



# County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

## Alternatives for Improving Roadway Services in Fairfax County

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## EXECUTIVE SUMMARY

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Since 1932, most roads in the County have been operated and maintained by the Virginia Department of Transportation (VDOT). As the County has matured from rural to suburban and more recently to urban conditions, the desirability of assuming more responsibility for the roadway system has occasionally been raised. The recent national economic downturn has magnified this situation, as VDOT has been forced to reduce its budget at a time when operating and maintenance costs have been growing. Not only has the gap between needs and resources increased, but the statewide nature of many VDOT standards and policies has sometimes conflicted with the increasingly urban character of Fairfax County. Moreover, concerns have been raised that as a state agency, VDOT may not have the resources available to respond to specific local requests as local citizens might expect.

These conditions have led to the initiation of this effort to examine the implications of the County assuming a greater degree of responsibility over the roadway network, coupled with the potential of enhancing the funding that may be directed to these facilities. This report provides an initial review of several possible ways in which the County might assume a greater role over the roadway system, as well as some of the major financial, legal, and other implications of such actions. The study focuses on the responsibilities of the primary and secondary road systems in Fairfax County. All of the alternatives discussed in this report presume that VDOT will continue to have full responsibility for the Interstate system.

Upon initial identification and review of these alternatives, the County should consider incrementally assuming additional responsibilities for the roads within the County. Three actions would continue the County on this course and are summarized here for consideration by the Fairfax County Board of Supervisors (the Board):

- *Work with VDOT to Identify Additional Administrative, Planning, or Engineering Functions that the County could Assume With or Without Additional Funding*
- *Work with VDOT to Enhance Selected Maintenance Activities Countywide*
- *Assume Full Maintenance Responsibilities for Identified Geographic Areas under the Provisions for Urban Transportation Service Districts*

The remainder of this executive summary describes major findings, discusses the alternatives considered, and provides more detail on the follow up actions summarized above for consideration by the Board.

This study is not an exhaustive analysis of the total costs of these approaches. Rather, it provides an initial estimate of order-of-magnitude costs and identifies major legal and administrative issues associated with such a decision. Detailed analyses of equipment, facility, and staffing needs must be conducted in a subsequent study. Should the County decide to pursue any of the alternatives described in this report, further detailed analysis must be undertaken.

This report has been prepared using information provided by VDOT during the period between July and September, 2010. On September 23, Governor McDonnell released the results of a performance audit that examined a number of VDOT activities and functions.<sup>1</sup> While the audit included several findings about VDOT maintenance allocations and expenditures, the information

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<sup>1</sup> *Performance Audit of Significant Operations of the Virginia Department of Transportation*, Cherry, Bekaert & Holland, L.L.P., August 2010

in this report reflects only the actual expenditure and allocation data provided by VDOT. The extent to which different management decisions by VDOT might influence the expenditure and allocation amounts reported herein is not known at this time.

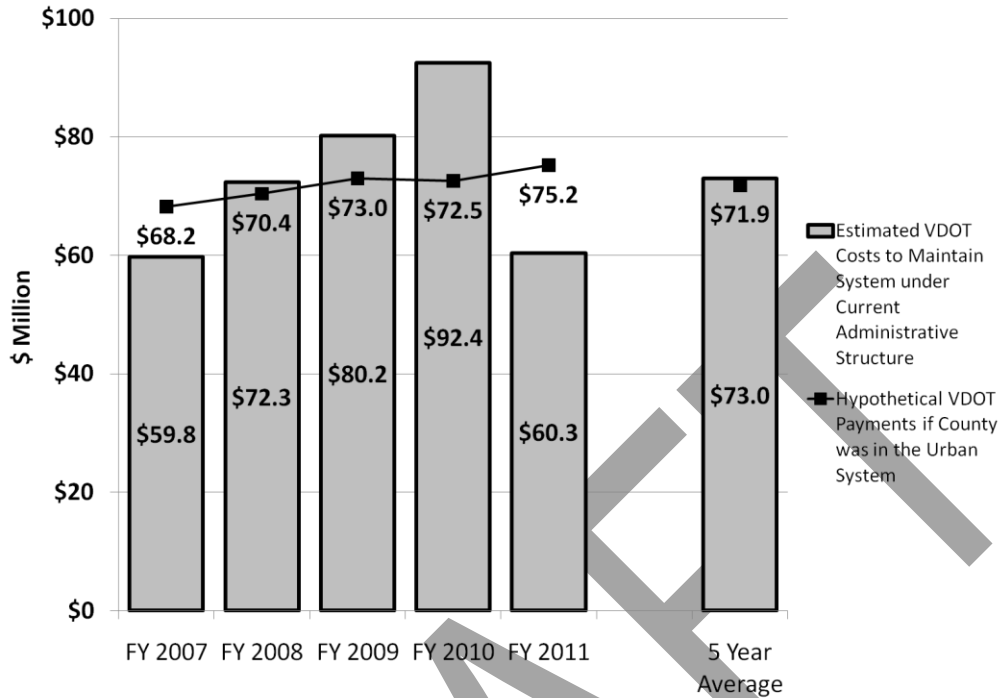
### **Administrative Structure**

There are three basic administrative structures by which VDOT funds and supports maintenance and operations activities within the Commonwealth. These consist of:

- Direct accomplishment of these activities either by VDOT personnel or by contractors under VDOT supervision, for all three state-maintained systems – interstate, primary, and secondary. This arrangement exists for almost all counties with few exceptions. Fairfax County falls under this arrangement.
- Direct payments to towns with populations over 3,500 and all cities. Localities use these payments to directly maintain the streets within their boundaries except for the interstate highways. VDOT retains responsibility of the interstates. The roads maintained by the cities and towns are generally referred to as the urban system.
- Direct payments to counties that have assumed or retained responsibility of the secondary system of roads within their jurisdiction. VDOT retains responsibility of the interstate and primary systems of roads within these counties. Currently, Arlington and Henrico counties are the only jurisdictions under this arrangement. They retained responsibility of their secondary road systems during the 1930's when most counties elected to transfer responsibility of their secondary system to the Commonwealth. At that time, the counties of Arlington and Henrico were more urban than most other counties and elected to retain control. Each county negotiated maintenance payments from the state, although the amount of this payment is different for each county as well as from that provided to cities and towns.

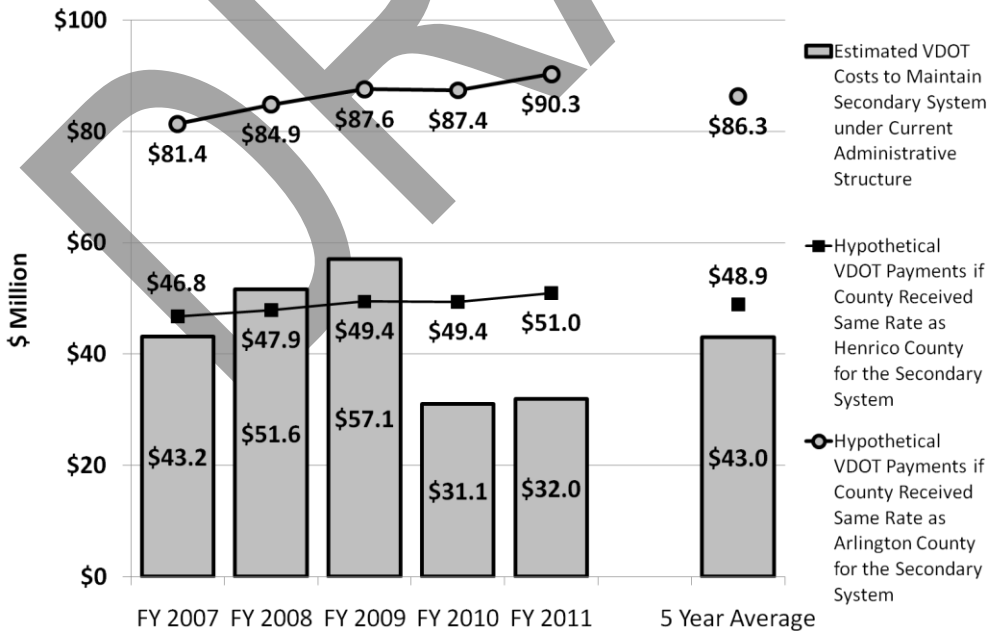
Throughout the course of this study, one question frequently raised is what would be the County's funding if the maintenance and operations of the roads fell under one of the other administrative structures. Between FY 2007 and FY 2011, the estimated VDOT funding for primary and secondary road maintenance and operations in Fairfax County varied between \$59.8 and \$92.4 million. Figure ES-1 compares this with what the County could have hypothetically received if it fell within the administrative structure for cities and towns. Figure ES-2 compares the current VDOT secondary road maintenance and operations funding in the County against what would hypothetically be received if the County received payments similar to Arlington County and Henrico County.

**Figure ES-1: Estimated VDOT Costs to Maintain System under Current Administrative Structures versus Calculated Payments if County was in the Urban System**



Note: FY 2007 – FY 2009 VDOT costs represent expenditures; FY2010 – FY 2011 VDOT costs represent budget allocations.

**Figure ES-2: Estimated VDOT Costs to Maintain System versus Calculated Payments Using Arlington and Henrico County Rates – Secondary System Only**



Note: FY 2007 – FY 2009 VDOT costs represent expenditures; FY2010 – FY 2011 VDOT costs represent budget allocations.

These figures demonstrate that VDOT maintenance and operation costs are relatively similar to the calculated payments the County may have received under the urban system and also under an arrangement similar to Henrico County. In both these cases, sometimes VDOT's maintenance costs are higher and sometimes lower than the calculated payments. The only administrative structure that would have generated significantly more funding is that used for Arlington County. While this comparison implies that there is a potential to increase maintenance funding by simply changing to an arrangement similar to that which applies for Arlington County, it is extremely unlikely that the actual funding level would be comparable to the hypothetical calculations shown. The funding sources for transportation statewide are fixed, and according to most trends the revenues from these sources are declining. Any potential increase in state maintenance funding for Fairfax County may result in decreased funding for other maintenance needs statewide, and would probably prompt a complete rebalancing of state funds in ways that cannot be predicted at this time.

These figures illustrate that the maintenance payments received by cities and towns along with Arlington and Henrico counties are more consistent than VDOT's estimated costs in Fairfax County. It is unclear why VDOT's estimated costs fluctuate year to year. Fluctuations may be indicative of cyclical paving or other contract work and do not necessarily correlate to instability in maintenance program funding. While VDOT's estimated costs fluctuate over the five years shown here, the calculated payments the County could have received under the other arrangements show steady growth. Therefore, while both the administrative structures for urban systems and for Henrico County may provide about the same funding to the County as what VDOT spends, the funding under these structures would have been at least more consistent and predictable.

### **Potential Benefits of Greater County Involvement**

Several factors contribute to a renewed interest in the County assuming greater responsibilities for its roadway network. These include:

Overall funding level. The ability of the state to build, maintain, and operate its roadway system is becoming increasingly difficult. Funding for maintenance activities has assumed an increasing proportion of the VDOT budget, and these activities themselves are being reduced. The County is increasingly finding itself in the position of assuming responsibilities that VDOT cannot adequately fund. Serious considerations of greater County involvement may help the County stay ahead of a deteriorating situation.

Enhanced influence in transportation decision-making. Since the County is now funding a large percentage of road improvements due to reductions in state funding, it is not unreasonable for the County to exert an expanded role in maintaining and operating the system.

Improved responsiveness and accountability. The fact that most decisions related to the roadway network must be made by VDOT creates an additional layer of government that adds time and complexity to even the simplest of issues. Presumably the County could implement a more streamlined decision structure that would improve responsiveness and accountability.

Increased flexibility in establishing priorities and standards. Since VDOT is responsible for roads throughout the state, its rules, standards, procedures, and policies are not always appropriate for urban and suburban areas such as Fairfax County.

### **Alternatives for Improving Service Delivery**

There are several ways in which the County might assume greater responsibilities for its roadway network, each with different scopes and levels of authority. In considering alternative approaches to this issue, it is useful to separate both the individual functions that the County may assume as

well as the systems to which those functions apply. In the broadest sense, these functions include maintenance, operations, and construction. Since VDOT operates both the Primary and Secondary systems, it is conceivable that the County could selectively assume responsibilities for certain functions on either or both of these systems.

The County's ability to assume additional responsibilities on the state highway system is governed by the *Code of Virginia*. Some alternatives that the County may wish to pursue may require legislative action by the General Assembly.

The following alternative approaches for improving the delivery of road maintenance functions are identified in this report.

- Enhancement of selected maintenance activities, either through the provision of additional funding to VDOT for those activities, or the assumption of direct responsibility for those activities by the County. The cost of this approach will depend upon the specific activity or activities involved. Between fiscal years 2007 and 2009, on average VDOT spent approximately \$28.5 million annually for pavement and \$1.6 million annually for mowing in Fairfax County.
- Assumption of secondary system responsibilities under the devolution statute of the *Code of Virginia*, which allows counties to assume all maintenance, construction, and / or operations of the secondary system from VDOT, under certain conditions and with certain requirements. VDOT expenditures and allocations for maintenance and operations activities on the secondary system in Fairfax County between FY 2007 and FY 2011 average \$43 million per year.
- Assumption of all responsibilities on the secondary and primary system for selected geographic areas of the county under provisions in the *Code of Virginia*, which allow for the creation of Urban Transportation Service Districts. The cost of this approach will depend upon the specific areas included. Based on VDOT's estimated costs in Fairfax County for the past five fiscal years, an area with 125 lane-miles of road, which is about the same amount as Herndon, VA, may cost approximately \$1.4 million. The County would also receive VDOT funding under the same terms as cities and towns.
- Assumption of all responsibilities on the secondary and primary system for the entire county. Based on VDOT's estimated costs in Fairfax County for the past five fiscal years, the annual cost of this approach could exceed \$73 million per year, exclusive of any additional non-recurring start-up costs.

### **Implications of Alternative Approaches**

Each of the alternative strategies entails a broad spectrum of administrative, legal and financial implications. The most significant advantages and disadvantages of each approach are summarized in Table ES-1. For options in which only selected functions are performed by the County, VDOT would retain the ultimate authority for establishing and maintaining standards.

With particular respect to the potential cost of any alternative, the following points should be noted:

- The cost estimates provided in this report do not represent detailed analyses of all costs associated with the assumption of any of these functions, or precise estimates of the final costs that the County may bear. Should the County decide to pursue any of the alternatives described in this report, further detailed analysis must be undertaken.

- In addition to the recurring expenditures associated with performing various maintenance, construction, and / or operations functions, the assumption of any of these duties will also entail certain initial expenditures for such assets as facilities, equipment, and staff. In general, the greater the scope of the functions assumed, the greater the initial start-up costs to the County.
- If the County's role in these functions grows larger it is likely that the public's expectations for the provision of services will also expand. There is likely to be an expectation that the County will provide a higher overall level of service than does VDOT.
- If the County assumes greater authority over its roads, the Board is likely to be confronted with more requests from citizens to resolve maintenance and operations concerns of a purely local nature.
- Any costs incurred by the county would necessarily include some or all indirect cost elements. The amounts shown in this report reflect VDOT indirect / overhead rates, which may not be equal to those for the County.
- If the County pursues the assumption of additional maintenance functions, the condition of the assets to be maintained should be more thoroughly examined.
- The assumption of any maintenance, construction, or operation function presented in this report will most likely require a long-term, if not perpetual commitment of resources by the County.
- It is anticipated that the state will provide funding to the County if the County assumes maintenance responsibilities over significant portions of the roadway network, or significant maintenance functions on this network. The payments that the County might receive from the state for most alternatives cannot be easily determined at this time. In some alternatives, the amount of funds to be provided to the County is established by the *Code of Virginia*, but in most cases this figure must be negotiated. Considerably more detailed analysis must be performed in conjunction with any such negotiations to ensure that the ultimate payments from the state accurately represent the appropriate costs of such activities.
- The information provided for this study suggests that current VDOT expenditures for maintenance and operations activities on all roads in the County are roughly equivalent to the amount that the County would receive under the formula used to distribute these funds to cities and towns. Thus, it does not appear that changing the form of government to become a city offers significant financial advantages in terms of road maintenance and operations.
- Most jurisdictions that do maintain their roads supplement the payments they receive from the state with additional local funds. Some of these additional expenses may represent costs for such functions that Fairfax County is currently absorbing locally. Some additional expenses may also represent the cost these jurisdictions incur to meet higher levels of expectation from citizens. Subsequent study would be needed to better estimate the amount of additional funding the County may need beyond what VDOT provides.

**Table ES-1: Summary of Alternatives**

Advantages	Disadvantages	Estimated VDOT Annual Costs	Ease of Implementation
<i>Enhance Select Maintenance Activities: Provide Funding to VDOT for Select Maintenance Activities</i>			
<ul style="list-style-type: none"> <li>Minimal new administrative tasks for County</li> <li>Low cost relative to other options, low start up costs</li> <li>No change to current roles and responsibilities for VDOT and County</li> </ul>	<ul style="list-style-type: none"> <li>Requires increased auditing of VDOT expenditures</li> <li>May not improve responsiveness and accountability</li> </ul>	Pavement: <b>\$21.5 - \$35.4 M</b> Turf: <b>\$1.0 - \$2.0 M</b> Sidewalk: <b>\$0.3 – \$1.5 M</b> Signals: <b>\$3.9 – \$7.0 M</b>	Easiest / Least Complex
<i>Enhance Select Maintenance Activities: Assume Responsibility for Select Maintenance Activities</i>			
<ul style="list-style-type: none"> <li>County control over maintenance priorities and schedules for selected activities</li> <li>May improve responsiveness and accountability</li> <li>Low cost relative to other options, low start up costs</li> </ul>	<ul style="list-style-type: none"> <li>VDOT standards and permitting required</li> <li>Potential County liability for County activities</li> <li>Potential for unclear roles and responsibilities between VDOT and County</li> </ul>	Pavement: <b>\$21.5 - \$35.4 M</b> Turf: <b>\$1.0 - \$2.0 M</b> Sidewalk: <b>\$0.3 – \$1.5 M</b> Signals: <b>\$3.9 – \$7.0 M</b>	Relatively easy depending on Function(s) assumed
<i>Assume Responsibility for Various Functions of the Secondary System under VDOT Devolution Guidelines</i>			
<p><i>Maintenance Only Option</i></p> <ul style="list-style-type: none"> <li>County control over maintenance priorities and scheduling</li> </ul> <p><i>Construction Only Option</i></p> <ul style="list-style-type: none"> <li>County control over construction priorities and scheduling</li> </ul> <p><i>Maintenance, Construction, and Operations Option</i></p> <ul style="list-style-type: none"> <li>Full control over entire Secondary system including signals and traffic operations activities</li> <li>Ability to set standards and grant permits</li> </ul> <p><i>All Options</i></p> <ul style="list-style-type: none"> <li>May improve responsiveness and accountability</li> </ul>	<p><i>Maintenance Only and Construction Only Options</i></p> <ul style="list-style-type: none"> <li>VDOT standards and permitting required</li> <li>No County control over signals and traffic operations activities</li> </ul> <p><i>All Options</i></p> <ul style="list-style-type: none"> <li>High start up costs for County</li> <li>Unlikely to result in increased funding from VDOT</li> <li>Auditing and reporting requirements</li> <li>Potential County liability for County activities</li> <li>Unclear roles and responsibilities between VDOT and County when secondary roads cross primary roads</li> </ul>	Maintenance only (no operations): <b>\$36 M</b> Construction only (assuming continuing recent levels): <b>\$21.1 M</b> Maintenance, Construction, and Operations: <b>\$64 M</b>	<p><i>Maintenance Only Option and Maintenance, Construction, and Operations Option</i></p> <ul style="list-style-type: none"> <li>Difficult due to need to negotiate payment and develop County program and resources</li> </ul> <p><i>Construction Only Option</i></p> <ul style="list-style-type: none"> <li>Relatively easy due to existing County program</li> </ul>

