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Submitted via E-mail:

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**Re: Preliminary Comments on the Chesapeake Bay Bridge Crossing Tier 2
NEPA Study Process from Queen Anne's Conservation Association**

Dear MDTA and FHWA Officials:

Queen Anne's Conservation Association ("QACA") submits this letter in response to Maryland Transportation Authority's ("MDTA") invitation for public comments on the Chesapeake Bay Crossing Tier 2 NEPA Study, which MDTA and the Federal Highway Administration ("FHWA") are soliciting as part of FHWA's compliance with the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321-4347, and other applicable laws. We respectfully request that FHWA include this comment letter in the formal administrative record underlying the agency's Tier 2 NEPA process.

In order to fulfill its NEPA obligations in the upcoming Tier 2 Study, FHWA must: (1) evaluate all feasible Modal and Operational Alternatives ("MOAs") including those that have not yet been adequately analyzed, such as combinations of MOA strategies separate from the construction of a new bridge; (2) utilize updated baseline traffic projections—including all congestion management strategies that are either currently available or are reasonably foreseeable to be available at the conclusion of the Tier 2 NEPA process; and (3) account for the impacts of induced traffic demand arising from any new span—including the likelihood that large stretches of US 50 would need to be widened, resulting in significant cost and disruption to surrounding communities.

Statement of Interest

QACA is the oldest conservation organization on the Eastern Shore and is dedicated to promoting smart and sustainable growth in Queen Anne's County. It supports development that

will provide a viable and sustainable economic foundation for the county, while also ensuring the protection of its rural character, including the small towns, farms, waterways, and open spaces that shape the county's landscape.

QACA has been an active participant in MDTA's Bay Crossing Study since its inception. It has consistently advocated for accurate and methodologically sound traffic projections, as well as using all available travel management strategies to mitigate peak traffic congestion before committing to a costly, disruptive, and environmentally damaging new bridge. To this end, QACA previously submitted detailed comments on the Bay Crossing Study Tier 1 Draft Environmental Impact Statement ("DEIS").¹ Included in those comments was a rigorous study by independent traffic engineering firm, AKRF, commissioned by QACA to evaluate the Purpose and Need Assessment ("PNA") first published by MDTA in 2019.² AKRF is a nationally recognized traffic engineering firm with impeccable credentials, which FHWA and other federal and state agencies routinely retain to manage and coordinate all aspects (including preparation of Draft and Final EISs) of traffic and highway engineering projects throughout the United States.

BACKGROUND

Relevant background information, including the applicable legal framework and a brief summary of the Bay Bridge Crossing NEPA process, is described below.

Statutory and Regulatory Framework

NEPA was enacted in 1970 to protect human health and the environment by ensuring that "unquantified environmental amenities and values" are given "appropriate consideration in decisionmaking." 42 U.S.C. § 4332(2)(B).

This foundational environmental law has twin aims. It establishes transparent procedures that require federal decisionmakers to consider and account for the environmental impacts of federal projects. NEPA also requires agencies to inform the public about the environmental impact of federal projects, along with reasonable alternatives, so that the public may weigh in on the decisionmaking process and ensure that the ultimate agency decision is careful and well-informed. *See* 40 C.F.R. § 1500.1(a). Under NEPA, agencies have a duty to take a "hard look" at potential environmental impacts and environmentally enhancing alternatives "as part of the agency's process of deciding whether to pursue a particular federal action." *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 100 (1983).

NEPA's substantive goals are effectuated through regulations promulgated by the Council on Environmental Quality ("CEQ"), which are "binding on all Federal agencies." 40

¹ *See* Letter from QACA, April 22, 2021, to Bay Crossing Study, re: Comments of Queen Anne's Conservation Association on Bay Crossing Study Tier 1 DEIS.

² *See* AKRF, *Chesapeake Bay Bridge Crossing Study Transportation Study*, December 15, 2020 (prepared for Queen Anne's Conservation Association).

C.F.R. § 1500.3. Specifically, NEPA requires agencies to prepare a “detailed statement”—i.e., an EIS—for any “major Federal actions significantly affecting the quality of the human environment.” 42 U.S.C. §4332(C). An EIS must describe, among other items, the purpose and need for the proposed action, the alternatives to the action, the affected environment, and the environmental consequences of alternatives. *See* 40 C.F.R. § 1502.10; *see also* 42 U.S.C. § 4332(2)(C). Relevant environmental impacts include “ecological, . . . aesthetic, historic, cultural, economic, social, or health” impacts. 40 C.F.R. § 1508.1(g)(4).

The purpose and need assessment for the proposed action serves to “delimit the universe of the action’s reasonable alternatives.” *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 195 (D.C. Cir. 1991). However, the agency’s purpose must not be too narrow. “[A]n agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action, and the EIS would become a foreordained formality.” *Id.* at 196.

Once the agency has crafted a project’s goals, it must turn to evaluating a reasonable range of alternatives to the proposed action. The alternatives analysis has long been described as the “the heart” of the NEPA process.³ The agency must: “[e]valuate reasonable alternatives to the proposed action, and, for alternatives that the agency eliminated from detailed study, briefly discuss the reasons for their elimination,” and also “[d]iscuss each alternative considered in detail, including the proposed action, so that reviewers may evaluate their comparative merits.” 40 C.F.R. § 1502.14(a)-(b). The agency is also required to retain a “no action” alternative in its analysis in order to compare the proposed action to baseline conditions. *Id.* § 1502.14(c).

Public input is a critical component of the NEPA process. After publishing a notice of intent to prepare an EIS in the Federal Register, an agency must engage in a “scoping” process designed to determine the scope of the issues to be addressed in the EIS and to identify significant issues related to the proposed action. *Id.* § 1501.9. “During the scoping process, the agency must, among other things, invite participation and input by federal, state, and local agencies, as well as the public.” *Webster v. U.S. Dep’t of Agric.*, 685 F.3d 411, 418 (4th Cir. 2012); *see also* 40 C.F.R. § 1501.9(c) (identifying public outreach and communication options available to agencies during the scoping process). “Utilizing information acquired during the scoping process, the agency is then to prepare an initial draft EIS, which it must make publicly available and circulate to other agencies for feedback”; “[a]fter doing so, the agency must draft a final EIS that addresses any comments.” *Webster*, 685 F.3d at 418 (internal citations omitted); *see also* 40 C.F.R. § 1501.10(d) (detailing order and time limits for each constituent part of the NEPA process).

