6 PREFERRED CORRIDOR ALTERNATIVE

The February 2021 Tier 1 DEIS presented Corridor 7 as the MDTA-RPCA based on an analysis of traffic congestion impacts, a wide range of engineering and environmental factors, and input received through public comments and coordination with State and Federal cooperating agencies. The DEIS included detailed analysis and rationale for identification of Corridor 7 as the MDTA-RPCA. This analysis was presented in **Chapter 5** of the DEIS.

Based on the analysis documented in the DEIS, additional input received from agency and public DEIS comments, and supplementary analysis conducted for this FEIS, Corridor 7 has been identified as the Preferred Corridor Alternative (PCA) for the BCS Tier 1 NEPA Study. This chapter presents a summary of the DEIS MDTA-RPCA analysis, a summary of the supplementary analysis conducted for the FEIS, and a discussion of public and agency input. The selection of Corridor 7 is finalized in the ROD (**Chapter 7**).

6.1 SUMMARY FROM DEIS RPCA ANALYSIS

The DEIS presented the rationale for Corridor 7 in three main categories: Traffic Analysis, Engineering and Cost, and Environmental Considerations. A summary of each rationale is included below; refer to **DEIS Chapters 3 and 5** for more detailed information.

6.1.1 Traffic Analysis

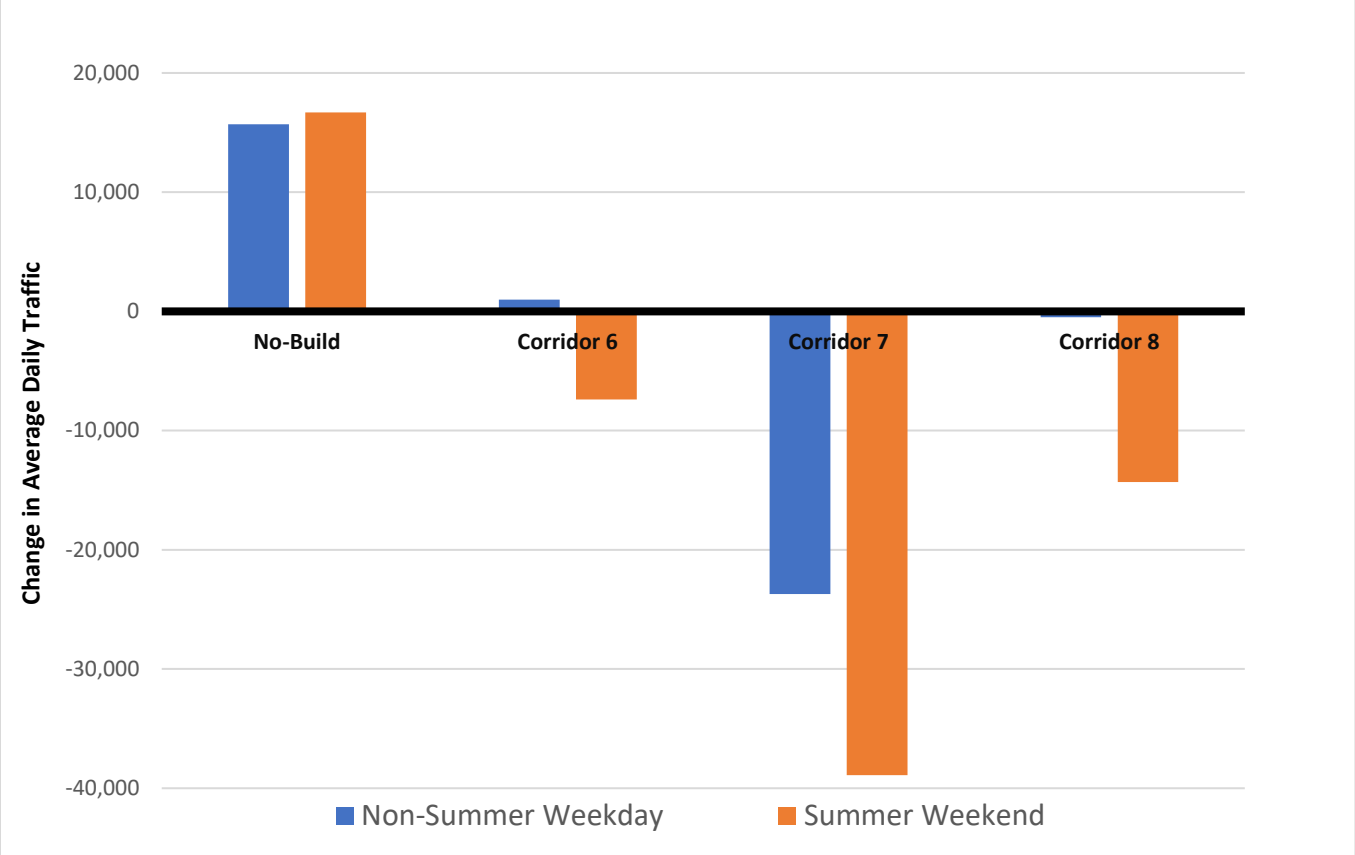
The primary focus of the Bay Crossing Study is to relieve traffic congestion at the Bay Bridge, which would be accomplished by attracting vehicles away from the Bay Bridge and onto a new crossing. The Screening Traffic Analysis (described in **DEIS Section 3.2.2**) determined that Corridor 7 would provide 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 6-1** and **Figure 6-1**, Corridor 7 would result in an estimated reduction of approximately 23,700 vehicles per day (vpd) (or 35 percent) on non-summer weekdays on the Bay Bridge compared to existing conditions, and a reduction of approximately 38,900 vpd (or 33 percent) 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 6-1: 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 6-1: 2040 Average Daily Traffic Volumes – Change from Existing Conditions (2017)