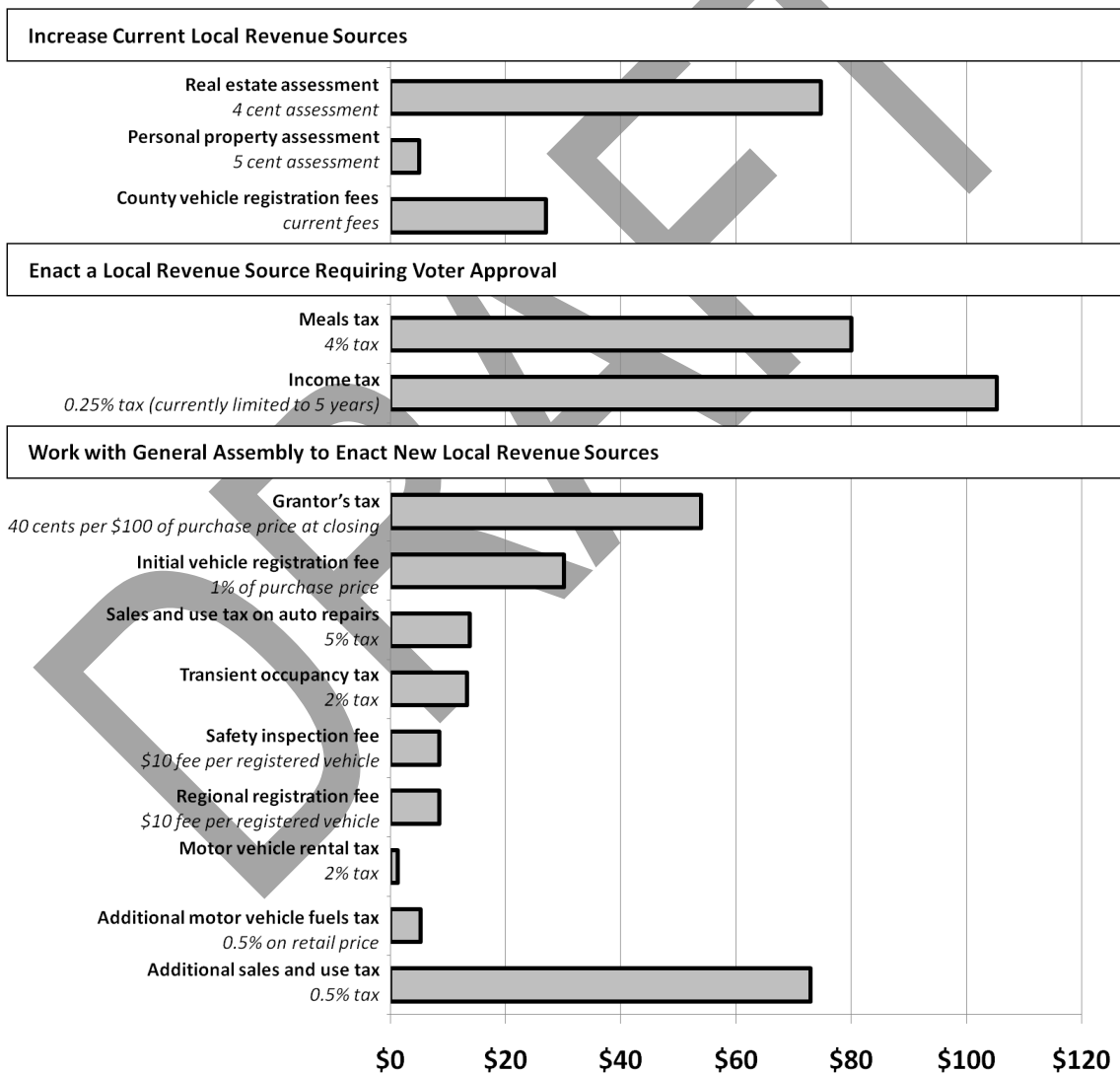
**Table ES-1: Summary of Alternatives**

Advantages	Disadvantages	Estimated VDOT Annual Costs	Ease of Implementation
Assume Responsibility for Primary and Secondary System within Certain Geographic Areas (UTSD)			
<ul style="list-style-type: none"> <li>• County control over all functions within areas:               <ul style="list-style-type: none"> <li>○ Setting maintenance priorities</li> <li>○ Scheduling</li> <li>○ Setting standards and granting permits</li> </ul> </li> <li>• Flexibility to increase maintenance responsibilities only in areas where citizens desire</li> <li>• Costs can be controlled by limiting size of areas to assume responsibilities</li> <li>• May improve responsiveness and accountability within areas</li> </ul>	<ul style="list-style-type: none"> <li>• Potential inefficiencies if multiple areas established</li> <li>• Potential service inconsistencies in different areas</li> <li>• Potential County liability for County activities</li> <li>• Auditing and reporting requirements</li> <li>• Unclear roles and responsibilities between VDOT and County if too many areas are created</li> <li>• Potentially high start up costs for County, depending on size of area</li> </ul>	<p style="text-align: right;">75 lane miles: <b>\$0.9 M</b></p> <p style="text-align: right;">125 lane miles: <b>\$1.4 M</b></p> <p style="text-align: right;">250 lane miles: <b>\$2.9 M</b></p>	<ul style="list-style-type: none"> <li>• Relatively easy in terms of VDOT payments</li> <li>• Need for development of County resources</li> </ul>
Assume Responsibility for Primary and Secondary System for Entire County			
<ul style="list-style-type: none"> <li>• County control over all functions of entire system :               <ul style="list-style-type: none"> <li>○ Setting maintenance priorities</li> <li>○ Scheduling</li> <li>○ Setting standards and granting permits</li> <li>○ Coordination of land use and transportation</li> </ul> </li> <li>• Roles and responsibilities between VDOT and County are simplified</li> <li>• May improve responsiveness and accountability</li> </ul>	<ul style="list-style-type: none"> <li>• High cost to County (ongoing and start up) regardless of state funding level</li> <li>• Unlikely to receive maintenance reimbursement from VDOT at urban rates for entire County</li> <li>• Auditing and reporting requirements</li> <li>• County assumes all liability</li> </ul>	<p style="text-align: right;">Secondary System: <b>\$43 M</b></p> <p style="text-align: right;">Primary System: <b>\$30 M</b></p> <p style="text-align: right;">Total System: <b>\$73 M</b></p>	<p>Most difficult due to size of system, uncertainty in level of reimbursement from VDOT, and need for development of County resources</p>

## Options for Enhancing Funding/ Revenues

Depending on the alternatives selected and / or the level of maintenance services that the County may ultimately provide, significant new revenue may be needed at both the state and local levels in order to improve transportation services. It may be possible for the County to assume some selected functions with a minimal financial impact, but assuming full maintenance responsibilities for a portion of or all of the roads within the County will most likely require that additional local sources of revenue be identified. Moreover, since maintenance is an ongoing responsibility, such revenues will need to be reasonably stable and continuous in order to support annual maintenance functions. Potential local sources of additional revenue are summarized in Figure ES-3. These are shown for informational purposes only and should not be considered as support or non support by Fairfax County at this time.

**Figure ES-3: Potential Annual Revenue for Selected Local Revenue Sources (\$ millions)**



Potential revenue sources are shown for informational purposes only and should not be considered as support or non support by Fairfax County at this time.

The magnitude of additional revenue that may be required if the County were to assume various functions will depend on a combination of the funding level received from the state and the level of service(s) that the County provides to either supplement or replace existing VDOT services.

The study also reviewed the potential of public-private partnerships and user-fee strategies such as tolling in enhancing transportation funding. Public-private partnerships have been very successful in delivering capital projects, and they are just recently being used in Virginia to not only finance and build projects but also to maintain them. Tolling can also potentially bring in continuous stable funding for enhanced maintenance needs. While these strategies show promise there would be significant hurdles in applying them to roads that are not limited-access freeways. The primary and secondary system in Fairfax County is almost entirely not limited-access freeways which would make implementation difficult. Advances in technology which allow for electronic tolling may help in overcoming some challenges. In addition, unless the County assumed responsibility for a road, the County would have to coordinate through VDOT in entering into a public-private partnership for a road on the primary or secondary system.

### **Experience of Other Jurisdictions**

Jurisdictions that maintain their systems have greater flexibility and control. They can set standards for their roadway system, and these standards can vary within the jurisdiction according to local conditions. They also have more flexibility to allocate resources in accordance with local priorities. For example, one jurisdiction has elected to devote relatively more maintenance and operations funds to roadside mowing and landscaping in lieu of other maintenance activities, under the feeling that the cleaner roadside is a greater attraction to residents and businesses. These jurisdictions can also respond to routine requests more directly. In most cases, one agency is responsible for fielding requests, prioritizing needs, and implementing responses. This contrasts with the current patchwork within the County where some road related requests must be routed through VDOT while others may be handled by the County.

Most jurisdictions also maintain sophisticated audits and inventories of their system. While all localities are required by the Code of Virginia to perform an annual audit, one of the requirements for receiving maintenance payments from VDOT is the submission of audited maintenance expenditures by category to VDOT. The County would most likely need to develop an asset management system should it assume responsibility for all or part of the roads within the County.

In many cases, the funding that jurisdictions receive to maintain their roadway system from VDOT does not cover all maintenance expenditures. These jurisdictions supplement the payments with other local funding sources. For some jurisdictions, VDOT's maintenance payments cover all expenses. For others, local effort can range from one quarter to one half of maintenance expenditures. This implies that even if the County received payments under the same terms as other jurisdictions who maintain their roads, the County may have to supplement with additional funds. This may likely be true, but there are many maintenance related activities the County currently performs. The County already pays the electric costs for street lights and already funds stormwater maintenance. In essence, the County already supplements VDOT's maintenance costs, so assuming greater maintenance responsibilities may not necessarily imply a need for a very large increase in supplemental funding from the County.

Jurisdictions that maintain their roads also assume liability for their roads. When asked about this, jurisdictions reported that this can be difficult to predict. Claims may not come often but one claim can incur significant costs.

### **Conclusions**

As the County continues to urbanize, the demands on its roadway network are likely to continue to evolve from those associated with suburban and semi-rural environments to more urban

conditions. At the same time, the current and likely near-term financial position of the state and the centralized, statewide perspective exhibited by VDOT both result in services that are occasionally incompatible with local citizens' expectations. Looking ahead many years into the future, it is difficult to imagine a scenario in which the County's entire roadway system continues to be almost completely under state responsibility. Thus, it is reasonable for the County to give serious consideration towards assuming a higher degree of authority over its roadway network.

The best course of action will depend on the value the County places on the benefits that may arise from increased responsibility over the roads. This study outlined four potential benefits:

- Overall funding level
- Enhanced influence in transportation decision making
- Improved responsiveness and accountability
- Increased flexibility in establishing priorities and standards

At this time, the financial benefits of assuming additional road maintenance responsibilities are unclear. In most cases, assuming additional responsibilities will result in additional costs to the County. None of the alternatives examined will result in higher funding from the Commonwealth. At best, state funding for road maintenance in Fairfax County may become more stable if the County assumed responsibility for its roads and received payments similar to cities and towns.

While the financial benefits are unclear, the County would receive clear benefits in decision making, responsiveness, and flexibility. The experiences of jurisdictions who maintain their roadways demonstrate that they have a greater ability than the County to respond to citizen requests, shift priorities, and set standards that are compatible with local patterns of development. The County strives for a similar level of responsiveness and control through close coordination with VDOT staff. However, as some jurisdictions expressed during the visits for this study, sometimes the only way to definitely secure the level of roadway service delivery desired by the community is to assume responsibility over the system.

Should the County wish to enhance the provision of roadway services beyond those currently provided by VDOT, several options are available. In view of the size and complexity of this issue, it is most prudent for the County to pursue incremental changes in the current structure, beginning with relatively narrow actions and gradually expanding its responsibilities over time. In many ways, this is the course the County is currently taking. Since the 1980's the County has continued to assume greater responsibility for the roads within the County. Almost 30 years ago, the County began funding the design and construction of road projects. More recently the County has assumed smaller duties such as traffic calming and various residential parking programs. Currently, the County is working with VDOT to establish urban design standards. All of these efforts demonstrate that the County continues down the course of assuming greater responsibilities for the roads. Assuming more maintenance responsibilities may be the next step.

Three actions for the Board's consideration would continue the County on this course:

- *Work with VDOT to Identify Additional Administrative, Planning, or Engineering Functions that the County could Assume:* Just as the County now administers the traffic calming and residential parking programs, there may be additional activities that are more local in nature that the County could assume from VDOT. Speed studies and signal warrant studies could be potential candidates for the County to assume. As part of assuming responsibility of the traffic calming program, the County negotiated with VDOT a streamlined permitting process for these projects. Other streamlined permitting exists for some pedestrian and bus stop

projects. Similar streamlined permitting may be possible for other projects with significant County funding.

- *Work with VDOT to Enhance Selected Maintenance Activities Countywide:* The next step the County may take is to enhance selected maintenance activities such as countywide mowing activities. The County should work with VDOT to ensure that current funding is providing the highest possible service levels. After such a review, the County may decide that it is necessary to provide additional resources in order to provide a higher level of service. This could be done under either alternative presented in this report: provide additional funding to VDOT and set up a system to monitor progress or form an agreement with VDOT to assume responsibility for that function. Providing additional funding would be easier to implement but would not provide the same amount of control as assuming responsibility for the function. Further discussion and study with VDOT would be needed to craft the best approach.
- *Assume Full Maintenance Responsibilities for Identified Geographic Areas under the Provisions for Urban Transportation Service Districts:* A subsequent expansion might be to undertake full maintenance responsibilities in an identified geographic area under the provisions for Urban Transportation Service Districts. These provisions would allow the County to gradually assume full maintenance responsibilities for the roads in manageable portions. The Tysons Corner area would appear to be a strong candidate for such an approach, which might be followed by other distinct centers such as Springfield, Reston, Merrifield, Bailey's Crossroads, Annandale and others. Further study would be needed to identify an appropriate area or areas for an Urban Transportation Service District.

Regardless of the specific option that is selected, an agreement setting forth responsibilities, procedures, payment levels, liability, responsible charge requirements, and a variety of other things will need to be executed with the state. The preparation and negotiation of such an agreement could itself require an extended period of time. All options would require follow up work to refine cost estimates, identify appropriate revenue sources, and work out implementation issues.

# CHAPTER I.

## INTRODUCTION - STUDY GOAL AND OBJECTIVES

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Since 1932, most roads in the County have been operated and maintained by the Virginia Department of Transportation (VDOT) pursuant to legislation approved by the General Assembly at that time. This situation is common to almost every county in the state<sup>2</sup>, although it is relatively uncommon nationally.<sup>3</sup> The assumption of local road systems by the state was rooted in part by the poor condition of these local roads, and the desire to establish a more uniform statewide network.

As the County has been transformed from rural to suburban and more recently to urban conditions, the desirability of assuming more responsibility for the roadway system has occasionally been raised. The recent national economic downturn has magnified this situation, as VDOT has been forced to reduce its budget at a time when operating and maintenance costs have been growing. Not only has the gap between needs and resources increased, but the statewide nature of many VDOT standards and policies has sometimes conflicted with the increasingly urban character of Fairfax County. Moreover, concerns have been raised that as a state agency VDOT may not have the resources available to respond to specific local requests as local citizens might expect.

These conditions have led to the initiation of this effort to examine the implications of the County assuming a greater degree of responsibility over the roadway network, coupled with the potential of enhancing the funding that may be directed to these facilities. This report provides an initial review of several possible ways in which the County might assume a greater role over this system, as well as some of the major financial, legal, and other implications of such actions. It should be stressed, however, that this study is not an exhaustive analysis of the total costs of these approaches. Rather, it provides an initial estimate of order-of-magnitude costs and attempts to identify major legal and administrative issues associated with such a decision. Should the County decide to pursue any of the alternatives described in this report, further detailed analysis must be undertaken. The remainder of this report is divided into chapters discussing the existing structure for providing transportation funding and services, various options for improving service delivery, and possible implications of those options. Chapter II briefly summarizes the roles and responsibilities of VDOT and the County with respect to these functions. It also summarizes the arrangements cities, towns, and other counties have with respect to providing transportation funding and services. Chapter III identifies possible benefits that could be derived from a more prominent County role, and Chapter IV describes various options that the County might pursue. Chapter V identifies the implications of each alternative approach in each of the following areas:

- Administrative functions (e.g. how are things such as planning, programming, permitting, etc. accomplished?)
- Cost
- Legislative and legal implications

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<sup>2</sup> The exceptions are Arlington and Henrico, which opted to retain control of their local roads in 1932.

<sup>3</sup> A more complete discussion of the evolution of the role of the state in maintaining and operating the roadway system can be found in the *County Road Takeover Feasibility Study*, KPMG, April 1990.

- Equipment, facility, and staffing requirements

As noted previously, the emphasis in this report will be on the approximate cost and legal and administrative implications of these alternatives; detailed analyses of equipment, facility, and staffing needs will need to be conducted in a subsequent exercise. Finally, Chapter VI will briefly identify options for enhancing funding levels that may be required to accomplish the alternatives identified in the prior chapter.

Finally, this report has been prepared using information provided by VDOT during the period between July and September, 2010. On September 23, Governor McDonnell released the results of a performance audit that examined a number of VDOT activities and functions. While the audit included several findings about VDOT maintenance allocations and expenditures, the information in this report reflects only the actual expenditure and allocation data provided by VDOT. The extent to which different management decisions by VDOT might influence the expenditure and allocation amounts reported herein is not known at this time.

DRAFT

## CHAPTER II. EXISTING STRUCTURE FOR TRANSPORTATION FUNDING AND SERVICE DELIVERY

As noted in the Introduction, the principal responsibility for building, maintaining, and operating the roads in Fairfax County rests with VDOT. Funding for these activities has traditionally been provided through VDOT from either federal or state revenue sources, many of which are limited in application to specific roadways and / or programs. Since the 1970s, Fairfax County has assumed an increasing role in supplementing state and federal funds for construction, and more recently the County has undertaken several operational activities such as neighborhood traffic calming projects in cooperation with VDOT. While the County has contributed significant construction funding over the years, the County's activities in other areas remain limited and subject to VDOT approval.

### A. Structure of Statewide Transportation Funding

The primary source of statewide transportation revenue consists of a variety of taxes and fees related to the use and operation of motor vehicles. These revenue sources comprise the Commonwealth Transportation Fund (CTF). Revenues are dedicated to specific funds within the CTF. The revenues for the Highway Maintenance and Operating Fund (HMOF) support highway maintenance, operations and administration. The Transportation Trust Fund revenues are distributed by formula to the Construction Fund (highway construction), the Mass Transit Fund, the Airport Fund and the Port fund. Table II-1 lists the state revenue sources included in the TTF and in the HMOF.