Finally, the EIS “shall be prepared early enough so that it can serve as an important practical contribution to the decision-making process and will not be used to rationalize or justify decisions already made.” 40 C.F.R. § 1502.5.

³ Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, Council on Environmental Quality, 46 Fed. Reg. 18026 (March 23, 1981, as amended 1986).

Factual Summary

FHWA, working alongside MDTA, recently completed the first step in a two-tier approach under NEPA “to address existing and future congestion at the William Preston Lane Jr. Memorial Bridge (Bay Bridge) and its approaches along US 50/301.” Tier 1 FEIS/ROD at 1-1 (hereinafter Tier 1 FEIS).

The agencies separated the Bay Crossing Study (“BCS”) into two parts. The Tier 1 NEPA Study was intended to identify “corridors for providing additional capacity and access across the Chesapeake Bay in order to improve mobility, travel reliability, and safety at the existing Bay Bridge” using a “high-level qualitative review of cost, engineering, and environmental data.” Tier 1 FEIS at 1-2, 1-3.

By contrast, the Tier 2 NEPA Study is intended to “result in project-level (site-specific) decisions made through evaluation of specific alignments within” the selected corridor and “would include detailed engineering design of alternative alignments and the assessment of potential environmental impacts associated with those alignments.” *Id.* at 1-2.

Background

On April 14, 2022, FHWA signed a combined Tier 1 FEIS and Record of Decision (“ROD”). The Tier 1 FEIS/ROD was published in the Federal Register on April 29, 2022. *See* 87 Fed. Reg. 25,563 (Apr. 29, 2022). FHWA clarified that the Tier 1 FEIS/ROD did not constitute a new analysis, but rather merely updated limited aspects of the agency’s Tier 1 DEIS, issued in February 2021. Specifically, the Tier 1 FEIS only responded to public comments and updated the analysis where there were material changes to the evaluation in the DEIS. *See* Tier 1 FEIS at 1-1 (“The content of the DEIS remains valid except where changes are noted in this FEIS.”).

In the Tier 1 FEIS/ROD, FHWA selected Corridor 7 as the Preferred Corridor Alternative; thus, FHWA stated that this would be the only corridor option moving forward to the Tier 2 EIS/ROD process. *See* Tier 1 FEIS at 7-1, 7-4. FHWA determined that Corridor 7 is the “environmentally preferable alternative,” although that determination was limited to a comparison with only Corridors 6 and 8—i.e., FHWA did not compare Corridor 7 to MOAs in reaching this conclusion. *Id.* at 7-5, 7-6. Detailed environmental analysis and mitigation of impacts was also delayed: “[a] potential future Tier 2 NEPA study would consider alternatives within the Tier 1 Selected Corridor at a level of detail that would allow for consideration of all practicable means to avoid or minimize environmental harm from Tier 2 alternatives.” Tier 1 FEIS at 7-6.

According to the BCS website, the Tier 2 Study will “refine the Purpose and Need for a project-level analysis and focus on the two-mile-wide Selected Corridor Alternative (Corridor 7).” MDTA, *Tier 2 Study Process - MDTA Chesapeake Bay Crossing Study*, <https://baycrossingstudy.com/tier-2-study-process> (last visited Sept. 29, 2022). Specifically, it will:

evaluate a No-Build alternative and a range of build alternatives including various alignments, crossing types and modal and operational alternatives. During the Tier

2 Study, the MDTA will evaluate specific transportation alternatives within the Study Corridor, including conducting detailed engineering and environmental impact analyses. The Tier 2 Study also will identify mitigation measures for any unavoidable environmental impacts.

Id. MDTA secured funding for the Tier 2 NEPA Study in June 2022, and the agencies recently initiated coordination with the public. *Id.* In addition to offering several open houses in connection with the Tier 2 NEPA Study, the agencies invited the public to submit comments prior to October 14, 2022 to inform the appropriate scope of the Tier 2 NEPA Study.

Tier 1 Alternatives Analysis

The Tier 1 NEPA Study identified the following three primary needs that the agencies used as the basis for evaluating the feasibility of corridor alternatives: (1) adequate capacity; (2) dependable and reliable travel times; and (3) “flexibility to support maintenance and incident management in a safe manner.” Tier 1 FEIS at 1-2, 1-3.

The initial range of alternatives for the Tier 1 NEPA Study “included the No-Build Alternative, four Modal and Operational Alternatives (MOAs), and 14 corridor alternatives.” DEIS at 3-1, *see also* Tier 1 FEIS at 7-2. The Corridor Alternatives “were developed to include potential Chesapeake Bay crossing locations and the approach roadways that would tie into the existing roadway network.” *Id.* The No-Build Alternative “included existing infrastructure, planned future improvements, and regular maintenance of the Bay Bridge.” Tier 1 EIS at 7-2. The agencies’ consideration of MOAs included the following *stand-alone* options: Transportation Systems Management / Travel Demand Management (“TSM/TDM”), ferry service, bus rapid transit (“BRT”), and rail transit. *Id.* FHWA defined TSM/TDM as “infrastructure and operational changes to improve the function of the existing roadway network without adding major new capacity.” *Id.* FHWA noted that “[i]mprovements evaluated included AET [all-electronic tolling] or variable tolling” and that “AET at the Bay Bridge has since been implemented as of Spring 2020.” *Id.*

FHWA’s Rejection of all Modal and Operational Alternatives

At the conclusion of the Tier 1 Study, FHWA determined that none of the MOAs—standing alone—would meet the project’s purpose and need and thus they were “eliminated from further consideration as stand-alone alternatives.” Tier 1 FEIS at 7-2. Specifically, the TSM/TDM, as well as BRT and ferry service, alternatives were eliminated from further consideration “because they would not: provide adequate capacity to relieve congestion at the existing Bay Bridge, provide dependable and reliable travel times, or provide flexibility to support maintenance and incident management at the existing bridge.” *Id.*

Although the FEIS did not explain the basis for eliminating the MOAs without considering whether they could, *in combination*, satisfy the purpose and need, the prior DEIS attempted to explain why the MOAs were considered only in isolation from one another:

The MOAs were developed as part of the range of alternatives to determine if a different mode, or operational changes, could meet the Purpose and Need as stand-alone alternatives. In other words, this Tier 1 screening is intended to determine if any of these MOAs could meet the Purpose and Need independent of other corridor alternatives *or MOAs*. The MOAs were evaluated based on the Purpose and Need elements of adequate capacity, dependable and reliable travel times, and flexibility to support maintenance and incident management at the existing Bridge.

