



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF MANAGEMENT AND BUDGET  
STATE PLANNING COORDINATION

October 31, 2005

Mr. Mark Tudor  
DeIDOT  
P.O. Box 778  
Dover, DE 19709

RE: PLUS review – PLUS 2005-09-05; US 301 Project

Dear Mr. Tudor:

Thank you for meeting with State agency planners on October 5, 2005 to discuss the proposed plans for US 301 project located in Southern New Castle County.

According to the information received, you are seeking input on a range of alternative routes for the new proposed US 301 alignment in southern New Castle County.

These comments reflect only issues that are the responsibility of the agencies represented at the meeting. You will also need to comply with any Federal, State and local regulations regarding properties affected by the new route.

The following are a complete list of comments received by State agencies:

**Office of State Planning Coordination – Contact: Herb Inden 577-5188**

It is important to keep in mind that this project is about more than simply moving vehicles through New Castle County. This is without a doubt, one of the most significant projects since the construction of Route 1 with regard to its potential impact on development in New Castle County and in particular, Southern New Castle County which still has a significant amount of open space. As a result, Livable Delaware principles should be paramount for considering both route selection and road design.

As you may recall, Governor Minner, early in her administration, put forth Livable Delaware as a “positive, proactive strategy that seeks to curb sprawl and direct growth to areas where the state, counties and local governments are most prepared for it in terms of infrastructure investment and thoughtful planning”. She was particularly interested in coordinating State agency planning, resource management, and investments in order to support growth where it is appropriate and planned for, and discouraging growth in inappropriate locations. As a result, the following Livable Delaware principles should be used by all state agencies in regard to projects affecting the physical environment:

- Guide Growth to Areas That Are Most Prepared to Accept it in Terms of Infrastructure and Thoughtful Planning
- Preserve Farmland and Open Space
- Promote Infill and Redevelopment
- Facilitate Attractive, Affordable Housing
- Protect Our Quality of Life While Slowing Sprawl

With all of that said, some additional considerations to keep in mind when evaluating routes and designs for 301 are:

- This project should be carefully coordinated with the County’s recently initiated process to update it’s comprehensive plan,
- This project should also be coordinated with the County’s effort to reformulate it’s sewer plans for Southern New Castle County.
- Livable Delaware/Smart Growth type projects like Bayberry, Whitehall, Scott Run and Westown must be carefully considered if affected by the selected route; and,
- *Strategies for State Policies and Spending* Level 4 impacts: In these areas, State policies encourage preservation of agricultural and natural resources and not development. Because the “Blue Route” is located in the Level 4 Investment Area of the State Spending Strategies and the Suburban Reserve area of the New Castle County Unified Development Code (a low density classification meant to discourage development), we would strongly recommend against the selection of this route because it could hasten development to an area we are not prepared for development to occur in.

Our office will work with you as needed in an effort to best meet the needs of Governor Minner’s Livable Delaware program

**Division of Historic and Cultural Affairs – Contact: Alice Guerrant 739-5685**

The Division of Historic and Cultural Affairs noted that they are in consultation with DelDOT and the Federal Highways Administration about this project under Section 106 of the National Historic Preservation Act of 1966 (as amended), and will have complete comments to them under that process. However, the Blue alternatives have not been reviewed as yet, and Alice did want to state that they are not in favor of this route. It would lead to the destruction of a wide swath of historic farm landscape and potentially of a number of archaeological sites. It will have adverse effects on historic buildings and possibly on the Townsend Historic District, listed in the National Register of Historic Places, through visual and noise effects from the road and from the increased development it is likely to foster.

**Department of Transportation – Contact: Bill Brockenbrough 760-2109**

No Comment

**The Department of Natural Resources and Environmental Control – Contact: Kevin Coyle 739-9071**

Over the life of the proposed controlled access extension of Route 301, and taking into account future uncounted impacts associated with development that a new road will stimulate, it appears that the “ridge alternatives” may best protect water resources. These avoid impacts to the high value wetlands associated with the blue alternative in the Townsend area. The yellow alternative and orange alternatives do little to control access that may stimulate uncontrolled growth that has been shown to be expensive to provide services to such as water supply and waste water. Assuming a new road is needed for public welfare and safety the key to protecting water resources over time appears to be controlling access, proper construction and mitigation.