**Table II-1: Statewide Revenue Sources in Transportation Trust Fund (TTF) and Highway Maintenance and Operation Fund (HMOF)**

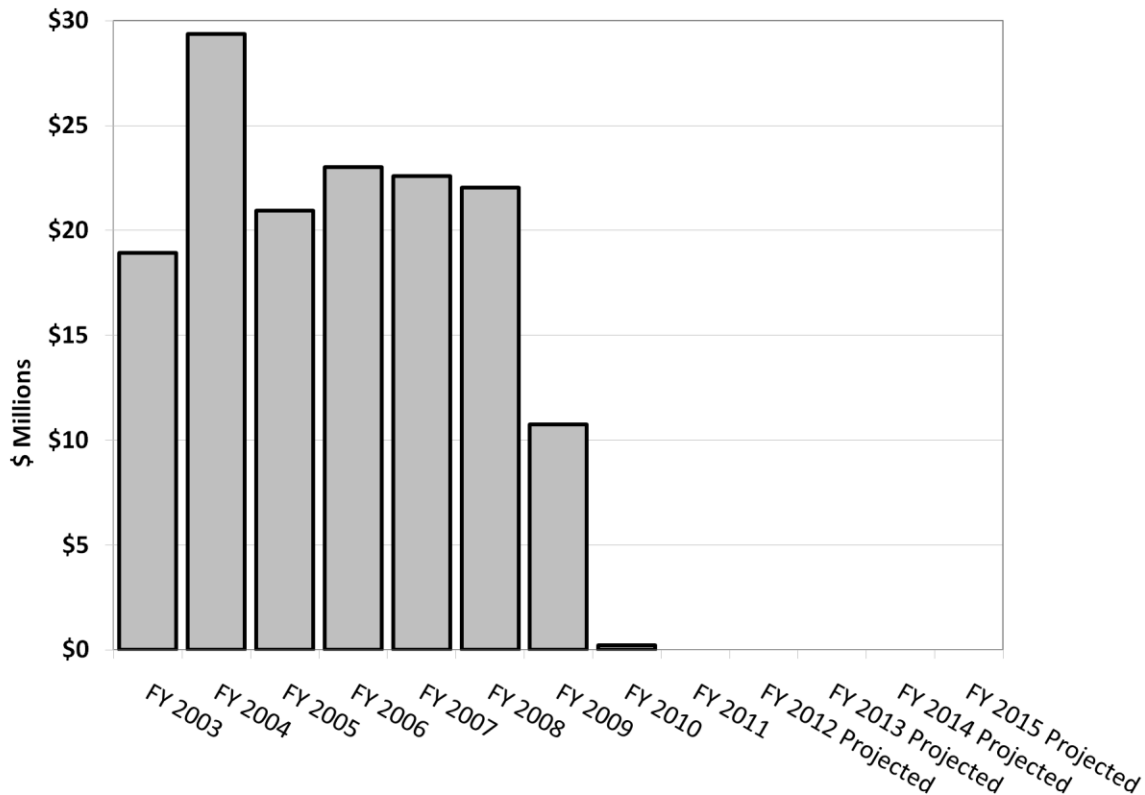
HMOF (maintenance)	TTF (construction)
<ul style="list-style-type: none"> <li>• Motor fuels tax</li> <li>• Road use tax</li> <li>• Motor vehicle sales and use tax</li> <li>• Motor vehicle license fees</li> <li>• Recordation tax</li> <li>• International registration plan</li> <li>• Miscellaneous sources</li> </ul>	<ul style="list-style-type: none"> <li>• Motor fuels tax</li> <li>• Road use tax</li> <li>• Motor vehicle sales and use tax</li> <li>• Motor vehicle license fees</li> <li>• Recordation tax*</li> <li>• Insurance premium tax*</li> <li>• Interest earnings*</li> <li>• Rental tax</li> <li>• Aviation Fuels Tax</li> </ul>

\* These sources are dedicated to special uses and are not distributed by formula to highway construction, transit, and ports.

The allocation of transportation revenue is directed by the *Code of Virginia*, various Acts of the General Assembly, federal laws and regulations, and the policies and decisions of the Commonwealth Transportation Board (CTB), a 17-member board appointed by the governor. The CTB approves a six-year financial plan of which the first year provides VDOT's annual budget. The financial plan provides the funding for the projects outlined in the Six-Year Improvement Program. The first year of the Six-Year Improvement Program details actual project funding while the out years are planned allocations.

The cost of statewide transportation needs surpasses the amount of revenue raised in the Commonwealth Transportation Fund. In particular, the cost to operate and maintain the existing system of highways in Virginia has outpaced the amount of revenue raised in the HMOF. Consequently, State law requires that maintenance be funded prior to construction. To support this requirement, amounts from the Highway Construction share of the TTF are transferred to the HMOF to support the needs of the HMOF. In essence, construction funds are increasingly being used to fund maintenance needs. This results in very little funds available for highway construction. Figure II-1 illustrates VDOT's formula allocations from the TTF to Fairfax County secondary road construction between FY 2003 and FY 2015. Virtually no funds are being allocated to secondary construction from FY 2010 into the foreseeable future.

**Figure II-1: VDOT Formula Allocations to Fairfax County Secondary Road Construction (FY 2003 – FY 2015)**



Source: VDOT Six-Year Improvement Program

**B. Administrative Structures for Funding Roadway Maintenance**

Virginia's state-maintained highways are administratively divided into three systems: interstate, primary, and secondary. The interstate system is a limited-access freeway network intended primarily to serve long-distance travel, and is funded through special arrangements with the federal government. Non-interstate roads within counties generally fall within the primary or secondary system of roads. Primary roads generally serve inter-jurisdictional travel and have route numbers below 600 (e.g. Route 7), while Secondary roads are generally more local in nature and are identified with route numbers of 600 and above. (In Fairfax County, some secondary roads function as arterials and carry very large traffic volumes that exceed the traffic levels on Primary roads elsewhere in the state.) Separate from the state-maintained system is the urban system of roads which includes most non-interstate roads within cities and towns. The state provides funding for maintenance activities in these areas based on the *Code of Virginia*, but is not responsible for actual maintenance activities.

There are three basic administrative structures by which VDOT funds and supports maintenance and operations activities within the state using the HMOF. These are established by state law and consist of:

- Direct accomplishment of these activities either by VDOT personnel or by contractors under VDOT supervision for all three state-maintained systems – interstate, primary, and secondary (this arrangement exists in most counties, including Fairfax County);
- Direct payments to cities and towns with populations over 3,500, which these localities use to maintain the urban system of streets within their boundaries. VDOT retains responsibility of interstate roads within cities and towns;
- Direct payments to counties that have retained responsibility of the secondary system of roads within their jurisdiction. VDOT retains responsibility for the interstate and primary systems within these counties. Only Henrico and Arlington counties have exercised this option.

The following describes these arrangements in greater detail.

1. *Direct Performance of Maintenance and Operations by VDOT*

Maintenance and operations activities in most counties are the responsibility of VDOT. This responsibility covers the interstate, primary, and secondary road systems in all but two counties. Under this arrangement, maintenance and operations activities are performed directly by VDOT personnel or by contractors under VDOT supervision. While VDOT does coordinate with the counties, VDOT ultimately sets priorities, allocates resources, and manages the overall program for maintaining the roadway system. VDOT issues permits and processes requests such as installation of traffic signals or other traffic control devices. In Fairfax County, special agreements have been made with VDOT to streamline some activities such as managing residential parking and traffic calming programs. The level of coordination and amount of responsibilities that are delegated back to a county varies by locality.

2. *Direct Payments to Cities and Towns*

Under the *Code of Virginia*, towns with populations over 3,500 and all cities operate and maintain their own roads. Funding for these activities comes from allocations provided by the state, with the dollar amounts established through a formula that is based on the number of lane-miles in each jurisdiction. Each city and town receives a payment from VDOT based on the number of arterial (and non-arterial) moving lane-miles in the locality, with the final allocation determined by multiplying these values by constant factors (one for arterials, another for non-arterials) to obtain the annual amount. While the factors themselves are adjusted to reflect annual budget constraints, they are constant throughout the state. Thus, the allocation per arterial lane-mile is the same for cities with high traffic volumes such as those in Northern Virginia as it is for small cities elsewhere in the state.

Under this arrangement, cities and towns have broad control over the systems they maintain. Priorities are set by the locality and all roadway related requests from maintenance concerns to issuing of permits are handled by the locality. Cities and towns do provide reports to VDOT annually which document maintenance expenses by category. They also submit requests to make changes to their inventory (additions or deletions) which are approved by the Commonwealth Transportation Board and are used to calculate their maintenance allocations. It should be noted that cities and towns have some revenue sources that counties do not have, and generally supplement the state payment with their own funding.

### 3. *Direct Payments to Counties that Elect to Maintain their Secondary Road System*

The third way that VDOT supports the maintenance and operations of local streets is a legacy of the 1932 Byrd Act which transferred responsibility of the local road network to the state. At that time, the counties of Arlington and Henrico were more urban than most other counties and elected to retain control of their local roads. Each county negotiated maintenance payments from the state, although the amount of this payment is different for each county as well as from that provided to cities and towns in general. The special arrangements governing these payments have been in effect for these two counties since that time.

Under this arrangement counties maintain only the secondary system of roads while VDOT retains the responsibility of the primary and interstate systems. Thus, these counties have the same scope of responsibilities for secondary roads as do cities and towns. While Arlington and Henrico counties are the only localities operating under this arrangement, the *Code of Virginia* includes provisions for other counties to resume responsibility of their secondary system. This process is known as devolution and is explained further in this report as one option the County may consider for increasing its responsibility of the road system.

#### **C. Existing VDOT Roadway Maintenance and Operations Funding in Fairfax County**

While the VDOT funding level available for construction projects in the County is a relatively straightforward application of formulas that are established by state law, the identification of funding for maintenance and operations activities is less direct. The following discussion describes the scope of VDOT's responsibilities for roads within Fairfax County and provides estimates of VDOT funding for these responsibilities.

##### 1. *Scope of VDOT Responsibilities*

VDOT retains almost all authority over the roadway network in Fairfax County. These activities are spread over a large network. The road system in Fairfax County consists of over 6,000 lane-miles of roads<sup>4</sup>, 700 bridges and box culverts, 850 intersections controlled by traffic signals, and related signs, lighting fixtures, frontage roads, and other assets. This network represents 4% of the entire (Primary and Secondary) lane-miles in the state, and it accommodates 12% of the daily vehicle-miles of travel<sup>5</sup> (vmt) on this network.

Table II-2 shows a more detailed listing of the responsibilities for various activities related to the roadway system in the County. The table also designates where significant County involvement occurs. The County is primarily involved with construction projects with little involvement in maintenance activities. The construction projects the County is involved in are usually those construction projects that are funded through local revenues and are subsequently accepted into the state system. Even in such cases, the roadway construction and pre-construction functions (e.g. design, etc.) must meet VDOT requirements. While many VDOT functions are administered at the District level,<sup>6</sup> others such as the programming of construction projects are developed through a cooperative process between localities and the VDOT District. Since projects may be

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<sup>4</sup> Lane miles are the number of lanes multiplied by the length of the roadway segment (in miles); this measure does not include turn lanes.

<sup>5</sup> vmt is calculated by multiplying the daily traffic volume on a given road segment by the length of that segment and thus is a measure of the overall density of traffic.

<sup>6</sup> The VDOT Northern Virginia District encompasses the counties of Arlington, Fairfax, Loudoun, Prince William, the towns within those boundaries, and the cities of Alexandria, Fairfax, Falls Church, Manassas and Manassas Park.

advanced or delayed based on available funding, the VDOT Central Office in Richmond is also heavily involved.

**Table II-2: Major VDOT Maintenance, Operations, and Construction Activities**

<b>Maintenance Activities</b>	
<ul style="list-style-type: none"> <li>• Roadway and Roadside Elements                             <ul style="list-style-type: none"> <li>○ Pavement, Bridges</li> <li>○ Drainage, Mowing, Debris Removal, Soundwalls, Fences</li> </ul> </li> <li>• Traffic Control Elements (maintenance functions)                             <ul style="list-style-type: none"> <li>○ Signs, Pavement Markings</li> <li>○ Lighting and Guardrail</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Facilities                             <ul style="list-style-type: none"> <li>○ Sidewalks</li> <li>○ Trails</li> <li>○ Park-and-Ride Lots</li> </ul> </li> <li>• Emergency and Safety                             <ul style="list-style-type: none"> <li>○ Snow and Ice Control</li> <li>○ Incident Management</li> <li>○ Safety Patrols</li> </ul> </li> </ul>
<b>Operations Activities</b>	
<ul style="list-style-type: none"> <li>• Permits</li> <li>• Land Development / Subdivision Street Review</li> <li>• Traffic Signal Maintenance and Operations</li> </ul>	<ul style="list-style-type: none"> <li>• Traffic Engineering and Studies                             <ul style="list-style-type: none"> <li>○ Speed Limits</li> <li>○ Through Truck Restrictions*</li> <li>○ Signal Analysis and Signage*</li> <li>○ Traffic Calming*</li> <li>○ Safety Reviews*</li> </ul> </li> </ul>
<b>Construction Activities</b>	
<ul style="list-style-type: none"> <li>• Planning / Programming*</li> <li>• Environmental Studies</li> <li>• Design*</li> </ul>	<ul style="list-style-type: none"> <li>• Right-of-Way Acquisition, Utilities, Permits*</li> <li>• Project Administration / Management*</li> <li>• Inspection*</li> </ul>

\* Designates those activities that are currently shared with Fairfax County on a case-by-case basis, with ultimate VDOT review and approval.

Throughout this report, the terms maintenance, operations, and constructions will be used. Some of the alternatives discussed later will include different combinations of these three major categories of activities. Unless otherwise indicated in the report, maintenance, operations, and construction will generally refer to the activities listed under each category as shown in Table II-2.

**2. Estimates of VDOT Funding for Maintenance and Operations on the Primary and Secondary Systems in Fairfax County**

VDOT provided the County with data over several years to estimate VDOT funding for the primary and secondary systems in Fairfax County. This included data on VDOT allocations, which represent the amount of funding VDOT budgeted for a certain fiscal year, and also data on VDOT expenditures, which represent the actual amounts of money spent in a certain fiscal year. VDOT staff coordinated with the County in order to highlight limitations of the data and to discuss how data could be interpreted. The data received provides a general understanding of VDOT's costs to maintain and operate the primary and secondary systems in the County. The information can provide estimates of what VDOT spent to maintain each system but it is difficult to obtain and interpret cost data at lower levels. Some of the major limitations in the data are summarized as follows:

- Some VDOT costs are attributed directly to the primary and secondary systems in Fairfax County but other VDOT costs occur at district and regional levels. A portion of these costs can be attributed to the County but it is difficult to determine this amount precisely. VDOT has provided the County with an estimate of this amount.
- While VDOT's data provided estimates of costs for the primary system and the secondary system, individually, it is difficult to derive reliable estimates for costs at lower levels. When reviewing the details of maintenance expenditures provided by VDOT, sometimes individual maintenance expenditures with common elements are charged as a single function.
- VDOT's service levels and budget structure changed several times which made it difficult to compare data from one year to another.

These limitations along with the assumptions used to attribute VDOT's district and regional costs to the County are explained in more detail in Appendix A.

The cost data provided here form the basis throughout this study for an initial understanding of the level of effort associated with an alternative. The discussion for each alternative will refer to the estimated costs VDOT incurred. For some alternatives, the discussion will also refer to a spreadsheet model developed by VDOT to aid counties in estimating initial start-up costs. Costs generated from this model should also be interpreted as a very preliminary understanding of start-up needs. Limitations of this model are discussed in Appendix A. Should the County seriously pursue an alternative a more detailed analysis of costs should be performed. The estimates in this study help in comparing one alternative to another. They also help in comparing current VDOT funding in Fairfax County with potential funding under different administrative structures for maintenance found in Virginia. In no way should these estimates be interpreted as a reliable forecast of future costs the County may incur.

Table II-3 summarizes the data received from VDOT. The County received allocation and expenditure data for FY 2007 through FY 2011. VDOT provided the County with actual expenditures for fiscal years 2007 through 2009. Actual expenditures are not available for fiscal years 2010 and 2011 and so allocations are shown for the two most recent fiscal years.

The table shows VDOT's direct expenditures and allocations for activities in Fairfax County along with an estimate of VDOT's district and regional costs that can be attributed to such activities. District and regional funds attributed to activities in Fairfax County are significant. Generally, district and regional costs occur under two VDOT categories: transportation operations services and maintenance program management. These categories are explained in more detail in Appendix A. In general activities such as traffic engineering studies and overall management occur in these categories. VDOT advised the County that an additional 9% can be added to direct costs to account for district and regional costs for transportation operations services that are attributed to Fairfax County. An additional 10% can be added to direct costs to account for maintenance program management costs that can be attributed to Fairfax County.

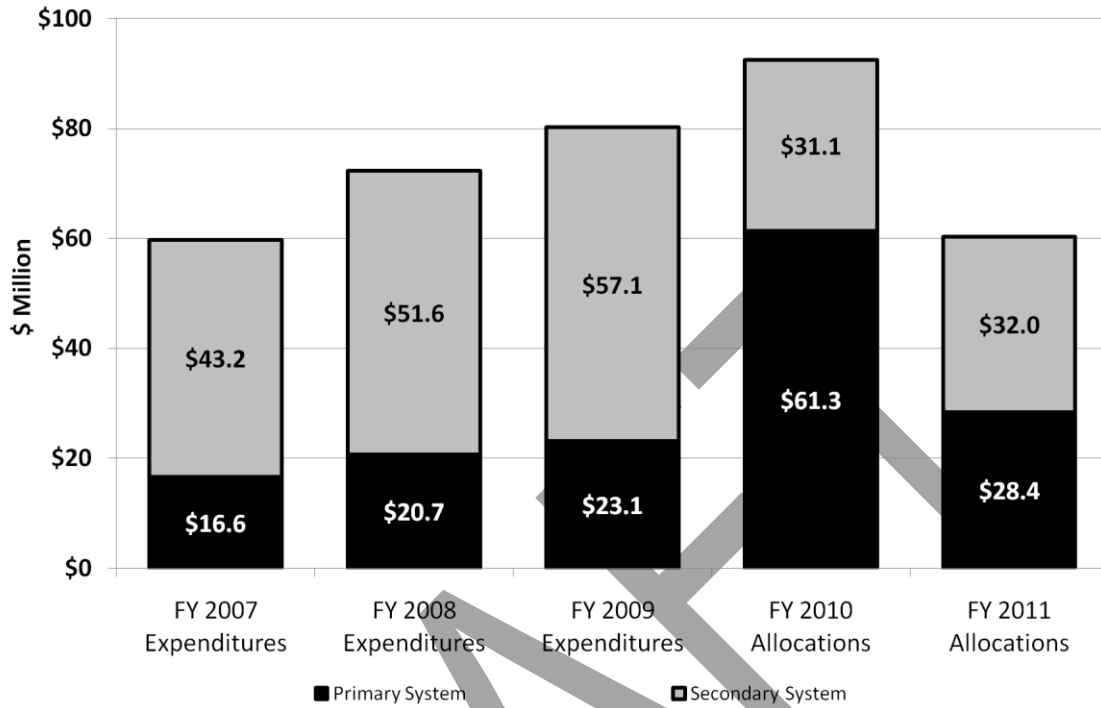
**Table II-3: Estimated VDOT Maintenance and Operations Allocations and Expenditures in Fairfax County (FY 2007 – FY 2011)**

<b>System</b>	<b>Direct Allocation or Expenditure (\$ million)</b>	<b>Estimated Additional Cost for Transportation Operations Services (9%) (\$ million)</b>	<b>Estimated Additional Cost for Maintenance Program Management (10%) (\$ million)</b>	<b>Total Estimated Cost (\$ million)</b>	<b>Estimated Cost per Lane Mile</b>
<i>FY 2007 Expenditures</i>					
Primary System	\$13.9	\$1.3	\$1.4	\$16.6	\$22,398
Secondary System	\$36.3	\$3.3	\$3.6	\$43.2	\$7,708
<b>Total System</b>	<b>\$50.2</b>	<b>\$4.5</b>	<b>\$5.0</b>	<b>\$59.8</b>	<b>\$9,423</b>
<i>FY 2008 Expenditures</i>					
Primary System	\$17.4	\$1.6	\$1.7	\$20.7	\$27,941
Secondary System	\$43.4	\$3.9	\$4.3	\$51.6	\$9,220
<b>Total System</b>	<b>\$60.8</b>	<b>\$5.5</b>	<b>\$6.1</b>	<b>\$72.3</b>	<b>\$11,405</b>
<i>FY 2009 Expenditures</i>					
Primary System	\$19.4	\$1.7	\$1.9	\$23.1	\$31,227
Secondary System	\$48.0	\$4.3	\$4.8	\$57.1	\$10,197
<b>Total System</b>	<b>\$67.4</b>	<b>\$6.1</b>	<b>\$6.7</b>	<b>\$80.2</b>	<b>\$12,651</b>
<i>FY 2010 Allocations</i>					
Primary System	\$51.5	\$4.6	\$5.2	\$61.3	\$82,865
Secondary System	\$26.1	\$2.4	\$2.6	\$31.1	\$5,552
<b>Total System</b>	<b>\$77.7</b>	<b>\$7.0</b>	<b>\$7.8</b>	<b>\$92.4</b>	<b>\$14,575</b>
<i>FY 2011 Allocations</i>					
Primary System	\$23.8	\$2.1	\$2.4	\$28.4	\$38,329
Secondary System	\$26.8	\$2.4	\$2.7	\$32.0	\$5,704
<b>Total System</b>	<b>\$50.7</b>	<b>\$4.6</b>	<b>\$5.1</b>	<b>\$60.3</b>	<b>\$9,511</b>
<i>5 - Year Average</i>					
Primary System	\$25.2	\$2.3	\$2.5	\$30.0	\$40,552
Secondary System	\$36.1	\$3.3	\$3.6	\$43.0	\$7,676
<b>Total System</b>	<b>\$61.4</b>	<b>\$5.5</b>	<b>\$6.1</b>	<b>\$73.0</b>	<b>\$11,513</b>

*Source: VDOT e-mail correspondence for FY 2007 – FY 2009; VDOT annual Budget Supplements for FY 2010 - 2011. Numbers may not add due to rounding.*

VDOT's estimated costs for maintenance and operations activities in Fairfax County have been increasing, although the FY 2011 estimated allocation drops to approximately the same level as FY 2007 expenditures. While overall funding has generally been increasing, funding between the primary and secondary system varies from year to year. Figure II-2 shows allocations and expenditures broken down between the primary and secondary systems in Fairfax County. This figure illustrates how funding by system can vary. Funding for the secondary system generally increased between FY 2007 and FY 2009 then decreased to levels below FY 2007 in FY 2010 and FY 2011. Funding for the primary system generally increases with a very large increase in FY 2010.

