Preferred Corridor Alternative Memorandum

PROJECT: Chesapeake Bay Crossing Study: Tier 1 NEPA
SUBJECT: Preferred Corridor Alternative
DATE: August 17, 2021

PURPOSE OF MEMORANDUM

To request concurrence from cooperating agencies and comments from participating agencies on the Bay Crossing Study (BCS) Preferred Corridor Alternative (PCA).

SUMMARY

The BCS Team recommends Corridor 7 as the PCA for the Chesapeake Bay Crossing Study Tier 1 Final Environmental Impact Statement (FEIS). Corridor 7 was identified as the MDTA Recommended Preferred Corridor Alternative (MDTA-RPCA) in the Draft Environmental Impact Statement (DEIS) that was made available for public review and comment through the project website (www.baycrossingstudy.com). The public was able to view and comment on the document for a period of 84 days, from February 23 through May 17, 2021. The Notice of Availability was published in the Federal Register on March 5, 2021. MDTA began the DEIS Public Hearing Virtual Information Room on February 23, 2021 and held live testimony sessions beginning on April 14, 2021. MDTA made the DEIS available for public comment from February 23 to May 17, 2021. In-person testimony sessions were held on April 21 and 22, 2021. MDTA is seeking cooperating agency concurrence and participating agency comments on Corridor 7 as the PCA in accordance with the BCS Coordination Plan.

PREFERRED CORRIDOR ANALYSIS

Analysis of traffic, engineering, cost, and environmental considerations indicate that Corridor 7 would have substantial advantages over other Corridor Alternatives Retained for Analysis, Corridors 6 and 8. (See DEIS Chapter 5, **Attachment 1**.) Major conclusions of this analysis include:

- Additional transportation capacity in Corridor 7 would provide the greatest traffic relief at the Bay Bridge and thus have a greater ability to meet the Tier 1 DEIS Purpose and Need.
- Additional capacity in Corridor 7 would divert substantially more traffic away from the Bay Bridge lanes in terms of total vehicles per day on both summer weekends and non-summer weekdays.
- Additional transportation capacity in Corridor 7 would result in greater peak hour congestion relief on the Bay Bridge lanes compared to an equivalent number of lanes in Corridors 6 or 8.
- Corridor 7 would likely be the least costly of the three CARA because of the ability to utilize existing roadway infrastructure on US 50/301 and the shorter length of crossing over the Chesapeake Bay.
- Corridor 7 would potentially have lower overall environmental impacts due to the shorter Chesapeake Bay crossing length and ability to utilize existing on-land roadway infrastructure along US 50/301. Corridors 6 and 8 would require longer crossings and more roadway

infrastructure along a new alignment, likely resulting in greater impacts to sensitive environmental resources in and around the Chesapeake Bay.

- Corridors 6 and 8 would likely cause substantial indirect effects from new connectivity between rural lands on the Eastern Shore and employment centers such as Baltimore and Washington, DC. Corridors 6 and 8 could lead to substantial pressure for new residential development, especially on the Eastern Shore, with corresponding impacts to farmland and natural resources. Corridor 7 would have some indirect effects, but they would be more consistent with existing land use patterns and plans.

PUBLIC AND AGENCY COMMENT

MDTA received 876 comments during the DEIS comment period, including public testimony, written comments, and electronic submissions. Federal, state, and local agencies also provided comments on the DEIS. Generally, comments received have not brought to light new substantive information or major concerns that would affect the validity of the DEIS findings or the decision to choose Corridor Alternative 7 as the PCA. **Attachment 2** includes a more detailed discussion of public and agency comments.

- Public comments emphasized themes such as the need for traffic congestion relief, especially during peak summer travel times. Comments in a report prepared by AKRF commissioned by the Queen Anne's Conservation Association also identified questions about the basis for future travel projections, whether recent mobility changes as a result of the COVID-19 pandemic should result in a reassessment of the project Purpose and Need, and the long term impacts of All-Electronic Tolling ("AET") at the Bay Bridge. Other commenters raised concerns over the potential for additional capacity to impact local roadways in the vicinity of the Bay Bridge, and concerns for land use change and environmental impacts.
- Most agencies did not object to identifying Corridor 7 as the MDTA-RPCA. However, Anne Arundel County provided comments stating their opinion that the study is flawed and does not justify its purpose or the need for a new crossing. Their argument cited concerns with traffic assumptions, purpose and need, environmental impacts, and stakeholder involvement. Other agency comments were generally in agreement with the findings of the DEIS and the MDTA-RPCA. Agencies expressed a desire to continue to participate in a potential future Tier 2 study and provided input and recommendations for Tier 2 concerns such as detailed impact analysis, mitigation, and other future study considerations.

BAY CROSSING STUDY NEXT STEPS

Next steps for the Bay Crossing Study include preparing a combined FEIS/ROD to address all comments received during the DEIS public comment period, provide any corrections or supplementary information, and finalize the PCA decision with the Federal Highway Administration by identifying Corridor 7 as the Selected Corridor Alternative.

ATTACHMENTS

Attachment 1: DEIS Chapter 5: MDTA-Recommended Preferred Corridor Alternative

Attachment 2: DEIS Public and Agency Comment Summary and Discussion

5 MDTA RECOMMENDED PREFERRED CORRIDOR

Based on the analysis of a wide range of engineering and environmental factors described in this DEIS and supporting documents, as well as input received through public comments and coordination with State and federal cooperating agencies, **Corridor 7 has been identified as the MDTA-Recommended Preferred Corridor Alternative (MDTA-RPCA)**. The analysis used to identify the MDTA-RPCA is summarized below to highlight the differences between the three CARA and the advantages of Corridor 7. The identification of the MDTA-RPCA included an analysis of the following categories for each of the CARA: traffic analysis, cost and engineering, and environmental considerations. While all three of these factors were important in the identification of the MDTA-RPCA, the traffic analysis proved to be the key distinguishing factor. The assessment of cost, engineering, and environmental factors provided further support for Corridor 7 as the MDTA-RPCA. The selection of an alternative will not be finalized until comments on this DEIS and input from the public hearings are considered. The selected alternative will be included in the Final EIS and Record of Decision (ROD).

