2.5}$). Yet despite the overwhelming evidence of the potential impact and harm elevated levels of these pollutants could have on the residents and visitors to the project area, the SDEIS and the DEIS rely on the excuse that an analysis of these pollutants is not needed because the project area is in attainment for these pollutants.

Further, although the study area may not currently be in nonattainment for the $PM_{2.5}$ air quality standards, the traffic conditions associated with this preferred alternative are very close to meeting the conditions for requiring a project-level hot-spot under the transportation conformity regulations and guidance. USEPA's guidance identifies the following project types (among others) as requiring a project level PM hot-spot air quality analysis:

- A project on a new highway or expressway that serves a significant volume of diesel truck traffic, such as facilities with greater than 125,000 annual average daily traffic and 8% or more of such AADT is diesel truck traffic;

- New exit ramps and other highway facility improvements to connect a highway or expressway to a major freight, bus, or intermodal terminal;

- Expansion of an existing highway or other facility that affects a congested intersection (operated at Level-of-Service D, E, or F) that has a significant increase in the number of diesel trucks.[205]

Tables 3-1 through 3-3 show that the Average Daily Traffic on I-270 and I-495 clearly exceed the AADT in EPA's guidance, ranging from 135,000 ADT to 317,000 ADT for 2045 for the preferred alternative. The SDEIS and the Air Quality chapter in the DEIS (Appendix I), for some reason, do not identify the percentage of diesel trucks in the project area. Other sources indicate that 6% of VMT on Maryland's Interstate system is truck traffic.[206] The volume threshold is met for

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[204] *Vehicle Census Shows What's on Our Region's Roads*, MWCOG TPB News (March 13, 2019), https://www.mwcog.org/newsroom/2018/03/13/vehicle-census-shows-whats-on-our-regions-roads-fleet-mix-electric-vehicles-visualize-2045/.

[205] PM Hot-spot Guidance Transportation Conformity Guidance for Quantitative Hot-spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas, EPA-420-B-21-037 October 2021.

[206] TRIP, *Restoring Maryland's Interstate Highway System: Meeting Maryland's Transportation Needs with a Reliable, Safe & Well-Maintained National Highway Network* (Aug. 2020), https://tripnet.org/wp-content/uploads/2020/08/TRIP_Maryland_Interstate_Report_August_2020.pdf.

performing a PM hot-spot analysis and the percentage diesel truck traffic is very close to the threshold and may well exceed it on I-270, I-495, or local arterials, if this information was available. Again, notwithstanding DEIS comment 1a of Section H regarding particulate matter conformity and PM maintenance orphan areas, if the project area were in a nonattainment or maintenance area for PM, an analysis would likely have been done. The residents of and visitors to the project area deserve the same level of protection from elevated levels of PM as do residents and visitors in nonattainment and maintenance areas. The proximity of the preferred alternative traffic conditions to the triggers for a PM hot-spot analysis under USEPA guidance, strongly argues for a PM hot-spot analysis for this Project. The status of nonattainment/maintenance should not matter.

In addition, examination of recent air quality monitoring data highlights the urgency of the need for an analysis of these additional pollutants. Monitoring data from 2020 shows:

- DC monitor at 420 34th St, NE – maximum $PM_{2.5}$ value of 62.2 micrograms/meter^3
- DC monitor at 3600 Benning Rd, NE – maximum $PM_{2.5}$ value of 83.7 micrograms/meter^3

Although technically not a violation of the $PM_{2.5}$ air quality standard (98th percentile exceeding 35 micrograms/meter^3), these values do demonstrate that high levels of $PM_{2.5}$ do occur in the study area, exposing residents and visitors to unhealthful levels of $PM_{2.5}$. It is incumbent upon the project sponsor to demonstrate that the preferred alternative will not exacerbate exposure to this pollutant, as well as to PM_{10} and NO_2.

Regardless of the attainment/nonattainment status of the project area, the project sponsor must address these pollutants in a quantitative manner. The traffic analysis for the preferred alternative indicates traffic levels will increase and the air quality analysis shows that carbon monoxide, mobiles source air toxics, and greenhouse gas emissions will all increase as a result of the preferred alternative. It is clear that PM and NO_2 levels will also increase due to the preferred alternative. It is incumbent upon the project sponsor to document whether those increases will rise to the level of inflicting negative health outcomes within the project area.

2. Carbon Monoxide

The SDEIS provides no carbon monoxide ("CO") analysis but instead merely references the DEIS's discussion of the pollutant, which was based on a different proposed project. SDEIS at 4-43. The SDEIS states:

> An updated traffic analysis to determine the worst-case intersections and interchanges on Preferred Alternative throughout the corridors will be performed. If the result of this updated analysis changes the ranking of the worst-case intersections and interchanges, updated CO air quality modeling will be performed on the Preferred Alternative using the updated intersection and interchange data. The results of the traffic analysis and CO modeling, if performed, will be presented in the FEIS.

Id. The Agencies should have performed this updated analysis prior to releasing the SDEIS and presented its results for public review and comment. There is no justification for delaying this

important information and it only serves to hinder meaningful public review and comment.[207] The Agencies' failure to analyze this information also results in a failure to analyze the corresponding human health and environmental harms from the increased carbon monoxide concentrations that the preferred alternative will cause.

Comment 5 in the November 9 comments pointed out technical flaws in the carbon monoxide hot-spot analysis. In addition to those flaws, the analysis may have omitted a large number of sites that should have undergone a carbon monoxide hot-spot analysis (as well as a hot-spot analysis for PM_{10}, $PM_{2.5}$ and NO_2, as indicated above and in the November 9 comments). The Air Quality Report (Appendix I of the DEIS) indicates that interchanges chosen to undergo an air quality analysis were based solely on volume and delay and intersections chosen to undergo an air quality analysis were based solely on traffic volumes and level-of-service (LOS). Reductions in the source-receptor distance do not appear to have been considered. As shown in the Figure in DEIS Section H, comment 1 of the November 9 comments and discussed in the Environmental Justice comment below, even a small reduction in the source receptor distance can have a large increase in air pollutant concentrations. Reductions in source-receptor distance are commonly used as an indicator for a possible hot-spot analysis site. By not including this factor into the analysis site selection is incomplete. As a result, the air quality discussion in the SDEIS and the analysis in the DEIS is fundamentally flawed for not considering Project changes resulting in moving roadways closer to the public and potentially causing negative air quality and public health impacts.

An additional error in CO air quality analysis is the misapplication of the persistence factor. The persistence factor is a parameter to account for the variability in traffic and meteorological conditions from the 1-hour modeled CO concentration to a derived 8-hour CO concentration for comparison to the 8-hour CO NAAQS. The air quality analysis used a persistence factor of 0.7 (Appendix I, page 74). USEPA guidance allows for the use of 0.7 as a default persistence factor when no more appropriate or project-specific data is available.[208] However, for this project more representative data is available. Table 2-3 of Appendix I of the DEIS shows CO monitoring data for 8 CO monitors in the study area. Only 1 monitor is in the study area in Maryland, monitor 240330030 in Prince George's County. Calculating a persistence factor for 2018 (the latest year of available data in the Table) from the 2nd maximum 1-hour CO concentration to the 2nd maximum 8-hour concentration (the NAAQS CO 8-hour standard is based on the 2nd maximum CO concentration) yields a persistence factor of 0.88. Therefore, the 8-hour projected CO concentrations should be recalculated using a persistence factor of 0.88. This will result in substantially higher 8-hour CO concentrations and may, considering all the other technical errors and omissions described in the November 9 comments, show an exceedance of the 8-hour CO NAAQS and a negative air quality impact.

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[207] The SDEIS references the CO analysis presented in the DEIS. However, that presentation involved a different project scope with different CO impacts. And prior comments explained that the DEIS presentation incorrectly applied EPA's CO Hot-Spot modeling guidance, resulting in an incorrect and artificially low prediction of CO concentrations from the build alternatives at issue. Regardless of these errors, the DEIS predicted increased CO concentrations at every site analyzed.

[208] Guideline for Modeling Carbon Monoxide From Roadway Intersections , EPA-454/R-92-005 (Nov. 1992), https://tripnet.org/wp-content/uploads/2020/08/TRIP_Maryland_Interstate_Report_August_2020.pdf.

3. Mobile Source Air Toxics

Mobile Source Air Toxics ("MSATs") are associated with elevated cancer risks and other major health concerns. The construction and operation of the preferred alternative would be expected to increase exposure to these pollutants and increase the health harms they cause. However, that information, including the levels of increased exposure and health harms, is not mentioned in the SDEIS. The SDEIS merely states: "The results of an updated MSAT analysis using traffic data derived from this affected network will be presented in the FEIS." SDEIS at 4-43. Once again there is no justification for this delay, and it violates NEPA; this delay appears designed to minimize discussion and the public's understanding of negative consequences of the preferred alternative. The Agencies must redo the SDEIS and provide the public with information on the increased MSAT emissions and resulting expected health impacts from the preferred alternative for review and comment.

Further, the SDEIS states without support in its environmental justice section that "the Preferred Alternative is not predicted to increase emission burdens for Mobile Source Air Toxics." SDEIS at 4-102. It is not clear how the SDEIS reached this conclusion without having performed the analysis. The SDEIS could not even refer to the DEIS to support its conclusion, given that the DEIS showed substantial increases ranging from 4.1% to 13.3% in emissions of MSAT directly attributable to the build alternatives it evaluated. At best, the SDEIS's statement downplays and misleads the public on the MSATs harms from the preferred alternative.

Examination of the 2020 air quality monitoring data for the Maryland/District of Columbia area demonstrates that ambient levels of mobile source air toxics can be elevated and could exceed the various screening criteria, as shown in the Table in Comment 4. The ambient air quality monitor at 2500 First Street, NW in the District measures various air toxics, among other pollutants and parameters. The 2020 data for this monitor shows that the maximum 8-hour formaldehyde concentration at this monitor was 7.6 parts per billion (or micrograms per cubic meter) while the screening value is 6.3 parts per billion. Although this monitor is nearly 6 miles from the project area, it does demonstrate that mobile source air toxics concentrations can be elevated in the project area and can exceed screening levels.

This finding highlights the issues raised in the November 9 comment, namely:

- correct the emissions calculations,
- determine appropriate concentration levels for each MSAT for each appropriate time scale (1-hour, 8-hour, daily, annual, etc.),
- compare against appropriate screening level(s),
- perform a health risk assessment to indicate increased cancer and other disease risks, and
- determine if this acceptable to continue with the Project.

The need for a health risk assessment becomes even more critical when considering the environmental burdens already placed on environmental justice communities (see below comment

regarding deficiencies in the Environmental Justice discussion). The construction of the preferred alternative should not disproportionately adversely impact them more.

4. Parking Lots

The impact of parking lots on air quality, as indicated by Comment 2, was not addressed in the SDEIS. Yet, the SDEIS indicates an expansion of parking lots due to the preferred alternative. The SDEIS indicates that the Westfield Montgomery Mall park and ride lot will have increased parking capacity. The project sponsor must report how many additional vehicles will be using the lot and if an air quality analysis is needed to discover any potential air quality impacts.

C. The SDEIS Fails to Address Air Quality Concerns in Environmental Justice Communities

After examining Appendix K of the SDEIS it becomes clear how inadequate the Environmental Justice analysis and discussion in the DEIS (Appendix E) is. The EJSCREEN of Appendix K of the SDEIS shows that one area is more disproportionally affected by environmental concerns. Of the 11 Environmental Indicators in Figures 1 through 11 in Appendix K, Gaithersburg, Maryland is shown to be most negatively affected in all but one of those indicators. Yet a thorough and complete air quality analysis for the preferred alternative is required to provide needed information to more accurately describe the potential impacts of the project on most, if not all, of the environmental concerns most negatively affecting Gaithersburg, as shown in the Environmental Indicators in the EJSCREEN. More specifically (in the order of the figures in Appendix K):

- Hazardous Waste Proximity – emissions from hazardous waste generators and sites as contributors to background levels for a health risk assessment for the preferred alternative (see the discussion in Section H, comment 4 of the November 9 comments).
- Lead Paint Indicator – lead paint on highway bridges in soils from flaking and in the air during lead paint removal from bridges as contributors for background levels for a PM analysis and health risk assessment for the preferred alternative (see the discussion in Section H, comments 1, 2 and 4 of the November 9 comments).
- Air Toxics Cancer Risk – emissions from air toxics emitters as contributors to background levels for performing a health risk assessment for the preferred alternative to identify levels and risks from mobile source air toxics (see the discussion in Section H, comment 4) of the November 9 comments).
- Diesel Particulate Matter – perform a PM_{10} and $PM_{2.5}$ project-level air quality analysis (see the discussion in Section H, comments 1 and 2 of the November 9 comments).
- Respiratory Hazard – perform a PM_{10}, $PM_{2.5}$ and NO_2 project-level analysis, perform a health risk assessment and correct the CO analysis (see the discussion in Section H, comments 1,2, 3, 4, 5, 9, 11, 12 and 13).
- Ozone Index – perform a regional ozone precursor emissions analysis (see the discussion in Section H, comment 3).
- Particulate Matter ($PM_{2.5}$) Index - perform a $PM_{2.5}$ project-level air quality analysis (see the discussion in Section H, comments 1 and 2 of the November 9 comments).

- Superfund Proximity Index - emissions from Superfund sites as contributors to background levels for a health risk assessment for the preferred alternative (see the discussion in Section H, comment 4 of the November 9 comments).
- Risk Management Plan Facilities Proximity Index - emissions from chemical plants as contributors to background levels for a health risk assessment for the preferred alternative (see the discussion in Section H, comment 4 of the November 9 comments).
- Traffic Proximity and Volume Index - perform a PM_{10}, $PM_{2.5}$ and NO_2 project-level analysis, perform a health risk assessment and correct the CO analysis (see the discussion in Section H, all comments).

The Air Quality Report in Appendix I of the DEIS identifies 34 sites for carbon monoxide analysis. Yet of all these sites only two are in or near the Gaithersburg area (I-270/I-370 interchange and I-270 interchange with Shady Grove Road and its ramp intersections). The Air Quality Report does not present any results for the I-270/Shady Grove interchange (Table 3-30). Table 3-29 shows that one-hour carbon monoxide levels in the I-270/I-370 area will increase from 3.80 parts per million (ppm) to 6.10 ppm as a result of this Project in 2025, adding to the environmental burden in this area. Given the environmental concerns in this area, two analysis locations are not sufficient.

The Gaithersburg CEA analysis in Appendix E (page 70) of the DEIS indicates that "noise generators (travel lanes) are moved closer to receptors." Because the roadway is moved closer to receptors, air quality may also deteriorate at these locations. These locations should be evaluated as sites for an air quality analysis.

Section H, comment 5 of the November 9 comments discusses the requirement to look at air quality impacts on the affected network, not just the immediate project area as was done for the air quality analysis for the DEIS, because of traffic volume increases on those roadways and the potential for exceedances of the relevant health-based air quality standards. In the Gaithersburg area, this is especially important because of the disproportionate environmental load impacting its residents and visitors. The project sponsor should examine the traffic and source-receptor distance changes in the affected network in the Gaithersburg area and perform an air quality analyses at those roadways undergoing the most substantial changes in traffic levels, speeds or source-receptor distance as a result of the preferred alternative.

D. The SDEIS Fails to Analyze Emissions from Newly Created Bottlenecks and Additional Traffic Congestion

The SDEIS recognizes that the preferred alternative would create bottlenecks outside the preferred alternative limits. SDEIS at ES-12, 2-6. As explained above, the SDEIS does not accurately analyze these bottlenecks nor the arterial congestion that the preferred alternative would cause at the terminus of the managed lanes. *See* Section II (Traffic Impacts). These bottlenecks and additional congestion will create additional air quality impacts in the areas where they occur, which the SDEIS shows are likely to be in environmental justice communities. *See* SDEIS at 4-96, 4-99. The SDEIS entirely fails to evaluate these air quality impacts and their associated human health and environmental harms.

E. The SDEIS Fails to Quantify Harms from Air Emissions Despite Available Scientifically Sound Methods

It is improper for an agency to place its thumb on the scale by inflating the benefits of a proposed action while minimizing its impacts. *See, e.g.*, *WildEarth Guardians v. Zinke*, No. CV 17-80-BLG-SPW-TJC, 2019 WL 2404860, at *11 (D. Mont. Feb. 11, 2019) ("Because OSM quantified the benefits of the proposed action, it must also quantify the associated costs or offer non-arbitrary reasons for its decision not to."), *report and recommendation adopted sub nom. WildEarth Guardians v. Bernhardt*, No. CV 17-80-BLG-SPW, 2021 WL 363955 (D. Mont. Feb. 3, 2021). As explained above, the SDEIS does not attempt to quantify or even discuss the significant human health harms that the preferred alternative would cause. In the SDEIS, the Agencies quantify the purported investment and job growth benefits of the preferred alternative, SDEIS at 4-112. Further, the SDEIS discusses potential benefits of dollars proposed for transit investment. *Id.* at ES-9. However, the Agencies do not quantify the dollar value of the human health and environmental harms that the preferred alternative, and in particular its air emissions, would cause. Nor does the SDEIS provide non-arbitrary reasons for not quantifying the value of these harms, although doing so would provide the public and decisionmakers with a more useful understanding and comparison. There are well-established scientifically sound methods to perform this quantification, which the SDEIS improperly ignores.[209]

For example, using the RMI SHIFT Calculator State Highway Induced Frequency of Travel to estimate emissions impacts from FHWA data,[210] and inputting the 42 lane miles that the preferred alternative would add in the DC-VA-MD-WV Metropolitan Statistical Area,[211] results in an estimated range of an additional 1.1 Million Metric Tons of Carbon Dioxide Equivalent (MMT CO_2e) to 3.4 MMT CO_2e through 2050 from induced travel from the preferred alternative. The estimated range varies whether evaluating direct or lifecycle emissions and whether under a business-as-usual scenario or a scenario designed to meet the U.S. target of reducing greenhouse gas emissions 50-52 percent from 2005 levels by 2030. Looking at the lower end of the range, the preferred alternative would result in over $100 million in climate impacts. And that value does not even include the impacts from construction emissions, particulate matter emissions (which can reasonably be calculated), emissions from other air pollutants, or emissions from the other highway expansion segments.

The USDOT recently released a Climate Action Plan, in which it recognized "the Department has the opportunity and obligation to accelerate reductions in greenhouse gas

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[209] *See, e.g.*, Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990 (Feb. 2021), at 4-5; Benefit-Cost Analysis Guidance for Discretionary Grant Programs, U.S. Dep't of Transp., at 34 (Feb. 2021) (recommending using a value of $61 per metric ton of CO_2 in 2030 and $78 per metric ton in 2045, in 2019 dollars, $852,700 per metric ton of $PM_{2.5}$).

[210] SHIFT Calculator State Highway Induced Frequency of Travel, RMI, https://shift.rmi.org/ (visited Nov. 11, 2021); SHIFT (STATE HIGHWAY INDUCED FREQUENCE OF TRAVEL) CALCULATOR, About the Methodology, RMI, https://rmi.org/wp-content/uploads/2021/10/rmi_shift_calculator_methodology.pdf (visited Nov. 11, 2021).

[211] American Legion Bridge I-270 to I-70 Relief Plan – Phase South, Accelerate Maryland Partners, at 6 (June 16, 2021) https://uploads-ssl.webflow.com/60a42101147b2d88a026d66b/60ca5e5015e1231d68f88e5c_AM%20Partners-Industry%20Day%20Presentation-FINAL.pdf (describing addition of 26 new lane miles of highway on I-495 and I-270 in Phase South A and 16 new lane-miles of highway on I-270 on Phase South B).

emissions from the transportation sector and make our transportation infrastructure more climate change resilient now and in the future.[212] The USDOT pledged to "ensure that Federally supported transportation infrastructure, and DOT programs, policies, and operations, both consider climate change impacts and incorporate adaptation and resilience solutions whenever possible."[213] Had the SDEIS used best available science to consider and quantify the climate change and other air quality impacts of the preferred alternative, the FHWA would have seen that the preferred alternative should not move forward. Regardless, at a minimum, the FHWA must consider and quantify these impacts using the best available science and present that information to the public for review and comment.

F. Information in the SDEIS Reveals Numerous Additional Air Quality-Related Concerns that the SDEIS Fails to Analyze

1) The SDEIS discusses direct and indirect connections to transit stations (page 2-22). What are they? Are there any traffic or ridership changes as a result? If yes, could the traffic changes cause an air quality impact?

2) The discussion regarding Interstate Access Point Approval (page ES-12) in the Executive Summary of the SDEIS foreshadows changes to the preferred alternative with accompanying environmental impacts. Yet it seems this approval will take place after the completion of the NEPA process. Unless this approval results in only the most minor of changes to the preferred alternative, the Interstate Access Point Approval should be subject to NEPA or lead to a re-opening of the NEPA process for this Project.

3) Examination of Table 5 of Appendix A shows several locations where the vehicle throughput is nearly the same for the Build and No-Build cases and even shows locations where the 2045 vehicle throughput levels are less than the existing throughput levels. This information raises the question of whether the preferred alternative is really necessary.

It is concerning that the project sponsor may be taking shortcuts in the environmental review in general, and the air quality and climate change aspects of the environmental review in particular. Examination of the presentation by Accelerate Maryland Partners (American Legion Bridge I-270 to I-70 Relief Plan – Phase South, Industry Day, June 16, 2021) emphasizes the intent to accelerate project delivery (see slide 4). In addition, having separate contracts for tolling technology and Operations and Maintenance with Accelerate Maryland Partners, rather than with government agencies (MDOT or FHWA), reduces oversight by the project sponsor and facilitates project acceleration (i.e., shortcuts). In accelerating project delivery, the first aspect that is "accelerated" is environmental protection. Based on the environmental documentation for this Project to date and the urgency displayed to "accelerate" the Project, it is likely that one of the shortcuts to be implemented will be minimizing the protection of residents and visitors from harmful air emissions.

[212] Climate Action Plan Revitalizing Efforts to Bolster Adaptation & Increase Resilience, USDOT Office of the Secretary of Transportation, at i (Aug. 2021) https://www.sustainability.gov/pdfs/dot-2021-cap.pdf.

[213] *Id.*

The SDEIS states: "The measured ambient air concentrations closest to the study area were all well below the corresponding NAAQS, except for the exceedance of the 2015 8-hour ozone standard recorded at all the monitor locations." SDEIS at 4-42. The SDEIS does not include these measured ambient air concentrations or cite to where that information can be found. As pointed out in comments on the DEIS, the Agencies should perform air quality monitoring near I-495 and I-270; monitors located miles away are likely not representative of near-road pollutant concentrations. Moreover, the Agencies should explain what "well below" means and whether there are human health or environmental harms at such concentrations and at predicted concentration increases from the preferred alternative. The only scientifically justifiable answer to both those questions is yes, but the SDEIS ignores these impacts. Finally, the SDEIS improperly minimizes the exceedance of the 2015 8-hour ozone standard, which has significant human health and environmental impacts that the SDEIS does not address.