Based on the information supplied by the applicant, the information provided is insufficient to make a good recommendation for any of the 11 proposed US 301 route alternatives. The following are recommendations and/or pertinent questions that Watershed Assessment Section feels should be addressed before a decision can be made:

- 1) The Watershed Assessment Section believes that a complete assessment of the projected environmental impacts must include extensive “on-the-ground” field analysis by qualified field personnel to make “site-specific” recommendations – not just a cursory GIS acreage analysis of “loosely defined” natural resource features. The current analysis tells us little about the quality of the resource (plant species composition and endangered plant/animal species, etc.) and its landscape

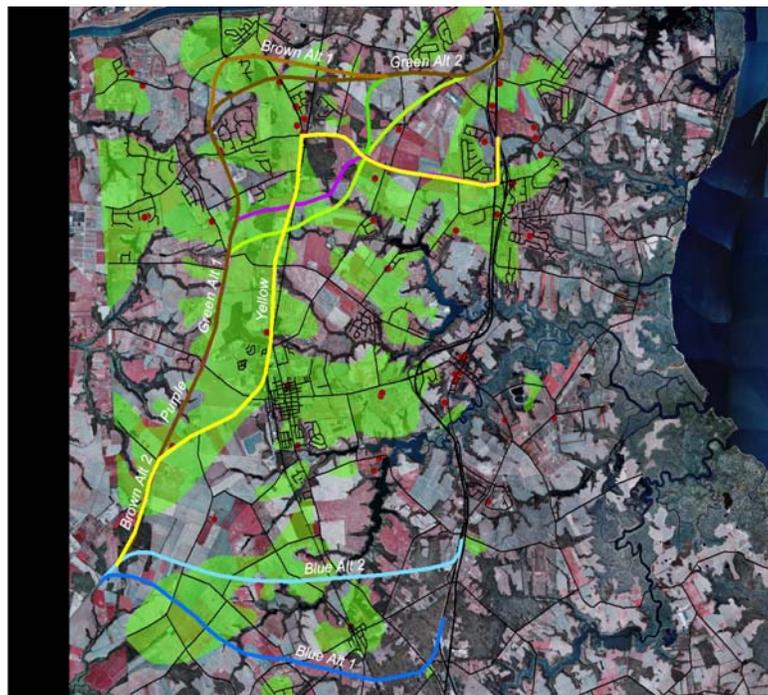
interaction or context (size and connectivity of forest/wetlands/water bodies and animal habitat/migratory corridors, etc.). Such information is also important for making Best Management Practice (BMP) recommendations for reducing the concentration and quantity of nutrient runoff necessary for meeting federally-mandated TMDL nutrient load reduction targets.

- 2) What is considered a wetland? Are wetlands being assessed by existing wetland mapping or in conjunction with field work? How are such impacts assessed? Will specific construction practices or road-crossing techniques (bridge type and extent) have more impacts to natural resources (i.e., wetlands, water bodies, or forestlands) at different road crossing locations within and between various route alternatives?

### **Water Resource Protection Areas**

The DNREC Water Supply Section has determined that each proposed route site has its own unique characteristics. All of the proposed route alternatives impact excellent recharge areas to some degree. Some of the proposed route alternatives impact wellhead protection areas or have the potential to impact wellhead protection areas through the construction process. The excellent recharge and wellhead information was provided to DelDOT prior to the PLUS application submittal but was left off of the maps provided for PLUS review.

**All proposed alternatives in corresponding color with Excellent Recharge in Green and Wellhead areas in Dark Red**



Road building has the negative effect of increasing the amount of impervious cover in the area. Some of the routes use preexisting rights-of-way. The new road construction will most likely increase the width of the road and increase the amount of impervious cover. Redevelopment of preexisting rights-of-way also has the potential to have a smaller net increase to impervious cover.

The Yellow Alternative uses pre-established roads as the basis for the new route. The road impacts excellent recharge areas and wellhead areas. The wellhead areas overlap the rights of way in several areas and should be addressed on a case by case basis.

**Yellow Alternative: Excellent Recharge in Green and Wellhead areas in Dark Red**



The Purple Alternative uses mostly pre-existing roads as the starting point and breaks new ground to cross the current Route 301. This alternative is mostly in excellent recharge areas and would increase the impervious cover for this area.

**Purple Alternative: Excellent Recharge in Green and Wellhead areas in Dark Red**



The Green Alternatives only impact excellent recharge areas once they cross Route 896. At that point they will have similar impacts as the Purple Alternative. Most of the Green Alternative is in excellent recharge areas as it parallels the current Route 301 following a more western path.