DEIS at 3-8 (emphasis added). As such, FWHA concluded that:

Based on the MOA screening analysis results, *all MOAs are recommended to be eliminated from further consideration as stand-alone alternatives*. TSM/TDM, Ferry Service, BRT, and Rail Transit each fail to meet the Purpose and Need of the study because they would not provide adequate capacity to relieve congestion at the existing bridge, provide dependable and reliable travel times, or provide flexibility to support maintenance and incident management at the existing bridge.

DEIS at 3-15, 3-15 Table 3-4 (emphases added).

Further, the DEIS made clear that FHWA included the No-Build alternative only to serve as a baseline and not as an actual alternative that might be selected. There, FHWA explicitly noted that the No-Build alternative “will not relieve traffic congestion and improve travel times on the existing Bay Bridge.” DEIS at 3-26. Instead, the No-Build alternative was “retained throughout the NEPA process to serve as a baseline of comparison.” *Id.*

Thus, with no MOA alternatives remaining—and a No-Build alternative that was by design insufficient to meet the Study’s purpose and need—FHWA only considered the remaining alternatives, *all of which* involved new spans of similar bridge or bridge-tunnel configurations at 14 different Corridor locations.⁴ After narrowing its review to Corridor 7, *see* Tier 1 FEIS at 7-4, the Tier 1 ROD made clear that FHWA intends to restrict any Tier 2 EIS/ROD to examining a limited suite of functionally indistinguishable action alternatives within Corridor 7, including

⁴ Incidentally, Governor Hogan declared in 2019—while the Tier 1 Study was underway and years before the DEIS was published—that “[t]here is only one option I will ever accept: adding a third span to our existing Bay Bridge,” and that a third span “is the only serious way forward.” Katherine Shaver, *Gov. Hogan: ‘There is only one option I will ever accept’ to relieve Bay Bridge backups*, WASHINGTON POST (Aug. 28, 2019), <https://www.washingtonpost.com/transportation/2019/08/28/gov-hogan-there-is-only-one-option-i-will-ever-accept-relieve-bay-bridge-backups/> (quoting Governor Hogan’s August 28, 2019 Twitter posts). In doing so, Governor Hogan potentially undermined the NEPA process, which is designed to promote objective and well-informed decisionmaking and shall not be used “to rationalize or justify decisions already made.” 40 C.F.R. § 1502.5. Notably, the DEIS itself also treated a new span as a foregone conclusion: “Thus, this Tier 1 document is intended to identify the general location of a new Bay Crossing so that a site-specific study in Tier 2 can avoid further consideration of the corridor location decision made in Tier 1.” DEIS at 1-6.

different bridge and/or bridge-tunnel alignments within that two-mile-wide corridor, and replacement of the existing Bay Bridge. *Id.* at 7-7.

However, because the Tier 1 Study was designed to defer detailed environmental impacts analysis until the subsequent, site-specific Tier 2 Study, FHWA has avoided taking a “hard look” at the comparative environmental impacts of bridge and *non-bridge* alternatives (e.g., MOAs in combination). Instead, FHWA has deferred this legally required analysis until the only action alternatives under consideration are bridge or bridge/tunnel alignments within a single narrow corridor that will result in comparable environmental effects.⁵ In other words, without the benefit of any detailed analysis of comparative environmental impacts among bridge and non-bridge alternatives that can feasibly achieve the stated purpose and need, FHWA committed itself to a new bridge or bridge/tunnel configuration and sidestepped looking at combinations of MOA alternatives or other practicable options that might have avoided exorbitantly costly and environmentally damaging bridge construction in an ecologically sensitive area.

Responses to Comments in the Tier 1 FEIS

A number of commenters expressed concerns about the elimination of the MOA alternatives, especially in combination with one another and distinct from a bridge construction alternative. As FHWA acknowledged: “[i]n particular, some felt that various MOA, such as TSM/TDM, transit, and ferry service could achieve more in combination, rather than as standalone alternatives as assessed in the DEIS” and “[m]any commenters felt that MDTA’s primary aim should be to reduce the demand for travel across the existing bridge, or redistribute the demand more efficiently, rather than to provide new capacity.” Tier 1 FEIS, App. A at A-17; *see also id.* at A-19 (addressing comments that MOA should be considered in greater detail). In response, however, FHWA simply reiterated that as stand-alone alternatives none of the MOAs met the Study’s Purpose and Need, and once again failed to explain why the DEIS and FEIS only considered the MOAs in isolation, rather than in combination.⁶

QACA submitted a report prepared by AKRF in December 2020, *Chesapeake Bay Bridge Crossing Transportation Study* (“AKRF Study”), to assess “whether there is a current

⁵ FHWA acknowledged that as part of the Tier 1 process, it had not analyzed—let alone adopted—all practicable means to avoid or minimize environmental harm from the selected alternative, because the agency deferred those considerations until a subsequent NEPA process. *See* Tier 1 FEIS at 7-6 (“A potential future Tier 2 NEPA study would consider alternatives within the Tier 1 Selected Corridor at a level of detail that would allow for consideration of all practicable means to avoid or minimize environmental harm from Tier 2 alternatives.”).

⁶ FHWA stated only that “[t]he Tier 1 Study has determined that individual MOAs, implemented as standalone alternatives, would not meet the Purpose and Need for the Study. However, combinations of multiple MOA[s], such as TSM/TDM, transit and ferry service, would also be evaluated in a Tier 2 study. The Tier 2 study would be focused on the evaluation of alternatives within Corridor 7, including alternatives for new crossing capacity, upgrades to approach roadways, and combinations of MOA within the corridor.” Tier 1 FEIS, App. A at A-18; *see also id.* at A-16, A-19 (same).

need for replacement of the Chesapeake Bay Bridge Crossing from a traffic operations perspective.” AKRF Study at 2. This report from independent traffic engineering experts raised serious concerns about the agencies’ traffic growth projections and assessment of future congestion in the DEIS; the report ultimately concluded that “there will not likely be a need for a replacement bridge by 2040 for either traffic or structural purpose.” *Id.* at 3. It addressed the impact of different traffic management strategies, including variable tolling and management of the reversible lane, along with several examples where such strategies had been successfully employed by FHWA and others.