5.1 TRAFFIC ANALYSIS

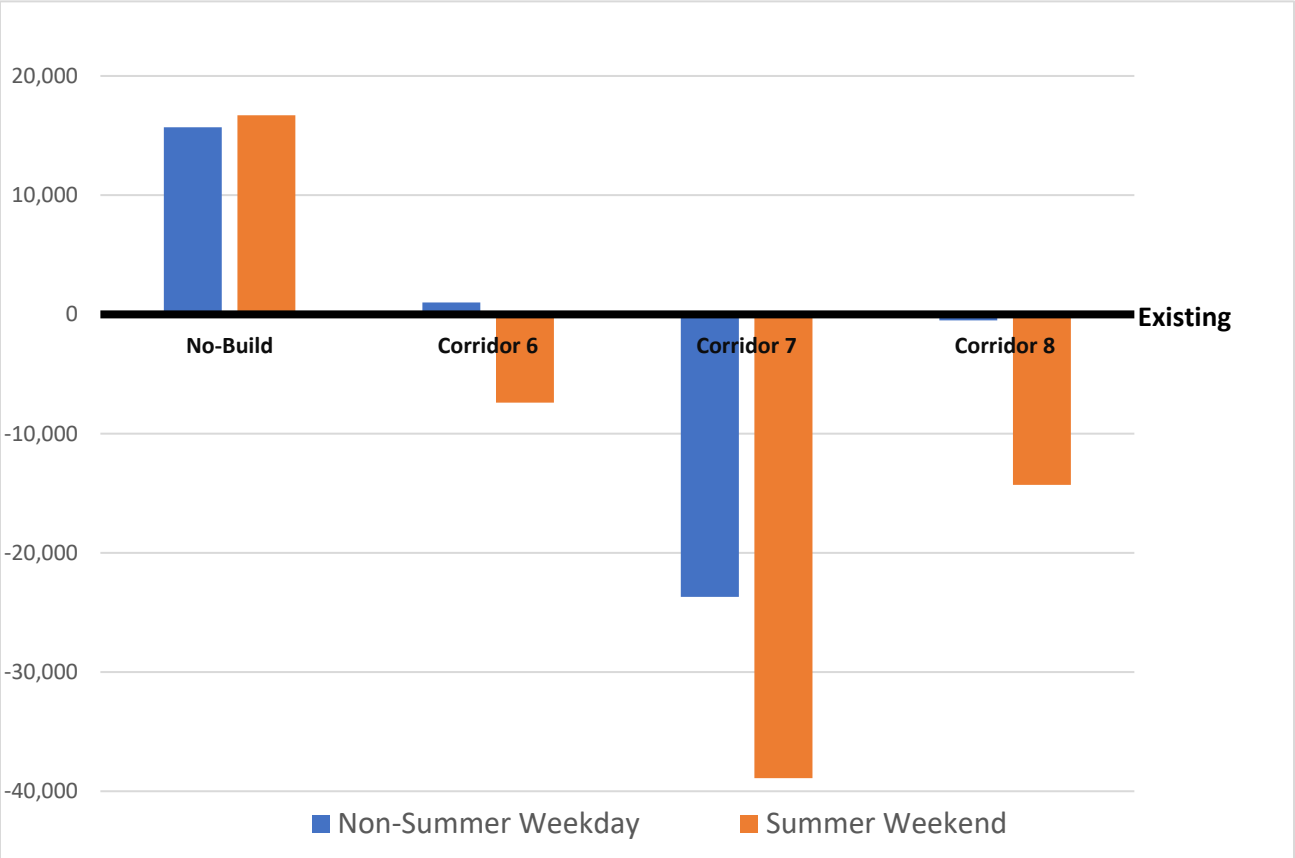
The primary focus of the Bay Crossing Study is to relieve traffic congestion at the Bay Bridge, which would be accomplished by attracting vehicles away from the Bay Bridge and onto a new crossing. The Screening Traffic Analysis (described in **Section 3.2.2**) determined that Corridor 7 would provide the greatest congestion relief, based on comparison of the Average Daily Traffic (ADT) volumes at the Bay Bridge, for both non-summer weekdays and summer weekends in 2040 for the three CARA.

As shown in **Table 5-1** and **Figure 5-1**, Corridor 7 would result in an estimated reduction of approximately 23,700 vehicles per day (vpd) on non-summer weekdays on the Bay Bridge compared to existing conditions, and a reduction of approximately 38,900 vpd on summer weekends on the Bay Bridge compared to existing conditions. These reductions in traffic on the Bay Bridge would be substantially greater than could be achieved by a new crossing in Corridor 6 or Corridor 8, as shown in the column labeled 'Change in ADT.'

Table 5-1: 2040 Average Daily Traffic Volumes

CORRIDOR ALTERNATIVE	2040 SUMMER WEEKEND ADT				2040 NON-SUMMER WEEKDAY ADT			
	EXISTING BRIDGE	EXISTING BRIDGE: CHANGE FROM 2017	PROPOSED CROSSING	COMBINED CROSSINGS	EXISTING BRIDGE	EXISTING BRIDGE: CHANGE FROM 2017	PROPOSED CROSSING	COMBINED CROSSINGS
Measure	**ADT**	**Change in ADT**	**ADT**	**ADT**	**ADT**	**Change in ADT**	**ADT**	**ADT**
Existing (2017)	118,600	N/A	N/A	118,600	68,600	N/A	N/A	68,600
No-Build (2040)	135,300	+16,700	N/A	135,300	84,300	+15,700	N/A	84,300
Corridor 6	111,200	**-7,400**	45,700	156,900	69,600	**+1,000**	18,200	87,800
Corridor 7	79,700	**-38,900**	79,700	159,400	44,900	**-23,700**	44,900	89,800
Corridor 8	104,300	**-14,300**	55,200	159,500	68,100	**-500**	20,000	88,100

Figure 5-1: 2040 Average Daily Traffic Volumes – Change from Existing Conditions (2017)



Corridor 6 would provide some traffic benefit on summer weekends, but weekday non-summer traffic would increase compared to existing conditions on the Bay Bridge. Corridor 8 would provide some traffic benefit on both non-summer weekday and summer weekends, but still substantially less compared to Corridor 7.

The Screening Traffic Analysis also considered whether queue lengths/durations at the existing Bridge would worsen by 2040 compared to existing conditions for each of the CARA. The analysis determined that Corridor 7 would not result in greater queue lengths/durations than existing conditions at the Bay Bridge on summer weekends or on non-summer weekdays. Corridors 6 or 8 would each result in no greater queue lengths/durations at the Bay Bridge than currently exists on summer weekends, but either would result in a longer queue for one hour on non-summer weekdays.

In addition, the Screening Traffic Analysis estimated that Corridor 7 would have no hours of LOS E or F operation at the Bay Bridge on summer weekends or non-summer weekdays. Neither Corridor 6 nor

Corridor 8 would reduce the hours of LOS E or F to zero at the Bay Bridge, either on non-summer weekdays or summer weekends. On non-summer weekdays in particular, the hours of LOS E or F would be worse than current conditions in 2040. Both Corridor 6 or 8 would reduce the number of hours with LOS E or F at the Bay Bridge on summer weekends, but would not eliminate LOS E or F conditions.

Corridor 7 would require no additional travel time to divert vehicles from the Bay Bridge to a new crossing. Corridors 6 and 8, in contrast, would each require approximately 26 minutes of additional travel time for vehicles diverted from the Bay Bridge. Thus, Corridors 6 or 8 would not provide the same level of flexibility to support maintenance and incident management at the Bay Bridge as Corridor 7.