**Figure II-2: Estimated VDOT Allocations and Expenditures in Fairfax County by System (FY 2007 – FY 2011)**



Source: VDOT e-mail correspondence for FY 2007 – FY 2009; VDOT annual Budget Supplements for FY 2010 - 2011. Numbers may not add due to rounding.

While VDOT does provide some coordination with the County, VDOT ultimately sets maintenance service levels and determines funding levels for each fiscal year. Variations in funding by year can be the result of many factors. A major paving project could result in a large jump for one fiscal year while reductions in service levels can result in continued decreases in funding over several years. VDOT staff did note that for the last two fiscal years, significant changes in maintenance service levels had been implemented.

# CHAPTER III.

## POTENTIAL BENEFITS OF GREATER COUNTY INVOLVEMENT

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Several factors contribute to a renewed interest in the County assuming greater responsibilities for its roadway network. These include:

Overall funding level. The ability of the state to build, maintain, and operate its roadway system is becoming increasingly difficult. Funding for maintenance activities has assumed an increasing proportion of the VDOT budget, and these activities themselves are being reduced. At the same time revenues for new construction have been severely curtailed. Moreover, recent efforts to increase statewide transportation funding in the General Assembly have not provided sufficient revenues to meet all of the County's needs. This situation shows no signs of changing in the near future and the County is increasingly finding itself in the position of assuming responsibilities that VDOT cannot adequately fund. Serious considerations of greater County involvement may help the County stay ahead of a deteriorating situation.

Enhanced influence in transportation decision-making. As VDOT revenues have been increasingly devoted to maintenance and operations, the role of the County's contributions to highway improvements has become increasingly significant. Since the County is now funding a large percentage of these improvements, it is not unreasonable for the County to assume an expanded role in maintaining and operating the system.

Improved responsiveness and accountability. Despite the fact that VDOT maintains a large presence in Northern Virginia, the fact that most decisions related to the roadway network must be made by VDOT creates an additional layer of government that adds time and complexity to even the simplest of issues. In addition, it is occasionally difficult to identify individuals within VDOT who are responsible for making various decisions. Decision-makers at the County level could be more directly involved and more responsive to citizen concerns. Thus, the County could implement a more streamlined decision structure that would improve responsiveness and accountability.

Increased flexibility in establishing priorities and standards. Since VDOT is responsible for roads throughout the state, its rules, standards, procedures, and policies are not always appropriate for urban and suburban areas such as Fairfax County. For example, the County may wish to provide a street network in the Tysons Corner area that is more urban in character than currently allowed under VDOT standards. In addition, with increased responsibilities, the County would be able to allocate resources among programs and projects according to County plans and priorities. This is in contrast to current practice where frequent coordination and discussion is needed to make sure VDOT priorities are in agreement with County priorities.

## CHAPTER IV.

# ALTERNATIVES FOR IMPROVING SERVICE DELIVERY

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There are several ways in which the County might assume greater responsibilities for its roadway network, each with different scopes and levels of authority. Several possible approaches will be identified in this Chapter and then evaluated in Chapter V.

In considering alternative approaches to this issue, it is useful to separate both the individual functions that the County may assume as well as the systems to which those functions apply. In the broadest sense, these functions include maintenance, operations, and construction. These broad VDOT categories include a variety of other functions such as planning and programming. These more detailed activities are not identified separately in this report, primarily because their costs are included among a number of other activities that are largely budgeted at the VDOT District level and are thus difficult to isolate. Since VDOT operates both the Primary and Secondary systems, it is conceivable that the County could selectively assume responsibilities for certain functions on either or both of these systems. These potential combinations are further developed in this Chapter, and are presented in generally increasing order of County responsibility. Alternatives with minimal County responsibilities are discussed first; alternatives with progressively greater County responsibilities follow.

The County's ability to assume additional responsibilities on the state highway system is governed by the *Code of Virginia*.<sup>7</sup> Some alternatives that the County may wish to pursue may require legislative action by the General Assembly. In other cases, it may be necessary to clarify the intent of certain provisions in the existing *Code of Virginia*. For example, some of the specific packages identified in this Chapter have been identified by VDOT in conjunction with consideration of the "Devolution Statute" adopted by the Virginia General Assembly in 2001.<sup>8</sup> In such cases, the *Code of Virginia* contains specific guidance about responsibilities and / or funding arrangements. In other cases, individual agency responsibilities and even funding levels associated with a specific alternative will be governed by an Agreement between the County and the State. The legislative and legal implications of these alternatives, as well as their other major features are more fully explored in Chapter V.

Finally, in view of the role of the Interstate system as a national network that is administered by the states on behalf of the federal government, all of the alternatives discussed in this report presume that VDOT will continue to have full responsibility for the Interstate system.

- A. Enhancement of Selected Maintenance Activities. The most restricted alternative that the County might pursue would be to enhance selected maintenance activities that citizens routinely express a desire for better service, while leaving others at current VDOT service levels. Examples of maintenance functions that the County might consider enhancing include mowing, sign replacement, paving, or other selected activities. The County could accomplish this in two ways:
1. Provide VDOT with Additional Funding for Selected Maintenance Activities: Under this arrangement, the County could provide VDOT with additional funding on an annual basis

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<sup>7</sup> Significant provisions of the *Code of Virginia* are provided in Appendix B.

<sup>8</sup> § 33.1-84.1 of the *Code of Virginia* was adopted by the General Assembly in 2001. It allows the Commonwealth Transportation Commissioner to enter into an agreement with any county that desires to resume responsibility over all or any portion of the state secondary system of highways for planning, constructing, maintaining, and operating the highways within that jurisdiction.

with specific direction on maintenance activities to receive enhanced treatment. Minimum service levels, such as two mowing cycles per month during the summer, could be established and the County and VDOT would work to ensure these service levels are met. Any such mechanism would need to be accompanied by commitments that local revenues would not displace state funds that would otherwise be expended in the County.

2. Assume Responsibility from VDOT for Selected Maintenance Activities: This approach would entail the transfer of selected maintenance responsibilities from VDOT to the County. For these selected activities, the County would become solely responsible for setting service levels and ensuring these levels are met.
- B. Assumption of Secondary System Responsibilities under the Devolution Statute. VDOT has identified specific packages of responsibilities a county may assume for the Secondary System within its jurisdiction. These devolution options are as follows:
1. Assumption of all Maintenance Functions on the Secondary System. This approach would entail the transfer of all VDOT maintenance activities on the secondary system to the County. VDOT does not include traffic signals and related traffic management systems as maintenance activities. Instead, these are considered to be operational in nature.
  2. Assumption of all Construction Functions on the Secondary System. Another alternative identified by VDOT for consideration is the assumption by the County of all functions related to construction on the Secondary System. These would include planning, environmental studies, design, and general project management among other construction activities. In addition, this alternative also allows for counties to assume certain other activities as options, primarily in conjunction with new construction.
  3. Assumption of both Maintenance and Construction Functions on the Secondary System. This alternative is noteworthy because – as VDOT has defined it – the County would assume both maintenance and construction roles, but would not assume any responsibilities for operations activities such as traffic signals.
  4. Assumption of Maintenance, Construction, and Operations Functions on the Secondary System. A final alternative that has been identified by VDOT is for the complete transfer of all responsibilities on the Secondary System from VDOT to the County.
- C. Assumption of All Responsibilities on the Secondary and Primary System for Selected Geographic Areas of the County. The Virginia Code allows certain counties to form Urban Transportation Service Districts (UTSD) to construct, maintain, and perform general upkeep of streets and roads within that area<sup>9</sup>. Under these provisions it is possible that the County could identify specific areas in which the County would assume the responsibility for various maintenance and operations activities.
- D. Assumption of All Responsibilities on the Secondary and Primary System for the Entire County. The County may also consider assuming the responsibility for both the Primary and Systems. While not explicitly mentioned in the *Code of Virginia*, this would be a logical extension of any increased activities that the County might undertake on the Secondary System. Therefore, it is listed here in an attempt to provide as complete an inventory of alternatives as possible.

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<sup>9</sup> § 15.2-2403 and § 15.2-2403.1

Combinations of functions other than those identified here are also possible. In particular, the County may wish to assume the responsibility only for operations activities. This option has not been specifically evaluated in this report for several reasons. First, it was not identified as a discrete alternative in the VDOT Devolution Guidelines. In addition, it is questionable whether VDOT would support relinquishing operational authority to a county without a corresponding assumption of maintenance and construction responsibilities. Finally, many operational activities are budgeted at the VDOT District (and prior to FY 2009, Regional level). Moreover, VDOT considers activities such as permitting and subdivision plan review as operational functions; extracting the costs of selected operational activities (such as traffic signal installation and maintenance) solely within Fairfax is extremely difficult. Should the County wish to pursue the assumption of only operational functions; considerable additional analysis and coordination with VDOT will need to occur.

A final consideration that should be highlighted relates to system use, or whose laws and regulations govern how the system can be used (e.g., what types of vehicles are allowed on the roadway and what laws govern system users). Under all options, the road usage will remain governed by Title 46.2 (Motor Vehicles), Chapter 8 (Regulation of Traffic) of the *Code of Virginia*.<sup>10</sup> Therefore, the County would not be able to establish contradictory regulations on the use of its roadways under any of the options.

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<sup>10</sup> VDOT *Guide to County Assumption of Secondary Roads (Devolution Guidebook)*, March 2007

## CHAPTER V. IMPLICATIONS OF ALTERNATIVE APPROACHES

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Each of the alternatives identified in Chapter IV entails a broad spectrum of administrative, legal and financial implications. This Chapter of the report identifies the most significant of these consequences. Where data are available, these implications are quantified in order-of-magnitude terms. However, the cost estimates provided in this report do not represent detailed analyses of all costs associated with an alternative, or precise estimates of the final costs that the County may bear. For example, if the County were to assume some maintenance functions, additional equipment and / or storage and repair facilities may be required. Where possible, these impacts are identified in this report, but the cost of acquiring and / or developing these assets is not readily available and thus can only be reported in a very approximate manner. For some alternatives where the County assumes significant additional responsibilities, the cost of these assets may be considerable.

VDOT developed a cost estimating tool for counties who are contemplating assuming responsibility for their secondary road system. Results from this model are used in this Chapter to describe some of the implications for equipment, facility, and staffing. It should be stressed, however, that the data and assumptions in the model are based on 2005 data (including financial data, service and staffing levels). VDOT's cost estimation model indicated that the total non-recurring cost to Fairfax County of equipment and facilities for the assumption of all maintenance, construction, and operations activities on the secondary system would be approximately \$50 million.<sup>11</sup> Values are reported here only to gain a sense of the level of effort needed. Should the County decide to pursue any of the alternatives described in this report, further detailed analysis must be undertaken.

Regardless of the alternative that the County may choose to pursue, it will still be necessary for the County to coordinate some maintenance and operations activities with VDOT. This requirement will exist wherever County responsibilities and / or roads abut facilities retained by VDOT (e.g. the Interstate system and its appurtenant ramps). Since VDOT will continue to have full authority over the Interstates under any scenario, there will always be a need for inter-government coordination and cooperation.

The remainder of this chapter identifies the implications of the various alternative strategies in several broad categories:

- Administrative functions,
- Cost / financial,
- Legislative and legal, and
- Equipment / facility / staffing

Table V-1 summarizes these major features of each alternative.

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<sup>11</sup> Further discussion of this subject is included as Appendix A.

**Table V-1: Comparison of Features for Alternatives**

	Current Structure	Enhance Select Maintenance Activities*	Assume Responsibility for Various Functions of the Secondary System under VDOT Devolution Guidelines				Assume Responsibility for Primary & Secondary System within Certain Geographic Areas (UTSD)	Assume Responsibility for Primary and Secondary System for Entire County	
			Maintenance Only	Construction Only	Maintenance and Construction	Maintenance, Construction & Operations		Set up Countywide UTSD	Change to City Form of Government
<b>Funding Implications</b>									
VDOT Funding Level	No change	By Agreement	By Agreement <sup>1</sup>	No change	Construction: No Change. Other: by Agreement <sup>1</sup>	By Code §33.1-84.1; §33-1-23.5:1 <sup>2</sup>	In UTSD: City and Town Payment Rate (Urban Rate) In other areas: VDOT county maintenance funding	Urban Rate	Urban Rate
Complexity of VDOT agreement	NA	LOW	MED	MED	HIGH	HIGH	HIGH	HIGH	HIGH
Additional local funding requirements	NA	LOW	LOW / MED	MED / HIGH	MED / HIGH	HIGH	Unknown	HIGH	HIGH
<b>Administrative Responsibilities</b>									
Operations Responsibility	VDOT	By Agreement	VDOT <sup>3</sup>	VDOT <sup>3</sup>	VDOT <sup>3</sup>	County	In UTSD: County Outside UTSD: VDOT	County	City
Planning, Programming, Scheduling			County (VDOT Standards)	County & VDOT (for federal \$)	County & VDOT (for federal \$)	County & VDOT (for federal \$)			
Permitting			VDOT	VDOT	VDOT	County			
Standards			VDOT	By fund source, road cat. <sup>4</sup>	By fund source, road cat. <sup>4</sup>	By fund source, road cat. <sup>4</sup>			

**Table V-1: Comparison of Features for Alternatives**

	Current Structure	Enhance Select Maintenance Activities*	Assume Responsibility for Various Functions of the Secondary System under VDOT Devolution Guidelines				Assume Responsibility for Primary & Secondary System within Certain Geographic Areas (UTSD)	Assume Responsibility for Primary and Secondary System for Entire County	
			Maintenance Only	Construction Only	Maintenance and Construction	Maintenance, Construction & Operations		Set up Countywide UTSD	Change to City Form of Government
Program Delivery (Non-local mandates, etc.)	↑	↑	By fund source <sup>5</sup>	By fund source <sup>5</sup>	By fund source <sup>5</sup>	By fund source <sup>5</sup>	In UTSD: County Outside UTSD: VDOT ↓	↑	↑
Reporting (Financial data, performance, etc.)	VDOT	By Agreement	By fund source <sup>5</sup>	By fund source <sup>5</sup>	By fund source <sup>5</sup>	By fund source <sup>5</sup>		County	City
Outreach	↓	↓	County	By law	By law	County		↓	↓
System Usage	<i>Code of Virginia: Title 46.2 Chapter 8</i> →								
<b>Legislative and Legal Implications</b>									
Requires action from the Virginia General Assembly (yes/no)	NO	NO	NO	NO	NO	NO	NO	NO	YES
Requires voter referendum	NO	NO	NO	NO	NO	NO	NO	NO	YES
Liability	VDOT	TBD	County / shared <sup>6</sup>	County <sup>7</sup>	County <sup>5,6</sup>	County	In UTSD: County. In other areas: VDOT <sup>8</sup>	County	City

\* Mowing, sign replacement, pavement maintenance, etc...

1. Based on VDOT Devolution Manual

2. Amount based on previous year VDOT maintenance standards plus additional 5% for administration

3. Unless negotiated with VDOT

4. Dependent upon funding source, road category, maintenance responsibility

5. VDOT Asset Management Requirements per §33.1-23.02, and compliance with state / federal requirements if state / federal funds used

6. County liability for maintenance activities. Other secondary system liabilities based on agreement terms

7. County liability during construction only. VDOT thereafter.

8. Assumption

## **A. Enhancement of Selected Maintenance Activities**

The least extensive alternative for improving maintenance on roads in the County would be for additional resources to be directed to specific, limited maintenance functions. Prior to committing additional resources to enhance maintenance, the County will need to work with VDOT to ensure current funding is providing the highest possible level of service. After such a review, the County may decide that it is necessary to provide additional resources in order to provide a higher level of service for selected functions. These activities could then either be performed and / or administered by VDOT as is currently the practice, or the County could assume these responsibilities itself.

### *1. Provide Additional Funding to VDOT for Selected Maintenance Activities*

Under this arrangement the County could provide VDOT with additional funding on an annual basis with specific direction on maintenance activities to receive enhanced treatment. Minimum service levels, such as two mowing cycles per month during the summer, could be established and the County and VDOT would work to ensure these service levels are met. Any such mechanism would need to be accompanied by commitments that local revenues would not displace state funds that would otherwise be expended in the County. Examples of maintenance functions that are frequently cited as needing additional resources include repaving, mowing, and maintenance and repair of sidewalks, curb-and-gutter, and traffic control devices. The implications of this strategy are summarized below.

Administrative functions. One benefit of simply providing VDOT with additional funding for specific maintenance functions would be that existing administrative procedures (e.g. contractor procurement) already in use by VDOT would not need to be duplicated by the County. In some cases, it is likely that VDOT contracts could simply be modified to increase the frequency (e.g. mowing) and / or scope (paving) of routine maintenance contracts. On the other hand, any such arrangement would need to be accompanied by enhanced accounting and reporting procedures to ensure that County funds are used exclusively within the County, and do not result in a reduction in state maintenance funding expenditures in Fairfax.