Without elaborating, FHWA disregarded the examples of variable tolling on the purported basis that they were not “comparable facilities in the region.” Tier 1 FEIS, App. C at C-6. Further, the agency claimed that while congestion pricing (variable tolling) would “help peak period congestion,” it would not “support the project need to provide ‘flexibility to support maintenance and incident management in a safe manner,’ by increasing volumes during off-peak periods and potentially reducing the number of off-peak hours during which lane closures could be accommodated.” *Id.* at C-6.

With regard to different management practices for the reversible lane, such as running them as High-Occupancy Vehicle (“HOV”) or High-Occupancy Toll (“HOT”) lanes, FHWA reiterated that “[b]oth variable tolling and HOV/HOT lanes are Transportation Systems Management/Transportation Demand Management (TSM/TDM) strategies, which would be further considered in a potential future Tier 2 Study, in the context of Corridor 7”; “[t]his would include the evaluation of all Modal and Operational Alternatives (MOA) during any future Tier 2 alternatives analysis.” *Id.*

Tier 2 NEPA Study

The recently commenced Tier 2 NEPA Study is intended to: “result in decisions made on a project-level (site-specific) analysis, through evaluation of specific alignments within the Tier 1 SCA.” Tier 1 FEIS at 7-7. Specifically, the Tier 2 NEPA Study will assess both the micro-alignment and type of future crossing, i.e. “a bridge, a bridge-tunnel, or replacement of the existing Bay Bridge.” Tier 1 FEIS at 7-7.

In addition, the Tier 2 Study will, among other things, include:

- Refinement of Purpose and Need to reflect project-level issues;
- Updated traffic analysis to reflect current conditions at the time of a Tier 2 study;
- Consideration of alignments within Corridor 7;
- More detailed engineering of Corridor 7 alternatives, evaluation of crossing types, and specific assessment of potential environmental impacts;
- Consideration of MOAs in combination with a new crossing and/or other MOAs within Corridor 7;
- Public and cooperating agency involvement and response to Tier 2 DEIS comments;
- Continued consideration of the No-Build Alternative that FHWA has stated will not meet the Purpose and Need.

See Tier 1 FEIS at 7-7, 7-8; *see also* Tier 1 FEIS App. A at A-17 (outlining analyses to be included in Tier 2). The Tier 2 study will “also include evaluation of potential traffic impacts to local roadways in the vicinity of new crossing infrastructure.” Tier 1 FEIS App. A at A-13.

With regard to updated traffic projections, FHWA has committed to collecting revised traffic volume data and preparing “updated traffic volume forecasts, using a [current] updated travel demand model.” *Id.* at A-27. Specifically, “[r]evised traffic analysis in a Tier 2 study would provide updated growth forecasting, including any foreseeable changes resulting from COVID-19 or other potential future changes in travel and commuting patterns. A new project-level NEPA analysis would have to demonstrate a continued need for a new crossing in order to advance any build alternative . . .” *Id.* at A-18. In addition, as FHWA stated in the DEIS, the No-Build Alternative “will be updated as needed during Tier 2 to reflect future [infrastructure] projects that were not planned and programmed as of Project Scoping in 2017, such as implementation of [AET] or eliminating the physical toll plazas and the option to pay cash at those facilities,” as well as TSM/TDM “measures such as improvements to the contraflow operation on the existing bridge [that] may be implemented.” DEIS at 3-1.

DISCUSSION

By excluding consideration in the Tier 1 Study of MOAs (including various TSM/TDM options) working together in combination, FHWA has never before considered a reasonable range of alternatives to the construction of a costly and environmentally damaging new bridge; therefore, FHWA must do so now.

As it currently stands, the only alternatives that FHWA is carrying forward into the Tier 2 Study are minor variations of the alignment and configuration of a new crossing within the narrow, two-mile width of Corridor 7. To the extent MOA strategies will be considered at all in the Tier 2 Study, FHWA says that any such consideration will only be in connection with a major new construction project. Notably, although the No-Build Alternative was retained and carried forward into the Tier 2 Study, FHWA has made clear that it is not a viable alternative that FHWA could select at the conclusion of the NEPA process. *See* DEIS at 3-26 (finding that the No-Build Alternative “will not relieve traffic congestion and improve travel times on the existing Bay Bridge” and was only “retained throughout the NEPA process to serve as a baseline of comparison”).

In other words, despite having at its disposal a suite of well-documented and highly effective TSM/TDM and other MOA strategies that have never been adequately analyzed *in combination* with one another (independent of new construction), FHWA intends to consider only those alternatives that include new construction of a massive bridge or bridge/tunnel in Corridor 7. This is inadequate on its face, but particularly so where independent traffic engineering and management experts have supplied extensive documentation and evidence demonstrating the potential of TSM/TDM and other MOA strategies—working in combination—to satisfy the project’s purpose and need. FHWA cannot justify refusing to evaluate these combined approaches, yet the agency appears poised to do just that.

As explained in more detail below, FHWA must comply with NEPA in its Tier 2 Study by adequately evaluating all of the MOA strategies detailed below—not in isolation, but in combination with one another in a scenario without any bridge or bridge/tunnel construction. Further, to comply with NEPA, FHWA must measure these combined approaches against updated traffic projections that reflect current traffic flows, the addition of AET in 2020, the anticipated introduction of automated lane closures this fall, as well as any other technological advances in traffic management that will foreseeably reduce congestion in the future during the projected lifespan of this agency action. FHWA must also consider the impacts of induced traffic demand from any potential new span, which would itself potentially necessitate a widening of approach and departure roadways with further associated cost and delay.

Only then can FHWA lawfully assess whether combinations of these MOA strategies, in light of updated traffic data and foreseeable advances in vehicular and related technology, are sufficient to mitigate future congestion across the existing bridge without the unnecessary expenditure of taxpayer funds and damage to Maryland’s ecosystem and natural resources.

1. FHWA Must Consider All Available and Foreseeable MOA Alternatives in Combination Prior to Committing to a New Span

FHWA and MDTA must undertake a rigorous analysis of the following TSM/TDM alternatives—working together in concert, and also in combination with all other available or foreseeable MOA alternatives, such as enhanced ferry service, BRT, and rail transit, to reduce traffic volume and congestion on the Bay Bridge. These *non-exhaustive* options for addressing the purpose and need, as discussed below, include variable tolling, enhanced management of the reversible lane, and other TSM/TDM strategies such as: HOT/HOV lanes, best practices in traffic incident management, connected and automated vehicles (“CAVs”), wind barriers, and variable speed limit signs. FHWA may well know of additional TSM/TDM options that are currently, or will become during the planning time frame for this action, technically and financially practicable—NEPA requires consideration of those measures, in combination with all others, as well. Importantly, best practices in traffic management must be included in any combination of MOAs under evaluation in order to satisfy the third component of the Study’s purpose and need: flexibility to support maintenance and incident management in a safe manner.