Following selection of the CARA, an additional traffic analysis of Corridors 6, 7 and 8 was conducted. The CARA Traffic Analysis included evaluation of the 2040 peak hour traffic volumes and LOS for a new crossing in each corridor and the Bay Bridge for both summer weekends and non-summer weekdays. The results of the CARA Traffic Analysis provided greater detail in distinguishing between the CARA to help identify the MDTA-RPCA.

The results of the CARA Traffic Analysis further defined the differences between the CARA and reinforced the notable advantages of Corridor 7 in meeting the goals of the Bay Crossing Study. The LOS analysis was conducted to further evaluate the ability of the CARA to meet the study purpose and need. The LOS metric at the existing Bay Bridge demonstrates how well each CARA could relieve the traffic congestion at the existing crossing. The LOS at a new crossing was developed for comparison with the existing crossing.

The CARA Traffic Analysis revealed that substantial new capacity in Corridor 6 or 8 would still result in unacceptable peak hour LOS at the Bay Bridge in 2040. **Table 5-2** and **Table 5-3** present the 2040 peak hour LOS at a new crossing and at the Bay Bridge with the assumed addition of eight new lanes for each new crossing in the CARA. Note that the assumption of eight new lanes was used to evaluate the draw of traffic to a new crossing location without limiting the available capacity. The eight-lane scenario presented here is included for comparative purposes only; the actual number of lanes in any Corridor Alternative would be identified in a Tier 2 study.

Table 5-2: 2040 Summer Weekend Peak Hour LOS

CORRIDOR ALTERNATIVE	CORRIDOR 6		CORRIDOR 7		CORRIDOR 8		NO-BUILD	
DIRECTION	EB	WB	EB	WB	EB	WB	EB	WB
Existing Bay Bridge – Peak Hour LOS	F	E	D	C	F	E	F	F
New Crossing – Peak Hour LOS[1]	B	A	D	C	B	B	N/A	N/A

[1] Although Corridors 6 and 8 provide a LOS A or B, the Bay Bridge would still operate at LOS E or F, thus demonstrating that those corridors would not draw enough traffic away from the Bay Bridge to effectively relieve congestion.

Table 5-3: 2040 Non-Summer Weekday Peak Hour LOS

CORRIDOR ALTERNATIVE	CORRIDOR 6		CORRIDOR 7		CORRIDOR 8		NO-BUILD	
DIRECTION	EB	WB	EB	WB	EB	WB	EB	WB
Existing Bay Bridge – Peak Hour LOS	E	E	C	C	E	E	F	F
New Crossing – Peak Hour LOS[1]	A	A	C	C	A	A	N/A	N/A

[1] Although Corridors 6 and 8 provide a LOS A or B, the Bay Bridge would still operate at LOS E or F, thus demonstrating that those corridors would not draw enough traffic away from the Bay Bridge to effectively relieve congestion.

With new capacity in Corridors 6 or 8, the Bay Bridge would still experience peak hour LOS F (eastbound) or LOS E (westbound) on non-summer weekends in 2040. An equivalent amount of new capacity added in Corridor 7 would result in peak hour LOS D eastbound and LOS C westbound in 2040 on summer weekends at the existing bridge.

On non-summer weekdays, new capacity in Corridors 6 or 8 would still result in peak hour LOS E on the Bay Bridge in both directions. The equivalent new capacity at Corridor 7 could achieve LOS C in both directions at the existing bridge.

This analysis demonstrates that even a substantial addition of new capacity in Corridor 6 or Corridor 8 would not sufficiently relieve the traffic congestion problem at the Bay Bridge. LOS E and F are considered unacceptable LOS, causing unpredictable travel times and major delays. A new eight-lane crossing in Corridor 7 could much more effectively improve the traffic conditions at the Bay Bridge by achieving LOS C westbound and LOS D eastbound on summer weekends, and LOS C in both directions on non-summer weekdays.

It is important to note that the LOS A and B for the new crossing in Corridors 6 and 8 are due to the inability of a new crossing in either corridor to draw enough traffic away from the Bay Bridge. These high LOS would result from a lower number of vehicles using the new crossing in Corridor 6 or 8, while larger numbers of vehicles would continue to use the Bay Bridge resulting in LOS E or F. For Corridor 7, in contrast, the traffic volumes would balance out between the Bay Bridge and the new crossing. This would provide greater congestion relief and improved peak hour LOS at the Bay Bridge under Corridor 7.

5.2 ENGINEERING AND COST

Conceptual project cost estimates were developed for Corridors 6, 7, and 8, as described in **Section 3.5**.

For cost estimation purposes, Corridor 7 was estimated to need five to seven new crossing lanes. The number of new approach lanes would vary between four and seven to match the total number of crossing lanes, and also depends on whether the new approach lanes would be located on a new alignment or adjacent to the existing US 50/301 alignment. The costs included a new Chesapeake Bay crossing, all on-land infrastructure, and crossings of the Severn River and Kent Narrows. The preliminary estimated cost of a new bridge across the Chesapeake Bay and associated infrastructure in Corridor 7 would be between $5.4 and $8.9 billion in 2020 dollars. A new bridge-tunnel and associated infrastructure would cost an estimated $8.0 to $13.1 billion. The lower end of the cost estimate for Corridor 7, which assumed primarily utilizing existing infrastructure, would be the lowest of all three corridors. This indicated that cost savings could be achieved from utilizing the existing US 50/301 approach roadways in Corridor 7. The higher end of the cost estimate for Corridor 7 assumes that the new lanes would be completely on a new alignment. The cost estimates are shown in **Table 3-11** and **Table 3-12** in **Section 3.5** above**.**

For cost estimation purposes, Corridor 6 was estimated to need four new lanes, which would achieve LOS C/D. The range of costs included the potential for new lanes completely on a new alignment, or up to 33 percent following existing roadways. The estimates accounted for a Chesapeake Bay crossing, all on-land infrastructure, and a crossing of the Chester River. The cost estimate for Corridor 6 ranged between $6.6 and $7.2 billion for a bridge across the Chesapeake Bay and associated infrastructure. The cost of a bridge-tunnel and associated infrastructure was estimated between $12.7 and $13.3 billion. These estimates showed that the high end of the bridge cost estimate would be lower than the high end of the Corridor 7 bridge estimate, but the lower end of the range for a bridge in Corridor 6 would be higher than the low end of the range for Corridor 7. This showed that an entirely new alignment in Corridor 6 could be less expensive than an entirely new alignment in Corridor 7; but that cost savings could be achieved by utilizing existing infrastructure in Corridor 7.