**Green Alternatives: Excellent Recharge in Green and Wellhead areas in Dark Red**



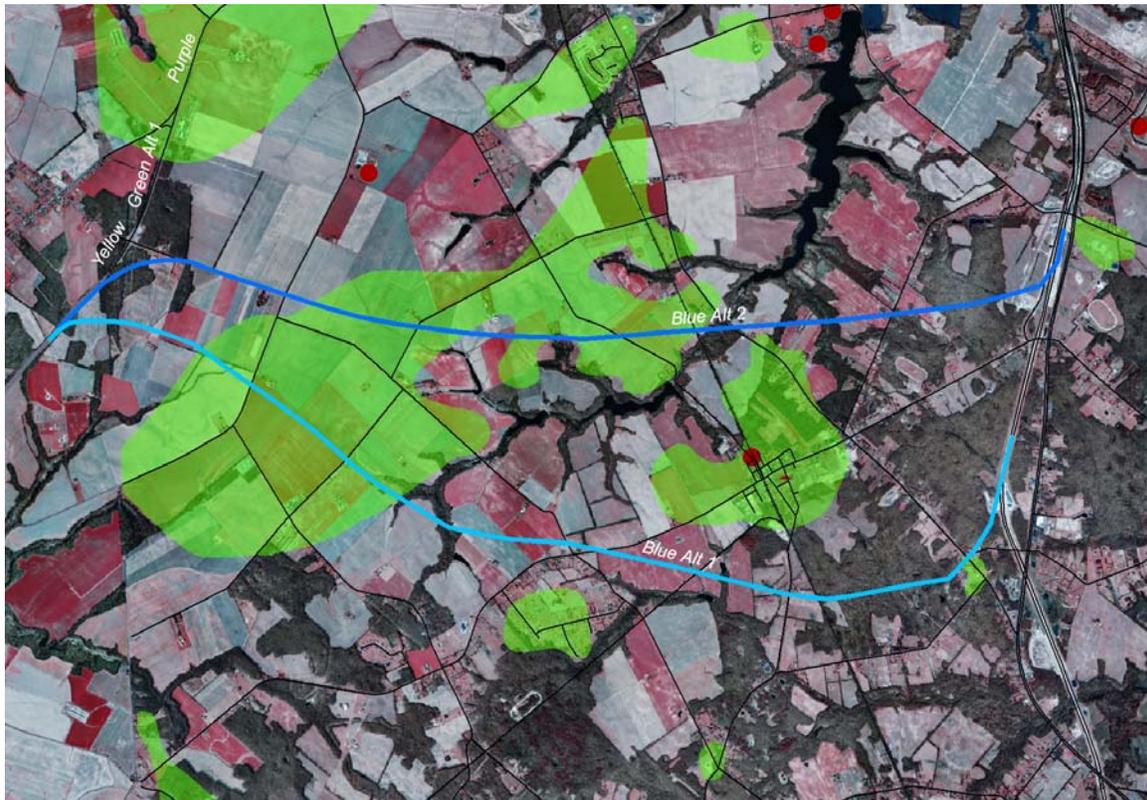
The Brown Alternatives impact excellent recharge areas along most of the length of their paths. The Brown Alternatives do follow some pre-existing roads for a large proportion its route. This alternative is longer than most of the others and therefore increases the impervious cover overall. This may not translate directly to impact to excellent recharge areas.

**Brown Routes: Excellent Recharge in Green and Wellhead areas in Dark Red**



The Blue Alternatives are the shortest of the alternatives proposed and impact the smallest area of excellent recharge and wellhead area. They do not utilize existing roadways for most of the route. The alternatives could be built to limit the impervious cover impact through initial “green” design.

**Blue Routes: Excellent Recharge in Green and Wellhead areas in Dark Red**



Application of “green” practices to road construction may lessen the impact of increased impervious cover. Road building technology that funnels runoff to a storm sewer that does not allow potentially contaminated runoff to flow directly into the excellent recharge or wellhead protection areas is preferred. We encourage these implementing these types of practices when the design of the road is conducted. We also encourage reutilization of existing rights of way to limit the net impervious cover change in conjunction with “green” design.

Most of the new alternatives proposed run through New Castle County. New Castle County has a Unified Development Code (UDC). The UDC has a section on Water Resource Protection Areas (WRPA) that includes excellent recharge and wellhead protection areas (WHPA). The WRPA ordinances are designed to “protect the County’s water resources from contamination and pollution and to insure adequate water quality for future needs.”

Specific language of the UDC states that storm water runoff is required to be diverted around WHPAs where practicable. When storm water is discharged to a WHPA it shall be sheet flow a storm water management facility. This rule is specifically applied to all parking areas since these areas are predominantly impervious cover.