Cost implications. The cost of this strategy to the County will vary widely depending upon the maintenance functions that are enhanced, the degree of enhancement, and the ultimate terms of any Agreement with VDOT. However, since this approach would presumably be limited to a few targeted maintenance functions, the relative cost of this option would be low compared to other alternatives.

VDOT has provided maintenance and operations expenditures charged to selected items on the primary and secondary systems in Fairfax County in FY 2007 – FY 2009. These amounts are shown on Table V-2. This table shows a wide variation in the level of expenditures for some activities, presumably as a result of fluctuations in maintenance needs as determined by VDOT each year. Unfortunately, information about the amount of work performed in each activity is not available at this time. Additional analysis should be conducted to identify the reasons for the reported fluctuations.

**Table V-2: VDOT Northern Virginia District Maintenance and Operations Program Expenditures Charged to Selected Items on the Primary and Secondary Systems in Fairfax County (\$ Million)**

Activity	Road System	FY 2007	FY 2008	FY 2009
Pavement	Primary	\$3.8	\$6.6	\$7.4
	Secondary	\$17.8	\$21.9	\$28.0
	<b>Total</b>	<b>\$21.6</b>	<b>\$28.5</b>	<b>\$35.4</b>
Turf	Primary	\$0.2	\$0.7	\$0.6
	Secondary	\$0.8	\$1.0	\$1.4
	<b>Total</b>	<b>\$1.0</b>	<b>\$1.7</b>	<b>\$2.0</b>
Sidewalk	Primary	\$0.0	\$0.0	\$0.0
	Secondary	\$0.3	\$1.5	\$0.3
	<b>Total</b>	<b>\$0.3</b>	<b>\$1.5</b>	<b>\$0.3</b>
Curb and Gutter	Primary	\$0.01	\$0.03	\$0.02
	Secondary	\$0.3	\$1.7	\$0.3
	<b>Total</b>	<b>\$0.3</b>	<b>\$1.7</b>	<b>\$0.3</b>
Signals	Primary	\$0.9	\$1.9	\$1.6
	Secondary	\$2.9	\$5.2	\$4.6
	<b>Total</b>	<b>\$3.9</b>	<b>\$7.0</b>	<b>\$6.2</b>

Source: VDOT email correspondence

Legislative and legal implications. An agreement between VDOT and the County will be needed to identify the activities to be enhanced, establish service and payment levels, and develop reporting procedures to ensure County funding supplements rather than replaces VDOT's funding.

Equipment / facility / staffing implications. Additional County staff resources would need to be devoted to administering the financial transactions with VDOT, as well as to the auditing of VDOT maintenance activities to ensure that the supplemental county funding is spent appropriately. The extent of these resources would depend upon the scale to which the County supplements VDOT funding. While the measurement of mowing accomplished with additional resources should be relatively straightforward, doing so for other activities such as paving and traffic control device maintenance and repair would appear to be more complex.

## 2. Assumption of Selected Maintenance Activities by the County

Rather than providing additional funding to VDOT in order to enhance selected maintenance activities, the County could assume responsibility for them. In this case the County would execute an agreement with the State which would ideally include some reimbursement from the State equal to the amount VDOT currently spends on the selected maintenance activities, while also identifying minimum performance levels that must be achieved with the funds VDOT provides to ensure that minimum standards are maintained. This arrangement would place more control of the maintenance activities in the County's hands and could potentially reduce the administrative and monitoring tasks that would be needed if the County gave funds to VDOT.

Administrative functions. The allocation of administrative responsibilities associated with this approach would depend entirely on the functions assumed by the County, and would presumably be governed by an Agreement with the State.

Cost implications. The cost of this strategy to the County will vary widely depending upon the maintenance functions that the County assumes, and the ultimate terms of any Agreement for transferring these functions that the County may execute with the State. However, since the County would be assuming only a subset of these functions, the relative cost of this option would be low compared to other alternatives. Table V-2, shown previously, lists VDOT expenditures for selected maintenance activities.

Legislative and legal implications. It is not clear whether the *Code of Virginia* allows for a partial transfer of maintenance responsibilities. As with any potential strategy, assuming that the *Code of Virginia* allows this alternative, an Agreement specifying the details of each agency's responsibilities and funding arrangements would need to be executed with the State. In addition, depending on the specific function assumed by the County, it is conceivable that the County might assume some increased liability responsibilities under this scenario.

Equipment / facility / staffing implications. As with costs, the consequences of this alternative related to these parameters will vary with the functions assumed by the County.

## **B. Assumption of Secondary System Responsibilities under the Devolution Statute**

The *Code of Virginia* includes provisions which allow counties to transfer responsibility of their secondary road system from VDOT back to the locality. This process is generally known as devolution. VDOT has developed a policy defining several options a county may choose under devolution. These range from assumption of just maintenance responsibilities on the secondary system to full control including maintenance, operations, and construction on the secondary system. Table II-2, in Chapter II listed each of the activities a county would be responsible for under maintenance, operations, and construction. Each option available to the County under VDOT's devolution guidelines is summarized in the following.

### *1. Assumption of all Maintenance Functions on the Secondary System*

VDOT has identified how the specific responsibilities associated with such a transfer would be allocated between the County and VDOT.<sup>12</sup> As noted below, the funding level that the state would provide to the County under this approach is set forth in the *Code of Virginia*.

Administrative functions. The County would have full control to determine maintenance priorities, allocate maintenance funding, and schedule maintenance work. However, since VDOT would continue to retain ownership of the secondary system, the County would need to observe VDOT (and federal) maintenance standards (or approved local standards) and VDOT would continue to retain permitting responsibilities. Program delivery function requirements (e.g. eligible expenses, procurement, environmental review, etc.) and reporting requirements (e.g. audits, etc.) would be tied to the source of funding so that all applicable state and / or federal laws would need to be observed where state and / or federal funds are involved. According to the VDOT devolution guidelines, this alternative would not include the assumption of activities related to traffic signals or traffic management systems.

Cost implications. Under this alternative the amount of State funds that would be transferred to counties to offset these costs is specified exactly in the *Code of Virginia*.<sup>13</sup> This paragraph states

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<sup>12</sup> *Guide to County Assumption of Secondary Roads*, March 2007

that the amount of funds counties receive for maintenance would be “based on maintenance standards and unit costs used by the Department of Transportation to prepare its secondary system maintenance budget for the year in which the county withdraws,” plus an amount for administration equal to five percent of this maintenance figure. Further, “the payment rates shall be adjusted annually by the Board in accordance with procedures established for adjusting payments to cities and towns.” Thus, the amount of maintenance funds provided by the state would be based on the VDOT maintenance budget for a single year rather than using a multi-year average or the actual maintenance expenses incurred in the County.

This statutory language would appear to provide clear guidance for calculating the payment that the County would receive under this alternative. However, the straightforward application of this text is complicated by two characteristics of the VDOT maintenance program. First, the maintenance expenditures in any single year are not always consistent with the budgeted amounts. If actual expenditures significantly exceed the costs used to develop the budget for that year, the base-year payment – which would constitute the basis for future year escalations -- would be insufficient. Secondly, as previously discussed some maintenance functions in Fairfax County are currently funded from District-level VDOT accounts. The extent to which the statutory language can be interpreted to include these funds is not clear.

Notwithstanding the foregoing uncertainties, Chapter II presented VDOT’s direct expenditures on the secondary system in Fairfax County for FY 2007 - 2009. They are repeated in the following table:

**Table V-3: VDOT Direct Maintenance Expenditures on the Secondary System in Fairfax County FY 2007 – FY 2009 (\$ Million)**

FY07	\$36.3
FY08	\$43.4
FY09	\$48.0

*Source: VDOT*

These expenditures represent only those amounts charged directly to the Secondary System in Fairfax County. They do not include additional expenditures that can be attributed to Fairfax County that VDOT records at the District level. As discussed in Chapter II, VDOT estimates these expenditures as an additional 19% above the direct expenditures on the secondary system.

Legislative and legal implications. With the state funding level for this alternative established by statute, any adjustment of this amount that the County might wish to pursue would appear to require action by the General Assembly. Another facet of this alternative is that the County would assume responsibility for maintenance-related liabilities (e.g. tort claims tied to work zone incidents) for work performed by or on behalf of the County and would share other secondary system liabilities based on the terms of the devolution agreement. As with any potential strategy, an Agreement specifying the details of each agency’s responsibilities and funding arrangements would need to be executed with the State.

Equipment / facility / staffing implications. VDOT’s cost estimation model indicated that the total non-recurring cost to Fairfax County of equipment and facilities for the assumption of all maintenance activities on the secondary system would be approximately \$50 million. The model also depicted total staffing needs of 107. Both values represent the application of default values for Fairfax County that are incorporated in the model without any adjustments to reflect existing facilities, equipment, or personnel. See Appendix A for additional information.

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<sup>13</sup> See VA Code, [33.1-23.5:1](#).

2. *Assumption of all Construction Functions on the Secondary System*

As with the assumption of secondary system maintenance, this alternative has been identified by VDOT as one of the options that are available to counties wishing to expand their role in the highway system, and VDOT has identified how the specific responsibilities associated with such a transfer would be allocated between the County and VDOT.<sup>14</sup>

Administrative functions. Counties would have full control over the prioritization and scheduling of construction work, but the responsibility for developing and programming of county projects in VDOT's Six-Year Improvement Program would continue to be shared between the County and VDOT. The County would also need to coordinate its program to ensure conformity with other regional programs. If federal funds are involved, the County would also need to closely monitor funding schedules and coordinate with VDOT to ensure federal requirements related to authorizations and obligations are met.

Since VDOT would continue to own the system, all permitting responsibilities would remain with VDOT. Design standards would need to be consistent with the source of funds, the category of the roadway, and the maintenance responsibility (e.g. National Highway System, AASHTO, etc.) As with maintenance functions, program delivery requirements (e.g. eligible expenses, procurement, etc.), reporting requirements, and public outreach requirements would be determined by the source of funding. If non-local funds are used, these activities would thus need to comply with all applicable state and / or federal regulations.

Cost implications. Table V-4 shows the estimated VDOT expenditures for Primary and Secondary construction activities in FY 2007 – FY 2009. As indicated by this table, VDOT spent approximately \$21 million on preliminary engineering, right-of-way, and construction on the secondary system in FY 2009. The magnitude of these expenditures in FY 2007 and FY 2008 was similar, ranging from \$18.8 – \$25.2 million.

**Table V-4: VDOT Primary and Secondary Construction Expenditures in Fairfax County FY 2007- FY 2009 (\$ Million)**

System	Phase	FY07	FY08	FY09
Primary	Preliminary Engineering	\$3.7	\$6.0	\$16.9
	Right of Way	\$2.1	\$45.5	\$10.5
	Construction	\$3.7	\$12.9	\$15.2
	<b>Total</b>	<b>\$9.6</b>	<b>\$64.5</b>	<b>\$42.5</b>
Secondary	Preliminary Engineering	\$3.9	\$5.0	\$5.4
	Right of Way	\$12.2	\$8.0	\$11.3
	Construction	\$9.0	\$5.8	\$4.3
	Incidental Construction	\$0.1	\$0.1	\$0.1
	<b>Total</b>	<b>\$25.2</b>	<b>\$18.8</b>	<b>\$21.1</b>

Source: VDOT

Table V-4 however does not necessarily imply that the County would need to provide an additional \$21 million annually in order to assume responsibility for all construction on the

<sup>14</sup> *Guide to County Assumption of Secondary Roads*, March 2007

secondary system within the County. The expenditures shown reflect a mix of federal, state, and local funds used on construction projects on the secondary system. Under the devolution statute, the County would continue to receive state formula allocations for secondary road construction projects. The County would also continue to receive whatever federal funds may have been applied to a project on the secondary system. The County also uses a significant amount of local funds for construction projects on the secondary system. The administration of secondary projects already in progress would need to be governed by an agreement between the County and VDOT.

Legislative and legal implications. It is anticipated that the County would assume liability as a result of actual construction work performed by or for the County and VDOT would retain liability in general for the system. Thus, VDOT would assume liabilities for a highway once construction is complete and the project is accepted by the Department. As with any potential strategy, an Agreement specifying the details of each agency's responsibilities and funding arrangements would need to be executed with the State.

Equipment / facility / staffing implications. For the assumption of construction responsibilities in this analysis, the application of VDOT's cost estimation model included only those construction projects in VDOT's 2007 Six-Year Secondary Improvement Program (SSYP) for Fairfax County. Therefore, the model assumes no additional construction projects on Fairfax County's secondary system after FY 2012. Under the assumption that no new construction projects will be undertaken, the model estimated the total non-recurring cost to Fairfax County of equipment and facilities to be slightly more than \$100,000. The model also indicated that a total of six staff would be needed. Both values represent the application of default values for Fairfax County that are incorporated in the model without any adjustments to reflect existing facilities, equipment, or personnel. See Appendix A for additional information.

### 3. *Assumption of both Maintenance and Construction Functions on the Secondary System.*

As set forth by VDOT, under this option all of the responsibilities, policy considerations, and administrative functions listed above in the *maintenance only* and *construction only* sections will apply. A county choosing the *maintenance and construction* option will have no operational responsibility for the secondary system (unless otherwise negotiated with VDOT) and operational ownership of the system will remain with VDOT.<sup>15</sup>

Legislative and legal implications. As with any potential strategy, an Agreement specifying the details of each agency's responsibilities and funding arrangements would need to be executed with the State.

Equipment / facility / staffing implications. The implications of this alternative on equipment, facilities, and staff would be similar to those cited for each alternative separately, as discussed previously.

### 4. *Assumption of Maintenance, Construction, and Operations Functions on the Secondary System*

A final alternative that has been identified by VDOT as one of the options that are available to counties wishing to expand their role in the highway system is the complete assumption of all maintenance, construction, and operations functions on the secondary system. This alternative would empower the County will all functions on this system that are currently performed by

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<sup>15</sup> Specific operations activities as defined by VDOT were identified in Table II-2

VDOT, and would therefore provide the County with greater opportunities for coordination and integrated decision-making.

Administrative functions. In essence, all administrative functions identified in the above discussions related to maintenance and construction (e.g. permitting, standards, etc.) that are otherwise retained by VDOT in these options would be transferred to the County. Program delivery and reporting functions (e.g. procurement, audits, etc.) would continue to be tied to the source of funding so that all applicable state and / or federal laws would need to be observed where state and / or federal funds are involved.

This alternative would also transfer VDOT's operational responsibilities to the County, including land development / subdivision street review, traffic engineering functions (speed limits, through truck restrictions, traffic signal and signage installation, traffic calming, and other related traffic services).

Cost implications. VDOT has indicated that state funding under this alternative is subject to §33.1-23.5:1 but has also suggested that the additional operations funding "will include amounts that would have been allocated to countywide cost centers."<sup>16</sup> Further analysis of this interpretation of the amount of state funds to be made available needs to be undertaken. VDOT has recently indicated that countywide cost centers are no longer funded due to budget reductions. As indicated in Chapter II, the VDOT expenditures and allocations for maintenance and operations activities on the Secondary system in Fairfax County over the 5-year period between FY 2007 and FY 2011 average \$43 million per year. As discussed previously, VDOT's secondary road construction program in Fairfax County had expenditures of approximately \$21.1 million in FY 2009.

Legislative and legal implications. As with the statutory provisions governing the amount of maintenance funds to be made available through VDOT (e.g. §33.1-23.5:1), any adjustment of this amount that the County might wish to pursue would appear to require action by the General Assembly. In addition, further discussion of the VDOT interpretation of funding for operations activities is needed. As with other options, an Agreement specifying the details of each agency's responsibilities and funding arrangements would need to be executed with the State.

Finally, it should be stressed that under this alternative, the County would assume all liability for the secondary system in a manner similar to Henrico and Arlington Counties.

Equipment / facility / staffing implications. VDOT's cost estimation model indicated that the total non-recurring cost to Fairfax County of equipment and facilities for the assumption of all maintenance, construction, and operations activities on the secondary system would be approximately \$50 million. The model also depicted total staffing needs of 141. Both values represent the application of default values for Fairfax County that are incorporated in the model without any adjustments to reflect existing facilities, equipment, or personnel. As with the construction-only alternative, the model assumes no additional construction projects beyond what is included in VDOT's 2007 SSYP for Fairfax County. See Appendix A for additional information.

### **C. Assumption of All Responsibilities on both the Primary and Secondary System for Selected Geographic Areas of the County**

In this alternative, the County would assume the responsibility for all functions for both the primary and secondary roads within a certain geographic area of the County. In the previous

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<sup>16</sup> *Devolution Guidebook*, p.37

alternatives discussed, the County would assume only specific responsibilities for only the secondary system.

In some respects, assuming responsibility for just the secondary system or only specific functions for the secondary system could lead to difficult coordination issues. For example, it is unclear how responsibilities would be divided when primary roads cross secondary roads. Furthermore, since the County's secondary system has expanded to not only include local subdivision streets but major arterials, it would seem counter-intuitive for the County to assume responsibility for some major roads but not others. As an example, the County could have full responsibility for a major route such as Fairfax County Parkway which is within the secondary system but not Route 7 or Route 50 which are within the primary system.

Assuming responsibility for roads within a specific geographic area could simplify such coordination issues and limit County responsibilities to areas where a greater County role and increased flexibility make the most sense. For instance, the County could assume responsibility for all primary and secondary roads within Tysons Corner or within other emerging revitalization districts such as Springfield or Annandale.

There are provisions within the *Code of Virginia* that may allow the County to assume responsibility for road within certain geographic areas. The *Code of Virginia* allows for the creation of urban transportation service districts (UTSDs) where certain counties may assume the maintenance of the roadway network and related appurtenances within the district. This concept originated as part of the 2007 General Assembly's transportation package Chapter 896 of the 2007 Acts of Assembly. The *Code of Virginia* establishes certain criteria that any such district must meet, as further summarized below.

Administrative functions. The *Code of Virginia* indicates simply that any urban county that has established a UTSD shall maintain the roads within that district. All secondary and primary roads within a UTSD will usually fall under the maintenance responsibility of the county. In certain cases, the locality may work with VDOT to discuss the maintenance responsibility for primaries located partially within proposed district boundaries. VDOT prefers to retain operational responsibility for the most critical arterial roads having statewide significance within the UTSD but will work toward a collaborative agreement when the county desires to include these in the UTSD network.

A county that has an approved urban transportation service district will have the same maintenance responsibilities as cities and towns. These responsibilities include all operational activities and decisions regarding the roadways that are part of the UTSD. Responsibilities would be similar to those described under the alternative for full responsibility for the secondary system.

Cost implications. Because the size and number of any such District that may be established in Fairfax County is uncertain, it is difficult to estimate the cost implications of this alternative. Specific estimates would be dependent on the number and size of any such Districts established in the County. In order to estimate the order-of-magnitude cost of maintaining a portion of the existing road network, average VDOT costs (per lane-mile) in the County (presented in Chapter II) were applied to hypothetical networks of 75, 125, and 250 lane-miles. Table V-5 provides lane-mile information for selected local jurisdictions in Northern Virginia that may be used as reference points in considering this approach.

**Table V-5: Lane-Mile Information for Selected Jurisdictions in Northern Virginia**

Jurisdiction / Locality	Arterial	Collector and Local	Total
Falls Church	22	50	72
Herndon	30	98	128
Vienna	25	111	137
City of Fairfax	60	115	175
City of Alexandria	191	331	522

Using these localities as reference points, if the County assumed responsibility of an area with 75 lane-miles, it may be about the size of Falls Church. An area of 125 lane-miles may be similar in size to Herndon, while an area of 250 lane-miles may be approximately half the size of the City of Alexandria. Using five-year average VDOT costs per lane-mile, an area with 75 lane-miles may cost the County \$0.9 million to maintain. An area with 125 lane-miles may cost \$1.4 million and an area with 250 lane-miles may cost \$2.9 million.