For cost estimation purposes, Corridor 8 was estimated to need four to six new lanes to meet LOS D and C, respectively. The range of costs included potential for new lanes completely on new alignment, or up to 20 percent following existing roadways. The estimates accounted for a Chesapeake Bay crossing, all on-land infrastructure, and two crossings of the Miles River. The cost estimate for Corridor 8 ranged between $11.7 and $15.7 billion for a bridge across the Chesapeake Bay and associated infrastructure. The cost of a bridge-tunnel and associated infrastructure was estimated between $13.2 and $18.0 billion. Due in large part to the 12 mile length of crossing required in Corridor 8, the lower end of the cost estimates for a bridge in Corridor 8 would still be higher than the high end of the range in Corridors 6 or 7. The low end of the range for a bridge crossing in Corridor 8 ($11.7 billion) would be more than twice as high as the low end of the range for a bridge in Corridor 7 ($5.4 billion). Thus, even accounting for the range of potential costs, a new crossing in Corridor 8 would be substantially more expensive than Corridor 7.

5.3 ENVIRONMENTAL CONSIDERATIONS

The evaluation of environmental considerations showed that all three CARA contain substantial environmental resources. The environmental inventory within the two-mile wide corridors, however, does not provide the level of specificity needed to determine actual environmental impacts. Specific impacts would be largely determined by the alignment of a new crossing, which would be developed during a future Tier 2 study. The inventory of environmental features is, however, a useful indicator at the Tier 1 level of detail for comparing among broad corridor alternatives. Generally speaking, corridors with greater acreage or numbers of a resource are expected to be more likely to result in impacts to those resources.

In some instances, the geographic distribution of resources throughout a corridor also informs the qualitative discussion of potential impacts. For example, resources clustered along the edge of a corridor could allow a greater possibility of avoidance compared to resources that span the full width of a corridor. This kind of qualitative analysis is detailed in **Chapter 4** and the supporting technical reports, and is summarized below. In general, the discussion focuses on resources that showed some distinction among the corridors.

Corridor 7 would require the shortest crossing of the Chesapeake Bay due to the narrower width of the Bay at this location. Corridor 7 also has the shortest overall length of improvements necessary due to the presence of existing infrastructure in the corridor (see **Table 5-4**). These factors lead to Corridor 7 potentially resulting in the lowest overall environmental impacts compared to Corridors 6 or 8.

Table 5-4: Corridor and Crossing Lengths in Miles

CORRIDOR ALTERNATIVE	APPROXIMATE LENGTH OF CHESAPEAKE BAY CROSSING	APPROXIMATE LENGTH OF ON-LAND IMPROVEMENTS	APPROXIMATE LENGTH OF OTHER WATER CROSSINGS	TOTAL CORRIDOR LENGTH
Corridor 6	11	14	3	28
Corridor 7	4	17	1	22
Corridor 8	12	21	4	37

Table 5-5 displays a selection of key resources included in the environmental inventory. More detail and discussion of additional resources is included in **Chapter 4**. The environmental inventory reflects the breadth and complexity of existing environmental conditions in the two-mile wide corridors, and indicates some advantages and some disadvantages for every corridor. However, consideration of all the environmental factors suggests that Corridor 7 would potentially result in fewer environmental impacts to sensitive aquatic resources of the Chesapeake Bay such as open water, fish habitat, and oysters.

Additionally, the presence of the existing US 50/301 corridor could allow for less impactful new infrastructure in Corridor 7. Corridors 6 and 8 would both require a major, new limited-access roadway largely on a new alignment through areas that are currently not impacted by major transportation infrastructure. However, a future Tier 2 alternative could be developed in Corridor 7 that expands the existing US 50/301 infrastructure. Much of the land adjacent to the existing US 50/301 roadway is developed, so utilizing this infrastructure potentially minimizes overall impacts to on-land natural resources.

A future Tier 2 alternative that expands capacity along existing roadways in Corridor 7 could also minimize impacts to community cohesion and disruption to residential neighborhoods. Neighborhoods in the vicinity of US 50/301 have generally been developed to the north or south of the highway, often separated by a commercial area or wooded buffers. Thus, new capacity in Corridor 7 could avoid bisecting existing residential neighborhoods; impacts would likely be primarily along the periphery of residential areas. Such an alignment would, however, have greater impacts on commercial land uses and community facilities that are more prevalent alongside US 50/301. Access roads to adjacent land uses could also be impacted. Corridor 7 is more developed and contains greater amounts of commercial land uses, community facilities, and noise-sensitive areas.

Table 5-5: Summary of Environmental Inventory

RESOURCE	UNIT	CORRIDOR 6	CORRIDOR 7*	CORRIDOR 8
Total Area	Acres	35,010	27,990	46,810
Land	Acres	16,840 (48%)	18,330 (65%)	26,230 (56%)
Open Water	Acres	18,140 (52%)	9,660 (35%)	20,590 (44%)
Community Facilities Total	Count	27	70	37
Forest Land	Acres	4,500	4,500	8,520
Residential Land Use	Acres	5,660	6,560	6,830
Commercial Land Use	Acres	270	930	320
Environmental Justice (EJ) Census Tracts	Count (Census Tracts)	1 Low-income 0 Minority Race/Ethnicity	1 Low-income 1 Minority Race/Ethnicity	0 Low-income 0 Minority Race/Ethnicity
Total Section 4(f) Resources	Count	10	25	24
Area of Section 4(f) Resources	Acres	1,190	1,680	1,650
MDNR Non-Tidal Wetlands	Acres	1,200	1,500	2,080
MDNR Tidal Wetlands	Acres	18,460	10,870	24,940
Surface Waters	Linear Feet	344,380	394,020	471,890
100-Year Floodplain	Acres	3,050	6,640	3,950
Chesapeake Bay Critical Area	Acres	4,910	9,810	8,120
FIDS Habitat	Acres	7,020	6,900	11,410
Sensitive Species Project Review Areas (SSPRAs)	Acres	2,720	2,180	8,630
Green Infrastructure – Total	Acres	4,880	4,480	11,450
Essential Fish Habitat (EFH)	Acres	64,320	36,650	87,680
Submerged Aquatic Vegetation (SAV)	Acres	40	270	460
Oyster Resources	Acres	11,130	3,460	7,960
MDNR Oyster Sanctuaries	Acres	6,465	1,580	2,087
Noise-Sensitive Areas	Acres	5,390	7,400	5,700

* Shading indicates the MDTA-RPCA

For both Corridors 6 or 8, the distribution of residential land and the density of residential subdivisions encompassing the full width of the corridor on the Western Shore would make avoidance of residential communities unlikely. A potential Tier 2 alternative within Corridor 6 would cause community impacts on the Western Shore for residential areas located near MD 177. Corridor 8 includes the greatest acreage of residential land. Communities and residential neighborhoods in Corridor 8, particularly in the vicinity of

Mayo, Beverly Beach, and St. Michaels, would likely be impacted. A new crossing in Corridors 6 or 8 would thus be more likely to cause substantial community impacts by bisecting residential areas, disrupting local mobility, and causing other potential impacts to community cohesion compared to Corridor 7. More detailed discussion of potential community impacts is included in ***Section 4.1.2***. Due to the more developed land uses in Corridor 7, it includes the highest acreage of noise-sensitive areas, as discussed in ***Section 4.7.3***. Corridor 7 also contains two Census Tracts identified as potential Environmental Justice populations, as presented in ***Section 4.1.4***.