The SDEIS also entirely ignores reasonably foreseeable indirect and cumulative air quality impacts from the preferred alternative, including increased emissions caused by induced demand and increased emissions caused by other segments of the highway expansion that the Agencies are already planning to build and are more likely to be built if the preferred alternative is selected.

V. The SDEIS's Land Use and Species Impacts Discussion Violates NEPA

A. The SDEIS Does Not Adequately Identify and Analyze Impacts to Aquatic Biota

The SDEIS fails to adequately identify and analyze impacts on aquatic species, aquatic habitats, and fisheries, relying instead on watershed data. Even with the reduced scope of the preferred alternative, waterways are still being substantially impacted, and the SDEIS acknowledges that the preferred alternative could impact aquatic biota by changing the "mortality of aquatic organisms" and through habitat loss. SDEIS at 4-83. But, once again, the SDEIS fails to quantify those impacts: the mitigation section is nearly identical to the corresponding section in the DEIS and has the same deficiencies. The Agencies state that "all required precautions will be taken to avoid and minimize impacts to the stream and its aquatic biota," and note that MDOT is coordinating a mussel survey, SDEIS at 4-83, but this information must be included as part of the NEPA process. 40 C.F.R. § 1502.1. The SDEIS must be further supplemented with sufficient data to analyze direct and indirect effects on aquatic resources and provide a detailed description of proposed mitigation of those impacts.

B. The SDEIS Fails to Adequately Identify and Analyze Impacts to Forests

The SDEIS acknowledges that over 500 acres of tree canopy, including 14.7 acres of Forest Conservation Easements, will be affected and that this will result in substantial impacts in many areas, *see* SDEIS at 4-3 and 4-69, but the SDEIS does not quantify those impacts or explain how tree canopy impacts were factored into other impact quantifications. For example, in discussing the preferred alternative's impact on watersheds, the SDEIS notes that "[t]ree removal during the construction process can reduce the amount of shade provided to a stream and raise the water temperature of the affected stream." SDEIS at 4-69. Tree removal can also affect water quality by reducing the buffering of runoff materials and allowing runoff to enter streams directly.

In addition to failing to adequately analyze the impacts to forests, the SDEIS does not provide sufficient information on tree mitigation, indicating instead that the mitigation plan will not be assembled until the "final design at each compensatory SWM [stormwater management] site." SDEIS App'x C Part 1 at 13. In the stormwater appendix, the Agencies concede that they have still have not determined forest impacts, obtained approval under the Maryland Reforestation Law, or determined whether and to what extent mitigation can be achieved onsite. *Id.* And, when forest impacts cannot be mitigated onsite, the SDEIS contains the vague assurance that "the P3 Developer can refer to the MLS Maryland Reforestation Law Mitigation Site Search Report to identify potential mitigation opportunities according to the Maryland Reforestation Law Mitigation hierarchy." *Id.* These empty reassurances run afoul of NEPA. The EIS must again be supplemented so that the public can review and comment on to the full scope of forest impacts.

C. The SDEIS's Analysis of Potential Impacts to the Northern Long-Eared Bat Relies Too Heavily on an Outdated Endangered Species Act § 4(d) Rule

The SDEIS relies on the Final 4(d) Rule for the Northern Long-Eared Bat to permit forest clearing within the bat's known habitat. USFWS 2016 Programmatic Biological Opinion. The SDEIS ignores, however, that the bat will likely soon be listed as an endangered species, based on a court order. *Center for Biological Diversity v. Everson*, 435 F. Supp. 3d 69 (D.D.C. 2020). In that case, the court determined that the Fish and Wildlife Service "failed to articulate a rational connection between its own analysis and its determination" that the Northern Long-Eared Bat should be designated as threatened rather than endangered. *Id.* at 82-83. The take exemptions listed in the 4(d) Rule are allowed only as long as the Northern Long-Eared Bat is listed as threatened and not endangered. 16 U.S.C. § 1538(a)(1)(B) (prohibiting takes of endangered species).

During an acoustic survey, three sites within the corridor study boundary—and therefore likely impacted by the preferred alternative—had Northern Long-Eared Bat calls, SDEIS at 4-86, and the DEIS appendix, referenced throughout the SDEIS, notes that construction could affect summer roosting and maternity habitat for the Northern Long-Eared Bat, DEIS App'x L at 154. The SDEIS waives off this risk by referring to a letter, dated January 13, 2021, determining that the preferred alternative was "not likely to adversely affect" the Northern Long-Eared Bat. SDEIS at 4-90. But that letter was written before a federal court ordered the Fish and Wildlife Service to issue a new listing determination within eighteen months of completion of a "Special Status Assessment." *Center for Biological Diversity v. Everson*, No. 15-477 (EGS) (D.D.C. Mar. 1, 2021). And, as the letter itself reveals, the determination relied on a nebulous distinction between "known" maternity roost trees or hibernacula—which the USFWS reports not to have found—and what the DEIS appendix (which the SDEIS continues to rely on) observes: that construction could indeed affect these types of habitats. The letter mentions a voluntary restriction of construction during the summer, which seems to acknowledge the potential of the preferred alternative for habitat modification.

That habitat modification could constitute a take under the Endangered Species Act. *Babbitt v. Sweet Home Chapt. Comms. for Ore.*, 515 U.S. 687 (1995). The SDEIS must analyze reasonably foreseeable future actions, 40 C.F.R. §§ 1508.7, 1508.25, and therefore must consider how a new classification would affect construction. Moreover, even assuming the Northern Long-Eared Bat's current threatened status remains in place, the SDEIS is inadequate because it does

not analyze the reasonably foreseeable harm to the Northern Long-Eared Bat. 40 C.F.R. § 1502.22. As noted above, that harm could include the destruction of the bat's habitat.

D. The SDEIS Does Not Sufficiently Explain How Impacts to Rare and Threatened Plants Will be Mitigated

Significant impacts to state rare and threatened plants species are identified. *See* SDEIS at 4-77, 4-78. Mitigation plans, however, are vague, focus on minimization and transplanting which has variable success.

E. The SDEIS Does Not Sufficiently Explain its LOD Determination, Including the Impact of the Preferred Alternative on Plummers Island

The SDEIS indicates that a "Base Option" was determined that would reduce the Plummers Island LODs by 1.7 acres, SDEIS at 5-15, but does not explain how that figure was arrived at nor whether any alternatives with less impact were evaluated. The SDEIS also does not sufficiently consider visual and noise impacts to Plummers Island. *See* SDEIS at 4-109, 4-111 (discussing visual and noise impacts but making no mention of Plummers Island).

Furthermore, the SDEIS appears to underestimate the LODs. In discussing how LODs were determined for stream restoration sites, the SDEIS notes that the sites would "have impacts to private properties and environmental resources" but that "impacts to wetlands and waterways at these sites are generally considered self-mitigating." SDEIS at 2-12. The SDEIS does not explain how it reached its conclusion regarding self-mitigation, nor does it spell out exactly how that conclusion affected the LOD determinations. *See* SDEIS at 2-12, SDEIS App'x C Part 1 at 7. (From the SDEIS: "Self-mitigating sites are sites where the potential design would improve the function of the environmental resources and would not require impacts to be mitigated." SDEIS at 2-12–13.) In light of the lack of support for this conclusion, the Agencies should instead evaluate impacts based on more realistic LODs.

VI. The SDEIS Fails to Meet the Agencies' Environmental Justice Obligations

A. Relevant Federal Laws and Guidance on Environmental Justice Obligations

EPA explains that:

> Environmental justice is 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. This goal will be achieved when everyone enjoys:
>
> - The same degree of protection from environmental and health hazards, and
> - Equal access to the decision-making process to have a healthy environment in which to live, learn, and work.[214]

[214] U.S. Envtl. Prot. Agency, Environmental Justice, (Oct. 29, 2021), https://www.epa.gov/environmentaljustice.

Title VI of the 1964 Civil Rights Act prohibits discrimination in programs and activities receiving federal financial assistance, stating "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." 42 U.S.C. § 2000d.

Executive Order 12,898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Feb. 11, 1994), requires each federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations[.]"

The CEQ has issued guidance on considering environmental justice impacts under NEPA, directing that "[a]gencies should consider the composition of the affected area, to determine whether minority populations, low-income populations, or Indian tribes are present in the area affected by the proposed action, and if so whether there may be disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, or Indian tribes."[215] The analysis requires examination of qualitative as well as quantitative factors:

> Agencies should recognize the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed agency action. These factors should include the physical sensitivity of the community or population to particular impacts; the effect of any disruption on the community structure associated with the proposed action; and the nature and degree of impact on the physical and social structure of the community.[216]

The purpose of an environmental justice analysis under NEPA is to determine whether the proposed federal action will have a "disproportionately adverse effect on minority and low-income populations." *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 541 (8th Cir. 2003). An EIS must compare impacts on populations to determine whether the environmental justice impacts "appreciably exceed" impacts to the general population.[217] Not only should the comparison be quantitative, but the distinct culture and structure of environmental justice communities means the comparison should include qualitative analysis as well.[218] As with all NEPA requirements, agencies must "take a 'hard look' at environmental justice issues." *Sierra Club v. FERC*, 867 F.3d 1357, 1368 (D.C. Cir. 2017).

The Office of the Secretary of Department of Transportation ("USDOT") issued Updated Environmental Justice Order 5610.2(a), which states the USDOT's commitment to consider environmental justice principles in all USDOT programs, policies, and activities; describes how the objectives of environmental justice will be integrated into planning and programming; and sets

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[215] Environmental Justice Guidance Under the National Environmental Policy Act, at 9 (Dec. 10, 1997).

[216] *Id.* at 6.

[217] CEQ Guidance at 26-27.

[218] *See id*. at 14.

forth policies to prevent disproportionately high and adverse environmental effects to minority or low-income populations. Order 5610.2(a) highlights the importance of avoiding disproportionately high and adverse environmental justice effects in programs, policies, and activities, and includes as its aim the identification of potential effects, alternatives, and mitigation measures.[219] *Id*. § 6. The Order adopts a goal to "avoid[], minimize[] or mitigate[]" disproportionate effects. *Id.*; *see also id.* § 7(c)(2).

In order to comply with USDOT Order 5610.2(a), Executive Order 12,898, and Title VI, USDOT officials must ensure that any of their programs, policies, or activities that will have a disproportionately high and adverse effect on minority populations or low-income populations "will only be carried out if further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effect are not practicable." Order 5610.2(a) § 8(c). Activities that will have a high and adverse effect on populations protected by Title VI can only be carried out if (1) a substantial need for the program, policy, or activity exists; and (2) alternatives that would have fewer adverse effects on protected populations, either (a) would have other adverse social, economic, environmental or human health impacts that are severe or (b) would involve increased costs of extraordinary magnitude. *Id.* § 8(d).

Moreover, FHWA issued Order 6640.23A, FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. Among other things, the Order requires FHWA managers and staff to comply with NEPA and Title VI in a manner that "identif[ies] the risk of discrimination early in the development . . . so that positive corrective action can be taken." *Id.* § 8(c). "Any relevant finding identified during the implementation of this directive must be included in the planning or NEPA documentation that is prepared for the appropriate program, policy, or activity." *Id.* § 8(h). The Order commits FHWA to "identify and prevent discriminatory effects . . . to ensure that social impacts to communities and people are recognized early and continually throughout the transportation decision-making process—from early planning through implementation." *Id.* § 6(a).

Recently, President Biden expanded on the federal government's commitment to environmental justice and issued an Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government, explaining the goal to prioritize environmental justice and that "the Federal Government should pursue a comprehensive approach to advancing equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality."[220] "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

[219] The Order defines disproportionately high and adverse effect as an adverse effect that:

> (1) is predominately borne by a minority population and/or a low-income population, or
>
> (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

Order 5610.2(a), App. § 1(g).

[220] Exec. Order No. 13,990 of Jan. 20, 2021, 86 Fed. Reg. 7,037 (Jan. 25, 2021).

to address the disproportionate health, environmental, economic, and climate impacts on disadvantaged communities."[221]

B. The SDEIS Improperly Delays Important Environmental Justice Analysis Until the FEIS, which Hinders Meaningful Review and Comment

The SDEIS says:

> A final comparison of environmental resource impacts in EJ block groups and non-EJ block groups will be presented in the FEIS. The determination of disproportionately high and adverse impacts to EJ populations will be made on the Preferred Alternative and will be disclosed in the FEIS.

SDEIS at 4-104. Further, the SDEIS says that measures to mitigate any disproportionately high and adverse impacts will be determined and documented in the FEIS and ROD. *Id.* at 4-104. The SDEIS does not provide justification for postponing these required analyses.[222]

By delaying an analysis of EJ impacts until the FEIS, the SDEIS prevents full and fair participation by all potentially affected communities in transportation decision-making processes and violates NEPA, Title VI, Executive Order 12,898, USDOT Order 5610.2(a), and FHWA Order 6640.23A. The Agencies should have performed the analysis already, so that a determination on EJ impacts could be made and the public and EJ communities in particular could meaningfully review and comment on it before the Agencies finalize their evaluation of the preferred alternative.

Even though the FRA has deferred the assessment required by USDOT Order 5610.2(a), the Agencies have not shown that: 1) there is a substantial need for the Project, *see* USDOT Order 5610.2(a) § 8(d)(1); and 2) there are no build alternatives that would address the claimed need with fewer adverse effects on minority and low-income communities and at lower cost, or at least without increasing costs by an extraordinary magnitude, *id*. § 8(d)(2). First, nothing in the SDEIS shows that this purported need is present given the increased prevalence of teleworking following the COVID-19 pandemic and accounting for implementation of the I-270 Innovative Congestion Management Project. Further, even if there were a need, nothing in the SDEIS shows that the preferred alternative is the only way to address this need. The Agencies improperly limited their evaluation to only one alternative that adds two toll lanes in each direction. In doing so, the Agencies ignored numerous reasonable alternatives that would better take environmental justice

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[221] The White House Briefing Room, 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 (Jan. 27, 2021), https://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/.

[222] Our previous comments also explained that census block group information is not specific enough, from an environmental justice standpoint, to understand and properly address the unique needs of different socio-economic and community-based groups. Census data is deficient because it excludes "pockets of minority or low-income communities, including those that may be experiencing disproportionately high and adverse effects." EPA, Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses, at 2.1.1 (1998). Further, as the Federal Highway Administration has found, census data cannot reveal the intricate communal networks that could exacerbate negative impacts on environmental justice populations. *See* FHWA, U.S. DOT, Environmental Justice Reference Guide, at 15 (2015).

concerns into account and cause less harm. *See* Section I.E. When considering build alternatives under USDOT Order 5610.2(a), the FHWA must consider these other alternatives, including the proposed multi-modal SMART alternative. The SDEIS does not explain why none of these alternatives were evaluated, and in any event, they must be evaluated under NEPA and USDOT Order 5610.2(a).

C. The SDEIS's Limited Discussion of EJ Impacts Relies on Misleading and Conclusory Statements and Fails to Take a Hard Look at Those Impacts or Consider Possible Mitigation

In its limited discussion of environmental justice, the SDEIS makes several conclusory statements regarding potential impacts, but these passing remarks are insufficient to discharge the Agencies' duty to take a hard look at environmental justice issues. *See Del. Riverkeeper Network*, 753 F.3d at 1313 ("[s]imple, conclusory statements of 'no impact' are not enough to fulfill an agency's duty under NEPA") (alteration in original) (quoting *Found. on Econ. Trends v. Heckler*, 756 F.2d 143, 154 (D.C. Cir. 1985)).

The SDEIS states that "the Preferred Alternative is not predicted to increase emission burdens for Mobile Source Air Toxics." SDEIS at 4-102. The SDEIS provides no explanation or support for this assertion, however, which is called into question by the fact that the DEIS showed substantial increases ranging from 4.1% to 13.3% in emissions of MSAT directly attributable to the build alternatives it evaluated.

As another, example, the SDEIS says:

> Air quality impacts associated with construction would not differ between EJ block groups and non-EJ block groups. To minimize the amount of emissions generated, efforts would be made during construction to limit traffic disruptions, especially during peak travel hours.

SDEIS at 4-103.

Once again, the SDEIS cites no data—neither quantitative nor qualitative—to support this conclusion. Given that the SDEIS disclaims having performed any construction air quality assessment, *see* SDEIS at 4-110, let alone a health assessment, it appears there is no basis for this conclusion. We disagree that air quality impacts associated with construction would not disproportionately burden the air quality and health of environmental justice communities, which are more likely to be located along the highway. The SDEIS's statement about mitigation efforts, without even knowing the impacts, is too vague to be meaningful and does not come close to addressing the suite of adverse impacts the preferred alternative would cause to environmental justice communities. The SDEIS also provides no evidence that the Agencies evaluated the realm of options available to mitigate the disproportionate impacts to minority and low-income communities, despite their obligation to do so—and to make the information available to the public for review and comment—under NEPA and USDOT Order 5610.2(a) before moving forward with the preferred alternative.

Additionally, the SDEIS fails to evaluate the impacts of the preferred alternative in conjunction with the already high environmental burdens experienced by environmental justice

communities. Highway building, particularly at the expense of public transit that environmental justice communities rely on, has historically created and increased discorporate harms on environmental justice communities in Maryland and throughout the country.[223] The SDEIS fails to consider these cumulative impacts. Environmental justice communities already experience higher levels of particulate matter, ozone precursors, MSAT, carbon monoxide, and other harmful air pollutants, as well as other harmful environmental stressors, which will be increased by the preferred alternatives, but the SDEIS does not evaluate any of these existing or increased burdens. Proper analysis of air quality is especially important in the environmental justice context. Research has connected localized air pollutants to adverse health outcomes, including pulmonary and cardiovascular disease, neurological effects, and cancer.[224] These effects are compounded in environmental justice populations who are disproportionately exposed to harmful air pollution from nearly all major emission categories.[225] Statements like the following, "Air quality impacts associated with construction would not differ between EJ block groups and non-EJ block groups," SDEIS at 4-103, are meaningless without a full analysis of those impacts and health effects. Increased pollutant loads can cause more harm to environmental justice communities that are already experiencing high pollutant levels from past and present actions.

Without taking a hard look at environmental impacts, including cumulative impacts from past, present, and future actions, the SDEIS cannot foster the "informed public participation" that is central to NEPA. *State of Cal. v. Block*, 690 F.2d 753, 761 (9th Cir. 1982). An informed evaluation of the project's impacts on environmental justice populations is critical to "effective community participation."[226] The Agencies fail to disclose in the SDEIS the environmental justice impacts of the preferred alternative in combination with existing impacts from past actions and potential mitigation options, and therefore "preclude meaningful evaluation of the effectiveness of the agency's proposed action." *Fund for Animals v. Norton*, 281 F. Supp. 2d 209, 227 (D.D.C. 2003).

D. The SDEIS Fails to Consider Impacts to Environmental Justice Communities from New Bottlenecks and Increased Traffic Created by the Preferred Alternative

As explained in Sections II and IV.D , the SDEIS recognizes that the preferred alternative would create bottlenecks outside the preferred alternative limits, SDEIS at ES-12, 2-6, but the SDEIS does not accurately analyze these bottlenecks nor the arterial congestion that the preferred alternative would cause at the terminus of the managed lanes. These bottlenecks and additional

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[223] *See, e.g.*, Liam Dillon and Ben Poston, *Freeways Force Out Residents in Communities of Color — Again*, LA Times, (Nov. 11, 2021), https://www.latimes.com/projects/us-freeway-highway-expansion-black-latino-communities/; Katie McKenna, *Opinion: How the Beltway Widening Project Is Excluding Low-Income Communities*, Maryland Matters (Nov. 30, 2021), https://www.marylandmatters.org/2021/11/30/opinion-how-the-beltway-widening-project-is-excluding-low-income-communities/ ("Why are we not investing in making alternative modes of transportation more accessible, efficient, and affordable?").

[224] *See, e.g.*, 83 Fed. Reg. 42,986 (Aug. 24, 2018).

[225] *Id.*; Christopher W. Tessum, et al., *$PM_{2.5}$ Polluters Disproportionately and Systemically Affect People of Color in the United States*, Science Advances, Apr. 2021, https://advances.sciencemag.org/content/advances/7/18/eabf4491.full.pdf.

[226] CEQ Guidance at 4.

congestion will create additional air quality impacts in the areas where they occur, which the SDEIS shows are likely to be in environmental justice communities, including around the endpoints of the preferred alternative. *See* SDEIS at 4-96, 99. The SDEIS entirely fails to evaluate these air quality impacts and their associated human health and environmental harms.

E. The SDEIS Does Not Adequately Consider and Avoid Impacts to the Morningstar Tabernacle No. 88 Moses Cemetery and Hall and Gibson Grove A.M.E. Zion Church

Morningstar Tabernacle No. 88 Order of Moses Cemetery and Hall ("Morningstar Moses Cemetery and Hall") were established around 1885 alongside Gibson Grove, a post-Emancipation Black settlement.[227] Residents, including some who had formerly been enslaved, established a benevolent society to care for the sick and destitute, bury deceased, and provide overall support to the local Black community.[228] Morningstar Moses Cemetery and Hall were named one of America's 11 Most Endangered Historic Places in 2021 by the National Trust for Historic Preservation.[229] Prior construction of the Beltway through the Gibson Grove community already went through and took a portion of the site. The SDEIS fails to consider the additional and cumulative impacts to the site and community that would be caused by the preferred alternative.

After completing a geophysical survey that identified additional burials, the Agencies claimed that "complete avoidance of the Morningstar Cemetery property has now been achieved." SDEIS at ES-14. This statement does not acknowledge or recognize prior impacts from Beltway construction. Second, the cemetery boundary and locations of graves remain unknown. As the Friends of Moses Hall explained, additional non-invasive archeological investigations are needed to determine whether additional graves are located to the north of the Moses Hall foundations, including the portions of the adjacent state right-of-way that were not surveyed.[230] Investigation needs to occur up to the edge of the highway and further east and west. Third, the SDEIS does not sufficiently consider other impacts to the property, including noise, visual, and water impacts. The Agencies must ensure that their analysis is exhaustive prior to approving any further development in this historically and culturally significant area that already faced significant disruption in the past.

Moreover, the preferred alternative moves the disturbed area from the Morningstar Moses Cemetery and Hall but increases impacts to the adjacent historic African American First Agape AME Zion Church (formerly Gibson Grove AME Zion Church). The church is more than 100 years old and held the second oldest congregation in the Cabin John community. It is named after Sarah Gibson, a former slave from Virginia who migrated to the area shortly after the Civil War and donated the land. The Gibson Grove Church property has suffered cumulative impacts from

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[227] Discover America's 11 Most Endangered Historic Places for 2021 , National Trust for Historic Preservation (June 3, 2021), https://savingplaces.org/stories/11-most-endangered-historic-places-2021#.YYvqBPnMKUk.

