US 301 Project Development

2A

Resource Agency Coordination

DelDOT continues to work with the Environmental Resource and Regulatory Agencies on refining the Selected Alternative in a continuing effort to avoid and minimize project impacts, where practicable. Working sessions and field reviews are being and will continue to be conducted during the design and construction phases of the project.

The U.S. Army Corps of Engineers:

- Regulates environmental protection, navigation, flood control, disaster response, and military construction.
- Works toward a national goal of "no net loss of wetlands". The Corps works to restore existing wetlands, or to create new ones.
- Issues permit for the discharge of dredged or fill material into navigable waters at specified disposal sites.
- Makes decisions on whether to grant, deny or set conditions on permits to construct in wetlands. The Corps is required to consider "all factors in the public interest," including economic development and environmental protection

The Environmental Protection Agency (EPA) develops and enforces regulations that protect human health and the environment.

The U.S. Fish and Wildlife Service(FWS) works to conserve, protect and enhance fish, wildlife, plants, and their habitats

The Delaware Department of Natural Resources and Environmental Control (DNREC) protects and manages Delaware's vital natural resources and habitats, protects public health and safety, and provides quality outdoor recreation.

The State Historic Preservation Office (SHPO) works to protect and preserve Delaware's cultural resources. They are concerned about effects to Delaware's historic and archaeological resources.

The Delaware Department of Agriculture (DDA) works to sustain and promote the viability of food, fiber, and agricultural industries in Delaware. In part, this is accomplished by working to preserve and protect farmland through the Farmland Preservation Program, agricultural districts and easements.

All design refinements have been presented to the Resource Agencies - see appropriate Design Section Display Board.

Permitting Status

Projected submission for DNREC Permits:

- Section 3 - Submitted July 29, 2011
- Section 1 - September 2011
- Section 2 - October 2011

Permits received to date:

- September 14, 2007: Delaware Coastal Management
  - Federal Consistency Certification
- August 18, 2009: U.S. Army Corps of Engineers Provisional Permit
- January 13, 2011: Maryland E&S and SWM approved
- June 1, 2011: Maryland NPDES Permit

U.S. Army Corps of Engineers:

- Permit modification request will be submitted upon receipt of DNREC Section 3 permit approval.
- A final U.S. Army Corps of Engineers construction approval will be issued with the 401 Water Quality Certification approval for each design section.

Maryland Permits:

- Department of Natural Resources (DNR) Reforestation Law -January 2012.
- Maryland Department of Environment (MDE) Wetland and Waterways - Provide additional information and final plans - October 2011.

2B

Impacts and Proposed Mitigation

WETLANDS

- Total Impacts to Wetlands: 36.4 acres
  - Palustrine Emergent: 18.1 acres
  - Palustrine Forested / Mixed: 18.3 acres
  - Tidal: 0.01 acres
- Total Wetland Creation: 68+ acres
- Other Proposed Wetland Mitigation: 157 acres
  - Wetland Enhancement: 7 acres
  - Wetland / Waters / Forest Preservation: 84 acres
  - Upland Buffer Reforestation: 66 acreas

WATERS AND SUBAQUEOUS LANDS

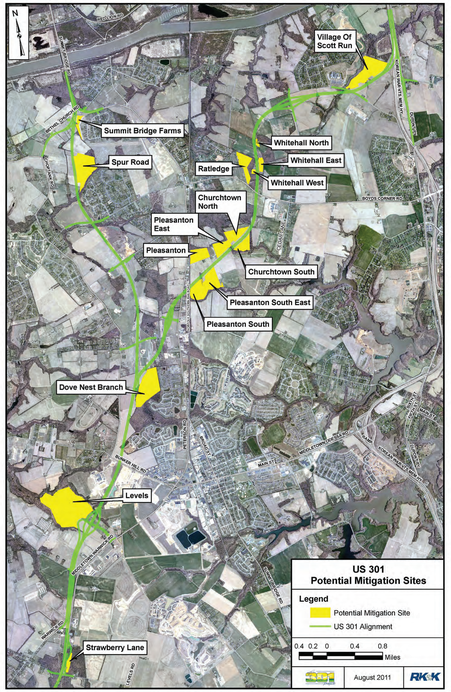
- Total Impacts to USACE Jurisdictional Waters of the U.S.: 2.6 acres / 11,624 lf
- Total Impacts to DNREC Jurisdictional Subaqueous Lands: 2.0 acres / 7,801 lf
- Proposed Waters / Subaqueous Lands Mitigation: 55 lf / 141 acres
  - Stream Restoration: 55 linear feet
  - Riparian Buffer Enhancement: 141 acres

FOREST

- Total Impacts to Forest: 67.4 acres
- Proposed Forest Mitigation: 138 acres
  - Reforestation: 67 acres
  - Forest Preservation: 72 acres

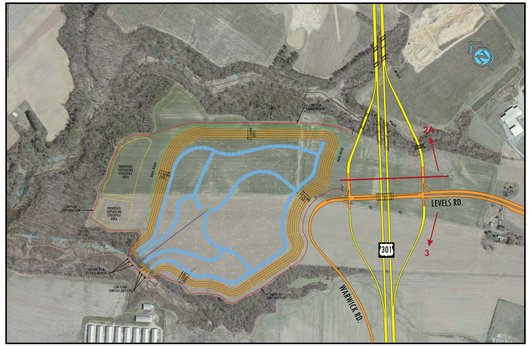
2C

Mitigation



2D

Levels Mitigation Site



- Will provide the bulk of the wetland mitigation required for the US 301 Project
- 58+ acre, perennially-saturated, forested wetland creation project
- Groundwater fed wetland will be created by excavating to elevation 32'
- Drainage ditches will distribute water throughout the site (shown above as thick blue lines)
- Bed harrowing will be used to create microtopography (the final runs of the bed harrow are shown above as thin yellow dashed lines)
- Wetland outlets to an unnamed tributary to Sandy Branch
- Beaver dam bypass device will prevent beaver damage to site
- The Levels Mitigation Site and surrounding natural areas will be preserved in perpietuity
- Excavated material will provide ~ 3 million cubic yards of borrow material for the US 301 Project, the majority of which will be moved to the project along the US 301 alignment, minimizing impacts to local roads and traffic