The New Castle County UDC states an impervious cover threshold for excellent recharge areas. When impervious cover exceeds 20% steps need to be taken to insure the quality of the storm water runoff is equal to or greater than the predevelopment conditions. The purpose of an impervious cover threshold is to minimize loss of recharge (and associated increases in storm water) and protect the quality and quantity of ground water and surface water supplies.

For information regarding the Unified Development Code in New Castle County contact:

*New Castle County  
Department of Land Use  
87 Reads Way  
New Castle, Delaware 19720-1648  
(302) 395-5400*

For more information refer to the March 2004 Final Source Water Protection Guidance Manual for the Local Governments of Delaware

<http://www.wr.udel.edu/swaphome/phase2/SWPguidancemanual.html>

and

Ground-Water Recharge Design Methodology

[http://www.wr.udel.edu/swaphome/phase2/Publications/swapp\\_manual\\_final/swapp\\_guidance\\_manual\\_supp\\_1\\_2005\\_05\\_02.pdf](http://www.wr.udel.edu/swaphome/phase2/Publications/swapp_manual_final/swapp_guidance_manual_supp_1_2005_05_02.pdf)

## **Natural Areas Program**

The Natural Areas Program works in close coordination with the Delaware Natural Heritage Inventory Program. That said, potential impacts to wetland and forest resources are central in identifying an appropriate alignment for the route 301 project.

Both DelDOT and the consultant, RK&K indicated that formal, “on-the-ground” wetlands delineation would be possible once options were narrowed down to a select few. To make an informed decision, it is necessary to understand the full impact to both forest and wetland resources under each scenario. Therefore, I strongly urge the consultant/DelDOT to accurately determine impacts to wetland and forest resources prior to narrowing down alignment options.

The Office of Nature Preserves has recently updated Natural Area boundaries. The proposed changes have not yet been vetted through the public workshop process; however, I would suggest that there would be little change to the proposal. With this in mind, I analyzed the potential impacts to both existing and proposed Natural Area for the Red, Yellow, Purple, and Blue alternatives. I offer the following summary of potential impacts:

### Red –

- 5.17 acres of impact to existing Iron Hill Natural Area
- Approximately 3-4 acres of impact to proposed addition of Natural Area in both the Iron Hill and Christina River Natural Area

### Yellow –

- .33 acres of impact to existing Augustine Creek Natural Area
- .28 acres of impact to proposed addition of Natural Area in the Augustine Creek Natural Area

### Purple –

- .33 acres of impact to existing Augustine Creek Natural Area
- .29 acres of impact to proposed addition of Natural Area to the Augustine Creek Natural Area

### Blue –

- 4.7 acres of impact to existing Noxontown Pond Natural Area
- 39.27 acres of impact to proposed Blackbird Creek Natural Area

- 3 properties in the Agricultural Lands Preservation program would be impacted by the Southern route

From the perspective of the Office of Nature Preserves, the Blue alternative is unacceptable.

### **Rare Species**

DNHESP is in the process of reviewing our database regarding state-rare or federally listed plants, animals or natural communities near the proposed alternatives for the US 301 Project. Each Project Development alternative will be reviewed and recommendations regarding best methods to avoid negative impacts will be made available to the Project Development team.

### **Wetland and Riparian Buffers**

Any alternative chosen for the US 301 Project should avoid crossings of streams and wetlands. Degradation of stream and wetland systems affects these systems' abilities to minimize the peak strength of floodwaters, thus increasing erosion. Unnatural erosion can alter the structure of wetlands and streams, making them unsuitable for the plants and wildlife that rely on them. Wetlands and riparian buffers also protect water quality by filtering runoff into streams. Buffers should be a minimum of 100 feet wide. In the event that stream crossings are unavoidable, a time of year restriction may be recommended to protect spawning fish and other wetland dependent species. When construction is being done near any wetlands or bodies of water, stringent erosion and sediment control measures should be used.

### **Wetland Mitigation**

If any wetland mitigation is conducted, DNHESP would appreciate the opportunity to review and comment on mitigation sites in relation to their potential impacts on rare species.

### **Forest Preservation**

An estimated 5,000 acres of forest have been lost in Delaware since 1990 and the cumulative loss has led to a corresponding loss of forest dependent species. Larger, connected areas of forest are more beneficial to wildlife than narrow strips or small disconnected areas. Fragmenting large patches of forest increases "edge effects" that leave many forest-dwelling species vulnerable to predation and allows the infiltration of invasive species. Large patches of forest are relatively rare in the US 301 Project

Development area. Every effort should be made to leave these patches intact. When project alternatives are chosen, this should be kept in mind.