[228] *Id.*

[229] *Id.*

[230] Press Release: Statement in Response to Report of Geophysical Survey for Morningstar Tabernacle No. 88 Moses Hall and Cemetery Released by MDOT SHA With I-495 and I-270 Section 106 Materials on September 8, 2021, Friends of Moses Hall (Sept. 10, 2021), https://www.friendsofmoseshall.org/press-releases.

stormwater damage over many years due to the original I-495 Beltway construction, which the SDEIS does not consider. The Agencies should not increase the damage by further disturbing the property with an expanded highway and impervious concrete, noise, light, and other pollution. The SDEIS does not show that the Agencies have considered alternatives or actions that would eliminate or reduce the impacts to the Gibson Grove Church.

These impacts might be avoidable, or at least mitigated, if the Agencies carried out their obligations to consider other reasonable alternatives, such as the SMART alternative or other multimodal options that would have a smaller footprint and less impact on these properties. Before moving forward, the Agencies must conduct this evaluation, which may lead the Agencies to select an alternative with fewer disproportionate impacts on these important sites.

F. The SDEIS Does Not Adequately Address the Environmental Justice Impacts of Adding Toll Lanes

With respect to traffic in the environmental justice section, the SDEIS states:

> The Preferred Alternative is projected to provide operational benefits to the proposed managed lanes as well as general purpose lanes on the I-495 and I-270 interstate system, plus operational benefits to the surrounding local arterial network. The Preferred Alternative would significantly increase vehicle throughput across the American Legion Bridge and on the southern section of 1-270 while reducing congestion. It would also increase speeds, improve reliability, and reduce travel times and delays along the majority of I-495, I-270, and the surrounding roadway network compared to the No Build Alternative. Populations in both EJ block groups and non-EJ block groups would have the opportunity to experience these operational benefits.

SDEIS at 4-102. Later, under tolling considerations, the SDEIS states:

> While the travel speed and trip reliability benefits offered by the tolled lanes could be a less feasible choice for EJ populations due to cost burden, under the Preferred Alternative, all existing GP lanes would remain toll-free and would undergo travel time improvements that would benefit all road users. Additionally, under the Preferred Alternative, toll-free travel for bus transit and High Occupancy Vehicles with three or more passengers (HOV 3+) in the managed lanes, including carpools and vanpools, would be provided. Toll rate caps would be set through a public process by the Maryland Transportation Authority, and public notice of toll schedule revisions would be required.

Id. at 4-104.

These two paragraphs do not provide a sufficiently detailed or accurate picture of the costs and benefits of the preferred alternative on EJ communities. First, even under the SDEIS's flawed traffic discussion, *see* Section II, the SDEIS shows that traffic and travel times in the general lanes

would not improve, at least during certain times and directions.[231] Additionally, neither these statements nor the rest of the SDEIS environmental justice discussion consider the disruptions that would be caused by the years of construction needed for the preferred alternative. Second, the SDEIS does not adequately describe the likely tolls for the managed lanes, which in 2026, when the toll lanes would open, are proposed to be up to $50 for a passenger car to drive from the George Washington Parkway to the I-270/I-370 interchange.[232] Such high tolls are exclusive, inequitable, and discriminatory. The preferred alternative sets up a two-class system: on lanes right next to each other, only those who can afford the private lanes get a faster and safer commute, with everyone else relegated to the more congested and therefore less safe general-purpose lanes. The SDEIS fails to analyze this issue and consider who would benefit from the toll lanes but instead waives it away, saying merely that the toll lanes "could be a less feasible choice for EJ populations due to cost burden," and claiming disingenuously that "EJ block groups and non-EJ block groups would have the opportunity to experience these operational benefits." The opportunity to benefit from the preferred alternative is meaningless if those benefits would not actually be realized.

Further, the SDEIS does not address the environmental justice implications of turning the existing I-270 part-time high occupancy vehicle ("HOV") lanes, one in each direction, currently available to vehicles with two or more passengers, into one of the full-time high occupancy toll ("HOT") lanes, which could only be used for free if traveling with three or more. Currently, the HOV lanes on I-270 act as general lanes outside of a 3-hour peak window each day, and so are available to everyone, and even during that window they may be used for free by vehicles with at least two passengers.[233] Under the preferred alternative, people who travel with two people during rush hour, or even one-person vehicles during other times of the day, will no longer have access to those lanes unless they can afford to pay for them. The SDEIS presents the option under the preferred alternative for vehicles with three or more passengers to travel for free on the toll lanes as a benefit to environmental justice communities, but it completely ignores the loss of this lane to those who cannot or would not pay the high tolls. Environmental justice populations disproportionately work evening and night shifts, or day shifts that start and end before or after the peak commuting hours and are therefore disproportionately harmed by loss of the general-purpose lane outside of rush hours and resulting congestion and safety issues.

Many EJ communities will not gain in travel time, due to driving through new bottlenecks over the American Legion Bridge. A large proportion of the region's EJ populations live in eastern Montgomery County and Prince George's County. To access jobs in western Montgomery County and Virginia, they would have to pass through new and worsened bottlenecks around the end points of the toll lanes (at Wisconsin Avenue). These bottlenecks would therefore disproportionately

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[231] *See* Dan Schere, *Projections in New Study Show More Traffic with Toll Lanes on Beltway, I-270*, Bethesda Magazine (Oct. 1, 2021), https://bethesdamagazine.com/bethesda-beat/transportation/projections-in-new-study-show-more-traffic-with-toll-lanes-on-beltway-i-270/; Katherine Shaver, *Toll Lanes on Beltway, I-270 in Maryland Wouldn't Lessen Worst Evening Traffic Without Other Improvements, Study Says*, Washington Post (Oct. 1, 2021), https://www.washingtonpost.com/transportation/2021/10/01/maryland-toll-lanes-traffic/.

[232] *See* Sierra Club Maryland Chapter, Testimony on Toll Rate Range Setting Process, Phase 1 South: American Legion Bridge I-270 to I-370 (July 12, 2021), https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u25361/MDSierraClub-TollRateSettingTestimony-2021July12_0.pdf.

[233] MDOT, High Occupancy Vehicle (HOV) Lanes Frequently Asked Questions https://roads.maryland.gov/mdotsha/pages/Index.aspx?PageId=249 (visited Nov. 10, 2021).

harm environmental justice populations living beyond the limits of the toll lanes, which the SDEIS fails to evaluate. The same would occur for the environmental justice populations living around the northern terminus of the toll lanes and north of where I-270 intersects with I-370. On the afternoon return home, they will face a bigger traffic bottleneck (and associated reductions in safety/increased accidents and more delay) under the Project build alternative than under the no-build alternative.

Lower income environmental justice populations who cannot afford the toll lanes will disproportionately rely on the free general-purpose lanes. However, the general purpose lanes as configured after building toll lanes would become less safe relative to today due to: additional traffic and congestion; new and worsened bottlenecks with end merge-point congestion; loss of the inside shoulder lane; a higher concentration of 18-wheelers that are kept off the toll lanes by unaffordable tolls and whose numbers are increasing following the COVID-19 pandemic; removal of an existing non-tolled lane in each direction of I-270, squeezing more traffic into fewer general purpose lanes; inferior maintenance of the free lanes compared to the toll lanes and poorer safety during emergencies and slower access to emergency response owing to space constraints and loss of the inside shoulder lane. *See* Sections II.H.7 to 15.

G. FHWA Should Not Move Forward with the FEIS and Preferred Alternative Before Completing a Thorough Investigation of the Civil Rights Complaint Filed Against MDOT

In December of 2015, the NAACP Legal Defense and Educational Fund, Inc., on behalf of the Baltimore Regional Initiative Developing Genuine Equality, Inc. and African-American residents of Baltimore, filed a complaint pursuant to Title VI with the USDOT, challenging Maryland's decision to cancel plans for the "Red Line" rail system for Baltimore City and redirect all state funding for it to a newly-created Highways, Bridges, and Roads Initiative, which focuses on road projects in rural and suburban parts of the state.[234] Among other things, the complaint argued that because the cancellation and redirection of funds had a disparate impact on African-American citizens, it violated Title VI. According to the complaint, "A transportation economist, using Maryland's own travel model, found that whites will receive 228 percent of the net benefit from the decision, while African Americans will receive -124 percent."[235] One of the most expensive projects in the Highways Plan involved I-270.[236] The complaint alleged that Maryland has discriminated against African Americans in highway construction since the 1930s.[237]

An initial investigation conducted by the FHWA Office of Civil Rights could not determine whether the state's decision included efforts to comply with Title VI, but it found that MDOT administrated their programs and services in a manner that calls into question whether MDOT

[234] Complaint Pursuant to Title VI of the Civil Rights Act of 1964, *Baltimore Regional Initiative Developing Genuine Equality, Inc. v. State of Maryland*, Federal Highway Administration Office of Civil Rights (Dec. 18, 2015), https://www.naacpldf.org/wp-content/uploads/Baltimore-Red-Line-Complaint.pdf.

[235] *Id.* at 2.

[236] *Id.* at 11 n.52.

[237] *Id.* at 13-14.

violated the USDOT's regulations governing Title VI.[238] The USDOT stated it would conduct a comprehensive compliance review and continue investigating the complaint to determine whether the state's decision violated Title VI.[239] However, less than six months later, under the Trump Administration, USDOT without explanation administratively closed the complaint, without any findings.[240] It is not clear if anything has come from the promised comprehensive compliance review.

Because the preferred alternative is a product of the state's decision to redirect resources to highway programs,[241] because MDOT has evaluated only highway expansion and no public transit or multimodal alternatives that could provide more benefits and less harms to environmental justice communities, and because of President Biden's renewed commitment to environmental justice, the FHWA should not move forward with the preferred alternative until a full evaluation and decision is reached on the complaint and Maryland's and MDOT's compliance with Title VI.

VII. The Hazardous Waste Standards Used in the SDEIS Are Not Adequate for Projecting Hazardous Waste Impacts

The SDEIS Appendix I: Hazardous Materials Report: Limited Phase 1 Environmental Site Assessment Phase 1 South assumes the following:

> The purpose of this Phase I ESA was to identify soil, groundwater, soil vapor, or debris-impacted sites in the project corridor that have potentially impacted the area within the limit of disturbance (LOD). The Phase I ESA was conducted in modified/limited accordance with EPA Standards and Practices for All Appropriate Inquiries (AAI) as required under Section 101(35)(B) of CERCLA as specified in Title 40 Code of Federal Regulations (CFR), Part 312; the ASTM International Standard E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-13).

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[238] Letter from Yvette Rivera to Governor Hogan and Secretary Rahn (Jan. 19, 2017), https://www.naacpldf.org/files/about-us/Redline_Compliance_Review_Letter.pdf.

[239] *Id.*

[240] Letter from Charles E. James Sr. to Secretary Rahn (July 13, 2017), https://www.naacpldf.org/files/about-us/USDOT-letter.pdf; LDF Statement on U.S. Transportation Department's Decision to Close Red Line Inquiry (July 13, 2017), https://www.naacpldf.org/press-release/ldf-statement-on-u-s-transportation-departments-decision-to-close-red-line-inquiry/; Emily Sullivan, *Buttigieg on Red Line: "We're Very Excited to Fund Good Transit Projects"*, WYPR News (Nov. 23, 2021), https://www.wypr.org/wypr-news/2021-11-23/buttigieg-on-red-line-were-very-excited-to-fund-good-transit-projects ("The NAACP and Black transit activists filed a civil rights complaint with the U.S. DOT after the Red Line's cancellation, noting that Hogan shifted more than $730 million of the project's state money to roads in predominantly white counties. . . . When asked whether he would reopen the complaint, Buttigieg said he can't speak to any specific cases. 'What I can say is we're going to take civil rights very seriously moving forward," he said. 'When I arrived, we found that the department's Office of Civil Rights was not exactly staffed up or empowered.'")

[241] The state has already spent millions of dollars the preferred alternative that otherwise could have been used in a nondiscriminatory manner. *See, e.g.*, Katherine Shaver, *Maryland Board Approves $45 Million More for Consultant on Beltway, I-270 Toll Lanes Project*, Washington Post (Nov. 3, 2021), https://www.washingtonpost.com/transportation/2021/11/03/bpw-toll-lanes-consultant-contract/.

SDEIS App'x I at 13.

The fundamental problem lies in both the "modified/limited accordance" qualifier above and the many qualifying clauses in the ASTM International Standard E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-13), specifically paragraphs:

- 4.5.1 *Uncertainty Not Eliminated*—No *environmental site assessment* can wholly eliminate uncertainty regarding the potential for *recognized environmental conditions* in connection with a *property*.

- 4.5.2 *Not Exhaustive—All appropriate inquiries* does not mean an exhaustive assessment of a *property*.

- 4.5.3 *Level of Inquiry is Variable*—Not every *property* will warrant the same level of assessment.

These clauses hide a great number of well-recognized risks that the entity performing the assessment chooses not to recognize.

In particular, the SDEIS Appendix I fails to address how climate change has greatly increased and will continue to increase the amount of flash flooding, especially since highway expansion will increase the amount of impermeable surface that collects toxic substances from rain and vehicles and reduces the amount of permeable soil and vegetation that can process rain.[242]

Hydrology and percolation of hazardous waste are seriously impacted by these changes:

- Increased impermeable surface increases flash flooding risk, and by displacing trees, other vegetation, and permeable soil it reduces the ability of the ecosystem to handle flooding.

- Increased rain in a changing climate saturates soil, which also reduces the ability of the ecosystem to handle flooding.

- Compacted soil, which will happen in staging areas, also loses its ability to percolate.

Soils are not just three-dimensional sieves: whatever passes through soil also has chemical interactions with individual soil particles. In healthy soil, complex ecosystems of mineral substructure surrounded by communities of microorganisms affect the hydrology and percolation of hazardous waste.

[242] Colman, Z., *The Toxic Waste Threat That Climate Change is Making Worse*, Politico (August 26, 2019), https://www.politico.com/story/2019/08/26/toxic-waste-climate-change-worse-1672998.

Research on this began several decades ago.[243] The 2019 severe flooding of midwestern farmland prompted studies of hydration and percolation in flooded and saturated soils, including chemicals applied as fertilizer, herbicides, and pesticides. Related issues have been studied elsewhere.[244]

With flash flooding over already saturated or compacted soils lacking vegetation the flooding scours the soil, Hazardous waste can be carried along physically for long distances over land.[245]

On PDF pages 138–145, there are eight hazardous waste sites of high concern that interface with the preferred alternative's limits of disturbance. There are many more sites of moderate and low concern that touch or overlap with the preferred alternative's limits of disturbance

If the waste disturbed at these sites is even slightly soluble in flood water, or in the organic chemicals released elsewhere by flood waters—themselves hazardous—hazardous waste can be transported in solution into storm water catchments or directly into rivers and streams, and thence into the Chesapeake Bay and the Atlantic Ocean, poisoning economically valuable ecosystems.[246] These economic costs are externalities, costs borne by fisherman and others whose livelihoods are affected, and taxpayers paying to clean up the Bay.

Storm water catchments become ever more contaminated with hazardous waste transported during storms or even non-storm rains as impermeable surface covers more land surface.[247]

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[243] *See* Pitt, R., Clarke, S., and R. Field, *Groundwater Contamination Potential from Stormwater Infiltration Practices*, Urban Water, 1(3), 217-236 (Sept. 1999), https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.593.4721&rep=rep1&type=pdf.

[244] Bergvall, M., Grip, H., Sjöström, J. and H. Laudon, *Modeling Subsurface Transport in Extensive Glaciofluvial and Littoral Sediments to Remediate a Municipal Drinking Water Aquifer*, Hydrol. Earth Syst. Sci., 15, 2229–2244, (July 18, 2011), https://hess.copernicus.org/articles/15/2229/2011/hess-15-2229-2011.pdf; Brown, C. D., Hollis, J. M., Bettinson, R. J. & Walker, A, *Leaching of Pesticides and a Bromide Tracer Through Lysimeters From Five Contrasting Soils*, Pest Manag. Sci. 56, 83–93 (2000); De-Campos et al., *Short-Term Reducing Conditions Decrease Soil Aggregation*, Soil Science Society of America Journal, 2009; 73 (2), 550, https://www.ars.usda.gov/ARSUserFiles/30200525/WindErosionPublications/Short-TermReducingConditionsDecreaseSoilAggregation.pdf; Eggleston, J. R. and Rojstaczer, S. A., *Can We Predict Subsurface Mass Transport?*, Environ. Sci. Technol., 34, 4010–4017, 2000; Erickson, B. E., *Analyzing the Ignored Environmental Contaminants*, Environ. Sci. Technol., 36, 140A–145A, 2002; Khullar, B., *Floods in Polluted Rivers Can Pollute Groundwater Too. Floods Have the Potential to Impact the Microbial Quality of Groundwater in Affected Areas*, (Nov. 3, 2017) https://www.downtoearth.org.in/news/science-technology/floods-in-polluted-rivers-can-pollute-groundwater-too-59007; Pitt, R. *Potential Groundwater Contamination Associated with Stormwater Infiltration and Recommended Practices*, (2009), http://unix.eng.ua.edu/~rpitt/Presentations/Regional_Conferences/Groundwater_SW_Issues_Bend_ACWA_2009.pdf.

[245] World Health Organization, *Chemical Releases Associated with Floods*, WHO/CED/PHE/EPE/18.02 (2008), https://apps.who.int/iris/rest/bitstreams/1135970/retrieve.

[246] *See* Frazin, R. Hundreds of Hazardous Waste Sites Could Face Flooding in Next 20 Years: Report (July 28, 2020), https://thehill.com/policy/energy-environment/509587-hundreds-of-hazardous-waste-sites-could-face-floods-over-20-years.

[247] Young S, Balluz L, and Malilay J., *Natural and Technologic Hazardous Material Releases During and After Natural Disasters: A Review*, Science of the Total Environment, 322(1–3):3–20 (2004)

Decontaminating storm water catchments is difficult, expensive, unlikely to succeed, and is another external cost not assumed by private contractors and imposed on taxpayers.

Much attention has been paid to the dangers of flooding for Superfund sites, but the same mechanisms also make even small deposits of hazardous substances dangerous.[248]

The majority of hazardous wastes mobilized by floods will contaminate the waterways the floods drain into. But in the Maryland Piedmont, in soils that are not compacted, saturated, or destroyed by contamination, water percolates from the surface downward through the soil and rock until it reaches the water table, the saturated zone called an aquifer. I-270 and I-495 west of route 650 (exits 28 AB) lie in the Piedmont.[249]

Most aquifers in the Piedmont have no natural overlying impermeable layer to protect them from contamination by substances released on or near the surface, including leaking hazardous waste sites and runoff from impermeable surfaces.[250]

In the Coastal Plain, East of Exits 28 AB, the hydrogeology makes aquifers even more susceptible to surface contamination. These aquifers feed into surface waterways through springs and are the source of well water.

Current regulations for evaluating the risk of release of hazardous chemicals from existing waste sites do not take all these critical factors into account.

Hence the SDEIS does not adequately address the real consequences and costs of adding impermeable surface that will increase flash flooding in an area much larger that the stated LOD, increasing the risk of flushing hazardous waste into storm water catchment basins, streams, rivers, the Chesapeake Bay, the Atlantic Ocean, with many external costs to those whose livelihoods and health are affected and to taxpayers.[251] These external costs are not assumed by the private contractor who builds the project and collects the tolls. Costs associated with hazardous waste will

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http://dx.doi.org/10.1016/S0048-9697(03)00446-7.

[248] *See* Carter, J. and C. Kalman, A Toxic Relationship: Extreme Coastal Flooding and Superfund Sites, Union of Concerned Scientists Report (July 28, 2020), https://www.ucsusa.org/resources/toxic-relationship; Erikson, T.B., Brooks, J., Niles, E.J., Pham, P.N., and Vinck, P., *Environmental Health Effects Attributed to Toxic and Infectious Agents Following Hurricanes, Cyclones, Flash Floods and Major Hydrometeorological Events*, Review, J Toxicol Environ Health B Crit Rev. 22(5-6):157-171 (Aug. 22, 2019); Euripidou E, and Murray V., *Public Health Impacts of Floods and Chemical Contamination*, Journal of Public Health 26(4):376–83 (2004) http://jpubhealth.oxfordjournals.org/content/26/4/376.full.pdf; Hasemyer, D., and Olsen, L., *Climate Change Poses a Growing Threat to Hundreds of Hazardous Waste Superfund Sites*, NBC News (Sept. 24, 2020), https://www.nbcnews.com/specials/superfund-sites-climate-change/.

[249] Maryland Department of Natural Resources, *Ground Water and Wells in the Maryland Piedmont, Fact Sheet 19*, DNR Publication No: 12-3112013-630: April 2013, http://www.mgs.md.gov.

[250] Maryland Geological Survey, Coastal Plain Aquifers in Maryland (2020), http://www.mgs.md.gov/groundwater/coastal_plain_aquifers_mobile.html.

[251] *See also* EEA – European Environment Agency, *Groundwater Quality and Quantity in Europe, Environmental Assessment Report No. 3*, Copenhagen, Denmark, at 123 (1999); Flesher, J., Flood Raises Fears of Pollution At Michigan Toxic Waste Site, AP News (May 21, 2020), https://apnews.com/article/us-news-ap-top-news-traverse-city-mi-state-wire-michigan-b223d2e6fea6f2c8d82d60981708e7c6

be borne by the impacted areas and by the state. In the event of "the discovery of any Unknown Hazardous Environmental Conditions during the carrying out of the Construction Work;" the state, using money from taxpayers, will be required to make compensation payment(s) to the developer.[252]

VIII. The SDEIS Does Not Sufficiently Evaluate the Preferred Alternative's Indirect and Cumulative Effects

An indirect effect is "caused by the action and [is] later in time or farther removed in distance, but [is] still reasonably foreseeable." 40 C.F.R. § 1508.7 (b) (2019). It "may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" *Id.* A cumulative effect is the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." *Id.* § 1508.7 (2019). As part of its EIS, the Agencies must measure the direct, indirect, and cumulative environmental effects of its proposed action. *Id.* §§ 1502.16, 1508.7, 1508.8 (2019); *N.C. Wildlife Fed'n*, 677 F.3d at 602.

"Conclusory statements that the indirect and cumulative effects will be minimal or that such effects are inevitable are insufficient under NEPA." *N.C. Wildlife Fed'n*, 677 F.3d at 602. Instead, an EIS must include a "useful analysis of the cumulative impacts of past, present and future projects." *Carmel-by-the Sea*, 123 F.3d at 1160; *accord Ocean Advocs. v. U.S. Army Corps of Engineers*, 402 F.3d 846, 868 (9th Cir. 2005) ("an agency must provide 'some quantified or detailed information; . . . [g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.'") (quoting *Neighbors of Cuddy Mountain*, 137 F.3d at 1379-80). "It is not appropriate to defer consideration of cumulative impacts to a future date when meaningful consideration can be given now." *Envtl. Prot. Info. Ctr. v. U.S. Forest Serv.*, 451 F.3d 1005, 1014 (9th Cir. 2006).