One of the provisions for UTSDs is that counties will receive maintenance payments from VDOT for roads within each UTSD at the same rate (urban rate) as cities and towns who maintain their roads. VDOT would provide the County payments that would partially cover the costs estimated for this alternative.

In addition to the direct costs associated with specific functions, however, additional indirect costs may be incurred in some areas if maintenance equipment is not located within reasonable proximity of the area. In such cases, the time required traveling between the district and the maintenance facilities will add to the cost of performing even routine tasks and reduce the overall efficiency of the maintenance functions.

Legislative and legal implications. Since this mechanism is currently allowed in the *Code of Virginia*, there would appear to be few, if any legislative or legal issues associated with establishing such a district. As set forth in the *Code of Virginia*, a UTSD may be established in a county with a population of 90,000 or greater, and the district must have a net density of one residential unit or greater per gross acre. Multiple districts within one county may be created so long as each area meets the density requirement. It is also possible that the entire County may meet the requirements for one Countywide UTSD. This is explained further in the next alternative..

An agreement between the locality and the state will be needed and would address issues such as responsibility for operational activities and decisions where roadways under the control of the state intersect those under control of the locality. The County would assume all liability for roads within a UTSD.

Equipment / facility / staffing implications. As with costs, the consequences of this alternative related to these parameters will vary with the characteristics of the individual transportation district.

**D. Assumption of All Responsibilities on both the Primary and Secondary Systems**

A final alternative for expanding the County's authority over the road network may be the assumption of responsibility for the primary system as well as the secondary system. This option is the most ambitious approach and entails potentially significant legislative, legal and cost implications in addition to its other ramifications. While it is conceivable that the County might assume partial responsibilities on primaries just as for secondaries (e.g. maintenance only, etc.),

for purposes of this discussion it is assumed that the County would assume all functions on both systems.

The *Code of Virginia* potentially allows the County to assume full responsibility of both the primary and secondary systems in the County under two methods. Since cities have the responsibility to maintain the urban system of roads within their jurisdiction, the County could change to a city form of government and consequently assume responsibility of the roads. In this case, the primary and secondary roads in the County would become part of the urban system and VDOT would provide maintenance payments under the rates established for cities and towns. The second method would be for the County to utilize the provisions established for the creation of urban transportation districts discussed in the previous alternative. The County as a whole potentially meets the density requirements for a UTSD and therefore, a Countywide UTSD could be established. Under this method, the County would not need to change its form of government. In addition, since the provisions of a UTSD specify that counties would receive maintenance payments at the same rate as cities and towns, the County would also receive the same maintenance payments from VDOT as it would if it changed to a city form of government.

Administrative functions. If the County assumed control of both the primary and secondary system, it will have the same maintenance responsibilities as cities and towns. These responsibilities include all operational activities and decisions. Responsibilities would be similar to those described under the alternative for full responsibility for the secondary system.

Cost implications. Table II-3 in Chapter II, summarized cost estimates for maintenance and operations activities on the Primary and Secondary systems in Fairfax County between FY 2007 and FY 2011. Using these estimates, the average cost of performing maintenance and operations activities on these systems in Fairfax County during this period was \$73 million per year, exclusive of any additional non-recurring start-up costs.

VDOT would provide the County with maintenance payments using the urban rate. As discussed, the County would receive these payments if it changed to a city form of government or if it established a countywide UTSD. This may cause a potential funding issue with other localities within the urban system. The 6,300 primary and secondary lane-miles in Fairfax County would be added to the 25,600 lane-miles currently in the urban system throughout the state, resulting in a 25% increase. If the overall statewide maintenance funding to the urban system were to remain constant, the addition of the Fairfax County system could result in reductions in per-lane-mile payments to all other cities and towns in the Commonwealth. This could be partially offset by slight increases in payments to counties, since the Fairfax County mileage would be removed from those totals, but the impact would be less dramatic due to the mileage involved. If Fairfax County did enter the urban system, VDOT funding that would have been allocated to maintenance activities in Fairfax County could be transferred into the urban system but this would not be guaranteed.

Legislative and legal implications. The *Code of Virginia* does not explicitly allow counties to maintain or operate the primary system within their borders. While not explicitly allowing it there are provisions which would implicitly allow a county to assume responsibility of the primary system, as discussed previously. The County could change to a city form of government or establish a countywide UTSD. Either approach will result in assuming responsibility for both the primary and secondary systems.

Legislative and legal implications would be much greater if the County changed to a city form of government. This is discussed in greater detail in Chapter VII. In either case, the liability issues identified in previous sections of this report would remain relevant. Liability issues may be greater as a city since they do not have the same level of sovereign immunity as counties. As with other alternatives, an agreement would be needed between the County and the state to establish the terms of transferring responsibilities.

Equipment / facility / staffing implications. This alternative it is not included in the VDOT cost model developed for devolution. In the absence of more precise data, one approach for estimating these requirements would be to assume that the non-recurring cost to the County of absorbing the maintenance, construction, and operating responsibilities of this system would be roughly proportional to the lane-mileage involved. This is actually a very conservative assumption, since it is likely that the resources devoted to maintaining the primary system are greater (on a unit cost basis) than the secondary system. The current network in Fairfax County consists of about 700 primary and 5,600 secondary lane-miles. Stated differently, primary lane-miles represent about 12% of secondary lane-miles, so it is assumed that the equipment, facility and staffing costs of maintaining and operating the primary and secondary systems would be about 12% higher than the comparable costs of doing so on the secondary system alone. In reality, the actual costs for these additional facets of primary system maintenance are likely to be higher.

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## CHAPTER VI. OPTIONS FOR ENHANCING FUNDING/ REVENUES

Depending on the alternatives described in the last chapter, significant new revenue may be needed at both the state and local levels in order to improve transportation services. It may be possible for the County to assume some selected functions with a minimal financial impact, such as perhaps enhancing current VDOT mowing schedules. However, more aggressive approaches will most likely require that additional sources of revenue be identified. Moreover, since maintenance is an ongoing responsibility, such revenues will need to be reasonably stable and continuous in order to support annual maintenance functions. Various funding strategies are discussed in this chapter. This discussion should not be considered as support or non support by Fairfax County for any of these funding options at this time.

### A. State Maintenance Funding

Throughout the course of this study, one question frequently raised is what would be the County's funding if the maintenance and operations of the roads fell under one of the other administrative structures. For cities and towns and the two counties that maintain their own roads, it is relatively simple to derive the amount of state assistance a jurisdiction would receive. Per-lane mile payment rates are set each fiscal year. Table VI-1 lists these rates for FY 2007 through FY 2011.

**Table VI-1: VDOT Payments Per Lane Mile for Urban System and Counties that Maintain their Secondary Road System**

Fiscal Year	Urban System		County System	
	Arterials	Collectors and Locals	Henrico	Arlington
2007	\$15,586	\$9,150	\$8,347	\$14,533
2008	\$16,088	\$9,445	\$8,554	\$15,150
2009	\$16,685	\$9,796	\$8,827	\$15,643
2010	\$16,576	\$9,732	\$8,810	\$15,604
2011	\$17,180	\$10,087	\$9,101	\$16,121

Under the arrangement for almost all counties, including Fairfax County, VDOT is responsible for the maintenance and operations of roads. It is not as straightforward to determine the total funding VDOT spent in a particular county under this arrangement, however, as summarized in Chapter II, VDOT did provide data on maintenance and operations funding for Fairfax County between FY 2007 and FY 2011. Table VI-2 compares VDOT's estimated costs for maintenance and operations in Fairfax County with the maintenance payments that Fairfax County would have received if it was under the urban system or one of the county systems.

**Table VI-2: Comparison of Primary and Secondary System Maintenance and Operations Activities in Fairfax County under Different Administrative Structures (\$ Million)**

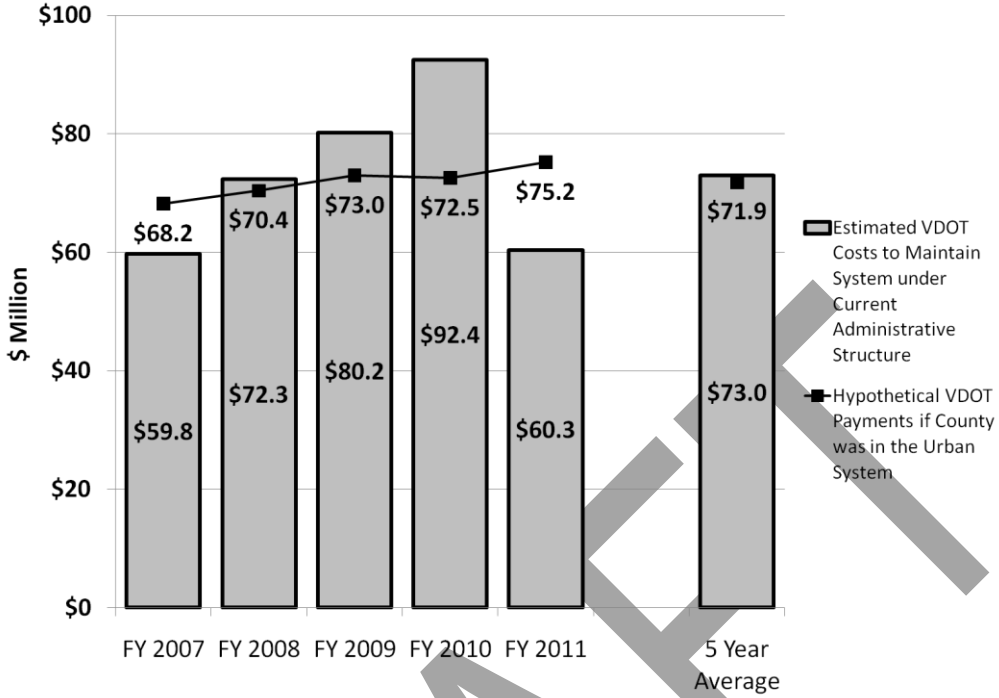
<b>Current Administrative Structure</b>						
	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	
	<b>Expenditures</b>	<b>Expenditures</b>	<b>Expenditures</b>	<b>Allocations</b>	<b>Allocations</b>	<b>5 Year Average</b>
Primary System	\$16.6	\$20.7	\$23.1	\$61.3	\$28.4	\$30.0
Secondary System	\$43.2	\$51.6	\$57.1	\$31.1	\$32.0	\$43.0
<b>Total System</b>	<b>\$59.8</b>	<b>\$72.3</b>	<b>\$80.2</b>	<b>\$92.4</b>	<b>\$60.3</b>	<b>\$73.0</b>
<b>Other Administrative Structures Found in Virginia</b>						
	<b>FY07</b>	<b>FY08</b>	<b>Estimated VDOT Payment</b>		<b>FY11</b>	<b>5 Year Average</b>
			<b>FY09</b>	<b>FY10</b>		
Total System using Urban System Rates	\$68.2	\$70.4	\$73.0	\$72.5	\$75.2	\$71.9
Secondary System using Henrico County Rate	\$46.8	\$47.9	\$49.4	\$49.4	\$51.0	\$48.9
Secondary System using Arlington County Rate	\$81.4	\$84.9	\$87.6	\$87.4	\$90.3	\$86.3

Source: staff estimate

As shown by this table, over the five-year period, the average annual cost (past expenditures and future allocations) of performing maintenance and operations activities on the Primary and Secondary system in Fairfax, as currently administered by VDOT, is about \$73 million. If these activities had been funded using the rates in effect for cities and towns, an average of \$71.9 million would have been provided. The average annual cost for performing these functions on the Secondary system alone is about \$43 million. In comparison, an average of \$48.9 million / year would have been provided using the Henrico rate, and \$86.3 million / year would have been provided under the Arlington rate.

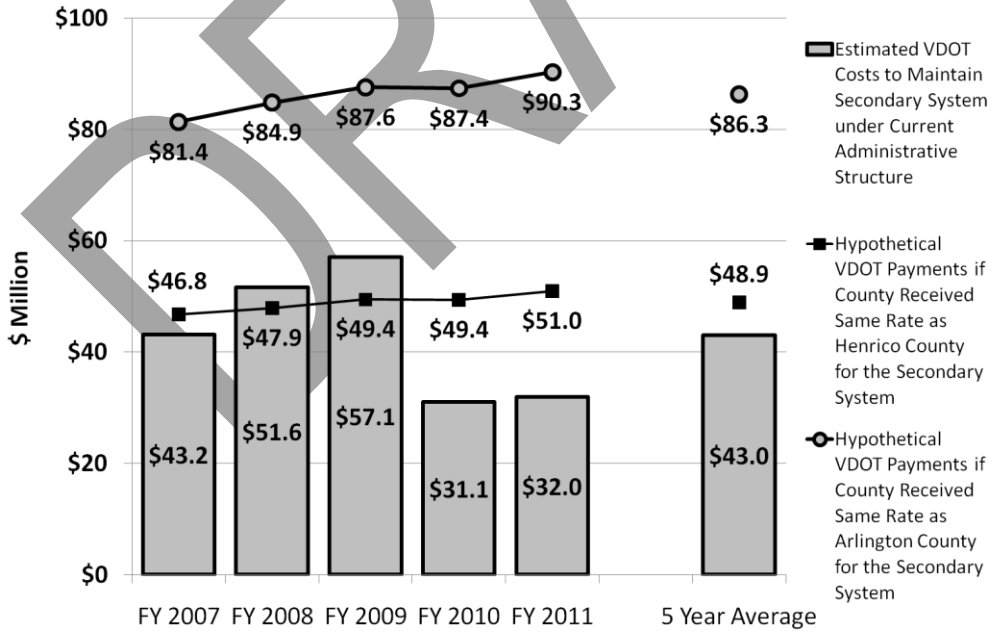
This information is shown in graphical form in Figure VI-1 and Figure VI-2. Figure VI-1 shows the relationship of total maintenance and operations funding for both the Primary and Secondary systems to the amounts the County would receive under the urban rate. Figure VI-2 shows similar information for the Secondary system only, in comparison with the Arlington and Henrico rate. In some years, these different arrangements yield more funding for work in the County than VDOT has expended or allocated, but in other years the situation is reversed.

**Figure VI-1: Estimated VDOT Costs to Maintain System under Current Administrative Structures versus Calculated Payments if County was in the Urban System**



Note: FY 2007 – FY 2009 VDOT costs represent expenditures; FY2010 – FY 2011 VDOT costs represent budget allocations.

**Figure VI-2: Estimated VDOT Costs to Maintain System versus Calculated Payments Using Arlington and Henrico County Rates – Secondary System Only**



Note: FY 2007 – FY 2009 VDOT costs represent expenditures; FY2010 – FY 2011 VDOT costs represent budget allocations.

While this comparison implies that there is a potential to increase maintenance funding by simply changing to an arrangement similar to that which applies for Arlington County, it is extremely unlikely that the actual funding level would be comparable to the hypothetical allocations shown. Since the funding sources for maintenance statewide are fixed, and according to most trends the revenues from these sources are declining, any potential increase in state maintenance funding Fairfax County equivalent to the rates enjoyed by Arlington would result in decreased funding for other maintenance needs statewide.

In addition to limited statewide resources for transportation maintenance, there are other reasons why it would be difficult for Fairfax County to increase existing state maintenance funding for roadways by simply changing to another arrangement. If the County were to assume responsibilities similar to those of Arlington or Henrico (i.e. assuming full responsibility only for the Secondary system), the *Code of Virginia* stipulates that the maintenance payment from VDOT be consistent with what VDOT spent on the secondary system in the previous fiscal year. Therefore if the County did assume responsibility of the secondary system, funding would be similar to what VDOT currently spends.

In addition, if Fairfax County were to change to a different arrangement for road maintenance funding, an agreement between the County and VDOT would need to be executed and approved by the Commonwealth Transportation Board (CTB). If a change to a city form of government were to be pursued, several levels of public scrutiny including a countywide referendum and General Assembly approval of a new charter would be required. It is highly unlikely that any of these options would produce significant additional state funding for Fairfax County without any new state revenue sources for maintenance.

## **B. Existing Local Funding**

Since the likelihood of the County receiving additional state funding in the absence of new state revenue is low, the County may need to look at locally generated revenue sources if it decides to take on additional roadway responsibilities. The following sources currently fund transportation related services within the County. Some of these sources may not be appropriate for supporting an increased level of ongoing roadway maintenance and operations funding. Such limitations are highlighted in the following discussion. Potential revenue and funding sources are shown for informational purposes only, and should not be considered as support or non support by Fairfax County at this time.

### **1. Primary Sources Comprising the General Fund**

The general fund includes the majority of taxes and fees the County raises in order to provide high quality services to its citizens. The County receives revenue from a variety of taxes and other sources to fund schools, public safety, and most ongoing functions of government. The general fund also helps pay for transit service (Washington Metropolitan Area Transit Authority (WMATA), Fairfax Connector, and Virginia Railway Express (VRE)), the County's Department of Transportation, and also debt service for general obligation bonds which in turn fund large transportation capital projects (see the following discussion on bonds). The principal sources contributing to the General Fund are taxes on real estate (62%) and personal property (15%) as well as several other special fees and taxes (vehicle registration fees, sales taxes, etc.) which cumulatively account for another 15% of the Fund. The degree to which these sources might support the provision of enhanced transportation services is briefly noted below.

*Real Estate Taxes.* A significant portion (62%) of the revenue that makes up the general fund is from real estate tax assessments. The FY 2011 real estate tax assessment rate is \$1.09 per \$100 of assessed value. Every one cent of real estate tax assessment can currently generate approximately \$18.7 million.

*Personal Property Taxes.* In FY 2011, one cent of the personal property tax generates approximately \$1.0 million.

*Other Taxes.* Other taxes and fees also contribute to the General Fund. These include Vehicle Registration Fees, Sales Taxes, Gross Receipts Taxes on Rental Cars, Communications Sales and Use Taxes, and Recordation Fees among others. The largest single component of these sources is the local sales tax, accounting for a little more than 4% of this fund.

The general fund could potentially pay for additional roadway responsibilities. However, as a recurring obligation, road maintenance would compete with other critical public services that rely on general fund revenues. For this reason, it would be problematic to fund additional roadway responsibilities from the general fund without increasing the revenue sources that feed into it.

## 2. *Commercial and Industrial Tax for Transportation*

The County currently imposes a special assessment on commercial and industrial real estate to pay for transportation projects. This assessment, currently at \$0.11 per \$100 of assessed value, generates approximately \$50 million annually to be used for transportation purposes. The General Assembly granted Northern Virginia localities the ability to impose this tax relatively recently, in 2007. The maximum rate that can be assessed is \$0.125 per \$100 of assessed value. Furthermore, the General Assembly has restricted the use of this revenue to only transportation projects that increase capacity. As such, the County uses this funding primarily to design and construct roads and expand transit service. The County's commercial and industrial tax, in most cases, is not a suitable source to fund increased road maintenance responsibilities.

## C. **Local Funding Sources Requiring Voter Approval**

Some local funding sources require direct approval from voters before they can be raised. General obligation bonds fall within this category. Voters must approve a referendum before the County can incur general obligation debt. Other sources also require voter approval. While the County currently uses some of these revenue sources, others have never been attempted. The following section discusses sources available to the County that require some type of direct approval by voters.