Variable Tolling During Peak Periods

Variable tolling is an appropriate countermeasure to reduce congestion on the existing bridge crossing. A portion of the crossings during peak directional traffic flows are discretionary and could be made at times other than peak periods. Under variable tolling regimes, MDTA can increase toll costs during periods of peak demand and reduce toll costs during off-peak times to encourage a deliberate shift in traffic patterns to avoid or significantly reduce congestion. This could be implemented either through time-of-day pricing or dynamic pricing, which responds to real-time congestion and traffic conditions.

Variable tolling is a highly effective means of reducing traffic congestion in situations comparable to the Bay Bridge, and its efficacy is well-documented at similar variable tolling facilities throughout the United States. A representative sample of such facilities include:

- I-95 Express Toll Lanes, Baltimore, Maryland
- Virginia Express Lanes (I-495, I-95)
- Port Authority of New York and New Jersey Crossings
- I-78 Newark Bay Extension, New Jersey
- I-276 Pearl Harbor Memorial Extension, New Jersey
- I-95 New Jersey Turnpike, New Jersey

Myriad technical studies have also documented substantial reductions in travel time achieved by use of variable tolling.⁷

In light of the well-established efficacy of variable tolling in achieving FHWA’s stated goals for this action, FHWA must evaluate, in combination with other TSM/TDM strategies described herein (along with other MOAs, such as enhanced ferry service, BRT, and rail transit), variable toll pricing during peak demand. Given that the Bay Bridge exhibits peak traffic primarily during summer weekends, it is a particularly suitable candidate for variable tolling during those times.

Enhanced Management and Optimization of the Reversible Lane

The Chesapeake Bay Bridge currently has a reversible/contra-flow lane on the westbound span to redistribute roadway capacity from the westbound direction to the eastbound direction during peak periods. This is one example of a managed lanes strategy; however, the effectiveness of the current implementation has been hindered due to a number of constraints including, among other things, inability to use the reversible lane during high-wind events, inefficient transitions, and rigid scheduling.

The ability of the reversible lane to reduce congestion could be substantially enhanced by the strategies described below. FHWA must give full consideration to *all* of these options, in combination with the other TSM/TDM strategies contained herein and the traffic congestion reduction efficiencies gained from expanded and more effective ferry, bus, and rail transit, as part of the Tier 2 NEPA Study.

⁷ For example, MDTA opened the I-95 Express Toll Lanes in Baltimore in December 2014, resulting in a *12 percent reduction in delay* in travelers in the general purpose (non-tolled lanes). See State Highway Administration, Maryland Department of Transportation, I-270 & I-495 Managed Lane Study Appendix C – Traffic Analysis Technical Report (May 2020), https://oplanesmd.com/wp-content/uploads/2020/07/APP-C_MLS_Traffic-Tech-Report-Appendices.pdf. Similarly, The I-495 Express Lanes were opened in November 2012 along I-495 from the Springfield Interchange to the Dulles Toll Road. The I-495 northbound free general-purpose lanes experienced a seven percent reduction in travel time and the I-95 southbound free general purpose lanes experienced a *15 percent reduction in travel time* over the last five years, compared to before the construction of the managed lanes. See Op Lanes Maryland, Maryland Department of Transportation, *Have Managed Lanes worked elsewhere?*, <https://oplanesmd.com/updates/faqs/>.

Truck / bus restrictions in the reversible lane

The existing reversible lane on the Bay Bridge is available to all vehicles, including trucks, buses, and other high-profile vehicles. During high-wind events, these vehicles are more susceptible to the risk of swerving into oncoming traffic and, as such, the reversible lane must be closed out of precaution during these not-infrequent weather events. However, by banning these high-profile vehicles, the reversible lane could continue to be used by ordinary passenger cars during high-wind events and thereby be used more frequently and effectively to substantially reduce congestion on the bridge.

FHWA must consider, in combination with the other MOA strategies described herein, adding truck, bus, and/or higher-profile vehicle restrictions for the reversible lane in order to increase the number of days and hours this lane can be used and avoid weather-related closure.

Manage the reversible lane on a dynamic schedule

The reversible lane on the Bay Bridge is currently reversed on a fixed schedule and is not responsive to real-time traffic demands. In other words, there are times when a reversible lane could be used to reduce congestion on the bridge that it is not actually being utilized at present.

With the expected introduction of an Automated Lane Closure System (“ALCS”) later this year, discussed further below, QACA hopes that the reversible lane will be managed on a dynamic schedule going forward. If this will, in fact, be part of the new baseline it must be evaluated as such and included within the updated traffic projections as described below. On the other hand, if there are not yet plans in place to actively manage the ALCS based on real-time, dynamic traffic data, FHWA must evaluate this simple strategy in the Tier 2 Study, in combination with other TSM/TDM and MOA strategies identified herein, as means to reduce congestion across the bridge.

HOV/HOT restrictions in the reversible lane

Implementation of HOV or HOT lane restrictions can provide additional incentives to reduce congestion and keep traffic moving. With regard to improved management of the reversible lane, it either can be restricted to HOV or could be managed as an HOT lane with higher tolls for vehicles that do not meet the occupancy requirement. Both strategies can induce a portion of travelers during peak directional traffic flows to carpool, while the HOT strategy would still allow mobility options for those vehicles with 1 or 2 occupants.

FHWA must consider, in combination with other TSM/TDM strategies described herein, incorporating HOV or HOT lane restrictions for the reversible lane in order to improve traffic flow in that lane.

Additional Traffic Management Strategies

In addition to and in combination with both variable tolling and enhanced management of the reversible lane—analyzed in combination with traffic reduction achieved from increased ferry, BRT, and rail transit—FHWA must consider the following TSM/TDM alternatives:

HOV/HOT lane restrictions in one lane in the peak traffic direction

As discussed above for use in the reversible lane, MDTA can also designate static lanes as HOV/HOT lanes to encourage carpooling among a subset of travelers during times of peak demand. HOT lanes encourage shared ridership, while offering another option to drivers of vehicles that do not meet standard occupancy requirements, yet wish to quickly bypass any peak demand traffic congestion.