"A meaningful cumulative impact analysis must identify (1) the area in which the effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions—past, present, and proposed, and reasonably foreseeable—that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate." *Del. Riverkeeper Network*, 753 F.3d at 1319 (quoting *Grand Canyon Trust v. FAA*, 290 F.3d 339, 345 (D.C. Cir. 2002)). Cumulative impact analyses are insufficient when they discuss only the direct effects of the project at issue on a small area and merely contemplate other projects without any quantified assessment of their combined impacts. *Bark v. U.S. Forest Serv.*,

[252] *See* Maryland Sierra Club Testimony on the 495-270 Relief Plan P3 Agreement, at 7 (June 29, 2021), https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u25361/Testimony-495-270ReliefPlan-P3Agreement-2021June29.pdf; *see also* EPA—Environmental Protection Agency, Sensitive Environments and the Siting of Hazardous Waste Management Facilities (1997), https://archive.epa.gov/wastes/wyl/web/pdf/sites.pdf.

958 F.3d 865, 872-73 (9th Cir. 2020); *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 994 (9th Cir. 2004).

Despite these clear obligations, the SDEIS's one-page discussion of indirect effects and one-page discussion of cumulative effects contains no meaningful analysis, even when considered with the sparse discussion in the DEIS, and it is so inadequate that it precludes meaningful public review and comment.

Regarding indirect effects, the SDEIS merely says:

> The Preferred Alternative could change travel patterns by providing increased capacity along existing facilities. More rural, less-developed portions of the ICE [Indirect and Cumulative Effects] Analysis Area and other locations where undeveloped land exists would be most likely to experience pressure for new development from improved access along the I-270 and I-495 corridors. Noise impacts could occur to communities from greater traffic volumes on connecting roadways. Indirect impacts would be minimized by adherence to existing master plans and zoning regulations pertaining to new development.
>
> Indirect impacts to wetlands, wetland buffers and waterways from the Preferred Alternative could result from roadway runoff, sedimentation, changes to hydrology, and facility-related run-off quality and quantity associated with the conversion of land from rural to urban and suburban uses, as well as changes in drainage patterns and imperviousness. Indirect downstream impacts to surface water would be minimized through the development and application of approved erosion and sediment control plans and stormwater-related best management practices (BMPs).

SDEIS at 4-108. With respect to cumulative impacts, the SDEIS merely says:

> The proposed action, along with other future transportation projects would cause noise impacts, with potential cumulative effects on communities in the vicinity of improved and new roadways. Cumulative impacts to water quality could occur from stream loss and the incremental increase of impervious surfaces that may increase runoff from past, present, and future development projects. These would be minimized through the use of BMPs during construction and use of SWM [stormwater management] facilities. The incremental effect would be minimized by the required permitting process, which would identify avoidance, minimization, and mitigation as needed to offset wetland losses.

SDEIS at 4-109.

These are precisely the types of conclusory, general statements, with no quantification or details, that courts have repeatedly found insufficient under NEPA. The SDEIS does not meaningfully evaluate either the indirect or cumulative impacts from various aspects of the preferred alternative on traffic conditions, water, air, health, environmental justice, historic and cultural properties, greenspace, and utilities. Nor does it evaluate other impacts of the preferred alternative when combined with other past, present, and reasonably foreseeable future projects, including the reasonably foreseeable impacts of the other highway expansion segments that are

more likely to occur if the preferred alternative is built. There is nothing in the SDEIS that constitutes the "quantified or detailed information" about the indirect and cumulative effects of the preferred alternative that is necessary for informed decision-making. *Ocean Advocates*, 402 F.3d at 868; *Bark*, 958 F.3d at 872-73. Some specific deficiencies include:

The SDEIS also ignores the consequences of the proposed four to five years of construction of the preferred alternative and the traffic, environmental, health, economic, and other effects this construction will cause. Further, the SDEIS ignores the cumulative construction effects of the preferred alternative along with reasonably foreseeable other projects in the region, including the other P3 highway expansion segments.

Our comments on the DEIS explained that the Agencies improperly ignored the costs of relocation of water and sewer infrastructure[253] and other types of utilities (electricity, gas, internet, and cable television),[254] as well as who would bear those costs. The SDEIS also does not address this issue, despite the fact that Maryland citizens and environmental justice communities may be forced to pay billions of extra dollars as a result.

The SDEIS also fails to consider the cumulative impacts from the preferred alternative's construction and operation GHG emissions, which are necessarily cumulative in nature. The Agencies must reasonably quantify GHG emissions from the construction and operation of the preferred alternative, evaluate them together with GHG emissions from reasonably foreseeable projects in the region, place those emissions in the context of local, regional, national, and international climate change and human health impacts, and present that information for public review and comment. *See WildEarth Guardians v. Bernhardt*, No. CV 16-1724 (RC), 2020 WL 6701317, at *7-9 (D.D.C. Nov. 13, 2020); *accord Del. Riverkeeper Network*, 753 F.3d at 1319.

Even if the Agencies do not evaluate the other proposed P3 highway expansion segments in the same environmental impact statement, despite their obligation to do so, *see* Section I.F, the SDEIS still must evaluate the indirect and cumulative impacts of those and other reasonably foreseeable projects in the NEPA process. The failure of the SDEIS to do so is particularly

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[253] Letter from Montgomery County Council to Gregory Slater (May 14, 2020), https://static1.squarespace.com/static/5b72c6a8da02bc640472bf8c/t/5ec01b95ac35107c14b15b29/1589648277828/WSSC-MDOT-Letter.pdf; Memorandum to Prince George's County Council and Montgomery County Council re Agenda Item #1: Briefing: Possible Impacts of the I-270 and I-495 Road Widening P3 Project on WSSCWATER Infrastructure (March 12, 2020), https://www.montgomerycountymd.gov/council/Resources/Files/agenda/cm/2020/20200312/20200312_TETIEE1-2.pdf; Dominique Maria Bonessi, *Water Bills In Maryland Could Nearly Triple Under Beltway And I-270 Expansion Plan*, WAMU (March 16, 2020), https://wamu.org/story/20/03/16/water-bills-in-maryland-could-nearly-triple-under-beltway-and-i-270-expansion-plan/; Bruce DePuyt, *Express Toll Lanes Could Raise Water Bills in Montgomery and Prince George's*, Maryland Matters (March 13, 2020), https://www.marylandmatters.org/2020/03/13/express-toll-lanes-could-raise-water-bills-in-montgomery-and-prince-georges/.

[254] Bruce DePuyt, *Pipes, Cables Could Face Major Disruption by Plan to Widen Beltway and I-270*, WTOPnews (Oct. 28, 2020), https://wtop.com/dc-transit/2020/10/pipes-cables-could-face-major-disruption-by-plan-to-widen-beltway-and-i-270/; Bruce DePuyt, *Labyrinth of Pipelines and Cables Could Face Major Disruption by Highway Plan — And Who Would Foot the Bill?*, Maryland Matters (Oct. 28, 2020), https://www.marylandmatters.org/2020/10/28/labyrinth-of-pipelines-and-cables-could-face-major-disruption-by-highway-plan-and-who-would-foot-the-bill/.

egregious here, where completion of the preferred alternative makes completion of the other connecting P3 highway expansion segments more likely.

As explained in Section II.B.4, the SDEIS does not properly consider the induced land use and travel caused by the preferred alternative, along with corresponding increases in energy use, air pollution, and GHG emissions. Nor does it consider the induced land use and travel from the other segments of the highway expansion.

The SDEIS also lacks the cumulative analysis necessary to identify regional effects to impacted aquifers and regional hydrology during construction and operation of the preferred alternative and other reasonably foreseeable projects. This information must be made available to the public so that replication of the results can be tested and an understanding of the quality of the outputs can be determined.

IX. The SDEIS Violates NHPA/Department of Transportation Act Section 4(f) Requirements

The I-495 & I-270 Project, including its Phase I South, has the potential to cause irreparable damage to historic and cultural resources in the pathway of the proposed interstate expansion plans. Section 4(f) of the Department of Transportation Act bars the FHWA from approving any transportation project that "requires the use of . . . any land from an historic site of national, State, or local significance as so determined by such officials *unless* (1) *there is no feasible and prudent alternative* to the use of such land, and (2) such program includes all possible planning to minimize harm to such . . . historic site resulting from such use." 23 U.S.C. § 138(a); 49 U.S.C. § 303(c) (emphasis added).

In addition, both NEPA and Section 106 of the National Historic Preservation Act require the Agencies to take a "hard look" at the Project's effects on historic and cultural resources based on complete and accurate information. Notwithstanding the importance of these resources to the American public and Maryland residents, the SDEIS still understates and fails to adequately consider the preferred alternative's effects on historic and cultural resources, including those identified in the SDEIS as 4(f)-protected properties. Indeed, the SDEIS proposes that these determinations be deferred until after the FEIS is issued, and instead addressed after-the-fact through the execution of a Programmatic Agreement ("PA"). SDEIS at 4-40. As a result, the draft Section 4(f) evaluation contained in the SDEIS is based on flawed and incomplete information, which invalidates many of its ultimate conclusions about the extent to which the Project will use Section 4(f)-protected historic properties. Additionally, in preparing the SDEIS Section 4(f) analysis, the Agencies have still failed to consider alternatives that would have emerged if they had used all possible planning to avoid use of historic properties and parks, among other resources, by exploring feasible and prudent alternatives. Therefore, the SDEIS violates the letter and intent of federal historic preservation laws that the Agencies are required by Congress to follow. The public must still be provided an opportunity to review and comment on an accurate document that corrects these defects.

Below are comments on the SDEIS that supplement the comments already made on historical and cultural resources in the DEIS.[255]

A. The SDEIS Discloses Increased Adverse Effects on Section 106 and Section 4(f)-Protected Sites

The SDEIS states on page 5-1:

> Section 4(f) of the US Department of Transportation (USDOT) Act of 1966 as amended (49 USC. 303(c)) is a Federal law that protects significant publicly-owned parks, recreation areas, wildlife and/or waterfowl refuges, or any significant public or private historic sites. Section 4(f) applies to all transportation projects that require funding or other approvals by the USDOT. As a USDOT agency, FHWA must comply with Section 4(f) and its implementing regulations at 23 CFR 774.

Overall, most historic sites that are within the Project's LOD had increased impacts in the SDEIS relative to the DEIS, and impacts are being significantly underestimated with reference to several known historical sites. In "Table 5-1: Summary of Section 4(f) Property Use," SDEIS at 5-6, of the 21 sites listed, impacts increased for 16 of those sites while 3 had no change, and for two sites, impacts were reduced due to a change in land designation accounting NPS seemingly agreed to allow.

The Morningstar Cemetery is not included in the table, though its exclusion is premature and unsupported: The SDEIS claims "complete avoidance of the Morningstar Cemetery property has now been achieved," SDEIS at ES-14, but it is not yet possible to determine if impacts will be avoided since the ground penetrating radar studies of the necessary locations have not been done.

In the text, many of the sites discussed mentioned the possibility of adverse effects determinations due to design refinement, but assumed *de minimis* impacts, and deferred the determination of effects until later in the FEIS.

> MDOT SHA had included provisions for making an effect determination at a later time (upon design advancement) to Carderock Springs Historic District under an initial draft Section 106 Programmatic Agreement. However, based on refined design MDOT SHA anticipates that there would be no adverse effect, and will coordinate the finding with MHT for concurrence. If MHT concurs, FHWA would make a *de minimis* impact determination for the Carderock Springs Historic District. A final *de minimis* determination would be documented in the Final Section 4(f) Evaluation and FEIS.

SDEIS at 5-17.

[255] Sierra Club Maryland Chapter et al. Comments on I-495 and I-270 Managed Lanes Study Draft Environmental Impact Statement/Draft Section 4(f) Evaluation and Joint Federal/State Application (JPA) (Nov. 9, 2020), https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u18365/2020-11-09-Comments%20on%20DEIS%2C%204%28f%29%2C%20and%20JPA%20%281%29%20%281%29.pdf.

Given that the Section 106 consultations are as yet incomplete and many determinations have not yet been finalized, it is likely that additional adverse effects will be acknowledged prior to the issuance of the FEIS as well. This further impairs the reliability of the determinations made in the draft Section 4(f) Evaluation.

B. The SDEIS's 4(f) Chapter Provides More than Simply "Additional Analysis"

The preceding section shows that the scope of impacts for most properties has changed, and in most cases increases. Yet the SDEIS maintains on page 5-2 that "This supplemental chapter does not replace the Draft Section 4(f) Evaluation; it only provides additional analysis." That is simply untrue. The chapter does not only provide additional analysis but updated figures and new information. In essence the SDEIS does replace the information in the DEIS. It is a challenging and messy prospect for the public or the Agencies themselves to be utilizing 19,000 pages of DEIS and 8,000 pages of SDEIS and try to sort out which information is still valid (assuming it was valid to begin with) from the DEIS.

The information on the 4(f) sites profiled in the SDEIS cannot be simultaneously true with what is presented in the DEIS in cases where the information in the DEIS and SDEIS are contradictory.

The SDEIS states on page 4-34 that "On September 8, 2021, MDOT SHA requested concurrence that the historic properties that are now outside the APE for the Preferred Alternative would experience no adverse effect." That request fails to acknowledge that properties along the eastern part of I-495 will in fact be adversely affected by future phases of the Project whose cultural resource investigations and determinations have been deferred for political reasons. Future detailed investigations will likely increase the scale and nature of impacts; thus, the SDEIS's determinations for the historic properties outside of Phase 1 South would be premature and inappropriate, and contrary to the views expressed by M-NCPPC.[256]

C. The Agencies' Deferral of the Federally Required Assessment of Impacts Impermissibly Forecloses Opportunities to Avoid, Minimize, and Mitigate Impacts to Historic Properties

The Section 106 Programmatic Agreement approach for this Project remains inappropriate and inadequate, as it impermissibly defers and forecloses large measures to avoid impacts (such as Project scope, number of new lanes, and road alignment) to historic properties, including Section 4(f)-protected historic properties. Please see Sierra Club Maryland Chapter's April comments in this regard.

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[256] "The Commission wants to ensure that by responding to substantive comments made by interested parties to the broader Purpose and Need, SHA and FHWA will not be able to justify conducting a less rigorous environmental review of future phases. In particular, we raise concerns that SHA and FHWA would be able to take the position that it only is required to undertake an Environmental Assessment versus an EIS for future phases and rely on the findings of the broader Purpose and Need Statement and EIS process for the Study culminating in the selection of the New RPA." Letter from Elizabeth M. Hewlett and Casey M. Anderson to Jeanette Mar and Time Smith re Non-Concurrence Letter on New Recommended Preferred Alternative (June 25, 2021), https://montgomeryplanningboard.org/wp-content/uploads/2021/06/MNCPPC_Non-Concurrence_RPA_06-25-2021_SIG.pdf.

The purely Programmatic Agreement approach to Section 106 is inadequate to meet federal regulations, given the incomplete identification of historic properties and assessment of impacts to them in the I-495 & I-270 MLS DEIS and SDEIS.

A hybrid approach to the Section 106 process which involves Programmatic Agreement for some sites and Memorandum of Agreement for sites that will experience known adverse impacts is appropriate for a project of this nature, magnitude, and complexity. Further detail is provided in Sierra Club Maryland Chapter's Section 106 comments dated April 12, 2021.

The Project's planned deferral of assessment of impacts of some of these sites to the FEIS offers inadequate protection for historical and cultural sites, many of which are known now to face significant adverse effects. Deferral of identification and assessment of impacts forecloses to these historical sites the opportunity of benefiting from important avoidance, minimization, and mitigation measures.

D. Lack of an Appropriate Alternatives Analysis in the SDEIS for the American Legion Bridge Impairs Legally Required Avoidance, Minimization, and Mitigation Decisions about Historical Properties

Alternatives to widening the American Legion Bridge with more car lanes were not considered. Rail over the bridge was not considered. A one-lane addition per side alternative was not fully considered for the American Legion Bridge and should have been. Over a decade of study by MDOT, VDOT, and FHWA conclude that:

> Along the Capital Beltway, there were two proposed typical sections for the long-term alternatives: a one-lane and a two-lane managed system. However, the physical footprint for all of the alternatives was the same and it included widening for two lanes per direction in Virginia and widening for one lane per direction on the American Legion Bridge and in Maryland. The widening in Maryland was constrained by the right-of-way, proximity to sensitive environmental features, and proximity to adjacent residences.[257]

A one-lane addition per side, rather than two, would significantly reduce risks and adverse impacts to historical sites, among others. Previous studies only considered it possible to widen the Capital Beltway by one lane per direction on the American Legion Bridge and in Maryland. Yet a one-lane addition per side alternative (Alternative 5) for the American Legion Bridge and most of the Maryland Beltway was rejected by MDOT and FHWA as "not a reasonable alternative," DEIS App'x D at 1, and excluded from the Joint Permit Application alternatives. It is worth asking again in this context why a one-lane addition per direction alternative was not considered more fully, an alternative which would entail less harm to the historic Plummers Island and would preserve the integrity and reduce the closure time of the C&O Canal NHP towpath. A one additional lane per side alternative would also be much less disruptive for the adjacent impacted

[257] West Side Mobility Study, Maryland State Highway Administration, Maryland Transportation Authority, & Virginia Department of Transportation, at 21 (Nov. 2009), https://web.archive.org/web/20131102090131/http:/capitalbeltway.mdprojects.com/pdfs/Final_WestSideMobilityStudyReport.pdf.

historical sites all along the entire Maryland Beltway, including the two Gibson Grove historical sites.

In 2005, the Capital Beltway Study considered five alternatives for the American Legion Bridge. In addition to the no build alternative, it considered one additional lane plus a conversion of a lane, one additional lane, and for each of those alternatives rebuild or replace.[258]

The DEIS failed to include any upstream alternative (adding new lanes and bike/pedestrian path only to the upstream side of the American Legion Bridge). This is a reasonable, prudent and feasible alternative that would significantly reduce harm to Plummers Island and the C&O Canal NHP and should have been considered. In 2021, an MDOT "strike team" noted the possibility of an upstream bridge alternative in which new lanes would all be added to the upstream side of the American Legion Bridge to reduce impacts to Plummers Island. The addition of lanes only to the upstream side of the bridge would better protect Plummers Island from the worst adverse impacts of bridge construction. Yet, this option was not presented in the DEIS or SDEIS for public comment. This reasonable, feasible and prudent bridge option must be considered and analyzed as required by NEPA and Section 106, and Section 4(f). As a prudent and feasible alternative that would minimize harm to Plummers Island, Section 4(f) further requires that it be selected and incorporated into MDOT's preferred alternative.

Bridge construction alternatives for the ALB were not considered by Virginia in their I-495 Express Lanes Northern Extension (495 NEXT) Environmental Assessment (EA). Bridge construction alternatives could have avoided or minimized impacts to multiple historic properties, including Plummers Island, the C&O Canal National Historic Park, and the George Washington Memorial Parkway. Virginia owns 21% of the American Legion Bridge, while Maryland owns 79% of it and the Potomac River. Virginia's EA for the bridge analyzed only build or no build alternatives, assuming continuation of Virginia's pattern of adding two new toll lanes, which does not consider what might be in the best interests of Maryland. This means that Virginia did not pose any bridge alternatives and by doing so may have foreclosed options for other alternatives. It is unclear to what extent the Capital Beltway Accord (an agreement between Maryland Governor Larry Hogan and Virginia Governor Ralph Northam and Transurban, announced November 12, 2019),[259] its partial sale by Transurban on December 17, 2020,[260]and the heavily redacted January 2019 agreement[261] may have biased the process and foreclosed opportunities for other alternatives,

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[258] Capital Beltway Study Natural Environment Technical Report, at 1-3 to 1-5 (2005). This study and the other studies in the Capital Beltway Study have been the subject of protracted contention between the public and the Agencies who wish to keep the information in these studies hidden. Only a few of the parts have been released in heavily redacted form. *See* DEIS and SDEIS comments for further detail.

[259] Ben Ross, Testimony on Toll Lane P3 Contract (June 29, 2021), https://f0d3dd92-98e8-4a26-bc62-0ccf9ff9f227.filesusr.com/ugd/9cb12f_498e67c0295a4f218ea005ae8a9e2e78.pdf.

[260] Patrick Hatch, *Transurban Readies For Buying Spree With $2.8b US Road Sale*, Sydney Morning Herald (Dec. 17, 2021), https://www.smh.com.au/business/companies/transurban-readies-for-buying-spree-with-2-8b-us-road-sale-20201217-p56oce.html; *Transurban : Chesapeake Partnership and Traffic Update*, Market Screener (Dec. 16, 2020), https://www.marketscreener.com/quote/stock/TRANSURBAN-GROUP-6493737/news/Transurban-Chesapeake-Partnership-and-Traffic-Update-32030618/ (search "Capital Beltway Accord").

[261] *Press Release: Citizens Demand "Stop the P3 Toll Lane Boondoggle" As Virginia's Secret Contract with Toll Company Is Revealed*, Maryland Transit Opportunities Coalition (June 8, 2021),

including in the design and reconstruction of the bridge to accommodate rail. The misalignment of the processes with an EA in Virginia and EIS in Maryland also raises questions about the appropriateness and adequacy of the analysis of alternatives for the American Legion Bridge. This inattention to bridge alternatives in a NEPA process contrasts starkly with the thorough process of review, analysis, and vetting that occurred for the Woodrow Wilson Bridge, which was ultimately built to accommodate heavy rail to support multimodal connectivity. It also begs the question why the Virginia side of the Beltway expansion project was not subjected to an equivalent level of review as the Maryland side if they are supposed to be coordinating the projects.

MDOT's January 27, 2021, recommended preferred alternative, which includes four new tolled lanes on the American Legion Bridge, further seems to have foreclosed alternatives from consideration that should have been explored during the NEPA process and been informed by the Section 106 process. MDOT's recommended preferred alternative was premature given the inadequacy of the analysis presented in the DEIS and the early stage of the Section 106 process. The SDEIS's preferred alternative is also premature given the stage of the impact assessment and inadequate consideration of prudent and feasible alternatives, which have expanded and require reassessment due to influx of money to the state and increasing understanding of the impacts of COVID-19 and the climate crisis.

A serious study of bridge alternatives and bridge construction impacts has not been undertaken. Instead, the DEIS merely notes that "Other minimizations options were also considered and discussed with NPS such as a double deck bridge, top-down construction and reduced typical sections and pier locations (Appendix F, Section 2.1.2.C)." DEIS at 6-8. Given the scenic value of the river and the sensitivity of the historic sites and ecological significance of the sites under the American Legion Bridge, this is not acceptable. Further, the Project will have adverse effects on the George Washington Memorial Parkway and the Clara Barton Parkway as a result of the American Legion Bridge and 495 NEXT project in Virginia.

Lastly, although the DEIS mentioned a U.S. Coast Guard (USCG) letter stating that a bridge permit[262] for the American Legion Bridge would not be required,[263] that letter has not been disclosed to the public despite repeated requests, in violation of the CEQ regulations. 40 C.F.R. § 1506.6(f) (2019). Without seeing the letter, it cannot be determined why such a decision was made, the legitimacy of the decision, and whether there are any conditionalities or new circumstances that invalidate the decision. The bridge permit process is a standard requirement that should be followed and can further build awareness of and protection for sensitive historic and ecological sites that fall in the vicinity of the American Legion Bridge, including Plummers Island, the C&O Canal NHP, and C&O Canal area Native American and 19th & 20th Century sites.

