

Table S-3: Potential Environmental Consequences

| Impact Category | No-Build | Build-8 | Build-8 Managed | Build-10 | Notes |
|--|----------|-----------|-----------------|-----------|---|
| Land use conversions (acres) | 0 | 281 | 287 | 304 | Land use conversion is measured by amount of right-of-way required. Most conversion in Hampton would be of institutional land; in Norfolk, most conversion would be of military land. |
| Community facilities | 0 | 11 | 11 | 11 | Implementation of any of the Retained Build Alternatives would require portions of community facility lands. |
| Parks and recreational facilities impacted (number/acres) | 0/0 | 14/24.6 | 14/25.2 | 14/26.4 | Implementation of any of the Retained Build Alternatives would require the acquisition of right-of-way comprising portions of parks and recreational lands. Additional information is available in Appendix C . |
| Potential residential relocations | 0 | 261 | 275 | 315 | Right-of-way acquisition and relocation would be in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Encroachment of I-64 into neighborhoods would impact community cohesion. |
| Potential business displacements | 0 | 16 | 16 | 17 | Right-of-way acquisition and relocation would be in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. |
| Env. Justice Populations impacted (number of Census Tracts with residential displacements) | 0 | 2 | 2 | 2 | Right-of-way acquisition and relocation would occur within communities with high minority and/or low-income populations. |
| Stream impacts (No. of crossings/linear feet of stream channel) | 0 | 12/18,200 | 12/18,300 | 12/18,500 | The Retained Build Alternatives would include the extension of existing bridges and culverts, new HRBT approach bridges with piers, a new tunnel beneath Hampton Roads, and the expansion of existing islands to accommodate tunnel portals. |

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| Water quality | 0 | Short-term and minor long-term impacts | Short-term and minor long-term impacts | Short-term and minor long-term impacts | Short-term impacts of all Retained Build Alternatives may include increased sedimentation, turbidity, and stormwater-borne pollutants. Minor long-term impacts may include increased quantities of pollutants due to increases in impervious surface. |
| Wetlands impacts (acres) | 0 | 52 | 52 | 53 | Information based on field-verified GIS data. Additional minimization efforts would be considered during Section 404 permitting. |
| Chesapeake Bay Resource Protection Area impacts (acres) | 0 | 536 | 542 | 560 | Public roads and their associated structures are conditionally exempt from Resource Protection Area regulation provided they are constructed in accordance with the Virginia Erosion and Sediment Control Law. |
| Floodplains impacts (acres) | 0 | 419 | 436 | 439 | The Retained Build Alternatives would not increase flood levels, the probability of flooding, or the potential for property loss. A detailed hydraulic survey and study would be performed during final design. |
| Sediment Transport, Bank Erosion, Shoaling, and Hydrodynamic Modeling | 0 | No anticipated impacts | No anticipated impacts | No anticipated impacts | The Retained Build Alternatives would result in a negligible impact on the James River surface current curve, the Elizabeth River tidal prism and eddies, and sedimentation potential near Hampton Flats. |
| Aquatic Habitat impacts | 0 | Short-term and minor long-term impacts to 491 acres | Short-term and minor long-term impacts to 497 acres | Short-term and minor long-term impacts to 514 acres | This acreage includes the total width of proposed bridges and tunnels. A more detailed assessment of aquatic habitat impacts would be provided during final design and permitting. |
| Water Bird Nesting impacts | 0 | 0 | 0 | 0 | No impact. |

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| Benthic Communities | 0 | Short-term and minor long-term impacts to 400 acres | Short-term and minor long-term impacts on up to 400 acres | Short-term and minor long-term impacts on up to 415 acres | Limited benthic footprint of the Retained Build Alternatives would limit long-term impacts. In the short term, dredging for tunnel installation and within potential aquatic borrow sites would temporarily result in the disruption of benthic communities. |
| Essential Fish Habitat, habitat Areas of Particular Concern, and Anadromous Fish Use Areas | 0 | Short-term impacts on 345 acres | Short-term impacts on 345 acres | Short-term impacts on 360 acres | Short-term impacts due to dredging. Acreage figure is for Anadromous Fish Use Areas only; information on Essential Fish Habitat and Habitat Areas of Particular Concern are not detailed enough to quantify. |
| Threatened and Endangered Species Habitat | 0 | Short-term impacts to 400 acres | Short-term impacts to 400 acres | Short-term impacts to 415 acres | Potential short-term impacts may occur to Kemp's Ridley, Hawksbill, Leatherback, Green, and Loggerhead sea turtle habitat, and shortnose and Atlantic sturgeon habitat as a result of disturbance from dredging for tunnel and bridge construction. |
| Submerged Aquatic Vegetation (SAV) impacts (acres) | 0 | 5.6 | 5.7 | 6.2 | Any disturbance or removal of SAV would be subject to approval from the Virginia Marine Resources Commission. |
| Terrestrial Habitat impacts (acres) | 0 | 290 | 295 | 312 | Impacts are comprised of developed land and roads. Implementation of the Retained Build Alternatives would disturb a limited amount of vegetated upland habitat. |
| Historic Architectural Resources impacted (No. of properties/ acres) | 0 | 13/687.6 | 13/692.7 | 13/714.2 | Impacts to resources would include the removal of residences from historic districts, impacts to Hampton National Cemetery, and the partial acquisition of right-of-way from other resources. |
| Archaeological Resources | 0 | Up to 16 sites | Up to 16 sites | Up to 16 sites | Additional archaeological investigations would be conducted pursuant to a Programmatic Agreement. |
| Air Quality | 0 | Minor short-term impacts | Minor short-term impacts | Minor short-term impacts | The Retained Build Alternatives meet all applicable air quality conformity requirements. No appreciable increase in air pollutant emissions is expected. |

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| Number of sites impacted by noise | 817 | 1019 | 1017-1019 | 1017 | Construction activities and increased capacity would result in noise impacts. |
| Potential Hazardous Material Sites impacted | 0 | 15 | 15 | 15 | Prior to the acquisition of right-of-way or construction, thorough site investigations would be conducted to determine the existence and extent of any contamination. |
| Visual impacts | 0 | Minor to moderate | Minor to moderate | Minor to moderate | The impact of adding lanes to I-64 would be minor to moderate because the existing visual environment already is urban and is characterized by a major interstate. |
| Energy Requirements and Conservation Potential | Impacts related to vehicle idle time and usage of less direct alternative routes | Minor impacts in terms of energy requirements | Minor impacts in terms of energy requirements | Minor impacts in terms of energy requirements | The impact of the Retained Build Alternatives would be associated with the energy use for maintenance and lighting, which would increase for each lane added. |
| Farmland and Agricultural/ Forestal Districts | 0 | 0 | 0 | 0 | There are no farmlands or agricultural and forestal districts located in the study area. |