### 1. *General Obligation Bonds*

The County routinely incurs debt in order to undertake large capital projects. The County sells bonds backed by general fund revenue to construct schools, parks, libraries, and many other public facilities. For transportation, the County has used bonds to provide local funding for road projects such as the initial construction of portions of the Fairfax County Parkway and the original portion of the Metrorail system in Fairfax County. In order to issue general obligation bonds for a specific purpose, the County must hold a countywide referendum and receive approval from a majority of voters. General Obligation bonds traditionally are used to provide near-term income for capital projects, and are retired over the life of those projects. They do not provide an ongoing revenue stream, and issuing bonds to pay for routine maintenance expenditures is not sound financial policy. For this reason the County's fiscal policy does not provide for funding ongoing maintenance costs with long term debt financing. Moreover, the County has established limits on its bonded indebtedness to maintain its high bond rating, which allows the County to borrow at the lowest available interest rates. Therefore, general obligation bonds are in most cases not a suitable source to fund increased road maintenance responsibilities.

### 2. *Meals Tax*

As authorized by §58.1-3833 of the *Code of Virginia*, counties may levy a meals tax on food and beverages offered for human consumption if the tax is approved in a voter referendum. The voter referendum may be initiated either by a resolution of the Board of Supervisors or on the filing of a

petition signed by 10 percent of the voters registered in the county. (Cities and towns may impose a meals tax without holding a referendum.) In addition, several counties have been exempted from the voter referendum requirement in the *Code of Virginia* provided that a public hearing is held before adoption and the governing body adopts the tax by local ordinance by unanimous vote. The counties granted the exemptions to the voter referendum are Arlington County, Roanoke County, Rockbridge County, Frederick County, and Montgomery County. Counties are limited to a maximum meals tax rate of 4.0 percent. No rate limitation is set for cities or towns. The cities in Northern Virginia currently impose a 4% meals tax while the meals tax imposed by local towns is somewhat lower. The meals tax in other cities in the Commonwealth varies; examples include Richmond (6%) and Chesapeake (5.5%). At the maximum 4.0 percent rate, a County meals tax could generate annual revenue of approximately \$80.0 million. There are no restrictions regarding the use of the tax revenue generated from a meals tax.

A Fairfax County meals tax was put to voter referendum in April 1992, but was defeated 58 percent to 42 percent with approximately 102,000 votes cast, representing about 25 percent of total registered voters in 1992. In 2004, legislation was introduced to exempt Fairfax County from the referendum requirement. The legislation was passed by the Senate but failed in the House.

### 3. *Local Income Tax for Transportation*

The *Code of Virginia* allows specific localities in Northern Virginia and Hampton Roads to impose a local income tax for transportation purposes following passage of a local referendum.<sup>17</sup> Although never attempted in Fairfax County, this provision has the potential to generate significant revenues; a 0.25% local income tax in Fairfax County would raise approximately \$105.3 million. However the law contains a sunset provision that limits its practicality for ongoing maintenance funding. Once levied, this tax can only be collected for a 5-year period unless the *Code of Virginia* is amended to allow it to be continued.

## **D. Revenue Sources Requiring General Assembly Action**

In general, there are no legal restrictions to the amount of funding the County could raise from real estate assessments. However, if the County desired to diversify revenues away from real estate assessments, state law limits the types of fees and taxes a County can raise. In most cases, existing fees and taxes the County currently collects are at the maximum rates allowed by state law. Therefore, if the County wishes to diversify revenue sources, it will need to work with the Virginia General Assembly to craft legislation granting counties the authority to raise other types of revenue.

### 1. *NVTA Taxes and Fees*

In 2007, the General Assembly passed legislation (HB3202) which allowed the Northern Virginia Transportation Authority (NVTA) to collect funds from throughout the Northern Virginia region. While the Virginia Supreme Court ultimately ruled that NVTA could not impose these taxes as a regional body, they are identified here as potential revenue sources that could possibly be considered by the County. As originally crafted, HB3202 limited the use of these taxes to transit and highway capital projects. New legislation would need to allow a broader set of uses in order to fund maintenance from these revenue sources. The following table summarizes these sources and the projected revenue they could generate for Fairfax County.

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<sup>17</sup> § 58.1-540. Localities are authorized to levy a local income tax at any increment of one-quarter percent up to a maximum rate of one percent upon Virginia taxable income.

**Table VI-3: Taxes and Fees Originally to be Collected by NVTa that Would Require Enabling Legislation**

Potential Fee	Rate	Projected Revenue to Fairfax County (\$ million)
Grantor's Tax	\$0.40 / \$100 value	\$53.9
Motor Vehicle Rental Tax	2.0%	\$1.3
Transient Occupancy Tax	2.0%	\$13.3
Safety Inspection Fee	\$10	\$8.5
Regional Registration Fee	\$10	\$8.5
Initial Vehicle Registration Fee	1.0%	\$30.2
Sales Tax on Auto Repairs	5.0%	\$13.8

*Source: NVTa. Revenue projections originally made in November 2007 and have not been updated. Potential revenue sources are shown for informational purposes only and should not be considered as support or non support by Fairfax County at this time.*

**2. Sales Tax**

The sales tax is another common revenue source that could be applied to highway maintenance funding in Fairfax. However, at present, the County levies the maximum rate allowed by the *Code of Virginia* (1%) which generates over \$140 million in annual revenue. Because it can provide a continuing revenue source, an increase in the sales tax could be used for any transportation purpose including transit operating costs and road maintenance if the *Code of Virginia* limitation is raised. A 0.5% increase in the local sales tax would generate approximately \$73 million in FY 2011.

A referendum was held in November 6, 2002 to allow a ½ cent Sales Tax increase in Northern Virginia localities. The tax would have been earmarked for transportation. The referendum failed by a vote of 55 percent to 45 percent.

**3. Motor Fuels Taxes**

Three types of motor fuels taxes are currently collected in Fairfax County. These include federal (18.4 cents per gallon) and state (17.5 cents per gallon) taxes, plus a special regional tax to support Metro (2.1 percent of distributor price), which is allocated at the sub-regional level by the Northern Virginia Transportation Commission (NVTC). Approximately \$17 million of the NVTC regional tax is allocated to Fairfax County.

Motor fuels taxes represent a logical revenue source for funding various transportation programs and projects, including roadway maintenance needs, but the County does not have the authority to impose such taxes at the present time. If the current NVTC regional 2.1% tax were to be increased by 0.5%, the County would collect approximately \$5.3 million additionally in FY11.

**E. Tax Districts**

There are several provisions within the *Code of Virginia* that allow localities to levy additional real estate assessments for defined purposes within specific areas, subject to certain procedural

requirements.<sup>18</sup> The County has established several districts using these provisions. For transportation purposes, separate tax districts have been established in both the Route 28 and Dulles Metrorail corridors for the purpose of generating funds for capital improvements. Since tax districts can provide a stable and continuing revenue stream, they are also suitable sources for maintenance funding.

The funding level that could be provided through an individual tax district would be dependent on the size of the district as well as the tax rate. Thus, while this mechanism could be an attractive means of raising revenues, the use of numerous tax districts for road maintenance in the County could lead to an uneven delivery of services

In general, the *Code of Virginia* allows for the creation of three different types of special districts. These are:

1. Service districts
2. Urban transportation service districts
3. Transportation improvement districts

The provisions in the *Code of Virginia* that govern the various types of service and tax districts are complex, and a comprehensive analysis of the full implications of each type of tax district is beyond the scope of this study. Some types of districts are more suitable for generating funds for capital projects while others are more suitable for on-going maintenance costs. The following paragraphs along with Table VI-4 provide a condensed summary of the major features of each tax district for transportation purposes, focusing on their applicability for road maintenance.

#### 1. *Service District*

§15.2-2400 et. seq. allows localities to create service districts in order to provide additional or enhanced governmental services. Additional real estate assessments can be levied in these districts in order to fund the governmental function(s) for which they were created. The assessment can be levied on all taxable real estate or combinations of taxable real estate zoned under certain classifications. For instance, a service district could levy the additional assessment on all taxable property or just commercial property or just commercial and industrial property. However, the *Code of Virginia* does require that the tax only be levied upon the specific classification of real estate that the governing body deems is benefitted by the services provided.

The types of services that can be funded through service districts are numerous and include water supply, economic development services, beautification / landscaping, extra security, and garbage removal. Service districts are also allowed for many other functions which are not specifically mentioned in this study. The County currently uses the provisions for service districts to fund stormwater maintenance countywide, as well as several small-area districts for other purposes.

A locality may create a service district by ordinance and must hold a public hearing prior to establishing the district.

There are several transportation related functions that could be performed using a traditional service district. The *Code of Virginia* specifically mentions road construction, sidewalks, beautification and landscaping, public parking, street cleaning, and snow removal, as well as

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<sup>18</sup> §15.2-2400 et. seq.

“public transportation systems serving the district.” However, while the County could potentially establish a district or districts for these specific transportation purposes, the *Code of Virginia* includes additional requirements in order for localities to set up service districts for general maintenance and construction of streets and roads. In order to perform these functions, in addition to approval following a public hearing, the service district must be initiated by a petition of over 50 percent of the property owners who own not less than 50 percent of the property to be served by the district.

## 2. *Urban Transportation Service District*

In addition to the traditional service districts described above, the *Code of Virginia* also allows for the establishment of special “Urban Transportation Service Districts.” Such districts differ from traditional service districts in several ways. First, the *Code of Virginia* directs that the maintenance of roads within these districts shall be performed by the county in which the district is located. Second, the *Code of Virginia* specifies that the county will receive a maintenance payment from the state equal to the payment rate provided to cities and towns (the “urban” rate). Third, while a public hearing must be held prior to the creation of an urban transportation service district, there is no requirement that it be initiated through a petition from a majority of the property owners in the proposed district; the hearing can simply be held following a public notice and advertisement period. Urban Transportation Service Districts can only be created in counties having a population greater than 90,000, and must consist of development densities of at least one unit per acre. It would appear that the entire County, taken as a whole, could meet these criteria. Creation of the district is also contingent upon approval of the Commonwealth Transportation Board (CTB).

## 3. *Transportation Improvement District*

In addition to service districts that can be established for a variety of public purposes, the *Code of Virginia* also contains provisions for the creation of Transportation Improvement Districts. There are two forms of such districts. Their common elements consist of the power to construct and operate transportation improvements within the district and to levy surcharges on the real estate tax rate within the district. Both types of Transportation Improvement Districts must be initiated by petitions from a majority of commercial and industrial property owners within the proposed district, and are adopted by resolution by the Board of Supervisors following a hearing wherein comments from affected residents and landowners are received.

"Local Transportation Districts" as defined by the *Code of Virginia* can be created in individual or multiple adjacent localities. Tax levies are limited to commercial and industrial properties, and the maximum surcharge allowed is \$0.20 / \$100 of assessed value. Such districts shall expire after 35 years or sooner if certain conditions are met. The Route 28 Tax District was established pursuant to the predecessor statute to the current *Code of Virginia*.

The *Code of Virginia* also allows for the establishment of "Transportation Districts Within Certain Counties." Districts established under these provisions are limited to individual counties with populations over 500,000, with a maximum surcharge of \$0.40 / \$100 of assessed value. In addition to commercial and industrial land, multiunit residential properties used for commercial purposes (i.e. leased or rented) are also subject to this levy. Such districts shall expire after 50 years or sooner if certain conditions are met. The Dulles Metrorail project is being funded in part through the provisions of this chapter of the *Code of Virginia*.

Both Local Transportation Districts and Transportation Districts within Certain Counties require the formation of a commission which would exercise the powers of the district. In general, the commission would be comprised of appointed members by the governing bodies of the district.

**Table VI-4: Summary of Tax Districts Generally Allowed by Virginia Code**

	Service District (Tax District)	Urban Transportation Service District	Transportation Improvement District	
Code Reference	§15.2-2400 et. seq.	§15.2-2403.1	§33.1-409 thru §33.1-425	§33.1-430 thru §33.1-446
Criteria	Any locality	County pop. over 90,000; District density = 1 unit (or more) / acre County does not already maintain roads as of January 1, 2007	Any City or County Multiple adjacent localities allowed	Single County with over 500,000 population
Origination	Proposed Ordinance	Proposed Ordinance	Petition by commercial and industrial land owners	Petition by commercial and industrial land owners
Public Involvement	Public Hearing	Public Hearing	Hearing w/ comments from residents & owners within district	Hearing w/ comments from residents & owners within district
Approval	Board of Supervisors - Ordinance	Board of Supervisors – Ordinance CTB	Board of Supervisors - Resolution	Board of Supervisors - Resolution
Governance	Option to create a development board or other body for control and management of funds	Option to create a development board or other body for control and management of funds	5 member commission required	5 member commission required
Transportation Powers	<p><b>Construction:</b> Road construction; rehabilitation; replacement; sound walls; sidewalks, landscaping &amp; beautification; public parking</p> <p><b>Selected Maintenance and Operations:</b> Limited to street cleaning, snow removal, landscaping, and beautification Public transportation</p> <p><b>General Maintenance and Upkeep Of Streets And Roads:</b> Requires petition by land owners</p>	Construction, maintenance and general upkeep of streets and roads	Construct and operate transportation improvements	Construct and operate transportation improvements

**Table VI-4: Summary of Tax Districts Generally Allowed by Virginia Code**

	<b>Service District (Tax District)</b>	<b>Urban Transportation Service District</b>	<b>Transportation Improvement District</b>	
Land Use Restrictions to Real Estate Assessments	Any combination of uses <sup>19</sup> within District that benefit	Any combination of uses <sup>19</sup> within District that benefit	Only commercial and industrial uses within district	Only commercial, industrial, and multiunit residential rental uses within district
Maximum Assessment	None	None	\$0.20 / \$100 assessed value	\$0.40 / \$100 assessed value <sup>20</sup>
State contributions	None	VDOT maintenance payments per lane mile at same rates as cities and towns	None	None
Expiration	None	None	35 years	50 years

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<sup>19</sup> Residential, commercial, industrial, or other uses

<sup>20</sup> Can be exceeded if all owners apply in writing

## F. User Fees, Private Sources, and Federal Funding

Innovative financing methods are increasingly being mentioned as possible ways to provide more funding for transportation. Many times these methods include involving the private sector. User fees, such as tolls, which attempt to transfer the cost of infrastructure improvements to those who most utilize the improvements, are also mentioned. Two arrangements that involve the private sector that are frequently used in Virginia include the acceptance of proffers and the formation of public private partnerships. Proffers are generally used to provide infrastructure improvements related to new development. Public private partnerships have been used in a variety of ways to deliver government services in a more timely manner or at a lower cost than what a public agency could do on its own. Finally, the County also uses a variety of federal funding sources to advance transportation projects. These arrangements along with the collection of tolls are discussed further in this section. The discussion focuses on the implications of using these arrangements to fund increased maintenance functions.

### 1. Tolls

Increased interest has been expressed over the past several years in the use of tolling as a means of raising revenues for highway funding purposes. This is a complex subject involving significant legal and policy issues that cannot be fully explored in the context of this broad review of potential funding strategies for Fairfax County. A few major issues are identified in the following paragraphs, but substantial additional research and analysis would be required to prepare a comprehensive examination of this subject.

Assuming these issues could be successfully overcome, for order-of-magnitude planning purposes the approximate annual revenue that would be generated by establishing various tolls on a road with an average daily traffic volume of 50,000 vehicles per day is shown in Table VI-5.

**Table VI-5: Potential Revenue from Tolls for a Roadway with Average Daily Traffic (ADT) of 50,000**

Toll	Annual Revenue (\$Million) <sup>1</sup>
\$0.50	\$9.1
\$0.25	\$4.6
\$0.10	\$1.8

<sup>1</sup> - assuming annual traffic volume = (ADT) x 365

*Potential tolling revenue is shown for informational purposes only and should not be considered as support or non-support by Fairfax County at this time.*

Table VI-6 lists a sample of roads in Fairfax County with traffic volumes in the 45,000 – 55,000 vehicles per day range.

**Table VI-6: Selected Roads in Fairfax County with 45,000 - 55,000 ADT**

Route No.	Name	From	To	ADT (2009)
US 1	Richmond Hwy	Lorton Rd	Telegraph Rd	49,000
VA 7	Leesburg Pike	Georgetown Pike	Dulles Toll Rd	54,000
VA 7	Leesburg Pike	Columbia Pike	Jefferson St	45,000
VA 28	Centreville Rd	Prince William County Line	New Braddock Rd	55,000
US 50	Arlington Blvd	I-495 Capital Beltway	Leesburg Pike	51,000
VA 236	Little River Tpke	I-495 Capital Beltway	NVCC Annandale Campus	46,000
644	Old Keene Mill Rd	Backlick Rd	Hanover Ave	50,000
7100	Fairfax County Pkwy	Sydenstricker Rd	Hooes Rd	48,000
7100	Fairfax County Pkwy	Fox Mill Rd	Sunrise Valley Dr	51,000

The imposition of tolls on existing public streets raises a number of major legal, policy, and technical issues. Among these are the following:

Federal and state laws. VDOT has traditionally used a combination of federal and state funds to construct individual highway improvement projects. Thus, it is likely that some federal funds have been applied to most of the existing highway system in the County and as such, both federal and state statutes would govern the conversion of any of these roads to toll facilities.

The Federal-aid Highway Program, Title 23 of the United States Code (23 U.S.C.), does allow States and/or other public entities to toll motor vehicles under certain specific programs. Some of these programs are designed to promote more efficient use of the highway network (e.g. HOT lanes) and to reduce traffic congestion (e.g. value pricing). This statute also allows for the conversion of existing free highways to tolled facilities under certain conditions.

Special provisions in the regulations govern the establishment of tolls on existing free Interstate highways.<sup>21</sup> In essence, section 1216(b) of Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) authorized the reconstruction or rehabilitation of Interstate highway corridors where estimated improvement costs exceed available funding sources, and work cannot be advanced without the collection of tolls. This means that the candidate project must be for the conversion of a free Interstate highway to a toll facility in conjunction with needed reconstruction or rehabilitation. In addition to this limitation, the program is limited to three pilot projects nationwide.

For non-Interstates, in general the primary purpose of these programs is to secure funding for the reconstruction or replacement of an existing free facility. Thus, a toll agreement specifying how toll revenues will be used to retire debt and guaranteeing that the facility will be adequately maintained must be executed with the Federal Highway Administration (FHWA). The legislation does allow for surplus revenues to be used for appropriate transportation purposes, but it would appear that the primary purpose of this program is to provide funding for specific capital improvement(s) on the tolled facility rather than for ongoing system maintenance.<sup>22</sup>

Technical and Policy Issues. The roads to be tolled as well as the locations of tolling stations must be carefully selected. Tolls are most easily collected on freeways because they usually provide faster travel speeds as an incentive to their use, and their limited-access nature allows few opportunities for evading tolling stations. However, most of the freeways in Fairfax County are Interstate highways which are subject to specific federal legislation for tolling.

<sup>21</sup> See <http://www.fhwa.dot.gov/innovativefinance/ifp/inntoll.htm> and related sites

<sup>22</sup> See [http://ops.fhwa.dot.gov/tolling\\_pricing/toll\\_agreements.htm](http://ops.fhwa.dot.gov/tolling_pricing/toll_agreements.htm) for more information about this program.

The tolling of non-freeway arterial roads having at-grade intersections involves the resolution of numerous issues related to (a) the availability of alternate routes that may provide comparable travel speeds, (b) the impact of potential traffic diversions to these alternate routes, which may include nearby residential streets, and (c) the equity of requiring adjacent and nearby property owners and businesses who have no feasible alternative routes to pay the toll while other owners and businesses elsewhere in the County may be exempted from tolling. Continued advances in technology may reduce or eliminate some or all of the obstacles to more widespread tolling. However, given these potential concerns, consideration of imposing tolls on specific existing arterial roads requires substantial detailed analysis.