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https://web.archive.org/web/20210610153721/https:/transitformaryland.org/latest-news; Redacted Development Framework Agreement, (Jan. 29, 2019), http://www.actfortransit.org/archives/reports_and_other/DFAredacted.pdf.

[262] Bridge Permit Application Guide, Office of Bridge Programs, U.S. Coast Guard (July 2016), https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5pw/Office%20of%20Bridge%20Programs/BPAG%20COMDTPUB%20P16591%203D_Sequential%20Clearance%20Final(July2016).pdf.

[263] Sierra Club Maryland Chapter et al. Comments on I-495 and I-270 Managed Lanes Study Draft Environmental Impact Statement/Draft Section 4(f) Evaluation and Joint Federal/State Application (JPA), at 64 (Nov. 9, 2020), https://jillgrantlaw.com/wp-content/uploads/2020/11/2020-11-06-Comments-on-DEIS-4f-and-JPA.pdf.

E. The SDEIS Continues to Neglect Other Issues That Require Attention and Were Described in Section 106 Comments and Comments on the DEIS

Other significant points about the Section 106 and 4(f) properties and process are also made in the Section 106 comments on the Project and in comments on the DEIS, which MDOT has on file and are in the administrative record. Those issues remain. Some relate to concerns with the contract language and the construction contractor. Others make specific recommendations to the Agencies and Section 106 team.

One that bears repeating here is related to dust emissions from the preferred alternative. If the preferred alternative goes forward, dust minimization and specifically OSHA crystalline silica construction dust standards must be upheld and the users and visitors of historic parkland and sites adjacent to the highway widening must be protected. The SDEIS references only local and state regulations, SDEIS at 4-103, whereas federal regulations must also be followed. Requirements for compliance should be included in the Programmatic Agreement. The roads and bridges deconstruction processes required for the preferred alternative will create large amounts of fugitive dust, including toxic crystalline silica construction dust. These emissions will occur on and around the American Legion Bridge, and the toxic dust will drift locally and downriver and impact Plummers Island and the C&O Canal National Historic Park (the eighth most visited national park during 2020),[264] including its popular towpath. Plummers Island animal and plant life and the biologists studying it would be at risk from this dust. Visitors to the C&O Canal NHP and its towpath will be as well. Such toxic air pollution causes respiratory diseases including asthma, silicosis, chronic obstructive pulmonary disease (COPD), and lung cancer. As a matter of public health, this issue must be addressed in the NEPA environmental impact documents, Programmatic Agreement, and environmental rules for contractors included in bidding documents.

F. The SDEIS Improperly Excludes "Future Phase" Section 106 Historical and 4(f) Impacts from the Project's Impacts

The Section 106 and 4(f) review of properties for the I-495 east segment of the Project, being called "no action at this time," is incomplete and inadequate.[265] Like in the Phase 1 South segment of the Project, many of the sites initially assumed to have *de minimis* impacts will in fact have greater and more serious impacts. Desk review is not the same as on-site investigation, interviews, and meaningful efforts to understanding community use and importance to stakeholders and local communities.

Many of the sites in the I-495 east segment should and have not been screened for National Register of Historic Places eligibility. This includes Sligo Creek Parkway and Indian Springs community in Silver Spring, which merit specific attention to both their Native American history and more recent history connected to the early days of settlement the area (the Blair family, etc.) and the 20th Century. There is also a C&O Canal area Native American site and a 19th and 20th

[264] *C&O Canal National Historic Park Was Eighth Most-Visited National Park in 2020*, Montgomery County Update (April 7, 2021), https://montgomerycomd.blogspot.com/2021/04/c-canal-national-historic-park-was.html.

[265] Detailed identification and impact assessments of historic sites for all of the I-495 & I-270 MLS are required because I-495 east of the eastern spur was not officially designated "no build."

Century site that have each been recommended eligible for the National Register of Historic Places but do not appear in the SDEIS to have been reviewed for eligibility or otherwise addressed.[266]

It is improper to not have reviewed Section 106 and 4(f) sites from upper 270 between I-370 and I-70. This includes the Monocacy Battlefield. That upper 270 segment is already conditionally contracted to the developer Transurban and has a specific name (Phase 1 South plus upper I-270 is being called the American Legion Bridge Traffic Relief Plan). It is part of the plan and therefore needs to be considered a foreseeable future cumulative effect of the plan. To have not reviewed and disclosed the Section 106 and 4(f) impacts in the upper I-270 segment is to severely underestimate and inaccurately reflect the impacts of the preferred alternative presented in the SDEIS.

The SDEIS has misrepresented and grossly underestimated Project impacts on Section 4(f)-protected resources by excluding the impacts of reasonably foreseeable eastern I-495 and upper I-270 future phases.

G. The Mismatch and Overlap of Multiple Short I-495 & I-270 Review Periods Hindered Meaningful Review and Comment Both by the Public and Section 106 Consulting Parties

The short and overlapping timing of three different comment periods for the I-495/I-270 Project during a pandemic is contrary to reason and the principles of Section 106, which emphasize the importance of meaningful public participation. This timing does not allow consulting parties sufficient opportunity to comment meaningfully on any one process. The 8,000+ page SDEIS was published on October 1, 2021, with a 45-day comment period and a four-week Toll Rate Range Setting comment period was begun on the same day. The October 8, 2021, deadline for the Section 106 process did not give time to reflect information from the SDEIS in the Section 106 comments.

H. The SDEIS Is Outdated Compared to the Section 106 Process Findings

The SDEIS and draft Section 4(f) evaluation is outdated and fails to incorporate preliminary findings made during the ongoing Section 106 process. Much more is known about impacts to historic properties than was presented. This is true about some of the most sensitive sites, including the Gibson Grove properties, Plummers Island, and Carderock Springs, as has been reflected in Section 106 and SDEIS comments.[267] Those newer known impacts were not identified or shared with the public for review, analysis, and comment. The purpose of the NEPA process is disclosure of impacts for public comment, and in regard to Section 106 and 4(f)-protected sites, among others, that purpose has not been met.

[266] *See* DEIS App'x G, Cultural Resources Technical Report, Volume 5, at ii (Dec. 12, 2019), page ii., https://oplanesmd.com/wp-content/uploads/2020/07/CulturalResourcesTR_Volume_5.pdf.

[267] See submissions to MDOT on file.

I. The SDEIS Contains an Incomplete and Inadequate Assessment of Impacts on Plummers Island, Morningstar Tabernacle No. 88 Moses Hall and Cemetery, Gibson Grove A.M.E. Zion Church, Cedar Lane Unitarian Universalist Church, and Native American Site(s) near the American Legion Bridge

Several specific sites impacted by Phase 1A South of the Project deserve significantly greater attention and assessment of adverse effects. These include Plummers Island, Morningstar Tabernacle No. 88 Cemetery and Hall, Gibson Grove A.M.E. Zion Church, and Carderock Springs, Cedar Lane Unitarian Universalist Church, C&O Canal Native American and Lockkeeper sites. Some key issues regarding specific sites are presented below.

1. Plummers Island

The Washington Biologists' Field Club ("WBFC") has studied long-term trends on the biodiversity of Plummers Island and its riparian areas for 120 years.[268] The island has now been found to be eligible for both the Maryland Historical Trust and National Register of Historic Places owing to that ongoing long-term research, independent of the island's inclusion in the C&O Canal National Historical Park. The island has recorded a large number of rare, threatened, and endangered species, including species new to science as recently as 2014. Over 400 scientific papers have been produced on the flora and fauna of Plummers Island, documenting over 4,000 species there. It is known as the most studied island on earth and the place where every species has a bar code. These research sites contribute importantly to the independent historic significance of Plummers Island, and the preferred alternative's overshadowing, runoff, and noise impacts will severely impair these significant attributes of these highly sensitive contributing areas. When the plans for the original American Legion Bridge were developed in 1959, WBFC sold its adjacent mainland tract of land up to the C&O Canal to the Federal Government and gave Plummers Island to the U.S. Government in exchange for protecting the island from construction of the bridge and giving WBFC rights in perpetuity (so long as it existed) to maintain the Island as a Wild Natural Area on which to continue the Club's long-term research. The island is a historic site within a historic site, the Chesapeake and Ohio Canal National Historical Park.

Unfortunately, and shockingly, this rare and nationally and internationally important historical site is ground zero for construction of a new double wide American Legion Bridge. MDOT SHA and the selected developer Transurban plan to take part of Plummers Island, place a pier on the Island, undertake construction from the island, destroy important research plots of rare plant species and habitat, and overshadow the island and its significant research areas by as much as 30 feet with noisy new bridge lanes.

According to WBFC, under the Section 106 evaluation published in September 2021, MDOT cartographers redrew the island boundaries in Map 3 in a misleading and deceptive way. First, they eliminated all the riparian areas (the wetland margins of the Island) out of Plummers Island and assigned those to the C&O Canal National Historical Park. Then they subtracted the

[268] Katherine Shaver, *Plummers Island: Biologists Say Wider American Legion Bridge Would Destroy Critical Research Site*, Washington Post (Dec. 11, 2020), https://www.washingtonpost.com/local/trafficandcommuting/plummers-island-beltway-bridge/2020/12/10/ccae16e6-398e-11eb-bc68-96af0daae728_story.html.

rare Potomac River Gorge Riverside Outcrop Barren plant community on the southwest corner of the Island and simply assigned that to the Potomac River, effectively Waters of the United States. There is no support or explanation for why these areas that are historically part of Plummers Island and that contribute importantly to its historic significance were excluded. As a result of this unsupported Section 106 mapping, the SDEIS incorrectly asserts that only 0.2 acres of Plummers Island are within the Limit of Disturbance. SDEIS at 4-16.

Furthermore, page 5-13 of the SDEIS makes the following highly troubling statement: "MDOT SHA, FHWA, and NPS have agreed that Section 4(f) impacts to C&O Canal could exclude the area that currently has an existing transportation use. The area within NPS property defined as transportation use includes existing I-495 at-grade roadway sections to the toe of slope, Clara Barton Parkway Interchange ramp sections to the toe of slope, existing pier locations for the structure over the C&O Canal and eastbound Clara Barton Parkway, and existing pier locations for the ALB."

This is misleading. While the existing roadways, ramps, and bridges within the C&O National Historical Park are noncontributing features of the park, they do not destroy the integrity of the park or alter its boundaries. It is highly misleading to suggest that only 0.2 acres of Plummers Island would be impacted by the preferred alternative and to ignore these past intrusions and disturbances. The cumulative impacts of impacts of these past intrusions must also be considered in totality in assessing the impact of the preferred alternative on Plummers Island. Plummers Island land cannot just be arbitrarily designated "transportation use" and given away because of existing pier locations. The WBFC deed agreement with the U.S. Government stipulates that WBFC has "the right to continue to maintain the island as a natural wild area and use it for scientific research and for meetings of the Club and to pursue its studies in the field of biology and natural history on the said island so long as the Washington Biologists' Field Club, Inc. exists . . ." Similarly, Plummers Island's riparian areas cannot be arbitrarily reassigned for the convenience of the preferred alternative.

In the early 1900s, WBFC purchased the island for their Research Station and Meeting place, and they have studied the entire island including the riparian margins for 120 years. The riparian margins of Plummers Island *must* be included in the boundaries of the protected Historical Property and given full consideration under Section 4(f) and Section 106. The boundaries of the site in NEPA and Section 106 documentation need to be updated in accordance with new information in National Register of Historic Places eligibility determination.

This preferred alternative will violate the conditions of WBFC's agreement with the Federal Government,[269] and the planned disturbance seriously impacts its ongoing long-term research, a contributing feature of this historic property.

[269] "WHEREAS, The Washington Biologists' Field Club, Inc. and the United States Government desire to preserve this natural wild area as a sanctuary and scientific research preserve. . . . reserving in said deed to the Washington Biologists' Field Club, Inc., the right to continue to maintain the island as a natural wild area and use it for scientific research and for meetings of the Club and to pursue its studies in the field of biology and natural history on the said island so long as the Washington Biologists' Field Club, Inc. exists and desires to continue to use the island for scientific research . . ." Full Text of Agreement with National Park Service, available at Letter from Washington

One year ago, the over 19,000-page DEIS with appendices mentioned Plummers Island in only one paragraph. The passing mention was buried in a DEIS technical report, the 18th Appendix of Appendix L (i.e., sub-Appendix R of Appendix L). The entirety of the discussion about Plummers Island was: "The study area includes a portion of Plummers Island south of the American Legion Bridge and a small stream known as Rock Run Culvert. Exposed bedrock occurs on Plummers Island." DEIS App'x L, App'x R at PDF p.4.[270] That lack of attention to the importance of Plummers Island is shocking given the fact that the impacts to Plummers Island are so lengthy and extensive that they require referral to more detailed comments.[271] Mitigation measures requested by WBFC in April 2021 still have not received a response from MDOT as of November 28, 2021.

The preferred alternative stands to greatly harm Plummers Island in numerous ways, including: (1) damage to waterways, (2) destruction of rare plants and rare plant communities from the far west end of the island, (3) destruction of WBFC research plots, (4) destruction of past collection sites, (5) habitat destruction and disturbance lead to more invasive organisms, (6) potential for catastrophic destruction from major floods if water barriers and/or construction platforms emplaced for construction blow out, (7) sound from bridge construction and closer proximity of traffic in six new bridge lanes after they open on the bridge, (8) impacts on biota from salt, deicing compounds, and oil runoff from the bridge. All of these impacts destroy the long-term continuity of 120 years of research and thus severely impair this significant feature of the site that contributes critically to its historic significance.

Complete avoidance of Plummers Island is both a prudent and feasible alternative that must be considered under Section 4(f). The SDEIS states on page 4-15 that "The ALB Strike Team also considered a 'west shift' of the LOD to entirely avoid impacts to Plummers Island and determined that a conventional construction approach with a west shift was also a viable option." Yet, this alternative for avoidance has already been rejected. Instead, the SDEIS states that:

> Under the Preferred Alternative, approximately 0.2 acres of impact at Plummers Island would be required for the ALB substructure, including permanent pier placement and construction activities. Construction activities may include efforts such as excavation, demolition of existing bridge foundation and piers, installation of proposed foundations, piers, abutments and slope protection. Access to the existing and proposed piers is required for these activities.

SDEIS at 4-16.

Biologists' Field Club (April 9, 2021), https://wbfc.science/wp-content/uploads/2021/04/WBFC-Comment-2021-April9.pdf.

[270] Available at https://495-270-p3.com/wp-content/uploads/2020/07/NRTR_App-R-RTE-Plant-Species-Survey_2020.05.05.pdf.

[271] WBFC Section 106 comments from November 2020, April 2021, and October 2021 can be reviewed at the following links: https://www.sierraclub.org/sites/www.sierraclub.org/files/sce/maryland-chapter/WBFC%20written%20Testimony%20on%20I-495%20270%20DEIS%20Nov%206%202020%281%29.pdf; https://www.sierraclub.org/sites/www.sierraclub.org/files/sce/maryland-chapter/WBFC-Section106-CommentLetter-PlummersIsland-2021-October8.pdf; and https://wbfc.science/wp-content/uploads/2021/04/WBFC-Comment-2021-April9.pdf.

Delaying identification of the location and boundaries of this site until after implementation of a Programmatic Agreement prevents consideration of the impacts to the site during alternative selection under NEPA and undermines discussion of potential avoidance and mitigation measures for any adverse effects under Section 106.

WBFC supports the no build option and total avoidance of the island under any circumstances. The whole of Plummers Island including its riparian fringes and waterways are the sites of ongoing research and therefore make the island as whole plus riparian areas a 4(f)-protected site. Plummers Island is an internationally recognized biodiversity hotpot. MDOT and FHWA in 2005 knew it was only possible to widen the American Legion Bridge by one lane a side.[272] It is only that now, one governor is trying to overcome all that has been protected for generations by sheer force of will. Awareness, respect, and defense for historic sites and irreplaceable biological diversity and cultural heritage must be urgently awakened and activated in the face of this rushed process to build ineffective toll lanes for a private company's benefit.

2. Morningstar Tabernacle No. 88 Moses Hall and Cemetery

We concur with Friends of Moses Hall in their comments that the ground penetrating radar work done to date is incomplete and therefore not an adequate basis for determining avoidance of burial sites.[273] Current plans do not address decades of cumulative negative impacts on the site. NEPA requires agencies to adequately disclose impacts in the DEIS, 40 C.F.R. § 1502.9(a) (2019), yet the SDEIS impermissibly ignores and defers this analysis. SDEIS at 4-33, 4-38, 4-104, 5-53. Additionally, construction impacts (noise and vibration) and post-construction noise and visual impacts have not been assessed and disclosed as is required by law. The Friends of Moses Hall SDEIS and Section 106 comments contain further detail on these issues and note that the NEPA and Section 106 processes cannot move forward until the needed ground penetrating radar tests have been done to determine the boundaries of the burials. Furthermore, that information is a prerequisite to any suggestion that physical effects to the site have been avoided.

Until there has been a fuller ground penetrating survey that expands outside the borders of the already-surveyed site, including within the existing right-of-way, it is premature and improper for MDOT to claim that 4(f) impacts have been avoided.

The boundaries of the Moses Hall and Cemetery site need to be redrawn taking into account the new information found in the two studies as part of the Section 106 process and a new fuller ground penetrating radar survey. The NRHP eligibility designation form also needs to be updated

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[272] WBFC DEIS Comments and Testimony (Nov. 2020), https://www.sierraclub.org/sites/www.sierraclub.org/files/sce/maryland-chapter/WBFC%20written%20Testimony%20on%20I-495%20270%20DEIS%20Nov%206%202020%281%29.pdf; Letter from Washington Biologists' Field Club (Oct. 8, 2021), https://www.sierraclub.org/sites/www.sierraclub.org/files/sce/maryland-chapter/WBFC-Section106-CommentLetter-PlummersIsland-2021-October8.pdf; Letter from Washington Biologists' Field Club (April 9, 2021), https://wbfc.science/wp-content/uploads/2021/04/WBFC-Comment-2021-April9.pdf.

[273] Letter from Friends of Moses Hall (Oct. 8, 2021), available at PDF p.32 of https://montgomeryplanningboard.org/wp-content/uploads/2021/10/Item-10-Correspondence-I495-I270-Managed-Lanes-Study.pdf.

to reflect the new information found in the studies and new site boundaries. We fully support the Friends of Moses Hall in their requests for additional mitigation measures.

Earlier in 2021, the National Trust for Historic Preservation named Morningstar Tabernacle No. 88 Moses Hall and Cemetery as one of the Nation's 11 Most Endangered Historic Places[274] and submitted comments in the Section 106 process affirming points made by Friends of Moses Hall. Specifically, the National Trust stated:

> As MDOT and consulting parties consider further evaluation to assess and resolve the potential adverse effects to the cemetery, we strongly encourage MDOT to undertake additional non-invasive investigation in areas of the property and adjacent ROW that were not included in the previous GPR survey, in case additional potential graves may be found in these areas. We understand that lack of survey in these areas was due to obstacles; however, obstacles such as bamboo stems, vegetation, fallen tree, and hay bales could be removed or temporarily relocated to allow additional study. Without additional study, our understanding of the footprint of the historic cemetery is incomplete, and direct adverse impacts to burial sites remains a serious risk.[275]

A recent article in the National Trust's magazine gives a deeper sense of the importance of this site and what is at stake.

> Independent researcher L. Paige Whitley described the need for cemetery preservation as a way to honor erased and hidden histories: "[Morningstar Moses Cemetery] was a community in life, and it is still a community in death, and should not be separated by anything or anyone. This history should be better known in the county and in the state. Younger kids should be more aware of what was lost for [Black] American communities. … It's about bringing voices to the forefront and letting them speak. These are voices that have not been heard for quite some time. And the descendants would like for their ancestor's voices to be heard.[276]

3. Gibson Grove A.M.E. Zion Church (currently First Agape A.M.E. Zion Church)

Changes in the planned alignment of the highway since the DEIS have resulted in new and increased impacts on the National Register of Historic Places-eligible Gibson Grove A.M.E. Zion Church property. The 0.4-acre church property will experience significant loss of integrity under MDOT's new plan. This church has extraordinary historical significance, and the LOD increase to the site is excessive. Moreover, the historic boundaries of the Church extend beyond the land

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[274] Discover America's 11 Most Endangered Historic Places for 2021 , National Trust for Historic Preservation (June 3, 2021), https://savingplaces.org/stories/11-most-endangered-historic-places-2021#.YYvqBPnMKUk.

[275] Letter from the National Trust to Mr. Steve Archer of MDOT SHA, Re: I-270 and I-495 Managed Lanes Study Section 106 Consultation – Response to Updated Section 106 Documentation (Oct. 8, 2021).

[276] Jordan Ryan, *Hope for Historic Black Cemetery Threatened by Highway, National Trust for Historic Preservation*, Preservation Magazine (Sept. 29, 2021), https://savingplaces.org/stories/hope-for-historic-black-cemetery-threatened-by-highway#.YaRGFPnMKUl.

presently owned by the Church and include land presently owned by MDOT that contributes importantly to the historic setting of the Church, which will be destroyed by the preferred alternative.

As a place of worship, the church site is highly sensitive to air quality and noise impacts, and the closer proximity of the highway to the Church will impair church activities, including the socializing and services and singing of hymns, which will no longer be able to occur in the ways that are needed for a church. There are many different dimensions of harm which the church will experience under MDOT's most recent plans. Due to the constraints of the site location and the highway's encroachment, the safety aspect of the future church parking lot and safety of pedestrians will need to be given special priority. The adverse impacts to the church site are exceptionally harmful and are certainly a very serious environmental injustice added to the historical injustice done in the building of the Beltway deliberately through the single Black settlement in the area.

Knowing the site constraints, it is hard to believe that any acceptable solution for making this historic church into a larger church would be possible, even putting the parking lot under the widened I-495. The area under the bridge is not hospitable, safe, or welcoming. There is no other suitable space for parking on the church side of Seven Locks Road. The site should have been protected as a rare and treasured historic asset, sold to M-NCPPC or another entity with purview for historic preservation, and rebuilt at MDOT's cost to be a place of historical pilgrimage and historical education similar to what was done at the Josiah Henson House. Agape A.M.E. could be helped to find a more suitable, accessible location for a contemporary church with fewer stairs, adequate parking, and located closer to the homes of congregants. Currently, there is a glut of commercial properties nearly everywhere at low prices due to the changes COVID-19 has wrought.

History will look upon the decisions made at the Gibson Grove church site and decry that its importance was not recognized sooner or in time. Gibson Grove Church was named for Sarah Gibson, the Harriet Tubman of the Reconstruction Era who helped form the Gibson Grove community and gave land for the church. Much of the original locations for Harriet Tubman's story will be lost to climate change and tidal flooding,[277] but this special site of historical, cultural, and educational importance on the other side of Maryland could have been saved, restored, and the original look and feel preserved.