### **Potential Hunting Issue**

Because the project alternatives may contain large forest blocks, legal hunting activities may take place on adjacent properties. The applicant may want to contact adjacent landowners to determine if this is going to be an issue. If hunting regulations prohibit hunting within certain distances of limited access roadways, the adjacent landowner will be losing portions of their property for hunting if there is not buffer between the roadway and the adjacent property line.

### **Nuisance Waterfowl**

If stormwater management ponds are included along the route alternatives, they may attract waterfowl like resident Canada geese and mute swans. High concentrations of waterfowl in ponds create water-quality problems and can become aggressive during the nesting season. The effect of geese taking their goslings across a limited access roadway may have drastic safety implications for drivers. Short, manicured grassy areas around ponds provide an attractive habitat for these species. We recommend native plantings of tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area (50 feet) around the perimeter. Waterfowl do not feel safe when they can not see the surrounding area for possible predators. These plantings should be completed as soon as possible after the pond is created as it is easier to deter geese when there are only a few than it is to remove them once they become plentiful. The Division of Fish and Wildlife does not provide goose control services, and if problems arise, the applicant may have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with proper landscaping, monitoring, and other techniques, nuisance waterfowl problems can be minimized.

### **State Natural Area/State Natural Heritage Site**

Several of the route alternatives impact State Natural Areas, most notably along the Blue alternatives. Furthermore, the more northerly of the Blue alternatives crosses the Noxontown Pond State Natural Area which contains a pair of nesting bald eagles. The presence of the nesting eagles qualifies this area as a State Natural Heritage Site. Every effort should be made to avoid impacting State Natural Areas in general and specifically State Natural Areas hosting threatened and endangered species. In any cases where a proposed alternative traverses state owned land (e.g. Wildlife Area, Natural Area, State Forest), further coordination with the manager of that parcel is recommended.

**State Fire Marshal's Office – Contact: John Rossiter 302-323-5365**

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal's Office. At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

The DE State Fire Marshal's Office has no objection to any of the 301 alternatives. I offer a couple of suggestions when picking an alternative. First try to pick a route that will be Fire Department friendly. Remember that the Fire and EMS apparatus must be able to get on and off the road easily. The road should not disrupt apparatus responses throughout their territory. The second thing to consider is fire hydrant locations and access to the fire hydrants. Often times storm water swales and ditches make it nearly impossible for the fire department to access a fire hydrant without crossing a body of water. Consideration should be given to how fire department personnel will get to a fire hydrant.

Some of the alternative cross into different fire districts, therefore, all the fire departments should be contacted for comment prior to picking an alternative.

Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: [www.delawarestatefiremarshal.com](http://www.delawarestatefiremarshal.com), technical services link, plan review, applications or brochures.

**Department of Agriculture - Contact: Milton Melendez 698-4500**

The Delaware Department of Agriculture is currently and will continue to work with the Rt. 301 Project Team, making available the latest agriculture related data that will be crucial in minimizing impacts the agricultural industry of the First State. Though the Department of Agriculture would prefer an alignment that has minimal impacts to agriculture, we do acknowledge that an alignment has to be proposed. The Department of Agriculture will support alignments that prove to have lower impacts based on Land Evaluation & Site Assessment model (LESA), the Strategies for State Policies and Spending, and the Green Infrastructure Strategies Plan. In addition, the Delaware Forest Service supports these initiatives taken by the department; however, would ask for the Rt. 301 Project Team to consider the following:

The Delaware Forest Service asks that the Rt. 301 Project Team adopt a policy of "Avoid Minimize and Mitigate" impacts to forest resources. This concept will lessen impacts and

allow for retention of the resource. However, if forest resources are removed, the Rt. 301 Project Team should consider a variety of wood utilization practices to promote forest industry within the state. Lastly, removed forest resources should be replaced with acceptable native plant species and these replacement activities should coordinate with local municipalities to provide and improve forest resources within the region.

**Public Service Commission - Contact: Andrea Maucher 739-4247**

DelDOT should seek input from impacted cable, electric, natural gas, telephone, wastewater and water utilities. The proposed routes may affect short-term and long-term infrastructure planning activities by these utilities, and there may be opportunities for increased coordination between entities.

**Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.**

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,

A handwritten signature in cursive script that reads "Constance C. Holland".

Constance C. Holland, AICP  
Director

CC: Town of Townsend  
Town of Middletown  
New Castle County