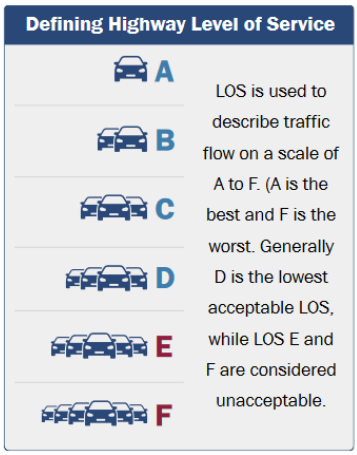


Following selection of the CARA, an additional traffic analysis of Corridors 6, 7 and 8 was conducted. The CARA Traffic Analysis (detailed in Section 5.1 of the DEIS) included evaluation of the 2040 peak-hour traffic volumes and level of service (LOS) for a new crossing in each proposed corridor and 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.

The CARA Traffic Analysis revealed that substantial new capacity in Corridors 6 or 8 would still result in unacceptable peak-hour LOS at the Bay Bridge in 2040. **Table 6-2** presents 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 future Tier 2 study.

Table 6-2: 2040 Summer Weekend Peak-Hour LOS

Alternative		Summer Weekend		Non-Summer Weekday	
Eastbound or Westbound		EB	WB	EB	WB
No-Build		F	F	F	F
Corridor 6	Existing Bay Bridge	F	E	E	E
	New Crossing	B	A	A	A
Corridor 7	Existing Bay Bridge	D	C	C	C
	New Crossing	D	C	C	C
Corridor 8	Existing Bay Bridge	F	E	E	E
	New Crossing	B	B	A	A



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 continued 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.

6.1.2 Engineering and Cost

Conceptual project cost estimates were developed for Corridors 6, 7, and 8, as detailed in **DEIS Section 3.5**. The cost estimates included construction, preliminary engineering, and right-of-way acquisition for a project that would extend for the entire length of each corridor, including the Western Shore and Eastern Shore approach roadways.

Tables 6-3 and **6-4** present the range of cost estimates developed for each corridor. The costs in **Table 6-3** assume a bridge across the Chesapeake Bay and the costs in **Table 6-4** assume a bridge-tunnel across the Chesapeake Bay.

Table 6-3: Total Project Costs Assuming a Bridge across the Chesapeake Bay (2020 dollars)

CORRIDOR	LOW END OF RANGE - TOTAL COST IN BILLIONS	HIGH END OF RANGE - TOTAL COST IN BILLIONS	LOW END OF RANGE - MAJOR STRUCTURES COST IN BILLIONS	HIGH END OF RANGE - MAJOR STRUCTURES COST IN BILLIONS	LOW END OF RANGE – ON LAND INFRASTRUCTURE COST IN BILLIONS	HIGH END OF RANGE – ON LAND INFRASTRUCTURE COST IN BILLIONS
6	$6.6	$7.2	$3.9	$3.8	$2.7	$3.4
7	$5.4	$8.9	$3.7	$4.6	$1.7	$4.3
8	$11.7	$15.7	$7.4	$9.6	$4.3	$6.1