Reports shared in September 2021 as part of the Section 106 process show graves on the church property. The historic boundaries of the Church need to be updated taking into account the

[277] Oliver Milman, *'Culture Will Be Eroded': Climate Crisis Threatens to Flood Harriet Tubman Park*, The Guardian, (Nov. 23, 2019), https://web.archive.org/web/20211102121247/https:/www.theguardian.com/us-news/2019/nov/23/harriet-tubman-national-park-climate-crisis; Rona Kobell, *Climate Change is Wiping Out Harriet Tubman's Homeland, and We're Doing Little About it*, Boston Globe (Oct. 24, 2019), https://www.bostonglobe.com/ideas/2019/10/24/climate-change-claiming-harriet-tubman-homeland-among-other-key-sites/hCnqd8w61SdnWBVJvfYTkI/story.html; Veronica Johnson, *Harriet Tubman's Legacy is Threatened by Sea Level Rise and Climate Change. Here's How*, ABC7 (Feb. 23, 2021), https://wjla.com/news/local/harriet-tubman-legacy-climate-change.

new information found in the reports. The NRHP eligibility designation also needs to be updated with the new information and updated site boundaries.

Additionally, SHA must minimize impacts to these historic Gibson Grove church and cemetery by preserving most of the tree canopy and topography, constructing context sensitive noise barriers, preserving air quality, and minimizing visual impacts. These are sensitive areas with residential homes and historic resources within close proximity to the highway, all of which are adversely affected by this preferred alternative.[278]

While design modifications that minimize impacts to Morningstar Tabernacle 88 Moses Cemetery and Hall were needed and made, the significantly increased adverse impacts to the historic First Agape A.M.E. Zion Church (Gibson Grove Church) are extremely concerning. In the late 2021 consultant reports pertaining to these two sites, there was no apparent attempt to reconcile the tension of two sensitive sites on either side of the highway. Rather, the research reports seemed to measure site importance of both sites primarily in terms of burials. Yet the church as the only extant structure from the Gibson Grove settlement has very high historic and cultural significance and needs to be carefully protected.

The Gibson Grove Church property has suffered cumulative impacts from stormwater damage over many years due to the original I-495 Beltway construction. Instead of increasing impacts to the site, MDOT should be righting past wrongs by minimizing impacts to the Gibson Grove Church property and by mitigating damage caused by poor stormwater management. Instead, MDOT seems to be viewing the church property as the path of least resistance.

MDOT's current actions are exacerbating a historic wrong to the church, begun when the church property and community were bisected by the original construction of the Beltway. Impacts to the Gibson Grove A.M.E. Zion Church should be avoided to avoid yet another environmental injustice to this historically very significant reconstruction era Black community, which is tied to regional history and just minutes away from an Order of Moses benevolent society cemetery with over 400 graves.

4. Cedar Lane Unitarian Universalist Church

The historic Cedar Lane Unitarian Universalist Church, which also predates the Beltway, has a unique architectural design[279] meant to blend with the environment. It was mentioned in the DEIS but is not mentioned in the SDEIS.

Designed by renowned architect Pietro Belluschi who designed the Julliard School building, Cedar Lane Unitarian Universalist Church should be considered for potential NRHP eligibility and does not yet appear to have been reviewed for eligibility. This church was listed in the same DEIS table as the Gibson Grove A.M.E. Church, in the table entitled: "Section 4(f) Properties where there is no Use or Impact." Clearly the Gibson Grove Church site would be

[278] Several of these paragraphs have drawn from information from the Friends of Moses Hall document located at Item-10-Correspondence-I495-I270-Managed-Lanes-Study.pdf (montgomeryplanningboard.org), Item 11.

[279] Donald E. Skinner, *Cedar Lane's Modernist Auditorium*, UUWorld (Summer 2008), https://www.uuworld.org/articles/cedar-lanes-modernist-auditorium.

impacted due to noise and air pollution and visual impacts, as well as likely ground vibration and construction impacts. Likewise, Cedar Lane faces imminent risk to its use and enjoyment of its property and surroundings from increase in noise and impacts to its surrounding natural landscape that is part of its appreciation of spirituality in nature. As was pointed out in DEIS testimony:

> Cedar Lane Unitarian Universalist Church would be greatly impacted by this project, although the DEIS chart lists it as "no impact." The natural habitats and walking trails of Rock Creek Park are part of Cedar Lane's appreciation of spirituality in nature. The creek, the estuaries and wildlife adjoining Beach Drive and our church grounds are a communitygathering place. The noise level is already extremely high and would be higher with this project.[280]

Although now there is no immediate direct impact to Cedar Lane, due to the pared down preferred alternative phasing decision to proceed at this time only with Alternative 9 South, it would be impacted by a future phase as was pointed out in testimony on the DEIS.[281]

5. Carderock Springs Community

A community of approximately 600 homes, Carderock Springs is designated as a National Historic District for being a notable example of "situated modernism." This community will experience significant adverse effects from the proposed toll lane highway expansion. Comments submitted by the Carderock Springs Citizens Association ("CSCA"), a community organization that represents Carderock Springs and Carderock Springs South, show that the SDEIS fails to include a sufficient visual impact analysis based on the scoping questionnaire (Appendix J) and includes an inconsistent and misleading analysis of noise impacts on the Carderock Springs community (Appendix E). The fields of Carderock Springs Elementary School, which are used by the community and adjacent to the highway, are also a Section 4(f)-protected public recreation area. The school will suffer noise impacts from a widened highway that will impact educational instruction. The issues raised need to be addressed by MDOT SHA prior to the release of the Final EIS.

Proposed flyover ramps for the MD 190/Cabin John Parkway interchange have the potential to alter the visual setting and context of the adjacent historic district.

For these impacts and more, it is false to conclude, as the SDEIS does, that the preferred alternative would have no adverse impact on Carderock Springs or only *de minimis* impacts. As a result of the preferred alternative, the residents of the community and the children and staff of the Carderock Springs Elementary School will be faced with loss of tree canopy, increased exposure to air pollution, and increased noise and visual impacts. These issues have been raised with MDOT SHA in DEIS, SDEIS, and Section 106 comments and need to be addressed as soon as possible before an FEIS can be issued.

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[280] DEIS testimony of Montgomery County Faith Alliance for Climate Solutions, October 27, 2020.

[281] Impacts to the Cedar Lane Church should therefore be considered as a foreseeable future impact in this Section 4(f) evaluation and SDEIS.

6. Native American Site(s)

This private toll lane highway project would negatively impact the C&O Canal National Historic Park and very rare and valuable sites therein. The Cultural Resources Technical Report recommended a particular site for National Register of Historic Places eligibility due to its "artifact density, buried context, and the frequency, type, and context of the material recovered." DEIS App'x G Vol. 4 at 54. That site is "is believed to have the ability to answer significant questions about precontact settlement patterns and the nature and use of the site through further research and excavation." *Id.* "[It] appears to retain a high degree of stratigraphic integrity and has the potential to provide meaningful new data on precontact lifeways in the area." *Id.* "It may also provide additional information that can be used to compare and contrast with the concentration of precontact sites located on the south shore of the Potomac River across from the site." *Id.*

In December 2019, a Phase II archaeological evaluation stated: "This site is recommended eligible under NRHP Criterion D, and avoidance or data recovery investigation is recommended." DEIS App'x G Vol. 5 at i. There are also other sites of Native American heritage in the park that would be negatively impacted by the preferred alternative, some of which have already been largely ruined by highway construction, runoff, utilities, etc.

Finds of this level of importance are reason to avoid a site and reopen selection of alternatives to ensure total avoidance. Between the level of importance of this site, Plummers Island, and the Gibson Grove sites alone, this Project should be reconsidered and ultimately redesigned. Phase 1 South has been found to have very limited utility unless paired with continued toll lanes into areas with even larger numbers of sensitive sites that have not yet been adequately evaluated.

At least one cooperating agency, the Army Corps of Engineers, provided conditional concurrence on the revised preferred alternative (Alternative 9-Phase 1 South), saying:

> Since at this time it is unknown if comments and responses received during a future comment period may raise additional questions or concerns regarding the Revised Preferred Alternative or the project as a whole; the Corps acknowledges the potential that new significant information could change our conditional concurrence on the Revised Preferred Alternative.[282]

This find is one of the kinds of things that would be just such an extenuating concern wherein concurrence could justifiably be withheld or withdrawn.

Despite the importance of this site, the SDEIS makes no mention of it at all. This issue surely requires further attention and action.

7. C&O Canal Lockhouse Keeper Site

There is yet another C&O Canal site recommended for NRHP eligibility, one where there is:

[282] Recommended Preferred Alternative Concurrence Form, U.S. Army Corps of Engineers, June 23, 2021.

> [G]ood potential for the presence of additional cultural features and patterned artifact deposits. Site 18MO751 has the potential to provide substantive data that could be useful in addressing a variety of regional research issues, including those related to early 19th through early 20th century consumer behavior and the lifeways of C&O Canal lock house keepers. This site is recommended eligible under NRHP Criteria A, C, and D, and avoidance or data recovery investigation is recommended.

DEIS App'x G Vol. 5 at i. The status of this site's NRHP eligibility determination and avoidance, minimization, and mitigation measures are not disclosed in the SDEIS.

The above list of historical sites in not exhaustive and there are many other sites that would be harmed by this Project, in Phase 1 South and beyond, and that are deserving of advocacy and closer scrutiny and attention.

B. Without Full Accounting of Harms to Historic and 4(f) Sites, the Agencies Cannot Reasonably Select a Preferred Alternative or Identify an Alternative that Avoids 4(f) Properties as Required by Section 4(f)

Without a complete understanding of the preferred alternative's full range of environmental effects, including a complete accounting of harm to historic properties, there is no way that the Agencies can reasonably select a preferred alternative as required by NEPA or identify an alternative that avoids use of or minimizes harm to historic properties, parks, and recreation areas as required by Section 4(f).

The identification of those historic properties and the preferred alternative's potential effects on them must be completed at a time when they can actually inform the selection of alternatives, rather than being deferred to a later date after alternatives have been foreclosed.

X. Miscellaneous Defects in the SDEIS

A. The SDEIS's Statements on the American Legion Bridge's Potential Reconstruction are Inconsistent and Confusing

The SDEIS's discussion of the structural soundness of the American Legion Bridge directly contradicts MDOT's other statements on the issue. The SDEIS states that the American Legion Bridge "is nearly 60 years old and would need to be replaced sometime over the next decade regardless of this study." SDEIS at ES-9. This alarming assessment of the condition of the bridge contradicts repeated statements made recently by MDOT Secretary Greg Slater on the longer structural life of the bridge.

On February 25, 2021, Secretary Slater told the board of the MDTA that the bridge was "structurally sound" but that the deck of the bridge needed to be replaced within the next 10 years.[283] He went on to explain that if the deck were not replaced, then the entire bridge would need to be replaced within 15 years. Secretary Slater made similar comments about the need to replace the deck of the bridge, but not the entire bridge, at a joint hearing of State House and Senate

[283] Maryland Department of Transportation Board Meeting (Feb. 25, 2021), https://vimeo.com/516219338 (1:10:50).

committees on June 29, 2021.[284] Most recently, during a November 10, 2021 presentation to state legislators and local government officials from Montgomery County on MDOT's Consolidated Transportation Program, Secretary Slater was asked about a recent news report on the condition of the bridge. He stated that the bridge is "not unsafe" and went on to say that it has "a lot of structural life left."[285]

The Agencies' statement about the condition of the bridge not only contradicts the Maryland Secretary of Transportation but creates a false sense of urgency over the need to rebuild or replace the American Legion Bridge. The Agencies must set the record straight in the FEIS.

It is unclear how a new ALB can be built in the exact same location as the existing bridge without completely closing the corridor throughout construction, which would reverse the preferred alternative's anticipated benefits throughout that period as traffic halts through the construction zone. The bike/pedestrian lane options should also have been presented for public comment as alternatives during this phase rather than just being mentioned as possible solutions to the unanalyzed problem.

The SDEIS also mentions that it is "typical practice" to obtain a water quantity waiver. While such a waiver may be "typical practice," there is precedent throughout the country to require stormwater vaults and treatment facilities for new bridges across sensitive waters (*see, e.g.*, expansion of the Tacoma Narrows Bridge in Puget Sound, WA State).[286] Presuming that a water quantity waiver will be granted has not been acknowledged by MDE as part of this SDEIS, and the public must be given an opportunity to comment on this issue.

B. The SDEIS's Lack of Disclosure and Deceptive Language Denies the Public a Fair Opportunity to Comment on the Issue of Possible Rail Alignment on the American Legion Bridge

The SDEIS states:

> Further, the ALB will be designed and constructed such that a future capital improvement project will have one or more feasible options to achieve the full design and implementation of a transit line across the ALB. These options will be enabled by designing the northbound and southbound structures to not preclude future superstructure modifications and additional foundation and substructure capacity capable of supporting a new transit line.

SDEIS at 2-23 to 2-24.

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[284] Maryland General Assembly, Transportation and Environmental Subcommittee (Jun. 29, 2021), https://mgaleg.maryland.gov/mgawebsite/Committees/Media/false?cmte=t%26e&clip=TAE_6_29_2021_meeting_1&ys=2021rs (2:27:25).

[285] MDOT Consolidated Transportation Program Presentation (Nov. 10, 2021), https://www.youtube.com/watch?app=desktop&v=0rFAps6rNpo (3:19:10).

[286] *See* City of Tacoma, Stormwater Management Manual (July 2021 ed.), https://www.cityoftacoma.org/UserFiles/Servers/Server_6/File/cms/enviro/SurfaceWater/2019%20SWMM%20Manual/Tacoma%20SWMM%20Draft%202021%20(Clean).pdf.

This language is deceptive. It suggests to the reader that the bridge will be structurally capable of carrying rail transit, but in fact only commits to a bridge capable of carrying buses, which is no commitment at all, because the bridge must be strong enough to carry 18-wheel trucks which are heavier than buses.

It further misleads the reader by concealing the existence of language hidden in a contract between Transurban and Maryland's partner state in this project, Virginia, that is likely to pose an insuperable barrier to construction of a rail connection across the American Legion Bridge. Under this clause, Transurban would collect a toll from Virginia taxpayers each time a passenger takes a train instead of driving, thereby creating an economic disincentive to construct a rail connection.[287] The payments would start when the rail line opens and continue until 2087.

As the Maryland-National Capital Park and Planning Commission stated:

> it is essential for SHA to eliminate any impediment to the addition of new transit service between Virginia and Maryland, even if that means modifying any contractual limitations imposed on such transit under Virginia DOT's contract with its P3 vendor.[288]

This lack of disclosure and deceptive language deprived the public of important information about the preferred alternative and denied the public a fair opportunity to comment and may have deceived higher-level decision makers.[289]

C. The Preferred Alternative's Reduction of Free Lanes Violates Federal Requirements

According to the U.S. Congressional Service, a requirement for newly-tolled highways is that "the existing free-lane count on surface Interstate highways must remain the same, even if reconstructed."[290] *See* 23 U.S.C. § 129(a)(1)(C).

The preferred alternative is in violation of this requirement. In multiple locations, including lower I-270 and the northbound I-270 West Spur, the preferred alternative will result in fewer free lanes than exist now.

Lower I-270 presently has as many as 7-8 free lanes in each direction, including HOV-2 lanes that are free of cost at all times and free of restrictions 91% of the time. Starting in 2017,

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[287] *Citizens Demand "Stop the P3 Toll Lane Boondoggle" As Virginia's Secret Contract with Toll Company Is Revealed*, MTOC (June 8, 2021), https://web.archive.org/web/20210610153721/https:/transitformaryland.org/latest-news.

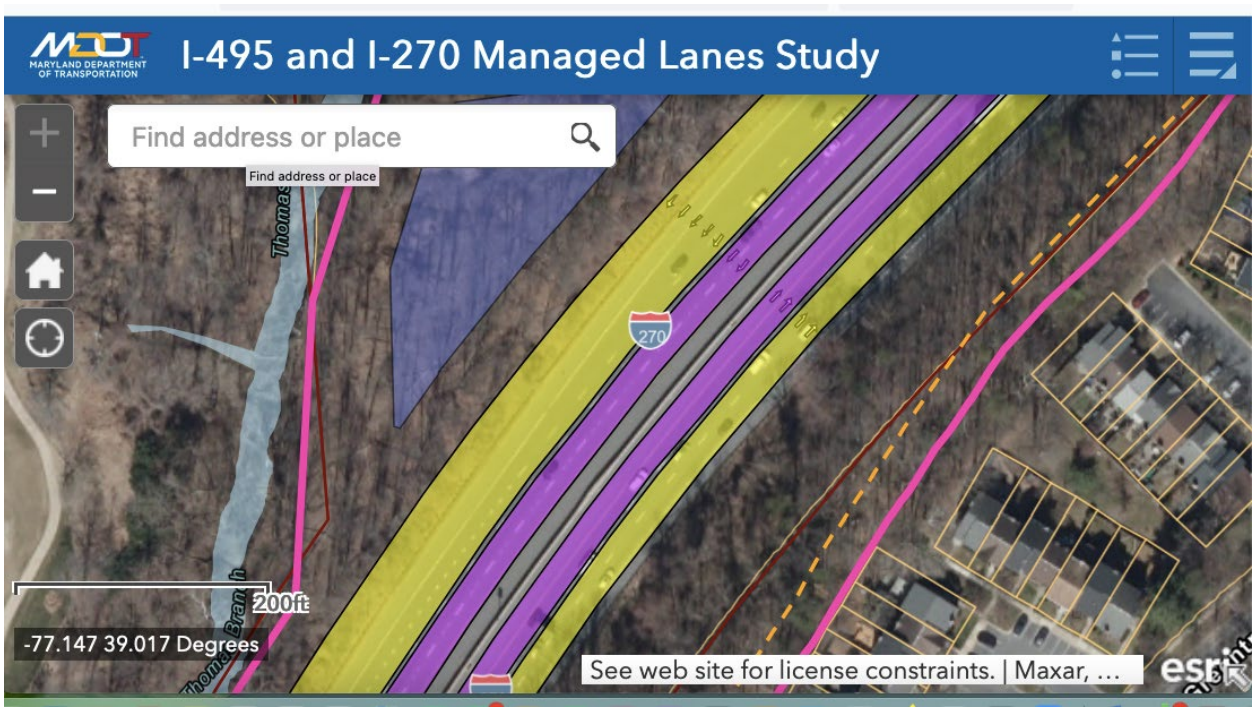
[288] Letter from Elizabeth M. Hewlett and Casey M. Anderson to Jeanette Mar and Tim Smith, re Non-Concurrence on the Recommended Preferred Alternative (June 25, 2021), https://montgomeryplanningboard.org/wp-content/uploads/2021/06/MNCPPC_Non-Concurrence_RPA_06-25-2021_SIG.pdf.

[289] There is ongoing and high public interest in a rail alignment across the American Legion Bridge, such as is mentioned in this article. Katherine Shaver, *A New American Legion Bridge Should Accommodate a Possible Beltway Rail Line, Transit Advocates Say*, Washington Post, (May 22, 2021), https://www.washingtonpost.com/transportation/2021/05/22/american-legion-bridge-new-rail-toll-lanes/.

[290] *Tolling U.S. Highways and Bridges*, CRS Reports R41990 (Aug. 4, 2017).

lanes were added to lower I-270 as part of MDOT's ICM project.[291] MDOT Secretary Greg Slater has publicly confirmed the success of the ICM project in eliminating most congestion on lower I-270. But documentation for the preferred alternative indicates the number of free lanes on lower I-270 will be reduced to five and in some places six lanes in each direction. In addition to violating the federal requirement to maintain the number of free lanes, the reduction in lanes will cause massive congestion where currently there is virtually none.

Northbound I-270 West Spur: The West Spur currently has three lanes northbound, including the HOV-2 lane, which is free of cost at all times and free of restrictions 91% of the time. The Phase 1 South plan calls for only two lanes northbound on the West Spur from Bradley Boulevard to Democracy Boulevard.[292] This one-third reduction in free lanes is not only a violation of the federal requirement, but will likely create more car-truck safety risks and a new bottleneck to match the one on the East Spur already labeled by MDOT as "new bottleneck."[293]



Map showing two free lanes on northbound I-270 Spur (shown in yellow) between Bradley and Democracy Boulevards

Considering the number of toll lanes MDOT is planning, any attempt to comply with the requirement to maintain the existing number of free lanes will require major new property takings

[291] https://mdot-sha-i270-i70-to-i495-inno-cong-mgmt-mo0695172-maryland.hub.arcgis.com/.

[292] *See* MDOT's Interactive Map, https://rkk.maps.arcgis.com/apps/webappviewer/index.html?id=a00b453bd630450ca487d1502c94143b.

[293] *See* reference to "new bottleneck" in letter to Acting FHWA Administrator Stephanie Pollack, Oct. 18, 2021, https://transitformaryland.org/sites/default/files/pollackletter.pdf.

and lead to significantly more environmental impacts. The preferred alternative already calls for 19 lanes just south of the I-270/I-495 split.

D. The SDEIS Does Not Disclose Taxpayer Costs

The NEPA documents should disclose project cost, including public subsidies, to allow a fair and balanced assessment of costs and benefits. The DEIS issued in 2020 provided the range of public subsidies that would be necessary to fund the toll lanes. The SDEIS does not address or include an estimate of the subsidy that may be needed for the preferred alternative. The trend toward allowing more telework by the federal government,[294] the region's largest employer, as well as by other employers could significantly reduce traffic congestion on I-495 and I-270 over the long term. It is important to understand how the increase in telework will impact the financing of the preferred alternative. If traffic congestion and toll revenues are less than expected, taxpayers may be forced to provide even greater subsidies to the tollway developer. The extent to which the State will be subsidizing the toll lanes is of immense concern to Maryland taxpayers and this information needs to be shared with the public prior to issuing an FEIS.

A document released at an August 26, 2021, MDTA board meeting shows amendments to the P3 contract by way of a document associated with but not included in the contract documents submitted for review to the legislature, Department of Legislative Services, state treasurer, and comptroller.[295]

Called an interagency agreement between MDOT, MDOT SHA, and MDTA, it pertains to contractual obligations related to the P3 contract. Even if the original Interagency Agreement had been in the packet presented for public review between June 10 and July 10, 2021, some of the agreement's cost implications could not have been assessed because certain language was not added to the document until late August.

MDOT changed the contract terms by way of the Interagency Agreement two weeks after the BPW vote and a month and a half after the comment period on the contract closed.

One new late-August addition to the Interagency Agreement with taxpayer implications related to issuance of bonds or notes:

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[294] *Memorandum for the Heads of Executive Departments and Agencies on "Integrating Planning for A Safe Increased Return of Federal Employees and Contractors to Physical Workplaces with Post-Reentry Personnel Policies and Work Environment,"* OMB, OPM, GSA (June 10, 2021), https://www.whitehouse.gov/wp-content/uploads/2021/06/M-21-25.pdf. The memo encourages federal agencies to adopt more telework on a permanent basis. On page 13, the memo states, "As agencies consider what their post-reentry policies should be, OPM encourages them to consider telework as part of the overall strategic workforce planning that provides new flexibilities to agencies competing for top talent with other sectors across the country."