Corridors 7 and 8 contain roughly the same number and acreage of Section 4(f) protected lands, and Corridor 6 contains a somewhat smaller amount (see ***Section 4.3***). Potential impacts to Section 4(f) lands will require consideration of avoidance and minimization in a Tier 2 EIS. As noted in **Table 5-4**, Corridor 7 would require a much shorter crossing of the Chesapeake Bay compared to Corridors 6 and 8, which could result in potentially lower impacts to the open water of the Bay and other major waterways. Corridor 6 would require a Chesapeake Bay crossing of roughly 11 miles and a Corridor 8 crossing would be 12 miles, compared to an approximate length of four miles for Corridor 7. In addition to the main crossing of the Chesapeake Bay, Corridor 7 would require shorter crossings of other major waterways adjacent to the Bay. Corridor 7 would require approximately one mile of additional water crossings, whereas Corridors 6 or 8 would require three or four miles of additional water crossings, respectively. As a result, the amount of open water in Corridor 6 (18,140 acres) or Corridor 8 (20,590 acres) are each substantially higher than Corridor 7 (9,660 acres). A longer crossing would require greater impervious surfaces, more substantial construction, and a greater overall footprint of area impacted in the Chesapeake Bay and other major water bodies.

Aquatic resources associated with open water such as Essential Fish Habitat (EFH) and oyster resources are more prevalent in Corridors 6 and 8 compared to Corridor 7. EFH and oyster resources encompass the full width of the corridor in some locations, and thus impacts could not be avoided. Further discussion of aquatic resources is included in ***Section 4.4.7.*** Tidal wetlands, which include open water of the Chesapeake Bay, are also substantially lower for Corridor 7 compared to Corridors 6 or 8 (see ***Section 4.4.2***). Overall, the longer crossing is likely to result in greater impact on the Chesapeake Bay and associated aquatic resources compared to Corridor 7.

For many on-land natural resources such as forest, non-tidal wetlands, surface waters, FIDS Habitat, SSPRAs and green infrastructure, the inventory numbers are roughly similar between Corridors 6 and 7, and notably higher for Corridor 8 (See ***Section 4.4.5*** and ***Section 4.4.6***). Thus, impacts to terrestrial resources would likely be greatest under Corridor 8, largely due to the length of on-land improvements and the less developed nature of the corridor. Improvements in Corridor 7 could potentially reduce impacts to such resources by expanding the existing US 50/301 corridor, whereas Corridor 6 would require greater improvements on a new alignment likely translating to greater impacts. Some resources associated with coastline such as Chesapeake Bay Critical Areas and 100-year flood plains are somewhat more prevalent in Corridor 7 compared to Corridors 6 or 8 due to the geography of the corridor (as discussed in ***Section 4.4.3*** and ***Section 4.4.4***). During a Tier 2 EIS and later final design, more detailed study would be completed to avoid and minimize adverse impacts to floodplains.

Corridor 7 would likely result in additional new capacity to the existing transportation network in relative proximity to the Bay Bridge, which would be more compatible with existing land use patterns and plans compared to Corridor 6 or Corridor 8. Corridor 7 would have indirect effects, but likely less potential for

induced growth compared to Corridors 6 and 8 due to existing development patterns and density in the corridors.

When it was constructed, the Bay Bridge resulted in growth in areas such as Kent Island and Queenstown due to new accessibility to these areas. The pattern and pace of growth that began since the construction of the Bay Bridge would continue with a new crossing in Corridor 7. New capacity in the vicinity of the existing crossing would potentially increase the demand for development. However, this demand would be expected to result in a more incremental change within the existing pattern of land use development, rather than a substantial departure from existing patterns that would be expected under Corridors 6 or 8. A greater area in proximity to Corridor 7 is designated as Priority Funding Areas (PFAs) relative to Corridors 6 or 8, indicating that growth in these locations would be more compatible with planned future land uses compared to Corridors 6 or 8.

In contrast to Corridor 7, Corridor 6 would provide new access to areas within a roughly 30 to 45-minute distance of Baltimore City, and Corridor 8 would provide new access to areas within a roughly 45 to 60-minute distance of Washington DC, potentially resulting in increased demand for residential development on the Eastern Shore. The Indirect and Cumulative Effects (ICE) analysis showed that these corridors would likely result in new development pressure on important natural and agricultural resources, areas vulnerable to residential development, and areas largely outside of designated PFAs. Thus, a new crossing in Corridors 6 or 8 would have the potential to substantially alter land use patterns and result in greater pressure for unplanned growth than Corridor 7, likely with corresponding impacts to natural resources, community cohesion, and agricultural resources, especially on the Eastern Shore. This potential for indirect effects from new land use development on the Eastern Shore has been a primary concern reflected in public and agency input throughout the study process, particularly from communities on the Eastern Shore. Further discussion of indirect and cumulative effects is included in ***Section 4.8***.

5.4 SUMMARY

The analysis shows that Corridor 7 would have substantial advantages in terms of traffic, engineering and cost, and environmental considerations. The identification of Corridor 7 as the MDTA-RPCA can be summarized by the following key points:

- Corridor 7 would provide the greatest traffic relief at the Bay Bridge, and thus has a greater ability to meet the Purpose and Need of this Tier 1 Study. Corridor 7 would divert substantially more traffic away from the Bay Bridge in terms of total vehicles per day on both summer weekends and non-summer weekdays.
- A new crossing in Corridor 7 would result in greater peak hour congestion relief at the Bay Bridge compared to an equivalent number of lanes in Corridors 6 or 8.
- Corridor 7 would likely be the least costly of the three CARA because of the ability to utilize existing infrastructure on US 50/301 and the shorter length of crossing over the Chesapeake Bay.

- Corridor 7 would potentially have lower overall environmental impacts due to the shorter Chesapeake Bay crossing length and ability to utilize existing on-land infrastructure along US 50/301. Corridors 6 and 8 would require longer crossings and more roadway along new alignment, likely resulting in greater impacts to sensitive environmental resources in and around the Chesapeake Bay, especially tidal wetlands and aquatic resources like SAV and oyster resources.
- Corridor 7 could have greater impacts to noise sensitive areas and socioeconomic resources such as community facilities and commercial areas due to the more developed nature of the corridor compared to Corridors 6 and 8.
- Corridors 6 and 8 would likely cause substantial indirect effects from new connectivity between rural lands on the Eastern Shore and employment centers such as Baltimore and Washington, DC. Corridors 6 or 8 could lead to substantial pressure for new residential development, especially on the Eastern Shore, with corresponding impacts to farmland and natural resources. Corridor 7 would have some indirect effects, but they would be more consistent with existing land use patterns and plans.