By way of example, there could be a lane on the Bay Bridge that is toll-free late on Friday evenings and very early Saturday mornings in the summer months for vehicles with 3 or more passengers, while charging a higher toll for vehicles in that lane with only 1 or 2 passengers. Based on examples throughout the country involving comparable traffic situations, this proposed lane could result in improved traffic flow during these times. Indeed, HOT lanes are increasingly being utilized to mitigate congestion, including the following examples:⁸

- US 290 Northwest Freeway QuickRide HOT Lanes in Houston, Texas
- I-394 and I-35W MnPass in Minneapolis, Minnesota
- I-25 Express Lanes / US 36 in Denver, Colorado
- I-15 Express Lanes in Salt Lake City, Utah
- SR 167 HOT Lanes Pilot Project in Seattle, Washington
- I-95 Express Lanes in Miami, Florida
- I-15 FasTrak in San Diego, California
- I-680, Alameda County, California
- I-85 in Atlanta, Georgia

FHWA must consider, in combination with the other TSM/TDM strategies contained herein in addition to all other MOA strategies, implementing HOV/HOT lane restrictions during peak times in order to reduce demand and improve traffic flow in the selected lane.

Best practices in traffic management

The “flexibility to support maintenance and incident management in a safe manner” is identified as one of the three primary needs for the Tier 1 NEPA Study and will presumably be used as the basis for evaluating alternatives during Tier 2. Tier 1 EIS at 1-3. As such, and in order to meet the project’s stated purpose and need, each of the TSM/TSD strategies detailed herein (along with enhanced ferry, BRT, and rail transit) must be considered in combination with available and foreseeable best practices in traffic management, including, at minimum, the following:

⁸ *HOT Lanes Marketing Toolkit - HOT Lanes, Cool Facts* (June 18, 2020), <https://ops.fhwa.dot.gov/publications/fhwahop12031/fhwahop12027/index.htm>.

- Improvements to transportation management centers—e.g., incident detection and verification utilizing closed-circuit television cameras
- Improved traveler information systems—e.g. variable message signs
- Optimized incident response—e.g., tow procedures, patrols, scene management, and automated lane closures

FHWA must consider these traffic management best practices in combination with all of the TSM/TDM strategies contained herein, alongside all other MOA approaches, to ensure that improved maintenance and incident management are adequately supported.

Connected and Automated Vehicles

Before committing to an extremely expensive and environmentally damaging new bridge, FHWA must also address as part of its alternatives analysis the expected efficiencies in traffic reduction that can be attained by equipping at least one lane of the existing bridge with technology to platoon CAVs during times of peak demand. Although full saturation of CAV technology in the entire vehicle market is not anticipated until later this century, full CAV automation is expected in the next decade to be available and begin to saturate the market, allowing individual travel lanes with CAV-only restrictions to be much more efficient than comparable non-CAV general purpose travel lanes. CAV technology has the potential to greatly expand the capacity of the existing spans by reducing separation between vehicles and significantly smoothing traffic flow.

CAVs offer two important benefits to managing congestion. First, a connected vehicle can platoon itself with others and have an awareness of red lights at traffic signals up ahead. This reduces the distances between vehicles and improves on human perception/reaction times, reducing or eliminating stop-and-go traffic and smoothing out flow much more evenly. Second, automated features, like those already standard on many newer vehicles, can reduce rear-end crashes due to driver inattention, resulting in fewer crashes and incidents to be investigated and cleared. This would directly support the third prong of FHWA’s stated purpose and need for the Tier 2 Study.

This rapidly evolving technology is on the near horizon and is certain to favorably reduce congestion well before the 2040 timeframe adopted and utilized by the FHWA to justify a new bridge. There could be an almost 10 percent increase in traffic capacity with the expected saturation of 20 percent CAVs by 2040. Indeed, other Maryland agencies are already incorporating CAV technology in numerous planning areas. For example, Maryland’s CAV Working Group “led and collaborated on numerous CAV-related research, education, and planning efforts in 2021.”⁹ The multi-agency team includes, among others, the Maryland

⁹ Kristen E. Humphrey, *Maryland’s Connected and Automated Vehicle (CAV) Working Group: Celebrating 2021 Accomplishments; Looking Forward to 2022*, MARYLAND PLANNING BLOG (March 31, 2022), <https://mdplanningblog.com/2022/03/31/marylands-connected-and-automated-vehicle-cav-working-group-celebrating-2021-accomplishments-looking-forward-to-2022/>.

Department of Planning (“MDP”), the Maryland Department of Transportation (“MDOT”), and the Maryland Highway State Office.¹⁰ It has “worked to incorporate CAV into several statewide plans including the State Freight Plan, Transit Plan, Consolidated Transportation Program, and the Strategic Highway Safety Plan.”¹¹

In April 2022—the same month that FHWA signed the Tier 1 FEIS and ROD—the MDOT State Highway Administration (“MDOT SHA”) released a survey inviting the public to comment about CAV technology in order to “help MDOT SHA develop a strategy for increasing public awareness of CAV-related technologies” and “plan for a future of travel with self-driving vehicles.”¹²

Likewise, the 2021-2025 MDOT SHA’s CAV Implementation Plan, published in June 2021 prior to FHWA’s issuance of its Tier 1 FEIS and ROD, states that:

MDOT SHA has an opportunity to propose innovative solutions that shift from major infrastructure projects to projects blended with TSMO [Transportation System s Management Operations]¹³ and CAV solutions.¹⁴ The use of innovative solutions would *reduce the reliance on roadway expansion projects* since technology-based projects in the TSMO and CAV realm offer more economic and potentially safer solutions. One could envision using CAV platooning solutions in congested conditions to significantly reduce rear-end and sideswipe crashes where aggressive or distracted driving causes unnecessary frustration and delays.¹⁵

¹⁰ *Id.*

¹¹ *Id.*

¹² Kristen E. Humphrey, *Connected and Automated Vehicles: Help Shape the Future of Travel in Maryland*, MARYLAND PLANNING BLOG (April 21, 2022), https://mdplanningblog.com/2022/04/21/connected-and-automated-vehicles-help-shape-the-future-of-travel-in-maryland/?utm_medium=email&utm_source=govdelivery&utm_term= (publishing survey by the MDOT SHA).