[295] MDTA Board Materials, August 26, 2021, https://mdta.maryland.gov/sites/default/files/Files/Board_Meeting/2021_0826%20Board%20Materials%20-%20Posting.pdf.

> MDTA will issue bonds or notes to fund certain costs in which the State is best equipped to manage and reduce the overall risk.[296]

This contradicts earlier assurances by the governor that the cost of toll lanes would not be imposed on taxpayers and that the developer would bear the risks.[297]

One concerning deletion was mention of the specific bodies that need to review the presolicitation reports and P3 agreements. This is concerning and could pave the way for amendments or changes made by the legislature or BPW that allow for review by fewer entities and little to no public accountability.

> submitting a joint Pre-Solicitation Report as required by State law to all applicable State entities~~, including the State Comptroller, State Treasurer, Senate Budget and Taxation Committee, House Ways and Means Committee, House Appropriations Committee, Department of Legislative Services, and the Maryland Board of Public Works (the "Maryland BPW");~~;
>
> iv.(iv)jointly submitting ~~the~~ a joint Final Agreement Report for each P3 Agreement and each proposed P3 Agreement as required by State law to all applicable State entities~~, including the State Comptroller, State Treasurer, Senate Budget and Taxation Committee, House Ways and Means Committee, House Appropriations Committee, Department of Legislative Services, and the Maryland BPW;~~[298]

The Interagency Agreement states that MDOT will request appropriations from the Maryland General Assembly to pay for compensation events:

> Subject to availability of funds in the Upfront Payment Account or appropriation by the Maryland General Assembly, to the extent any Phase Developer or Section Developer under a P3 Agreement is entitled to receive any amount for a compensation event or termination compensation, MDOT SHA will pay such amount to such Phase Developer or Section Developer, as applicable, on or before the date when such amount becomes due and payable. MDOT will take such actions as are necessary from time to time to request sufficient appropriations from the Maryland General Assembly to pay such amounts as and when they come due.[299]

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[296] MDTA Board Materials, at PDF p. 195 (Aug. 26, 2021), https://mdta.maryland.gov/sites/default/files/Files/Board_Meeting/2021_0826%20Board%20Materials%20-%20Posting.pdf.

[297] "'The state will have no risk from the standpoint of how it performs,' Rahn said of the toll lanes." Katherine Shaver, *Hogan's Idea to Widen Washington-Area Highways to Add Toll Lanes Has Hit Barriers Before*, Washington Post (Oct. 17, 2017), https://www.washingtonpost.com/local/trafficandcommuting/hogans-idea-to-widen-washington-area-highways-to-add-toll-lanes-has-hit-barriers-before/2017/10/21/7c14a466-af85-11e7-9e58-e6288544af98_story.html.

[298] MDTA Board Materials, at PDF p. 189 (Aug. 26, 2021), https://mdta.maryland.gov/sites/default/files/Files/Board_Meeting/2021_0826%20Board%20Materials%20-%20Posting.pdf.

[299] *Id.* at PDF pp. 167 & 193.

The following list of compensation and relief events ("among others") that could cost current and future generations of taxpayers are as follows:

> To the extent a Compensation Event or a Relief Event directly causes an adverse cost or schedule impact on the Section Developer, the Section Developer may claim an extension to applicable deadlines for performance or relief from compliance with its obligations. Notice of such claim must be provided within 30 days after the date the Section Developer first became aware (or should reasonably have become aware) that the relevant Compensation Event or Relief Event had occurred.
>
> If such adverse impact is caused by a Compensation Event, the Section Developer may also claim compensation which places the Section Developer in a "no better/no worse" position, as compared to immediately prior to the occurrence of the Compensation Event.
>
> The Section P3 Agreement will include "**Compensation Events**" addressing the following matters, among others:
>
> a) breach of the Section P3 Agreement by MDOT or MDTA (including a failure by MDOT to provide the Section Developer with access to each MDOT Provided Parcel in accordance with the access schedule agreed under Section 7 (Right of Way));
> b) violation of law by MDOT or MDTA;
> c) Discriminatory Change in Law;
> d) suspension of the Work (except as permitted by Section 38 below) or suspension of tolls in the Priced Managed Lanes (except as permitted by Section 38.A below);
> e) issuance of directive letters;
> f) physical damage to the Work caused by other MDOT capital works projects [or VDOT capital works projects] in the immediate vicinity of the Section (excluding work undertaken by a Section Developer Related Entity);
> g) MDOT's or MDTA's exercise of step-in rights except in cases of Section Developer's breach;
> h) the discovery of any Unknown Utility during the carrying out of the Construction Work;
> i) the discovery of any Unknown Hazardous Environmental Conditions during the carrying out of the Construction Work;
> j) the discovery of any Unknown Endangered Species during the carrying out of the Construction Work;
> k) the discovery of any Unknown Archaeological Remains during the carrying out of the Construction Work;
> l) issuance of injunctions or restraining orders relating to the Section or the P3 Program that prohibits the performance of a material part of the Work under the Section P3 Agreement or materially and adversely affects a Party's performance under the Section P3 Agreement;
> m) release of Hazardous Materials caused by an MDOT Related Entity;

n) signing by MDOT or MDTA of new or amended Utility Framework Agreement, Utility Agreement, or Third Party MOU on terms different to the Setting Date MOUs, except to the extent caused by a change to the design made by the Section Developer after the Setting Date (and "**Setting Date MOUs**" means (i) the MOUs or agreements executed by MDOT or MDTA and the relevant utility/third party and made available to the Phase Developer prior to the Setting Date and (ii) Utility Framework Agreement, Utility Agreement, or Third Party MOU in a form that has not yet been executed at the Setting Date but that has been agreed as between MDOT and the Phase Developer as the form of MOU or agreement that the Phase Developer will base its pricing on at the Setting Date);
o) construction or expansion of a Competing Facility as defined in Section 37 below;
p) an extended Force Majeure Event, to the extent MDOT elects to treat it as a Compensation Event in lieu of termination;
q) with respect to the 495 NEXT Project, breach by the 495 NEXT Developer or VDOT of certain defined interface obligations set forth in the Section P3 Agreement;
r) any suspension, termination, amendment, or variation to the terms and conditions of any MDOT Provided Approval, except to the extent that such suspension, termination, amendment, or variation results from failure of any Section Developer-Related Entity to locate or design the Section or carry out the Work in accordance with the relevant MDOT-Provided Approval (including any differences between the Section Developer's design and the design used for the MDOT-Provided Approvals);
s) an MDTA Outage occurs that constitutes a Compensation Event in accordance with Section 26 (*System Faults and Failures*) of the Tolling Services Agreement Term Sheet; and
t) changes are made to any of the toll rate setting terms that constitute a Compensation Event in accordance with Section 36 (*Change Orders*) of the Tolling Services Agreement Term Sheet, except, in each case, to the extent attributable to any breach of the Section P3 Agreement, applicable law, or any governmental approval by, or negligent act or negligent omission of, a Section Developer-Related Entity and subject to such other limitations and conditions as will be set forth in the Section P3 Agreement.

The Section P3 Agreement will include "**Relief Events**" addressing the following matters, among others:

a) any Changes in Law other than Discriminatory Changes in Law;
b) Force Majeure Events (as defined in Section 40);
c) floods in excess of the Base Flood, fires, explosions, earthquakes causing ground acceleration in excess of AASHTO design standards, tornadoes, named windstorms, and ensuing storm surges;
d) riot or civil commotion;
e) blockade or embargo;
f) strikes or labor unrest affecting the construction industry generally;

g) a failure by a Utility Owner to comply with its obligations under its Utility Framework Agreement or Utility Agreement or to cooperate with the Section Developer in relation to a Utility Adjustment where, in each case, such failure continues for a period of [•] days or more after the Section Developer has issued a request for assistance and continues to satisfy certain conditions to assistance under the Section P3 Agreement;
h) a delay in obtaining any Major Governmental Approval due to delays in receiving responses from the relevant permitting agency that exceed the applicable Major Governmental Approval Period to the extent that such delay is beyond the reasonable control of any Section Developer-Related Entity;
i) Pandemic Event; and
j) the release of Hazardous Materials onto the Site that is not caused by a Section Developer-Related Entity, except, in each case, to the extent attributable to any breach of the Section P3 Agreement, applicable law, or any governmental approval by, or negligent act or negligent omission of, a Section Developer-Related Entity and subject to such other limitations and conditions as will be set forth in the Section P3 Agreement.[300]

These and other things that could reduce revenue for Transurban over the next 60 years can be paid back to Transurban by the state as compensation payments or other hidden payments, including renegotiations, contract amendments, or new deals.[301] With future phases and more, the contracts could bind Maryland elected officials into renegotiations not just for 60 years but indefinitely.

Another provision of the Interagency Agreement allows possible operations and maintenance of the general-purpose lanes to be later outsourced to Transurban. Then the developer would be in charge of operations and maintenance of the entire road, not just the toll lanes. And they would not be operating and maintaining the roads free of charge; such an arrangement could be highly profitable for the developer and would rely on taxpayer money:

> O&M OF GENERAL PURPOSE LANES MDOT SHA shall retain all operations and maintenance obligations with respect to the ~~I495~~I-495 & I-270 P3 Program's general-~~-~~purpose lanes and associated infrastructure, unless such responsibilities are transferred to a Section Developer under a P3 Agreement.[302]

Also written into the Interagency Agreement, the toll rates for drivers on the tolled lanes would only go up, never down.

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[300] Ex. 8 Section P3 Agreement Term Sheet, at 13-16, https://oplanesmd.com/wp-content/uploads/2021/06/Phase-1-P3-Agreement-Exhibit-8-%E2%80%93-Section-P3-Agreement-Term-Sheet.pdf (footnotes omitted).

[301] Maryland Sierra Club Testimony on the 495-270 Relief Plan P3 Agreement, (June 29, 2021) https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u25361/Testimony-495-270ReliefPlan-P3Agreement-2021June29.pdf.

[302] MDTA Board Materials, at PDF p. 203 (Aug. 26, 2021), https://mdta.maryland.gov/sites/default/files/Files/Board_Meeting/2021_0826%20Board%20Materials%20-%20Posting.pdf.

> MDTA agrees that it shall not (unless compelled to by law), reduce the civil penalty for late payment of tolls, citation fees, or enforcement fees applicable to the P3 Program, or take other rate setting action that causes P3 Program revenues to decrease.[303]

MDTA is not authorized to issue debt for as long as this P3 would last. To address that limitation, it would have to refinance after 10 years. Refinancing rates could be worse in 10 years compared to today and entail additional cost to Maryland.

> MDTA is statutorily limited to issuing debt with a maximum term of 40 years. In order that the MDTA Notes are in place throughout the term of the Section P3 Agreement, it will be necessary to refinance the MDTA Notes following the 10th anniversary of the Section P3 Agreement to ensure that each section maintains MDTA Notes outstanding during the entire term of the Section P3 Agreement.[304]

Rate covenant shortfall payments will also be paid to the developer by MDOT or by way of operational changes or changes in the toll rates.[305]

All of this comes on top of other known expenses that would be borne by taxpayers in relation to this project.[306]

Beyond financial costs, individuals and communities in the region would pay costs in terms of health and quality of life—dealing with increased noise, less safe public highways, and reductions in air quality, water quality, green space, and climate resiliency.

E. The NEPA Alternatives Selection Process Has Been Window Dressing; For MDOT Adding Four Toll Lanes is Not an Option but a Requirement and Foregone Conclusion

On October 17, 2017, Governor Hogan announced a plan that included adding four toll lanes each to Maryland's portion of the Capital Beltway (I-495) and to I-270. An article on that day stated that his proposal:

> reaches beyond similar proposals that stalled over the years after being deemed too expensive or disruptive to adjacent communities. . . . The success of Hogan's plan hinges, in part, on whether the private companies can figure out what state planners

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[303] *Id.* at 156.

[304] *Id.* at 77.

[305] *Id.* at 76; Maryland Sierra Club Toll Rate Range Setting Testimony, Oct. 28, 2021. https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u25361/MDSierraClub-TollRateSettingTestimony-2021Oct28.pdf.

[306] Jeremy Mohler, *Opinion: The True Cost of Maryland's Toll-Road Plan*, Washington Post (Nov. 12, 2021), https://www.washingtonpost.com/opinions/2021/11/12/true-cost-marylands-toll-road-plan/.

> haven't been able to: how to add four cost-effective toll lanes without having to demolish dozens, and potentially hundreds, of homes and businesses.[307]

Despite studies by MDOT and FHWA that were unsupportive of the idea and the fact that megaprojects with major long-term, irreversible adverse impacts must be based on data and research, the article goes on to say:

> Doug Mayer, Hogan's communications director, said the governor isn't basing his four-lane plan on previous research.
>
> "If the world only moved forward based on studies that are 10 years old, there would be no forward progress ever again," Mayer said.[308]

There was not any question about what the outcome was meant to be. It was four new toll lanes on I-495 and I-270. There were no alternatives, just variations of how to achieve that goal. Hogan presented as "traffic facts" that: "Our administration has proposed the *only solution* to finally end the congestion crisis."[309]

On November 17, 2017, former Maryland Transportation Secretary Pete Rahn is quoted as saying the following:

> "We know we want — we want four additional lanes of travel," Rahn said after the meeting. "How those are configured will be up to the concessionaires when they bring their proposals forward. That's why we're not being prescriptive as to how they accomplish it. We're being very clear in what we want, and it's up to them to bring us the how."[310]

This pre-determined outcome, decided well in advance of any NEPA review, now appears to be at the cost of human health and safety on the road (*see* Sections II.H.7 to 13) with hidden taxpayer subsidies (*see* Section X.D), and still with major expense and disruption to adjacent communities and the environment.

Importantly, this is the biasing context in which the NEPA alternatives analysis was conducted.

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[307] Katherine Shaver, *Hogan's Idea to Widen Washington-Area Highways to Add Toll Lanes Has Hit Barriers Before*, Washington Post (Oct. 17, 2017), https://www.washingtonpost.com/local/trafficandcommuting/hogans-idea-to-widen-washington-area-highways-to-add-toll-lanes-has-hit-barriers-before/2017/10/21/7c14a466-af85-11e7-9e58-e6288544af98_story.html.

[308] *Id.*

[309] Larry Hogan Facebook Post (June 3, 2019), https://m.facebook.com/LarryHogan/posts/traffic-facts-the-capital-beltway-and-i-270-are-two-of-the-most-congested-roads-/3067388883286254/ (emphasis added).

[310] Douglas Tallman, *Rahn Provides Some Answers on I-270, I-495 Projects*, Montgomery County Media (Nov. 17, 2017), https://web.archive.org/web/20181012114028/https:/www.mymcmedia.org/rahn-provides-answers-270-495-projects/.

F. Extensive Tree Canopy Loss from the Preferred Alternative is Not Justifiable in a Climate Crisis

For a project that will not solve congestion but increase it, 500 acres is far, far too much tree canopy loss. The likely cumulative impacts of tree loss are 1,500 acres plus the not yet estimated tree loss from potential extension of toll lanes from I-370 to I-70.

Maryland's mature trees are precious and under threat by multiple powerful forces. The region cannot afford to lose so much tree canopy when flash flooding risks and impacts to the Chesapeake Bay and other watersheds are serious and when trees are dying and tree canopy loss is accelerating due to natural and human forces. A November 25, 2021, article in the Washington Post notes:

> Oak trees are dying across the Mid-Atlantic region, crippled by extreme weather, old age, construction and development, then finally succumbing to disease and pests. Experts say the oak decline was triggered by the year of record rainfall that waterlogged the Washington region from 2018 to 2019, immediately followed by a flash drought in the hot, dry summer of 2019.[311]

Trees are one of our defenses and contributors to resiliency in the face of climate change. Decision makers and residents are blind to these realities at their own peril. Furthermore, based on the Virginia case, additional hundreds of acres of tree canopy loss may be in store in these projects due to extensions, adjustments, and additional needs during construction and staging areas for workers and their vehicles.

As was said in an SDEIS comment to MDOT by a Silver Spring, MD community icon named Arlene, age 83:

> MDOT, First, let me say I OPPOSE THE TOLL LANES AND SUPPORT THE NO-BUILD OPTION.....
>
> Those involved in pushing this absurd plan, at the worst possible time in our devolution toward our own extinction through the burning of fossil fuels, those people should feel deeply ashamed and guilty. Why? Because it is a crime they are committing. And they are being bull-headed enough, blinded by greed and shortsightedness, to do whatever they can get away with in order to get their scheme accomplished at all costs.
>
> Blinded to the fact that it will never achieve its stated goal of reducing traffic for more than a few minutes. Reducing traffic is one lie. History screams to us that adding more asphalt adds more vehicles. They think this one time it will be different? Do they think they can fool us into believing that?
>
> Blinded to the world of hurt our communities will endure as this thing encroaches deep into our lives, and we are left to mourn our woods, few remaining wild things,

[311] Alisa Tang, *Oak Trees in the Mid-Atlantic Region are Dying*, Washington Post (Nov 25, 2021), https://www.washingtonpost.com/dc-md-va/2021/11/25/oak-trees-dc-mid-atlantic-dying/.

> homes, backyards, parks, waterways, gathering places and open areas. We will choke on worsened air quality, have our nerves strained by elevated and constant noise that we cannot escape, exit and entrance ramps multiplied and everywhere now, where none had existed before. Also to be mourned is all that thrown-away money!
>
> It is irrational and self-defeating to push on with it. The world has changed radically since 2017. Circumstances have changed and we have learned a lot, or should have.
>
> Climate change is breaking down the systems that support life on Earth. Doing this gigantic expansion will only accelerate the degradation of our environment. Pay attention to the public whom you are ostensibly serving. Work to minimize traffic. Don't accommodate it! And for Pete's sake do NOT invite more.:

G. The SDEIS Does Not Disclose the Larger Agenda of the P3 Toll Lane Deal

Marylanders are being left out of the policy conversation about the top-level purpose of this Project, which seems to be not to relieve congestion but to kickstart Australian-style "asset recycling" in Maryland.[312] It appears that if this Project can just move to construction, as Governor Hogan hopes, Maryland can link itself with Transurban for the purpose of asset recycling. Maryland toll lanes can be an advertisement to visiting U.S. politicians about the "benefits" of implementing the Australian asset recycling model in the United States. To understand what the Project is really about, beneath the false hype about reducing congestion for all at no cost to the taxpayer, here are several data points to consider. This Project has been in development for four years and only hints of the larger agenda occasionally appear. Below are some.

Former Transurban North America President Jennifer Aument in a 2020 webinar described the United States as "the great emerging market for infrastructure investment that has been relatively slow to emerge." She continues:

> So I'm certainly hoping that with about $200 billion of dry powder out there and private capital waiting to be deployed in this market that we will find ways moving forward post COVID to be able to use public private partnerships . . . including toll roads. And another area where we can really work to do a step forward in using public private partnerships here in the United States is to finally, adopt into, to advance a modern approach to asset recycling.[313]

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[312] Asset recycling entails "funding new infrastructure by leasing existing public assets—like roads or electrical grids—to private companies." Hannah Levintova and Noah Lanard, *Senators Want to Pay for Infrastructure With "Asset Recycling." That's Just a Fancy Term for Privatization*, Mother Jones (July 2, 2021), https://www.motherjones.com/politics/2021/07/senators-want-to-pay-for-infrastructure-with-asset-recycling-thats-just-a-fancy-term-for-privatization/. An assessment of it can be read at John Quiggin, *Asset Recycling: A Spurious Justification for Privatisation*, Submission to Senate Standing Committees on Economics, https://www.aph.gov.au/DocumentStore.ashx?id=6c33d95e-0376-4731-8161-6b6de7cf01cf&subId=303245. The Australian model of asset recycling often involves partnering with pension funds.

[313] Road to Recovery Webinar: Jennifer Aument, Eno Center for Transportation, June 3, 2020 https://www.youtube.com/watch?v=zbKddAqxFAw.

Governor Hogan in September 2019 had travelled with Aument and others to Australia to learn about asset recycling and meet with Transurban and Macquarie, who later were selected to develop Hogan's toll lane project.[314]

On December 17, 2020, Transurban sold half its stake in the toll roads in the Washington area for $2.8 billion, including its 2.6 mile (4.2 km) Capital Beltway Accord project which extends into Maryland.[315] On December 18, with no notice to the public, MDOT issued its formal Request for Proposals for the Maryland toll lanes project, revealing the Project had changed significantly.[316] The upspoken message of this and prior interactions was that lack of transparency is also part of the larger agenda.[317]

When the bidding team led by Transurban was selected for the toll lanes contract on February 13, 2021, Transurban's Chief Executive Officer Scott Charlton remarked, "It really sets us on a path for further growth and expansion into North America. It's a big deal in its size . . . but it has much bigger meaning for Transurban in the sense of a new client in the Maryland Department of Transport."[318]

On May 12, 2021, when the project was downsized to Phase 1 South extending from the American Legion Bridge to I-370, MDOT Transportation Secretary Greg Slater said: "This will show we believe in [toll] lanes as a solution and the P3 model, and we can show that in an area that has more consensus."[319]

Comptroller Peter Franchot also appeared eager to get started with the P3 toll lane model, providing more insights on May 10, 2021:

> The P3 for American Legion bridge is going to be much tighter. And I think we'll be more successful. But the key thing is we'll be able to see whether there's any relief of traffic congestion and any real uproar over the tolls. And, you know, we'll be able to without completely turning the area on its head, we're going to be able

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[314] Bruce DePuyt, *MDOT Chooses Transurban for I-495/I-270 Project*, Maryland Matters (Feb. 13, 2020), https://www.marylandmatters.org/2021/02/18/mdot-chooses-transurban-for-i-495-i-270-project/.

[315] Patrick Hatch, *Transurban Readies For Buying Spree With $2.8b US Road Sale*, Sydney Morning Herald (Dec. 17, 2021), https://www.smh.com.au/business/companies/transurban-readies-for-buying-spree-with-2-8b-us-road-sale-20201217-p56oce.html; *Transurban : Chesapeake Partnership and Traffic Update*, Market Screener (Dec. 16, 2020), https://www.marketscreener.com/quote/stock/TRANSURBAN-GROUP-6493737/news/Transurban-Chesapeake-Partnership-and-Traffic-Update-32030618/.

[316] Bruce DePuyt, *MDOT Accelerates Timetable for Next Steps on Beltway Widening, Rearranges Project Phases*, Maryland Matters (Dec. 29, 2020), https://www.marylandmatters.org/2020/12/29/mdot-accelerates-timetable-for-next-steps-on-beltway-widening-project/.

[317] Ben Ross, *Opinion: Highway P3 Process Has Lacked Transparency*, Maryland Matters (Feb. 13, 2020), https://www.marylandmatters.org/2020/02/13/opinion-highway-p3-process-has-lacked-transparency/.

[318] Patrick Hatch, *Transurban Says Maryland-Virginia Road Win Sets Up US Expansion*, Sydney Morning Herald (Feb. 19, 2021), https://www.smh.com.au/business/companies/transurban-wins-bid-for-5b-maryland-virginia-toll-project-20210219-p57411.html.