ATTACHMENT 2: DEIS Public and Agency Comment Summary and Discussion

Public Comment Overview

Beginning on February 23, 2021 the Draft Environmental Impact Statement (DEIS), including the MDTA- Recommended Preferred Corridor Alternative (MDTA-RPCA), was made available for public review and comment through the project website (www.baycrossingstudy.com). A project phone line was made available for members of the public to request an alternative way to view the document. Due to the COVID-19 pandemic, the facilities that would normally host the document for public viewing were initially closed. After the document was released, facilities gradually opened, and the document was made available for public viewing at 13 locations throughout five counties in the study area.

The public was able to view and comment on the document for a period of 84 days, from February 23 through May 17, 2021. The Notice of Availability was published in the Federal Register on March 5, 2021. The public was able to comment on the document in numerous ways that included submitting an email to info@baycrossingstudy.com, visiting the project website and leaving a comment through the online comment form; sending a letter to the MDTA; through private testimony which was available via voicemail during all testimony sessions and through live public testimony at one of the six testimony sessions. Additionally, comments sent to Governor Hogan or Secretary of Transportation Gregory Slater were forwarded to MDTA.

A total of 876 public comments were received during the comment period. The public comments included both support and opposition to the project and the MDTA-RPCA and covered a range of topics presented in the DEIS.

The Bay Crossing Study Team has categorized the topics included in the comments received, as shown in **Table 1**. The following sections summarize the substantive public comments received, grouped by the most common categories. (Note that many comments raised multiple topics.) All comments will be compiled in the Final Environmental Impact Statement (FEIS) and made available for public review.

Table 1: Comment Themes

Comment Topic	Number of Comments
General Project Support	109
General Project Opposition	98
Process and Schedule	156
Range of Corridor Alternatives and Modal and Operational Alternatives	302
Corridor Alternatives Retained for Analysis (CARA)	580
Traffic Concerns	444
Environmental Impact Concerns	231
Engineering Questions	103
Pedestrian and Bicycle	56
Other Alternatives	31
Outreach	3
Requests for Information	15

Support

Many of the commenters that expressed overall support for the study also supported Corridor 7, the MDTA-RPCA. There were a few commenters that did not state a preference for a corridor but supported a new crossing of the Chesapeake Bay at any location. Commenters that supported the project generally based their support on existing traffic congestion and safety concerns and believe that increased capacity is required to relieve existing local traffic congestion.

Opposition

As shown in **Table 1,** the number of comments opposing the DEIS or the Bay Crossing Study was similar to the number of comments supporting the study. In general, comments stating opposition to the study often expressed opposition to the Purpose and Need for various reasons. One major theme was that the Purpose and Need was too limited in scope (focusing on congestion at the existing Bay Bridge) and did not incorporate or consider the need for an alternate crossing of the Chesapeake Bay (for economic development, security, etc). Some disagreed with the level of engineering and environmental detail included in the Tier 1 study, or with the tiered process in general. Some commenters suggested that travel demand management strategies including all electronic tolling and variable toll rates would resolve existing traffic concerns, noting that there are many times the bridges operate efficiently. Other commenters stated concerns regarding future land use changes, such as new development and impacts to farmlands, forest, and existing housing and businesses. Other comments related to evaluation criteria, potential environmental impacts, or future traffic benefits. Most of the commenters who opposed the CARA expressed a general opposition to the study, the DEIS, or the advancement of the project to prepare the FEIS.

Traffic concerns

Some commenters questioned the projected forecast and future need for a new crossing or additional transportation capacity and provided reasons such as the COVID-19 pandemic, the increase in teleworking, and recent implementation of all electronic tolling at the existing Bay Bridge which would reduce congestion. Commenters questioned the methodology of the traffic forecasting and the data used to support it. Many of the traffic-related concerns referenced the existing traffic conditions along US 50, the existing and future impact to the local network, and potential future impacts associated with the CARA.

Commenters also expressed concerns that the MDTA-RPCA would cause additional traffic problems along local roadways in Corridor 7. Traffic concerns unrelated to any CARA focused on existing and future noise impacts, impacts during construction, rerouting alternatives, and other constraints in the existing infrastructure to support any new bay crossing. There was also concern over the potential effects of bridge closure.

Range of alternatives

Most of the comments pertained to the CARA (Corridors 6, 7, and 8) but there were numerous comments suggesting other crossing locations or the benefits of modal and operational alternatives (MOA) that had been previously considered but dropped prior to the issuance of the DEIS. Most of these commenters suggest that crossings farther north or south of the existing crossing would better divert the existing traffic and provide other benefits, such as economic development. Public comments also reflected support for alternative modes of transportation, including consideration for ferries or public transportation, citing benefits to drivers with vertigo, reduction in carbon footprint, and sustainability. Some commenters suggested that combinations of the MOA such as Transportation Systems Management/Transportation Demand Management (TSM/TDM) and transit could be implemented instead of a new crossing.

Corridor Alternatives Retained for Analysis (CARA)

Most of the comments focused on either support or opposition to the CARA (Corridors 6, 7 and 8). Public opinion was most vocal regarding Corridor 7, with 124 comments supporting the choice of Corridor 7 as the RPCA and 285 comments received in opposition to Corridor 7. Corridors 6 and 8 both received fewer comments, most of which were in opposition to these alternatives. Commenters also noted that all the CARA followed US 50 on either side of the Bay and noted concerns with existing traffic congestion along the US 50 corridor.

Comments supporting Corridor 6 cited this alternative as the most effective way to alleviate traffic through Annapolis and provide a better connection to/from Baltimore. Comments opposed to Corridor 6 presented concerns with traffic impacts to their local roadway network, local community, and potential impacts to the Bay.

Supporters of Corridor 7 identified it as the most expedient, cost effective, and best alternative to address the existing and future traffic needs. Commenters reasoned that the vicinity already has the infrastructure, which would minimize the impacts and costs for a new Bay crossing.

Comments opposing Corridor 7 were received primarily from residents of Annapolis, Amberly/Cape St. Clair, and Kent Island. Residents expressed significant concerns with additional traffic and infrastructure impacts along US 50 and the surrounding local network. Many of the residents opposed to Corridor 7 suggested that another Bay crossing should be placed elsewhere to divert some of the existing traffic and provide an alternative route for emergencies, such as traffic incidents. There were numerous complaints about the existing local network traffic conditions that make daily errands difficult for residents during peak summer traffic times. There were many requests for "resident only" exits and roadways. Some comments in opposition to Corridor 7 expressed concern about another large bridge parallel to the two existing structures, i.e. a "third span".

Public input supporting Corridor 8 generally anticipated traffic from Virginia and the south to be diverted along the proposed corridor, thereby alleviating the existing traffic needs at the current bridge. Supporters also expect Corridor 8 would improve access to the beaches in Maryland. Some supported Corridor 8 because they believe it would bring needed economic development

to the area. Commenters opposed to Corridor 8 presented concerns with traffic impacts to their local roadway network, local community, and potential environmental impacts.