Table 6-4: Total Project Costs Assuming a Bridge-Tunnel across the Chesapeake Bay (2020 dollars)

CORRIDOR	LOW END OF RANGE – TOTAL COST IN BILLIONS	HIGH END OF RANGE – TOTAL COST IN BILLIONS	LOW END OF RANGE MAJOR STRUCTURES COST IN BILLIONS	HIGH END OF RANGE - MAJOR STRUCTURES COST IN BILLIONS	LOW END OF RANGE – ON LAND INFRASTRUCTURE COST IN BILLIONS	HIGH END OF RANGE – ON LAND INFRASTRUCTURE COST IN BILLIONS
6	$12.7	$13.3	$9.5	$9.5	$3.2	$3.8
7	$8.0	$13.1	$6.1	$8.5	$1.9	$4.6
8	$13.2	$18.0	$8.8	$11.7	$4.4	$6.3

The lower end of the cost estimate for Corridor 7, which assumed primarily utilizing existing infrastructure, would be the lowest of the three corridors. This indicated that cost savings could be achieved from utilizing the existing US 50/301 approach roadways in Corridor 7.

6.1.3 Environmental Considerations

This section provides a brief overview of the environmental considerations in the DEIS used to inform the identification of Corridor 7 as the PCA. More detailed discussion is included in **DEIS Section 5.3** and **DEIS Chapter 4.**

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 much narrower than two miles and 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.

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 approaching roadway improvements necessary due to the presence of existing infrastructure in the corridor (see **Table 6-5**). These factors lead to Corridor 7 potentially resulting in the lowest overall environmental impacts compared to Corridors 6 or 8.

Table 6-5: 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 IN MILES
Corridor 6	11	14	3	28
Corridor 7	4	17	1	22
Corridor 8	12	21	4	37

Table 6-6 displays a selection of key resources included in the environmental inventory. 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 approach 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 6-6: 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 PCA

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 new crossing in Corridors 6 or 8 would 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.

As noted in **Table 6-5**, Corridor 7 would require a much shorter crossing of the Chesapeake Bay compared to Corridors 6 and 8, which would potentially result in lower impacts to the open water of the Bay and other major waterways. 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 **DEIS 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 **DEIS 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.

Impacts to terrestrial resources such as forest and habitat 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. Some resources associated with coastlines such as Chesapeake Bay Critical Areas and 100-year flood plains are somewhat more prevalent in Corridor 7.

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.

6.2 SUPPLEMENTARY ANALYSIS RESULTS

In consideration of agency and public comments on the DEIS, MDTA has included supplementary analysis on several topics in this FEIS, including traffic, climate change and sea level rise, environmental justice and cultural resources/NHPA Section 106. The supplemental analysis on these topics is more thoroughly detailed in Chapter 3 of this FEIS.

6.2.1 Traffic

Commenters during public and agency review of the DEIS raised three major traffic-related topics, which were discussed in **Section 3.1** of this FEIS. The first two topics dealt with potential impacts to congestion and travel patterns as a result of changes which have occurred since the time the traffic analyses for the DEIS were performed: the COVID-19 pandemic (which began in March 2020) and the commencement of AET at the Bay Bridge (which occurred in the Spring of 2020). The third traffic-related topic addressed the adequacy of traffic volume data which was collected during August 2017 and used in the DEIS analyses.

COVID-19 Pandemic: The COVID-19 pandemic has had an impact on both weekday and weekend travel patterns throughout the nation, including at the Bay Bridge. Traffic volumes at the Bay Bridge dropped substantially during March 2020, as the pandemic's effects began to be felt, and dropped even further in April 2020, following issuance of a statewide Stay at Home order on March 30, 2020. Travel restrictions were eased somewhat in May, with the issuance of a Safer at Home public health advisory which was effective on May 15, 2020, and volumes began to increase. Following the end of most COVID-19 restrictions in Maryland in mid-May 2021, volumes at the Bay Bridge have generally continued to increase. If a Tier 2 NEPA study is performed, the continuing impacts of the pandemic and recovery would be assessed in that study. Updated traffic volume data would be collected and analyzed to establish a then-current baseline and applied in the calibration of an updated travel demand model used to forecast future

traffic volumes. As with this Tier 1 EIS, the updated travel demand model used in Tier 2 NEPA would be based upon the travel demand models in use by regional and State planning agencies at that time.