¹³ TSMO is “an integrated set of strategies to optimize the performance of existing infrastructure through the implementation of multimodal and intermodal, cross-jurisdictional systems, services, and projects designed to preserve capacity and improve security, safety and reliability of the transportation system.” 23 U.S.C. § 101(a)(30); *see also* <https://ops.fhwa.dot.gov/tsmo/index.htm> (collection of links with answers to common questions about TSMO).

¹⁴ 2021-2025 MDOT SHA Connected and Automated Vehicles Implementation Plan (June 2021) at 15, https://www.roads.maryland.gov/OTMO/2021-2025_MDOTSHA_CAVImplementationPlan_Final.pdf.

¹⁵ *Id.* (emphasis added).

Given this forward-looking approach by both MDOT and MDP and the substantial consideration being given to CAVs in other comparable planning processes in Maryland, it is clear that CAVs must also be incorporated into Bay Bridge forecasting. This is particularly so in light of their reasonably foreseeable wide-ranging deployment during the time frame in which FHWA purports to address the purpose and need of this action. FHWA must consider equipping at least one lane of the existing bridge with technology to platoon CAVs during times of peak demand, in combination with all TSM/TDM and other MOA strategies, in its Tier 2 NEPA Study.

Wind barriers

The addition of wind barriers on the existing Bay Bridge spans—permeable screens or baffle barriers that direct winds over the bridge—could help avoid weather-related closure of the reversible lane by eliminating the impact of higher-wind weather events on high-profile vehicles, such as buses and trucks. Such measures have been demonstrated in comparable contexts to significantly reduce traffic congestion during certain inclement weather conditions; yet, FHWA to date has never considered whether such measures have the potential to reduce congestion on the Bay Bridge to acceptable levels when implemented alongside all TSM/TDM and other MOA approaches.¹⁶

If the reversible lane could remain open to traffic even during high-wind events, the reversible lane would be more consistently available to help improve traffic flow. For these reasons, FHWA must consider in its Tier 2 NEPA Study the efficacy of wind barriers, in combination with all other TSM/TDM and MOA strategies described herein, to address FHWA’s stated purpose and need for this action.

Variable speed limit signs

The use of variable speed limit signs, including on the approach highways, could also help manage congestion. These signs can be used dynamically to slow traffic during a period of incremental traffic buildup and make the flow more uniform, and therefore less likely to result in stop-and-go driving that exacerbates traffic backups. When used in conjunction with the other strategies identified herein, variable speed limit signs could further enhance a non-bridge alternative approach that would reduce travel times without requiring any major construction activities in this fragile ecosystem.

2. FHWA Must Update the No-Build Alternative and Traffic Projections in the Tier 2 NEPA Study

FHWA committed during Tier 1 to include an updated traffic assessment in the Tier 2 NEPA Study. *See* Tier 1 FEIS at 7-7 (Tier 2 Study will include “[u]pdated traffic analysis to reflect current conditions at the time of a Tier 2 study”). Similarly, FHWA committed to carry

¹⁶ *See, e.g.,* Steven Brocklehurst, *Queensferry Crossing: The bridge that should never close*, BBC (Feb. 11, 2020), <https://www.bbc.com/news/uk-scotland-38598155> (examining the effective use of a baffle barrier on the Queensferry Crossing over the Forth estuary in Scotland).

forward the No-Build alternative into the Tier 2 Study and by design must encompass all “existing infrastructure, planned future improvements, and regular maintenance.” *Id.* at 7-2. Thus, because the No-Build Alternative serves as the status quo baseline against which the proposed project (and any alternatives to it) are compared, any changes to bridge infrastructure that exist or are reasonably foreseeable as of the conclusion of the Tier 2 FEIS and ROD must be reflected in the No-Build baseline alternative.

In particular, QACA urges FHWA to include as part of its description of the No-Build Alternative the following TSM/TDM approaches that have been implemented since the original Tier 1 analysis, or that will be implemented or are reasonably foreseeable prior to the completion of the Tier 2 Study. Likewise, although FHWA decided long ago that the No-Build Alternative is not feasible due to its alleged failure (at that time) to satisfy the project’s purpose and need, the significantly changed baseline conditions obligate FHWA to reconsider in its Tier 2 EIS and ROD whether the No-Build Alternative, *at the time FHWA issues its Tier 2 ROD*, satisfies the purpose and need.

Automated Lane Closures (ALCS)

MDTA’s ALCS project is underway and expected to be operational in late 2022, followed by a transitional period with some manual support.¹⁷ The ALCS was “constructed for opening and closing lanes including two-way traffic operations on the bridge” and “will enhance the current manual system for motorists by allowing maintenance crews to remotely implement and discontinue two-way traffic on the Bay Bridge’s Eastern and Western Shores.” *Id.*

Among its benefits, including improved worker safety, ALCS is expected to reduce “congestion associated with manual lane closure operations” on the bridge and provide motorists advance notice of lane closures. *Id.* (identifying customer savings benefits, including reduced congestion). According to MDTA, the latter will help reduce secondary crashes due to driver inattention.¹⁸ This reduction in traffic incidents can be expected to further reduce bridge congestion and the frequency of incident management and response activities. Additionally, ALCS will also facilitate more dynamic implementation of the reversible lane in response to real-time traffic data and will therefore allow dynamic delay conditions to be addressed sooner.

Any congestion-related improvement flowing from the implementation of ALCS on the Bay Bridge must be incorporated into the baseline traffic projections for the Tier 2 NEPA Study (and included as part of the status quo in the No-Build Alternative), which must disclose and examine the efficiencies gained by these automatic lane closures, based on modeling reflecting

¹⁷ See MDTA, *William Preston Land Jr. Memorial (Bay) Bridge Automated Lane Closure System Project*, https://mdta.maryland.gov/Capital_Projects/BayBridgeALCS.

¹⁸ John Domen, *Automated lane closure system coming to Maryland’s Bay Bridge*, WTOP News (September 15, 2022), <https://wtop.com/maryland/2022/09/maryland-makes-another-effort-for-a-more-efficient-trip-across-the-bay-2/> (quoting MDTA Acting Executive Director Will Pines).

similar gains from real-world comparable examples that are already in operation (and, if possible, actual concrete traffic reduction data from ALCS on the Bay Bridge that exist at the conclusion of the Tier 2 process).¹⁹

All Electronic Tolling (AET)

Similarly, AET was introduced in 2020 and is also expected to substantially reduce eastbound traffic congestion. *See* Tier 1 FEIS App. A at A-20. FHWA stated that “prior to the preparation of the Tier 1 FEIS, additional data collection will be performed to evaluate the effects of AET on eastbound operations.” *Id.* Yet no such analysis was included in the Tier 1 FEIS.