Environmental Impact

Comments concerning environmental impacts were generally in the context of opposing one of the CARA, and worries about the removal of vegetation, increase in noise, and the impact to wildlife and natural resources. Many residents stated concerns about negative effects to their quality of life due to a new Bay crossing, including impacts to local community resources such as schools and parks, as well as their land values. Some commenters question the value of adding transportation capacity with the forecast in sea level rise and impacts to the Eastern Shore.

Engineering

Several comments offered questions and suggestions for potential engineering solutions, including typical section arrangements, bridge design that includes a two-level bridge, and the construction of tunnels. Accommodations for pedestrians, bicyclists, and mass-transit were also requested for consideration.

Public Comment Response Summary

The Bay Crossing Study team has reviewed and considered all comments provided on the DEIS and will provide complete responses in the FEIS. Generally, the comment themes discussed above have not brought to light new information or major concerns that would affect the identification of the Preferred Corridor Alternative or the validity of the DEIS findings.

The Purpose and Need for the Study has been established by MDTA and the Federal Highway Administration (FHWA) to focus specifically on the extensively documented problems of traffic congestion at the existing Bay Bridge, which is an MDTA-owned facility. MDTA is responsible for evaluating and considering solutions to the existing problem at the MDTA facility. Thus, the Purpose and Need for the study, and the transportation solutions proposed with the CARA and Corridor 7, emphasize traffic relief at the existing Bay Bridge. The decision to advance Corridor 7 in the Bay Crossing Study would not preclude separate studies of new infrastructure with purposes that differ from the Bay Crossing Study's Purpose and Need.

The Bay Crossing Study Team has considered the report commissioned by the Queen Anne's Conservation Association (QACA) prepared by AKRF in December 2020 and titled *Chesapeake Bridge Crossing Transportation Study*. The report was completed prior to MDTA's completion of the Draft EIS and raised several themes that were present throughout public comments such as perceived issues with the traffic analysis methodology, data collection and modeling. The Study Team is preparing responses related to this report, which are summarized below under a separate header. However, the study did not raise any new issues or identify major concerns that would affect the traffic analysis findings. As summarized below, the Bay Crossing Study Team has evaluated the main concerns raised in the AKRF report and has determined that those concerns do not undermine the reasonableness or reliability of the DEIS traffic impacts analysis.

One major focus of commenters was the potential for the COVID-19 pandemic to affect future traffic volumes. While it is not possible to predict how future unforeseen changes such as increased telecommuting could affect traffic volumes, preliminary data indicates that Bay Bridge volumes and congestion have largely returned to pre-COVID levels. Furthermore, it is not anticipated that any long-term changes to summer vacation travel would be affected by the COVID-19 pandemic.

The information included in the Tier 1 DEIS is consistent with the purpose of a Tiered EIS study, which is to focus at the level of detail appropriate for decision-making across a broad geographic area. Greater detail on environmental impacts of a proposed alignment would be the subject of a Tier 2 study. It should be noted that the intention of the Tier 1 phase is to identify the best location for potential new crossing infrastructure; however, the No-Build Alternative will still be considered in any future Tier 2 study. Specific details of a potential new crossing, such as lane and crossing configurations, pedestrian and transit access and other considerations will also be included in a Tier 2 study.

While some commenters expressed skepticism that Corridor 7 would provide the greatest traffic congestion relief, the findings of the traffic analysis based on the best available data strongly indicate that Corridor 7 best meets the traffic relief goals of the Purpose and Need. Other solutions such as TSM/TDM, ferries and transit were also evaluated for the Bay Crossing Study and will continue to be evaluated in Tier 2 in conjunction with a new crossing. A future Tier 2 study may also consider combinations of various MOA as alternatives; these would be evaluated within the context of Corridor 7.

Many commenters, particularly those living in close proximity to the existing Bay Bridge, expressed concern that additional capacity near the existing bridge would cause increased traffic on local roadways. MDTA would evaluate local roadway tie-ins in greater detail in any future Tier 2 NEPA Study to ensure that no new traffic problems are created by a proposed new crossing. It is also likely that traffic relief from a new crossing would benefit local roadway networks, due to fewer backups and less cut-through traffic.

While it is anticipated that any new crossing capacity over the Chesapeake Bay would lead to potential land use changes and development on the Eastern Shore, Corridor 7 is considered the most consistent with existing and planned land uses. A new crossing in Corridor 7 would add new capacity in close proximity to the existing roadway networks, rather than create substantial new highway facilities where only local roadways existing today. Therefore, Corridor 7 would likely have the lowest overall impact on land use and development compared to the other corridors studied.

Agency Comment Summary

Comments on the Bay Crossing Study DEIS were received from the following federal, state and local agencies as shown in **Table 2**.

Table 2: Agency Comments Received

Agency Role	Agencies Providing Comments
Cooperating	• US Army Corps of Engineers (USACE) • US Coast Guard (USCG) • US Environmental Protection Agency (USEPA) • National Marine Fisheries Service (NMFS) • Maryland Department of Transportation State Highway Administration (MDOT SHA) • Maryland Department of Environment (MDE) • Maryland Department of Natural Resources (MDNR)
Participating	• National Park Service (NPS) • US Fish and Wildlife Service (USFWS) • Critical Areas Commission (CAC) • Maryland Department of Planning (MDP) • Maryland Historical Trust (MHT)
Participating Counties	• Queen Anne's County • Talbot County • Anne Arundel County

Most agencies did not object to identifying Corridor 7 as the MDTA-RPCA. However, Anne Arundel County provided comments stating their opinion that the study is flawed and doesn't justify its purpose or the need for a third span. Their argument cited concerns with traffic assumptions, purpose and need, environmental impacts, and stakeholder involvement. Many agency comments focused on suggestions and requests for a potential future Tier 2 Study, particularly for the specific resources for which the agencies have expertise or regulatory authority. Agencies provided input on the appropriate level of detail, coordination, permitting, data sources, and other information pertinent to a potential future Tier 2 study.

Agency comments also recommended edits and provided suggestions for improvement to the DEIS content. In some cases, agencies requested supplementary studies or new information on issues such as climate change vulnerability and environmental justice. Some agencies commented on the traffic analysis, such as suggestions to evaluate of the potential future impacts of teleworking. Agencies also expressed support for the continued evaluation of transit and TSM/TDM strategies in Tier 2.

Agency Comment Response

Agency comments did not express any major problems with the DEIS study that would require MDTA to alter the MDTA-RPCA identified in the DEIS. Updates to the DEIS will be applied in the FEIS as appropriate, and supplementary information will be developed related to climate change vulnerability and environmental justice. MDTA will continue to coordinate with agencies to ensure comments on the DEIS are sufficiently addressed in the FEIS. For comments applicable to a potential future Tier 2 study, MDTA will retain these comments and consider them if a Tier 2 study is initiated.

