

1. INTRODUCTION

The Virginia Department of Transportation (VDOT), in cooperation with the Federal Highway Administration (FHWA), is considering a range of transportation alternatives along the I-64 Hampton Roads Bridge Tunnel (HRBT) corridor. As part of this process, VDOT and FHWA are studying the potential environmental consequences of the No-Build Alternative and three Retained Build Alternatives: the Build-8 Alternative, Build-8 Managed Alternative, and the Build-10 Alternative. The study area is a one-mile-wide corridor along I-64 from the interchange with I-664 in the City of Hampton to the interchange with I-564 in the City of Norfolk, a distance of approximately 12 miles, including the 3.5-mile-long HRBT. Information in this memorandum supports discussions presented in the Draft Environmental Impact Statement (EIS).

The purpose of this Technical Memorandum is to identify farmlands, Agricultural and Forestal Districts, and sensitive soil types in the study area and to evaluate any potential impacts from the Retained Build Alternatives to lands that are protected under the Farmland Protection Policy Act (7 USC 4201 et seq. and 7 CFR 658) and the Virginia Agricultural and Forestal Districts Act (VC15.2-4300 et seq.).

2. FARMLANDS

In recognition of the need to identify and preserve lands that are important for the production of the nation's food supply and major cash crops, the Natural Resources Conservation Service (NRCS) along with Federal, State, and local governments have coordinated to inventory important farmlands. Important farmlands fall into two NRCS-designated categories, Prime and Unique Farmland, and can also be recognized on the state or local levels as Farmland of State or Local Importance. The US Department of Agriculture defines Prime Farmland as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oil seed crops and is available for these uses. Unique Farmland is land that is used for producing specific high-value food or fiber crops. Land that does not fall into either of these categories, but can produce high economic yields when managed according to acceptable farming methods, can be recognized as Farmland of Statewide Importance.

The study area is located in a highly urbanized area that has already been developed or designated as park land. An overview of the Prime and Unique Farmlands in the area is shown in **Figure 1**. As illustrated, there is no mapped Prime or Unique Farmland within the study area. Under any of the Retained Build Alternatives, a majority of the work would take place within the existing right-of-way. No adverse direct, indirect, or cumulative effects to farmland are expected to occur.

3. AGRICULTURAL AND FORESTAL DISTRICTS

Virginia State Code authorizes localities to designate Agricultural and Forestal Districts as a means of protecting working farm and forest land. Designation of these districts, which constitute voluntary agreements between localities and landowners, require landowners to keep their land in forest product or agricultural production for four to ten years. While a landowner may apply for the withdrawal of land from a designated district, the purpose of the program is to incentivize the maintenance of productive agricultural and forest land.

The study is located in a highly urbanized area that has already been developed or designated as park land. No Agricultural or Forestal Districts occur in the study area. As such, the Retained Build Alternatives will have no direct, indirect, or cumulative effects on Agricultural or Forestal Districts, and no additional coordination will be required.

4. SOILS

The characteristics of soils influence the design, construction methods, post-construction performance, and maintenance of roads. Identification and avoidance of problematic soils can decrease costs in all of these areas and enable design to account for characteristics such as erosivity and potential for sedimentation to waterways.

Analysis of soil maps reveals that the majority of the soils in the study area have been previously disturbed and are considered urban or cut/fill land and urban land complexes. These locations are not rated for characteristics of concern for sensitive soil types. Implementation of any of the Retained Build Alternatives would not impact sensitive soils.

There are soils associated with salt marshes and coastal plains within the study area. These hydric soils are found along Newmarket Creek, Brights Creek, Hampton River, John's Creek, Willoughby Spit, Oastes Creek, and Mason Creek and are frequently flooded. Should a build alternative be selected, efforts would be made to avoid and minimize stream, wetland, and floodplain impacts, and associated hydric soil impacts, to the extent practicable. Information on stream, wetland, and floodplain impacts is presented in the *Natural Resources Technical Report*. There are also beaches along Willoughby Spit, but they will not be impacted by any of the Retained Build Alternatives.

Non-sensitive soils would be impacted insofar as implementation would require excavation and/or fill. Soils unsuitable for road construction may need to be removed and replaced with imported, well-draining soils. At some locations, soils would need to be graded, potentially affecting the stability of the slope. To minimize impacts from soil disturbance, appropriate erosion and sediment control practices would be implemented in accordance with the Virginia Erosion and Sediment Control Regulations, the Virginia Stormwater Management Law and regulations, and VDOT's Road and Bridge Specifications. Implementation of best management practices, including compliance with VDOT's Erosion and Sediment Control Handbook, use of silt curtains, and revegetation guidelines, would minimize potential impacts due to soil erosion. Further efforts to avoid and/or minimize soil impacts would be made during final design.