Because this data collection effort and a robust analysis of such data has not yet occurred, FHWA’s Tier 2 NEPA Study must include all such data, as well as an evaluation of the documented benefits on traffic congestion from implementation of AET on the Bay Bridge.

Rapid Deployment of the Reversible Lane on the North Span

As discussed above under ALCS, MDTA is in the process of implementing automated and rapid deployment of the lane closure on the south side of the north span to allow the lane to be reversed to eastbound traffic flow. It will be in place by the end of this year and will improve lane transition efficiency and enhance use of this reversible lane.

Because this was not accounted for in the Tier 1 DEIS traffic analysis (nor updated in the Tier 1 FEIS or ROD), FHWA is obligated to consider it in the Tier 2 Study and incorporate any reduction in congestion gained from this approach in the baseline conditions of the No-Build Alternative.

Weekday Telecommuting

Lastly, FHWA must address how the well-documented increase in telecommuting will affect the agencies’ travel demand projections during the planning time frame of this action, including how this important new information impacts FHWA’s purpose and need.

Prevalence of remote work arrangements accelerated exponentially during the COVID-19 pandemic. Even with COVID-19 restrictions receding, many work-from-home and hybrid work arrangements are expected to outlive the COVID-19 pandemic and permanently alter many daily activities, including driving patterns and traffic congestion (especially during rush hour and other peak driving times). AKRF’s 2020 Transportation Report addressed this increase in telecommuting and projected that increases in telecommuting could result in lower future traffic

¹⁹ The Tier 1 FEIS notes, in its discussion of the MOA it will bring forward to analyze in Tier 2, that “MDTA also has initiated an automated lane closure system project for opening and closing lanes on each span to two-way operations, construction of which is anticipated to be completed in the Fall of 2022.” Tier 1 FEIS App. A at A-20. However, the Tier 1 FEIS deferred any *analysis* of the ALCS until the Tier 2 NEPA Study and thus it remains to be incorporated.

volumes than those forecasted by FHWA. *See* AKRF Study at 13. However, the Tier 1 FEIS did not account for these changes, promising that “[l]onger-term impacts of telecommuting would be addressed in the travel demand forecasting for a Tier 2 Study.” Tier 1 FEIS App. C at C-6.

Because FHWA has not examined the significant effects of telecommuting and reduced workday travel, including during peak weekday travel times—and FHWA could not have done so previously in light of the overlapping timing of the COVID-19 pandemic and the Tier 1 NEPA process—FHWA must take a hard look at this topic and analyze all existing data and reasonable forecasting in the updated traffic projections for the Tier 2 NEPA Study.

3. FHWA Must Consider the Impacts of Induced Traffic Demand on Route 50

In weighing any combination of MOAs—such as those discussed above—against a potential new bridge or bridge/tunnel span across the Chesapeake Bay, FHWA must also account for the impact of induced traffic demand on approach and departure roadways that would necessarily arise from construction of any new span, as well as the growth-inducing effects in the communities surrounding these approach and departure roadways.

The concept of induced traffic demand is well-established and occurs because drivers change their habits to use the newly constructed lanes, thereby absorbing the increase in traffic capacity within a relatively short period of time following construction. Thus, if a new span were added, the widening of the Bay Bridge would temporarily relieve congestion on the bridge itself, but not on the highways leading to it unless they were also widened. The additional traffic attracted to the wider bridge would correspondingly require widening of large stretches of US 50 in the years following the bridge project to avoid new, foreseeable traffic bottlenecks.²⁰ This, in turn, would lead to staggering costs and many years of additional construction, as well as encroachment into surrounding communities that will both fuel substantial growth and further degrade the natural environment. These are textbook examples of “indirect effects” under NEPA, “which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. § 1508.8. In fact, in supplying an example of an indirect effect, NEPA’s implementing regulations point to “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.*

Because major construction of the Bay Bridge would result in significant indirect effects on and around approach and departure roadways—including induced traffic demand and associated growth inducing effects in those communities—FHWA must rigorously address in the Tier 2 NEPA Study this aspect of any action alternative that would require the construction of a bridge or bridge-tunnel.

²⁰ *See* AKRF, *Induced Traffic Demand & US 50 Highway Widening*, March 16, 2022 (prepared for Queen Anne’s Conservation Association), <https://qaca.org/press-release-%26-archives> (select 2022-03-16 QACA Highway Widening Study Final).

CONCLUSION

As an organization dedicated to both the conservation and sustainable growth of the Eastern Shore, QACA appreciates the opportunity to submit comments and urges FHWA to take seriously the recommendations above to: (1) ensure that the Tier 2 Study traffic data reflects all up-to-date congestion management strategies that are either currently in place on the Bay Bridge or are reasonably foreseeable, prior to the conclusion of the Tier 2 NEPA process, to become available during the action's planning time frame; (2) assess impacts from induced traffic demand on the approach and departure roadways, particularly the likelihood that it will be necessary to widen those roads in the near future and fuel growth in those communities—which would itself entail substantial cost and traffic disruption; and (3) from this baseline, to evaluate every MOA (including TSM/TDM) strategy available—in combination with one another—as components of a strategy to mitigate peak traffic congestion and thereby avoid the costly, disruptive, and environmentally damaging construction of a massive new bridge across the Chesapeake Bay.

In the Tier 1 EIS and ROD, FHWA deferred many of the important issues at stake for this action until the Tier 2 Study. As a result, federal law now requires the FHWA to rigorously evaluate readily available approaches that have proven effective elsewhere and which have strong potential to achieve the stated purpose and need in a far less damaging and expensive manner. To ensure compliance with NEPA and its implementing regulations, FHWA must, in Tier 2, provide decisionmakers and the public with a full, legally supportable analysis of all available alternatives to a costly, disruptive, and environmentally damaging new Bay Bridge.

Thank you for your solicitation of comments on the Tier 2 NEPA process. We hope that FHWA takes seriously the concerns raised by QACA, and we look forward to reviewing a Tier 2 Draft EIS at the appropriate juncture.

Respectfully submitted,



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