AKRF Report and Response

The Queen Anne's Conservation Association (QACA) submitted a report prepared by AKRF in December 2020 that received attention among media, community groups and commenters. The report, which was prepared prior to the release of the DEIS and the Bay Crossing Study Traffic Analysis Technical Report, raised several issues regarding the Bay Crossing Study traffic analysis. Major topics of concern included:

- The adequacy and accuracy of the existing traffic volumes;
- The adequacy and accuracy of the capacity analyses;
- The accuracy of the traffic forecasts, and
- The likely impact of all-electronic tolling (AET) on eastbound traffic operations.

These major topics, and other concerns, are addressed below.

Topic Area: Adequacy and accuracy of the existing traffic volumes. The AKRF Report suggests that only one day of data of weekend traffic from August 2017 was collected, that additional traffic data should have been collected, and that the data used were atypically high.

Response: The AKRF report's characterization of the Bay Crossing Study traffic data as "one day of weekend traffic from August" is incorrect – seven days of data were collected for summer conditions. Furthermore, the average summer weekend volumes are a composite of Friday, Saturday, and Sunday volumes, and represent the highest volume in each hour during that three-day period.

Because the Bay Bridge is unusual, with both traditional weekday traffic peaks and summer weekend traffic peaks, a week's data was obtained for both summer and non-summer conditions. It is worth noting that none of the reviewing agencies with a background in travel demand forecasting (MDOT SHA, BMC and FHWA) expressed any concerns regarding the adequacy of the existing data.

Following MDTA receipt of the AKRF Report, data for the Bay Bridge for June – August 2017 was reviewed and is summarized in **Table 3.**

Examination of the data confirms that the total volume during the week of 8/1/17 – 8/7/17 was slightly higher than the average weekly volume of the June – August period, but still representative of that period and not abnormally high.

Topic Area: Adequacy and accuracy of the capacity analyses. The AKRF Report suggests that congestion occurs when the capacity of the Bay Bridge is exceeded.

Response: Congestion can and does occur at volumes lower than full capacity. As noted on page 7 of the Purpose and Need Document, "While the computed capacity of the Bay Bridge in either the eastbound or westbound direction is up to approximately 4,900 vehicles per hour (vph), it has been observed that queues begin forming at demand levels at or less than 3,900 vph." In addition, there are a number of factors which can reduce the capacity of the Bridge on any given day including inclement weather, or debris on the roadway surface.

Table 3: Summer 2017 Vehicle Volume

Week	Total Volume	Percentage Difference from Average
6/6/17 – 6/12/17	605,053	-2.56
6/13/17 – 6/19/17	630,773	1.58
6/20/17 – 6/26/17	622,043	0.18
6/27/17 – 7/3/17	636,035	2.43
7/4/17 – 7/10/17	617,775	-0.51
7/11/17 – 7/17/17	625,989	0.81
7/18/17 – 7/24/17	630,278	1.5
7/25/17 – 7/31/17	593,258	-4.46
8/1/17 – 8/7/17	635,161	2.29
8/8/17 – 8/14/17	613,146	-1.26
8/15/17 – 8/21/17	624,042	0.5
8/22/17 – 8/28/17	617,914	-0.49
Average	620,956	

Topic Area: Accuracy of the traffic forecasts. The AKRF Report uses "historic growth trends" to forecast future volumes. The AKRF Report also suggests that one or more economic downturns could be forecast and incorporated into the traffic forecasts.

Response: Traffic volume forecasts for the Bay Crossing Study were prepared using the Maryland Statewide Transportation Model (MSTM), a travel demand model prepared and maintained by MDOT SHA, which utilizes adopted long-term forecasts of population and employment. Those forecasts were developed cooperatively by County and Regional agencies, including Anne Arundel County, Queen Anne's County and the Baltimore Metropolitan Council. The land-use forecasting approach used in the BCS is the approach typically used in a NEPA study, and is consistent with FHWA guidance including *Instructions for Reviewing Travel and Land Use Forecasting Analysis in NEPA Documents*[1] (2018) and *Interim Guidance on the Application of Travel and Land Use Forecasting in NEPA*[2] (2010).

[1] https://www.environment.fhwa.dot.gov/nepa/Travel_LandUse/forecasting_reviewer_guidance.aspx
[2] https://nacto.org/docs/usdg/interim_guidance_on_app_of_travel_and_land_use_forecasting_fhwa.pdf

Topic Area: The likely impact of AET on eastbound traffic operations. The AKRF Report cites the AET Conversion and Prioritization Study (January 2014), which stated that AET could lead to a significant reduction in delays and queuing at all MDTA facilities with toll barriers, including the Bay Bridge.

Response: As stated in the 2014 AET Study, "the VISSIM analyses conducted for the [2014] AET Study did not include the US 50/US 301/Bay Bridge. The Bay Bridge was the subject of an earlier and much more detailed VISSIM analysis performed in 2008 as part of a larger study evaluating all electronic tolling at the Bay Bridge." The 2008 analyses, which are summarized in the 2014 Study, indicate that removal of the toll plaza would be expected to increase the capacity of eastbound US 50 by approximately 4.4 percent between Oceanic Drive and the foot of the Bay Bridge. That increased capacity would be expected to decrease queues and delays. With the volumes used in the 2008 analyses (which were approximately the capacity of the Bay Bridge itself) and the three-hour analysis period used in the 2008 analyses, those reductions would be expected to be as described in the 2014 AET Study. However, queues and delays would not be eliminated, due to the capacity limitations of the Bay Bridge itself. With higher volumes and/or longer analysis periods than those used in the 2008 analyses, longer queues and more extensive delays would be expected, and in fact continue to occur with AET fully implemented at the Bay Bridge.

AET does reduce or even eliminate delays and queuing at the Bay Bridge when low to moderate volumes are present; that is, when the capacity of the Bridge does not constrain traffic flow. However, as volumes approach the capacity of the Bridge, queues and delays still occur, even with AET.

Topic Area: Other concerns. Other concerns raised in the AKRF Report included the impact of COVID-19, the impacts of potential increases in telecommuting, the possible benefits of variable tolling and additional management strategies for the Bridge, and the possible impacts of consideration of all the Modal and Operational Alternatives in unison, rather than as stand-alone options.

Response: Each of these concerns would be addressed in a Tier 2 Study. While it is not possible to predict how future unforeseen changes such as increased telecommuting could affect traffic volumes, preliminary data indicates that Bay Bridge volumes and congestion have rebounded and are approaching, and exceeding in several cases, pre-COVID levels.

The Bay Crossing Study reflects long-term forecasts of economic activity, by using anticipated levels of population and employment in the analysis year. The traffic analysis in a Tier 2 study would account for updated growth forecasting, including any foreseeable changes resulting from COVID-19 or other anticipated future changes in travel patterns.

A Tier 2 study would also include further evaluation of multiple MOA, such as variable tolling or other management strategies, in the context of Corridor 7. This would include the evaluation of all MOA combined as a single alternative.