All-Electronic Tolling (AET): Additional data collection and analysis has been conducted since the DEIS to consider the impacts of AET implementation at the Bay Bridge. The ongoing significant queues observed, even following full implementation of AET, suggest that the technology, by itself, does not eliminate congestion in the eastbound direction. Given the volumes attempting to cross the Bridge during peak periods, the Bridge itself remains a constraint on capacity. By eliminating the need for vehicles to slow or stop to pay their toll, AET can 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.

Existing Traffic Volumes: Some reviewers of the DEIS criticized the data used to support the traffic analysis. Among these critiques, commenters suggested that only one day of weekend traffic data from August 2017 was collected, that additional traffic data should have been collected, and that the data used in the DEIS were atypically high. To clarify, seven days of data were collected for summer conditions, starting on August 1, 2017, and ending on August 7, 2017. In response to public comments critical of the traffic analysis, traffic data for the Bay Bridge for June through August 2017 was reviewed. This review confirmed that weekly volumes were relatively consistent throughout the summer of 2017. Total volume during the week of 8/1/17 through 8/7/17 was slightly higher than the average weekly volume of the June through August period, but still representative of that time period and not abnormally high. This variation from the average weekly volume is well within a range typically accepted in traffic engineering analyses. For example, in its "VISSIM Modeling Guidance" (August 2017), MDOT SHA requires that "The volume calibrations should not exceed 10% of the count traffic volume…" (page 14). The 2.29 percent difference noted in **Table 3-2** and **Figure 3-2** is well within this range. The volumes used appropriately represent existing conditions, and the analyses appropriately reflect existing conditions.

6.2.2 Climate Change and Sea Level Rise

Additional analysis was conducted as detailed in **Section 3.2** to discuss the effects of climate change and sea level rise. Topics covered under this analysis included greenhouse gas (GHG) emissions, sea level rise vulnerability, and climate change resiliency. The results are summarized below.

Greenhouse Gas (GHG) emissions: A broad-scale, qualitative assessment of potential GHG emissions impacts was included in this FEIS. The discussion in **Section 3.2.1** identified transportation factors that could produce either an increase or a decrease in GHG emissions. Since there are factors that could influence emissions in both directions, the resulting net increase or decrease in GHG emissions cannot be definitively determined at this time. To perform a GHG analysis, affected road networks would need to be identified and traffic characteristics for those networks would be required, such as VMT and vehicle mix. Under both the No-Build and CARA, VMT in the region is expected to increase between 2015 and 2040, the current projected design year; it is likely that GHG emissions will also increase between 2015 and 2040. Additionally, because the projected increase in truck volumes within Corridor 7 is slightly higher than the projected increase in Corridors 6 and 8, it is possible that Corridor 7 could result in greater vehicle emissions than Corridors 6 and 8. Alternately, when traffic speeds and flow are optimized, less idling occurs; thereby reducing excessive emissions, including GHGs. Since Corridor 7 would result in the best congestion relief at the existing crossing location, with less queuing and idling, it would likely result in

lower GHG emissions from queuing than Corridors 6 and 8. Under a Build Alternative, more efficient vehicles along with reduced congestion could offset some GHG emissions from the transportation network.

Sea Level Rise Vulnerability: MDTA has utilized the MDOT SHA Climate Change Vulnerability application as a tool to aid in identifying sea level change and the predicted effects on roads and roadway infrastructure in Maryland. The geospatial application provides a means of visually depicting the extent of flooding and roadway inundation based on projected storm event scenarios for the years 2050 and 2100. Large portions of the study areas associated with all three CARA would be subjected to extensive inundation under both the 50- and 100-year events projected for 2050 and 2100. Because a proposed Bay crossing structure is expected to be in service for decades, MDTA will consider the potential range of future impacts into the design, maintenance, and construction of a new crossing. A future Tier 2 study would include more detailed assessment of sea level rise in the design, engineering, and comparison of alternatives. This would include an evaluation of opportunities to reduce risk and vulnerability to inundation.

Climate Change Resiliency: Climate change presents a growing risk to the reliability, sustainability, and safety of transportation infrastructure. Building resilience into the planning process will aid in recovery from increased hazardous weather events associated with climate change as climate related disruptions may lead to increased and cascading commuter delays, emergency system failures, and economic impacts. Given the coastal locations of the three CARA, construction within areas most susceptible to the effects of climate change would be unavoidable. Generally, the potential sea level rise and climate change resiliency evaluation presented here has not resulted in the identification any substantial new distinguishing factors among the CARA that would influence the identification of Corridor 7 as the PCA. A more detailed analysis of opportunities to incorporate resiliency into the selected alternative would be undertaken in a potential future Tier 2 analysis.