[319] Katherine Shaver, *Maryland Scales Back Most Controversial Part of Beltway Toll Lanes Plan East of I-270*, Washington Post (May 12, 2021), https://www.washingtonpost.com/transportation/2021/05/12/maryland-toll-lanes-plan/.

> to test a properly drafted P3, and we'll see how it goes. . . . We're going to do a new Bay Bridge, and the reason why this American Legion Bridge P3 is so important, we can't possibly do another Bay Bridge without a P3. The private sector is the only entity that has the capital that would permit that. So, yeah, a lot of what we're doing with experimenting with P3s right now is getting ready for that massive project.[320]

In September 2021, Australian newspaper *The Age* shared further details about the plan for Maryland:

> Not far from the White House and the Lincoln Memorial, there's something else Transurban boss Scott Charlton thinks visitors to Washington DC should see: his network of toll roads gradually encircling the United States capital.
>
> "Almost every politician in the country — even if they're state politicians — comes to Washington," says the chief executive of the ASX-listed toll road giant. "So at some point or other almost every politician in the country drives on our roads and, hopefully, they have a good experience."
>
> And while lucrative in its own right, delivering the first section of the road also sets his company up to win future stages of the project, valued at another $US9 billion to $US11 billion over the next decade or so. That would give Transurban a continuous network of roads through Maryland and Virginia that encircle Washington DC.
>
> Charlton says Transurban's growing footprint around the US capital (with 85 kilometres of express lanes operating currently) also positions it bid for other roads across America, where there are between $US200 billion to $US300 billion worth of toll roads owned by state or local governments.[321]

Transurban North America President Pierce Coffee gives the most recent a big picture overview:

> This new infrastructure funding package [*Infrastructure Investment and Jobs* Act, a $1.2 trillion investment in America's transportation, broadband and utilities infrastructure] offers governments a number of ways to maximize their return on investment by partnering with the private sector. The *Infrastructure Investment and Jobs* Act provides expanded opportunities to deliver projects through public-private partnerships and bolsters existing programs by expanding the cap on Private Activity Bonds (PABs) and streamlining the Transportation Infrastructure Finance and Innovation Act (TIFIA) Program – two financial tools utilized by Transurban

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[320] Peter Franchot Interview on "Everyday Law" Podcast, (Mar. 10, 2021), https://podcasts.google.com/feed/aHR0cHM6Ly9ldmVyeWRheWxhdy5wb2RiZWFuLmNvbS9mZWVkLw/episode/ZXZlcnlkYXlsYXcucG9kYmVhbi5jb20vYTBmYjdlMGMtMmQ4Ny0zYTc0LWIzN2ItYjI1YzRjNWRlZTI0.

[321] Patrick Hatch, *Roads to Riches: Transurban, Super Funds Vie for Bigger Slice of America's Pie*, The Age (Sept. 11, 2021), https://www.theage.com.au/business/companies/roads-to-riches-transurban-super-funds-vie-for-bigger-slice-of-america-s-pie-20210902-p58o5e.html.

> to deliver the Virginia Express Lanes. The bill also creates a program designed to support asset recycling transactions, indicating growing public interest in implementing the Australian public-private partnership model in the United States. Governments across the U.S. can look to Transurban's Express Lanes network as a model for turning measured public investment into transformational infrastructure projects.[322]

Meanwhile, Australians certainly appear unconvinced about the purported benefits of Australian asset recycling done by Transurban.[323]

This is all occurring within the context of a wider trend toward privatization of public goods, described in a 2021 book *The Privatization of Everything*.[324]

Few members of the public are aware of the bigger picture dynamics and what saying yes to one seemingly smaller project might actually mean in the long term. These selections reveal the significant cumulative effects of going forward with this project and should have been shared transparently with the public, including in the NEPA context.

H. Climate Change and COVID-19 Have Changed Everything

Maryland, like everywhere else in the world, is entering uncharted territory due to increasingly frequent and clear manifestations of climate change impact. Places where people lived and played 50 years ago are literally underwater in Dorchester County, Maryland. Maryland is getting hotter and wetter, so much so that worker safety in heat is a state-level and national issue. Storms are becoming more frequent and destructive and flash flooding worse. The things the state has now, like 500 acres of tree canopy and over 150 acres of permeable surface rather than macadam, are the things that will protect Maryland's inhabitants from these strengthening trends. Climate change is a policy priority and is changing the equation.[325]

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[322] Pierce Coffee, *US Infrastructure Sector Boosted by Historic Investment*, Transurban Group (Nov. 17, 2021), https://www.transurban.com/news/infrastructure-sector-boosted-by-historic-investment.

[323] Deborah Snow & Matt O'Sullivan, *WestConnex: The Toll Road That Ate Sydney*, Sydney Morning Herald (March 26, 2021), https://www.smh.com.au/national/nsw/westconnex-the-toll-road-that-ate-sydney-20210323-p57d9y.html; *NRMA Calls for Toll Price Transparency*, Riverine Herald (Oct. 25, 2021), https://www.riverineherald.com.au/national/2021/10/25/5511055/nrma-calls-for-toll-price-transparency; Tom Rabe, *'Cost Outweighs Benefit': Trucking Giant's Toll Message to Drivers*, The Age (Sept. 28, 2021), https://www.theage.com.au/national/nsw/cost-outweighs-benefit-trucking-giant-s-toll-message-to-drivers-20210928-p58vi1.html; Richard Olsen, *Job Security and Shoddy Deals for Transport Workers*, Big Rigs (Nov. 25, 2021), https://bigrigs.com.au/index.php/2021/11/25/job-security-and-shoddy-deals-for-transport-workers/#more-39374; *Transurban's Tentacles are Around 14m Aussie Wallets*, Herald Sun, https://www.heraldsun.com.au/business/terry-mccrann/transurbans-tentacles-are-around-14m-aussie-wallets/news-story/b694aa66ff433f793f2531149961242f; Joe Aston, *Sam Mostyn Says One Thing, Transurban Does Another*, Financial Review (April 7, 2020), https://www.afr.com/rear-window/sam-mostyn-says-one-thing-transurban-does-another-20200406-p54hj2.

[324] Donald Cohen and Allen Mikaelian, *The Privatization of Everything: How the Plunder of Public Goods Transformed America and How We Can Fight Back*, The New Press, 2021.

[325] Rockville Mayor Bridget Donnell Newton called the toll lane proposal "a complete denial of climate change and social justice." Danielle E. Gaines, *Advocates, Elected Officials Oppose Beltway Toll Rate Plan at Public Hearing*, Maryland Matters (July 12, 2021), https://www.marylandmatters.org/2021/07/12/advocates-elected-officials-oppose-

Likewise, the world has changed since the COVID-19 pandemic and the emergence of the variants. It won't be going back ever to life as was once known. The world is different this week than last week. Now there is an omicron strain that is shutting down travel[326] and COVID-19 is being found to be rapidly spread among white-tailed deer in the United States.[327] The SDEIS's analysis of the preferred alternative in terms of climate change mitigation and adaptation and COVID-19 impacts is inadequate and becomes more so daily. It fails to meaningfully assess these foreseeable risks and impacts.

The landscape for P3s and how much risk the private sector would take on changed after the 2007–2009 recession. The private partners went from requiring a 17% to a 44% public sector guarantee.[328] It changed again after COVID-19. Knowing things could change so drastically in terms of lockdowns and mobility, the private sector P3 community is now not interested in fixed price contracts, but progressive P3s and other ways to guarantee profitability. It appears Maryland is guaranteeing the loans for this project up to 80% or more.[329] That isn't the private sector taking all the risk as Governor Hogan and his former transportation secretary assured.[330] Instead, it appears that the private sector is taking only a small fraction of the risk, at the public's expense. And the landscape is still changing. How much more risk will the taxpayers of Maryland have to

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beltway-toll-rate-plan-at-public-hearing/. Montgomery County Council President remarked: "You can add lipstick to the pig, but it still doesn't make it an attractive proposal. It's out of alignment with our climate goals and our transportation equity goals." Coleen Grablick, *Maryland Shrinks Plan To Add More Lanes To The Beltway*, DCist (May 12, 2021), https://dcist.com/story/21/05/12/maryland-reduces-beltway-expansion-plan-to-focus-on-northern-region/; *see also TPB Making Changes to Long-Range Plan: Adds New Climate Change Commitments to Planning Process, Removes I-270/I-495 Toll Lanes*, MWCOG (June 16, 2021), https://www.mwcog.org/newsroom/2021/06/16/tpb-making-changes-to-long-range-plan-adds-new-climate-change-commitments-to-planning-process-removes-i-270/i-495-toll-lanes-/.

[326] *See* Perry Stein, William Booth, and Frances Stead Sellers, *Announcement of New Virus Variant Alarms World, as Stocks Crash and Flights are Banned*, Washington Post (Nov. 26, 2021), https://www.washingtonpost.com/world/europe/europe-south-africa-variant-coronavirus/2021/11/26/0f7f5a78-4e99-11ec-a7b8-9ed28bf23929_story.html.

[327] *See* Michaeleen Doucleff, *How SARS-CoV-2 in American Deer Could Alter the Course of the Global Pandemic*, NPR (Nov. 10, 2021), https://www.npr.org/sections/goatsandsoda/2021/11/10/1054224204/how-sars-cov-2-in-american-deer-could-alter-the-course-of-the-global-pandemic.

[328] Congress of the United States Congressional Budget Office, Public-Private Partnerships for Transportation and Water Infrastructure, CBO (Jan. 2020), https://www.cbo.gov/system/files/2020-01/56003-CBO-PPP.pdf. In the past decade versus the two decades before, the share of private financing subsidized by federal taxpayers nearly doubled (25% to 49%).

[329] Final Phase 1 P3 Agreement Exhibit 8 – Section P3 Agreement Term Sheet, August 2021, page 27, item 62a on both lists, https://oplanesmd.com/wp-content/uploads/2021/06/Phase-1-P3-Agreement-Exhibit-8-%E2%80%93-Section-P3-Agreement-Term-Sheet.pdf. The text mentions that upon developer default during operation of the toll lanes that the state would pay up to 80% of the Lenders' Liabilities, plus the balance of the handback reserve account (if any), plus any amounts payable as compensation relating to Compensation Events agreed between the Parties which remains unpaid. There are some items subtracted as well.

[330] "The state will have no risk from the standpoint of how it performs," Rahn said of the toll lanes. Katherine Shaver, *Hogan's Idea to Widen Washington-Area Highways to Add Toll Lanes Has Hit Barriers Before*, Washington Post (Oct. 17, 2017), https://www.washingtonpost.com/local/trafficandcommuting/hogans-idea-to-widen-washington-area-highways-to-add-toll-lanes-has-hit-barriers-before/2017/10/21/7c14a466-af85-11e7-9e58-e6288544af98_story.html.

take on in the section contract or revisions (amended, restated agreements) to the phase contract in this new reality where "back to normal" looks further and further away?

There is a common saying in urban and transportation planning—it may be the early bird that gets the worm, but it's the second mouse that gets the cheese. It is wise to observe and learn from others' mistakes. Maryland must pause from this misguided and temporally inappropriate project. It is a good time to reevaluate if Maryland wants a project that generates revenue for a monopolistic multinational company or a project that generates revenue for Maryland. These are not favorable times to be the first mouse or to ignore how drastically the world has changed. And Maryland is definitely the first mouse in this moment, and Transurban's hoped pathway to U.S. expansion.

No one could have predicted in 2017 how the world would change. When circumstances change, it is okay to recognize that and respond in kind.

I. The SDEIS's Public Involvement and Agency Coordination Section Is Inaccurate and Misleading

An environmental impact statement may not present inaccurate and misleading information. That requirement applies whether evaluating specific environment effects or discussing NEPA compliance, including evaluating and responding to public comments on a project. This requirement is especially important here, when the project sponsor has been publicizing misleading and inflammatory information regarding public comments on, support for, and opposition to the Project.

The SDEIS claims that MDOT SHA has considered nearly 3,000 comments on the DEIS and that the has Agencies have communicated with many other agencies, stakeholders, and members of the public in response to their concerns. SDEIS at 7-19.

Our November 9, 2020, comments on the DEIS explained that in the DEIS and throughout the NEPA process, MDOT improperly downplayed public opposition to the Project. The SDEIS not only does not remedy this flaw but perpetuates it. EPA's comments on the preferred alternative explain: "Based on data from the January 2021 MLS Interagency Working Group Meeting, EPA recognizes that approximately 1,218 of 1,475 (or 83% of) public comments for the DEIS support the No Build Alternative rather than a Build Alternative." Yet the SDEIS makes no mention of this opposition.[331]

[331] *See also* Memorandum to County Council from Glenn Orlin re Comments on I-495/I-270 Managed Lanes Study (MLS) Draft Environmental Impact Statement (DEIS), including County Preferred Alternative, at PDF p. 12 (Nov. 3, 2020), https://www.montgomerycountymd.gov/council/Resources/Files/agenda/col/2020/20201105/20201105_1.pdf ("127 people testified over the course of six public hearings, of which 15 showed support for a Build Alternative, and 112 indicated their preference for the No-Build Alternative."); Danielle E. Gaines, *Advocates, Elected Officials Oppose Beltway Toll Rate Plan at Public Hearing*, Maryland Matters (July 12, 2021), https://www.marylandmatters.org/2021/07/12/advocates-elected-officials-oppose-beltway-toll-rate-plan-at-public-hearing/; Katherine Shaver, *Maryland Tolling Authority Suggests Lowering Minimum Rates for Toll Lanes on Beltway, I-270*, Washington Post (Sept. 30, 2021), https://www.washingtonpost.com/transportation/2021/09/30/maryland-beltway-270-toll-rates/ ("Of the 666 comments received during the public feedback period over the summer, the authority said 67 percent opposed the toll rate ranges.").

Accurately reflecting public involvement in the NEPA process is all the more important here, because the Governor of Maryland and the Maryland Transportation Secretary have been presenting an inaccurate view of public opinion on the Project, including well after the overwhelming opposition to the Project was known. They have publicly called those opposed to the Project a tiny, whiny minority of pro-traffic activists who plot to keep the roads filled with traffic.[332] Not only is this rhetoric factually wrong, but it also serves to reduce public participation except from members of the public who agree with MDOT's predetermined outcome. While MDOT may have already decided that it would move forward with this Project before the NEPA process began,[333] and may have already committed resources to it, both of which biased the NEPA process, *see* 40 C.F.R. §§ 1502.1(f), 1506.1 (2019), FHWA is ultimately responsible for compliance with NEPA, including assuring the public is properly informed and that the Agency's decision takes public feedback into account. FHWA must consider the public's input and, doing so, should not move forward with this Project.

The SDEIS also claims the Agencies conducted outreach to environmental justice populations in non-English languages. If the Agencies move forward with an FEIS, the outreach section must document that the Agencies provided an inaccurate SDEIS Executive Summary and knowingly provided non-English readers less time than English readers to review and comment on the corrected versions (less than 13 days), as discussed above.

J. The Agencies Have Withheld from the Public Documents That Were Considered in Drafting the DEIS and SDEIS

Our November 9, 2020, comments identified many of the documents that the DEIS considered and relied on but that the Agencies refused to provide to the public to evaluate with the DEIS. The Agencies still have not provided these documents, including documents that were used to develop the purpose and need for the Project and to eliminate alternatives from consideration. The Agencies should not move forward until this information is provided.

Moreover, regarding stormwater management requirements, SDEIS Appendix C, references, and the SDEIS rely on the following reports: On-Site Stormwater Management Analysis for the Managed Lane Study (June 2021) and On-Site Stormwater Management Analysis for the Managed Lanes Study, Phase 1 South (June 2021). *See* SDEIS App'x C at 3, 57; SDEIS at

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[332] Ryan Miner, *MoCo Politicians Appeal to 'Tiny, Whiny Minority' on Traffic Relief*, Hogan Says, A Miner Detail (July 7, 2021), https://aminerdetail.com/hoganripsmocopoliticians/; John Kelly, *Who Are the Sick Marylanders Gov. Hogan Accused of Craving Traffic Congestion?*, Washington Post (June 4, 2019), https://www.washingtonpost.com/local/who-are-the-sick-marylanders-gov-hogan-accused-of-craving-traffic-congestion/2019/06/04/572b9c04-86ca-11e9-98c1-e945ae5db8fb_story.html; Kirill Reznik, *Hogan Trying to Sell 'Shortsighted' Road Plan With Misleading Information*, Maryland Matters (June 5, 2019), https://www.marylandmatters.org/2019/06/05/opinion-hogan-trying-to-sell-shortsighted-road-plan-with-misleading-information/ ("Gov. Hogan's inclusion of my name on his news release continues a dishonest pattern that relies more on sleight of hand than actual transportation planning.").

[333] Douglas Tallman, *Rahn Provides Some Answers on I-270, I-495 Projects*, Montgomery County Media (Nov. 17, 2017), https://web.archive.org/web/20181012114028/https:/www.mymcmedia.org/rahn-provides-answers-270-495-projects/; Katherine Shaver, *Hogan's Plan to Add Additional Toll Lanes Faces a Long, Tough Road Ahead*, Frederick News-Post (Oct. 22, 2017), https://www.fredericknewspost.com/news/politics_and_government/transportation/hogans-plan-to-add-additional-toll-lanes-faces-a-long-tough-road-ahead/article_596a73a6-8b97-5124-b731-ff2a847bed37.html.

ES-10, ES-13, 2-12, 2-13, 2-18, 4-3, 4-6. However, the Organizations did not receive a response from MDOT or FHWA to our November 9, 2021, request for these documents until November 29, twenty days later and one day before the comment deadline. Moreover, MDOT's response unlawfully withheld the reports claiming the right to do so because they remain in draft form and were never finalized. NEPA does not permit an agency to withhold documents that were considered in the preparation of an EIS based on the claim that those documents were in draft form.

XI. Conclusion

The preferred alternative would have massive irreversible and significant negative impacts on Maryland, its air, water, land, climate, residents and communities, ecosystems, flora, and fauna. These impacts are either ignored or grossly underestimated in the DEIS and SDEIS, documents which are required by law to accurately reflect reasonably foreseeable impacts. The limited benefits of the preferred alternative, meanwhile, are routinely overstated in the SDEIS and to the public, even relative to the SDEIS appendices (which many will not have time to review). The appendices show that congestion reduction from building the toll lanes will be minimal during rush hours and that in some cases toll lanes will make commutes even worse for general lane travelers than the no-build alternative.

When considering the cost of widening the American Legion Bridge and both the Maryland and Virginia I-495 projects, there is virtually no benefit provided to the traveling public except for marginal benefits for toll payers that evaporate when they too will be faced with heavy traffic congestion at the termini of the toll lanes. The tradeoffs and harms to the environment, climate, taxpayers, Section 4(f)-protected properties, and communities at large were not quantified in a cost-benefit analysis, but had such an analysis been performed, it would be clear that the preferred alternative's harm to the interests of the state and adjacent municipalities far outweighs its benefits.

This $3-to-$7 billion-dollar first phase of a Project that will not relieve congestion and will worsen bottlenecks does not fulfill its purpose and need, which, regardless, is no longer valid in light of COVID-19 commuting changes, the Innovative Congestion Management Project, and changes in state transportation finances. On lower I-270, the Innovative Congestion Management Project adopted by MDOT in 2021 is already addressing current congestion and, according to the documentation for that project and the MWCOG models, those improvements also address future congestion to 2045. DEIS at 3-2 to 3-5; SDEIS at 3-2 to 3-4. The state had $5 billion[334] in surplus funds even before the Bipartisan Infrastructure Bill passed and was signed into law on November 15, 2021, giving the state further billions for transportation infrastructure.[335] The stated cost reason for eliminating all but privately operated toll lane alternatives no longer exists (nor did it ever exist, as the state's bond cap could have been raised, as pointed out by the State Treasurer).

[334] Peter Franchot, *With Good Fiscal News, It's Time to Deliver for Marylanders*, Maryland Matters (Oct. 4, 2021), https://www.marylandmatters.org/2021/10/04/franchot-with-good-fiscal-news-its-time-to-deliver-for-marylanders/.

[335] Jeff Barker, *Infrastructure, Build Back Better and Earmarks: What Big Projects Could be Coming to Maryland?*, Baltimore Sun (Nov. 15, 2021), https://www.baltimoresun.com/politics/bs-md-pol-maryland-federal-funding-20211115-jnniz5lhzvgk3brgskkf3krnkm-story.html.

If the Project is to go forward, it should be rethought entirely, constructed as a public project with public money, and scaled to the needs and constraints of the affected region of Maryland. MDOT and VDOT were previously in firm agreement that the American Legion Bridge and I-495 in Maryland could only be widened by one lane on each side at most. Under pressure from a multinational company making deals with the two state governors, this agreement seems to have been forgotten and some of the historical reports containing important relevant information, which the Agencies relied on during the NEPA process, are being withheld from the public.

Phasing of investments in mobility and traffic congestion reduction should be designed to address the most urgent problems first, such as constructing a third track and providing all-day service on the MARC Brunswick line to upper I-270 and completing the Purple Line. Safety goals should also be prioritized. Phasing can be best determined and justified by consideration of origin-destination studies (which have also been unlawfully withheld from the public and cooperating agencies). After such projects are completed, needs can be reassessed, and policy and multimodal solutions reconsidered. MWCOG has analyzed a number of viable, low-cost options that outperform toll lanes.[336]

Regional transit-first policies, new infusions of funds from the federal government, fundamental changes in travel behavior resulting from the COVID-19 pandemic, and the growing urgency of the climate crisis require more nimble ways of thinking about land use and transportation planning other than locking in and increasing car dependency for generations to come. The SDEIS Appendix B says something similar:

> While traffic volumes regionally recently have been about 20% below pre-pandemic levels, peak period speed data remain near free-flow. Traffic flow theory and longstanding empirical data have established that when demand exceeds capacity and traffic operations are in unstable or saturated conditions, a small reduction in demand results in a disproportionate improvement in speeds. As such, strategies to marginally reduce single occupant vehicle (SOV) demand during peak demand via flexible work schedules, pricing or ridesharing (including express bus service) are effective ways to address peak period congestion, conserve energy and reduce emissions.

SDEIS App'x B at PDF p. 146.

To reiterate our opening comments, the Agencies must pause this process and immediately analyze less costly multimodal options to improve mobility in the region that do not cause such significant harm to human health and the environment. The Agencies must also provide the public with a true opportunity to review and comment on these options prior to undertaking an FEIS.

At a minimum, the Agencies must not move forward with MDOT's preferred alternative or any of the fundamentally flawed build alternatives without a new purpose and need statement, additional new alternatives, the many analyses that have been ignored or improperly deferred, and

[336] David Alper, *The Best Way to Improve Transportation in our Region is . . .* , Greater Greater Washington (Nov. 16, 2017), https://ggwash.org/view/65596/the-best-way-improve-transportation-our-region-tpb-study.

a new SDEIS that addresses the failures identified in these comments and prior comments on the DEIS.