6.2.3 Environmental Justice

In accordance with EOs 12898 and 14008 and applicable USDOT and FHWA EJ orders, an EJ analysis was performed for the Tier 1 Draft EIS to identify potential EJ populations in the socioeconomic study area. Following comments received on the Tier 1 Draft EIS, a query of EPA's EJSCREEN tool was performed to supplement the EJ analysis and help identify potential EJ communities in the Tier 1 socioeconomic study area. The analysis was used to identify Census block groups in the Tier 1 Draft EIS socioeconomic study area that exceed the 80th national percentile for the following EJ Indexes:

- $PM_{2.5}$
- Ozone
- National-Scale Air Toxics Assessment (NATA) Diesel Particulate Matter (PM)
- NATA Air Toxics Cancer Risk
- NATA Respiratory Hazard Index
- Traffic Proximity and Volume

The EJSCREEN query identified 7 block groups in the Tier 1 socioeconomic study area that exceed the 80th or 90th national percentiles for one or more of the EJ Indexes listed above. All the block groups identified are located near the western end of Corridor 7; however, none are located within any of the CARA. MDTA would further evaluate the areas identified as potential EJ communities in a future Tier 2 study.

6.2.4 Section 106

Section 106 consultation continued in conjunction with the public availability of the Tier 1 DEIS in February 2021. MDTA distributed the Tier 1 DEIS and the final Cultural Resources Technical Report to consulting parties via email links. The DEIS included the identification of the MDTA-RPCA (Corridor 7). Consulting parties were invited 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.

MD SHPO responded to the DEIS in May 2021 and acknowledged that their comments provided in August 2020 had been incorporated into the final technical report and DEIS. The following consulting parties provided comments on the DEIS: Queen Anne's County, who did not provide comments related to Section 106, and the Kent Conservation and Preservation Alliance, who expressed general concern for the impact to cultural and historic resources. These comments have been considered in the FEIS and ROD.

6.2.5 Conclusion

The supplementary analysis presented in this FEIS has not brought to light information that would change the identification of Corridor 7 as the PCA. The updated traffic analysis showed that the overall results of the traffic analysis and underlying assumptions are still valid, and that changes occurring during the Study such as COVID-19 and implementation of AET at the Bay Bridge have not undermined the need for the Study. The assessment of climate change and sea level rise identified multiple factors related to both increases and decreases in GHG emissions, and potential sea level rise vulnerabilities that would be assessed further in a future Tier 2 study. The EJ analysis identified populations near Corridor 7 that would be given additional consideration if potential impacts in that vicinity are identified in Tier 2 for potential EJ concerns, but no additional populations were identified within any of the CARA. The Section 106 update reflects the Study's continued advancement through the Section 106 consultation process in conjunction with the NEPA study.

6.3 PUBLIC AND AGENCY COMMENTS ANALYSIS

MDTA received 861 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.

Public comments emphasized themes such as the need for traffic congestion relief, especially during peak summer travel times. The comments also identified questions about the basis for future travel projections, and whether recent mobility changes as a result of the COVID-19 pandemic should result in a reassessment of the project Purpose and Need. Commenters also 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. 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. However, in September 2021, Anne Arundel County approved a resolution in support of improvements within Corridor 7 and continuing study in Tier 2. Queen Anne's County approved a similar resolution.

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 future Tier 2 study and provided input and recommendations for Tier 2 concerns, such as detailed impact analysis, mitigation, and other future study considerations. As of October 2021, all BCS cooperating agencies have provided concurrence or no objection to the identification of Corridor 7 as the PCA.

6.4 CONCLUSIONS

MDTA has identified Corridor 7 as the PCA. The analysis presented in the DEIS, considered along with agency and public comments on the DEIS and supplementary information presented in the FEIS indicate that Corridor 7 would have substantial advantages over other CARA, Corridors 6 and 8. Major conclusions of the Study 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 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 on the Western Shore. 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.

- Supplementary information developed for the FEIS, including discussion of traffic, climate change and sea level rise, environmental justice, and Section 106, have not brought to light new information that would alter MDTA's decision to identify Corridor 7 as the PCA.
- Federal, state, and local agency comments on the DEIS 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.