Another frequently-expressed concern about tolling existing facilities is the claim that this represents an additional user fee beyond the taxes that citizens already pay, or have already paid for the initial construction of the road. The extent to which this comment applies to revenues that are used for system maintenance in contrast to new construction, is not clear.

## 2. *Public Private Partnerships*

Public private partnerships are sometimes mentioned as a possible method to improve transportation services. Under such a partnership, a public entity forms an agreement with a private entity to provide a government service. The possible benefit to the public entity may be a combination of cost savings, improved service delivery, or favorable financing that a public would not be able to secure on its own. Public private partnerships have been used in Virginia in a variety of ways. The Public Private Transportation Act (PPTA) has allowed public entities in Virginia to use these arrangements for transportation facilities since 1995. The *Code of Virginia* also allowed public entities to use public private partnerships for a broader range of public facilities in 2002 through the Public Private Education Facilities and Infrastructure Act (PPEA). Most often, these arrangements have been used to construct large infrastructure projects. While the conversion of Route 28 to a limited access freeway relied in part on funding from a tax district, it also utilized the PPTA to form a private consortium to develop, design, and build the infrastructure improvements. The County and a private developer are currently using the authorities granted under the PPEA to design and build an underground parking structure on County owned land adjacent to the future Wiehle Avenue Metrorail station. The private developer would also build a mixed use, transit-oriented development on the County land.

More recently, public private partnerships are being formed in Virginia to not only design and build transportation facilities but also to operate and maintain these facilities. The Capital Beltway High Occupancy Toll (HOT) Lanes are an example. In this case, the private consortium is not only responsible for constructing the facility but also operating and maintaining the HOT lanes under a long term lease with VDOT. The private operator plans to use dynamic tolling on the HOT lanes to fund the construction cost and also to fund the maintenance and operation of the facility.

While there are examples of using public private partnerships to construct large transportation projects within the County, the use of public private partnerships to enhance maintenance of the primary and secondary roads within the County would be complex. Under the current arrangement, where VDOT maintains and controls the primary and secondary system, the County would not be the public entity responsible for entering into agreements with private parties. The County would need to pursue one of the alternatives that includes assuming responsibility of the road system if it wanted to take the lead in forming agreements with private entities.

It is unclear what the financial incentive would be for a private entity to execute an agreement that enhances the maintenance of the primary and secondary system. Two arrangements in Virginia formed under the PPTA -- the future Capital Beltway HOT Lanes and Pocahontas Parkway in Richmond -- rely on toll revenues to fund maintenance and operation. Both of these facilities are limited access freeways where collecting tolls is straightforward. As discussed previously, tolling

non-freeway facilities, which make up most of the primary and secondary system, would be problematic.

### 3. *Proffers*

The *Code of Virginia* allows certain counties to accept proffers to offset some of the impacts of development through the rezoning process<sup>23</sup>, and the County has used this system for over 30 years. While it has been suggested that this mechanism might be used as a source of funds for roadway maintenance, this would not appear to be practical. The principal limitations to the use of proffers are restrictions in the *Code of Virginia* that require proffered commitments to be reasonably related to the rezoning itself, as well as constraints on cash contributions and the establishment of property owners' associations to perform maintenance on public streets.<sup>24</sup> Moreover, even if these obstacles could be overcome, since maintenance costs occur in perpetuity it is highly unlikely that they could be supported by proffers.

### 4. *Federal Funding*

The County uses a variety of federal funding sources to advance transportation projects. In most cases, federal funding programs allocate money to states that in turn administer and distribute the funds. Two federal programs frequently used by the County include the Regional Surface Transportation Program (RSTP) and Congestion Mitigation and Air Quality (CMAQ) Program. Both are used to fund highway and transit capital projects. The nature of most federal funding programs available to the County entail that the money be used for construction projects. There are no federal programs the County could currently pursue to supplement roadway maintenance costs.

## **G. Summary of Potential Revenue Sources**

This chapter discussed various state and local revenue sources to potentially fund increased road maintenance responsibilities. In general, it is difficult to predict the amount of state maintenance funding the County could receive if it changes the current arrangement of maintenance responsibilities with VDOT because any such change will be governed by an agreement establishing specific responsibilities and funding levels. Hypothetically, the County could receive significantly more funding under an arrangement similar to Arlington County, and about the same amount of funding if paid at the city and town rate or under an arrangement similar to Henrico County. That being said, it is unlikely the County could change arrangements and receive more funding without additional statewide funding for maintenance.

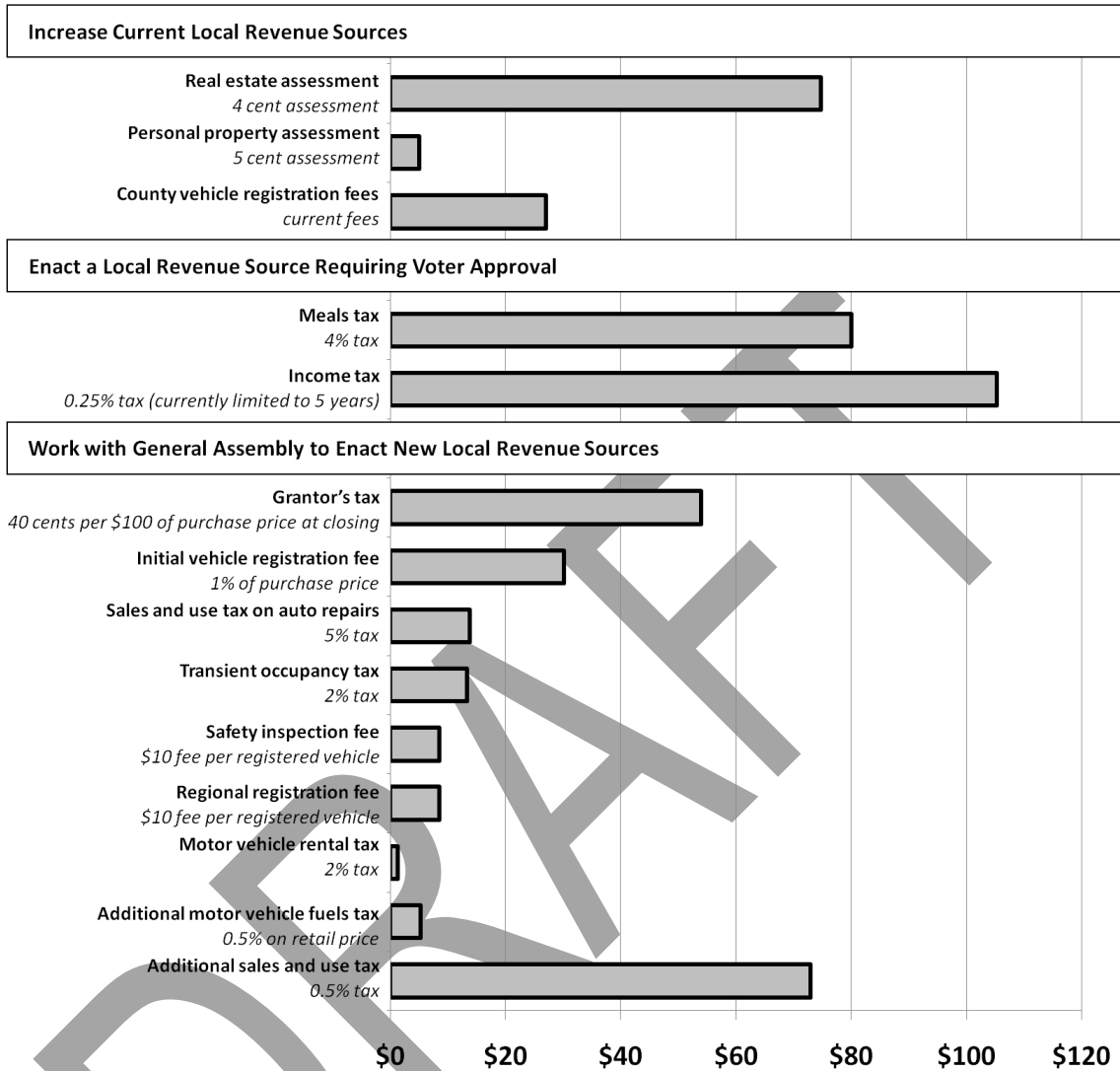
Given the uncertainty of state funding and the unlikelihood that the County could change arrangements with VDOT in order to receive more state funding, local sources of funding were reviewed in this chapter. Figure VI-3 compares the amount of annual funding various local revenue sources discussed in this chapter could produce. They are organized by (1) existing sources that could be increased, (2) sources currently allowed by the *Code of Virginia* that would require voter approval, and (3) sources that would require action by the Virginia General Assembly in order for the County to enact.

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<sup>23</sup> §15.2-2296 et seq.

<sup>24</sup> §15.2-2297

**Figure VI-3: Potential Annual Revenue for Selected Local Revenue Sources (\$ millions)**



Potential revenue sources are shown for informational purposes only and should not be considered as support or non-support by Fairfax County at this time.

Some local sources lend themselves well to on-going maintenance costs. These include general fund sources like real estate assessments and personal property assessments. Other local sources are more appropriate for funding capital projects. These sources include general obligation bonds and the County's commercial and industrial real estate tax for transportation.

While general fund real estate assessments provide a stable source for on-going costs, it may be desirable for the County to diversify revenue sources. Real estate assessments account for about 62% of general fund receipts which makes revenue forecasts dependent on conditions in the real estate market. Other local revenue sources would be needed in order to diversify. For current revenue sources beyond real estate assessments, the County generally levies the maximum rate or fee state law allows. This includes vehicle registration fees, the transient occupancy tax, and the cigarette tax. Therefore in order to diversify, the County would need to work with the General Assembly to pass enabling legislation for new locally raised revenue sources. The package of taxes and fees originally passed under HB3202 could be a good starting

point in working with the General Assembly. The County could also initiate a voter referendum to enact a meals tax or a local income tax.

Special tax districts could be established to meet a wide range of transportation needs. A district could be established for only specific areas of the County that desire increased transportation services or one could be established Countywide. Depending on how it is set up and which provisions of the *Code of Virginia* prevail; a tax district could be used to fund either limited maintenance needs or overall street maintenance and construction. The establishment of a traditional service district where limited maintenance needs like snow removal and beautification are performed would require only a public hearing. However, a traditional tax district incorporating overall maintenance and construction would require submission of a petition from a majority of affected property owners. Overall street maintenance and construction could also be performed under an urban transportation service district. Such a district provides the additional benefit of receiving state maintenance assistance at the same rates that cities and towns receive. The County however, would need to assume full responsibility of the roads within an urban transportation service district. Finally, transportation improvement districts represent yet another type of transportation district allowed by the *Code of Virginia*. However, since assessments in these districts can be collected only for set time periods, they are more suitable to fund capital projects. The County has used different forms of transportation improvement districts in the past to fund major capital projects like Dulles Metrorail and Route 28.

Other potential sources discussed in this chapter included contributions from private developers or new user fees, such as tolls, on transportation facilities within the County. The County generally uses proffers to fund specific transportation infrastructure improvements to mitigate impacts from new development. Since proffers are dependent on new development and are obtained through the rezoning process, this mechanism will not provide a stable on-going revenue source for increased maintenance on roads within the County. Moreover, since proffers are intended to be used to offset the impacts of specific developments, any proffered maintenance funds would need to be spent in the vicinity of the contributing development. This requirement alone would introduce significant operational and accounting difficulties. Tolls can provide stable, on-going revenue, but there are many complicated implementation challenges that would need to be addressed. Public private partnerships have been used to construct large transportation projects, however; their use for enhancing maintenance on the primary and secondary roads would need to overcome many hurdles.

Table VI-7 summarizes the revenue sources discussed in this chapter. It highlights key features of each source and the primary issues that would need to be resolved in order to implement each one.

The evaluation of potential means of raising additional revenue for roadway purposes, like any other discussion of public sector finance, involves the consideration of how these mechanisms may affect different segments of the community. Such discussions may include equities between auto users and non-users, property owners and renters, businesses and residents, and local users and non-local users. In addition, if geographic boundaries are used to define some sort of revenue district, the implications for areas both within these boundaries as well as countywide should also be recognized. All of these considerations are far beyond the scope of this report, but they should nevertheless be recognized if the County pursues this issue.

**Table VI-7: Summary of Options to Enhance Funding/Revenues**

*Potential revenue sources are shown for informational purposes only and should not be considered as support or non support by Fairfax County at this time.*

<b>Change Arrangement of Road Maintenance Delivery with VDOT</b>				
<b>Arrangement</b>	<b>Discussion</b>	<b>Estimated Change from Current Expenditures</b>	<b>from VDOT</b>	<b>Hypothetical Annual Payment</b>
Change to urban system for cities and towns	Requires various levels of approval from voters, the General Assembly. VDOT and CTB approval needed to transfer roads to urban system. Annual payment highly uncertain without new additional statewide maintenance funding.	comparable to existing		<b>\$73 M</b> <i>(highly uncertain)</i>
Assume responsibility of secondary road system similar to Arlington or Henrico counties	Requires formal agreement with VDOT with approval from CTB. Annual payment highly uncertain without new additional statewide maintenance funding.	varies widely		<b>\$49.3 M - \$92.2 M</b> <i>(highly uncertain)</i>
<b>Increase Current Local Revenue Sources</b>				
<b>Revenue Source</b>	<b>Discussion</b>	<b>Current Rate for FY 2011</b>	<b>Maximum Rate Allowed</b>	<b>Annual Revenue Potential</b>
Real estate assessment <i>(one penny generates \$18.7 M annually)</i>	The County could dedicate a portion of an increase to transportation, but any such action by the Board could be changed by a subsequent Board. Suitable for on-going maintenance costs and capital construction.	\$1.09 per \$100 assessed value	No maximum	<b>\$74.8 M</b> <i>(4 cent assessment)</i>
Personal property assessment <i>(one penny generates \$1 M annually)</i>	The County could dedicate a portion of an increase to transportation, but any such action by the Board could be changed by a subsequent Board. Suitable for on-going maintenance costs and capital construction.	\$4.57 per \$100 assessed value	No maximum	<b>\$5 M</b> <i>(5 cent assessment)</i>
Commercial and industrial real estate tax <i>(one penny generates \$3.9 M annually)</i>	Legislation restricts use to new highway, transit, and multimodal projects that increase transportation capacity. Suitable source for capital construction.	\$0.11 per \$100 assessed value	\$0.125 per \$100 assessed value	<b>\$5.8 M</b> <i>(1.5 cent assessment)</i>
Vehicle registration fee	Without legislation from the Virginia General Assembly, fees cannot be increased to fund additional transportation efforts. Suitable for on-going maintenance costs and capital construction.	\$18 - \$38 per registered vehicle	Current rates are the maximum allowed by state law	<b>\$27 M</b> <i>(current fees)</i>

**Table VI-7: Summary of Options to Enhance Funding/Revenues**

*Potential revenue sources are shown for informational purposes only and should not be considered as support or non support by Fairfax County at this time.*

<b>Enact a Local Revenue Source Requiring Voter Approval</b>			
<b>Revenue Source</b>	<b>Discussion</b>	<b>Implementation Requirements</b>	<b>Annual Revenue Potential</b>
General obligation bonds	County fiscal policy does not provide for funding ongoing maintenance costs with long term debt financing. Suitable for capital construction.	Requires approval by voter referendum.	<b>\$20 M</b> <i>(average)</i>
Meals tax	Counties may impose a tax on meals up to 4%. Revenue can be used for any governmental purpose. A portion could be dedicated to transportation purposes. Suitable for on-going maintenance costs and capital construction.	Requires approval by voter referendum.	<b>\$80 M</b> <i>(4% tax)</i>
Income tax for transportation	State law allows certain localities to levy an income tax at 0.25% increments up to 1% for transportation purposes. Once tax is enacted, it can be collected for only 5 years. Suitable for capital construction under current provisions.	Requires approval by voter referendum.	<b>\$105 M</b> <i>(0.25% tax)</i> <b>\$421 M</b> <i>(\$1% tax)</i>
<b>Work with General Assembly to Enact New Local Revenue Sources</b>			
<b>Revenue Source</b>	<b>Discussion</b>	<b>Past Legislative History</b>	<b>Annual Revenue Potential (millions)</b>
Grantor's tax	Tax would be assessed at \$0.40 per \$100 of purchases price at closing of a real estate transaction. Suitable for on-going maintenance costs and capital construction.	Originally passed as part of HB3202. VA Supreme Court ruled that NVTA did not have authority to collect taxes.	<b>\$53.9 M</b>
Initial vehicle registration fee	Fee would be assessed on initial registration of a vehicle at 1% of purchase price. Suitable for on-going maintenance costs and capital construction.	Originally passed as part of HB3202. VA Supreme Court ruled that NVTA did not have authority to collect taxes.	<b>\$30.2 M</b>
Sales and use tax on auto repairs	Tax would be assessed at 5% on auto repair transactions. Suitable for on-going maintenance costs and capital construction.	Originally passed as part of HB3202. VA Supreme Court ruled that NVTA did not have authority to collect taxes.	<b>\$13.8 M</b>
Transient occupancy tax	Tax would be assessed at 2% and would be in addition to the current 4% transient occupancy tax. Suitable for on-going maintenance costs and capital construction.	Originally passed as part of HB3202. VA Supreme Court ruled that NVTA did not have authority to collect taxes.	<b>\$13.3 M</b>

**Table VI-7: Summary of Options to Enhance Funding/Revenues**

*Potential revenue sources are shown for informational purposes only and should not be considered as support or non support by Fairfax County at this time.*

<b>Work with General Assembly to Enact New Local Revenue Sources (continued)</b>			
<b>Revenue Source</b>	<b>Discussion</b>	<b>Past Legislative History</b>	<b>Annual Revenue Potential (millions)</b>
Safety inspection fee	Fee would be charged annually at \$10 when vehicles undergo inspection. Suitable for on-going maintenance costs and capital construction.	Originally passed as part of HB3202. VA Supreme Court ruled that NVTA did not have authority to collect taxes.	<b>\$8.5 M</b>
Regional registration fee	Fee would be charged annually at \$10. Suitable for on-going maintenance costs and capital construction.	Originally passed as part of HB3202. VA Supreme Court ruled that NVTA did not have authority to collect taxes.	<b>\$8.5 M</b>
Motor vehicle rental tax	Tax would be assessed at 2% on vehicle rental transactions. Suitable for on-going maintenance costs and capital construction.	Originally passed as part of HB3202. VA Supreme Court ruled that NVTA did not have authority to collect taxes.	<b>\$1.3 M</b>
Additional motor vehicle fuels tax	Three forms already collected: \$0.184 per gallon (federal), \$0.175 per gallon (state), 2.1% on distributor price (Northern Virginia). Suitable for on-going maintenance costs and capital construction.	In the 2008 session of the General Assembly, a proposed increase of \$0.05 / gallon over a 5-year period was tabled in committee. A 2010 bill to adjust the state gas tax in proportion to the increase in vehicle fuel economy was continued to the 2011 session.	<b>\$5.3 M</b> <i>(0.5% on retail price)</i>
Additional sales and use tax	Current sales tax is maximum allowed by state law. Statewide sales and use tax is 4%. County currently levies an additional 1% which goes to general fund. (5% total) Suitable for on-going maintenance costs and capital construction.	In 2002, a referendum to raise the sales tax by 0.5% in Northern Virginia localities to pay for additional transportation improvements did not pass.	<b>\$72.9 M</b> <i>(0.5% additional tax)</i>
<b>Create a Tax District</b>			
<b>Code Provision</b>	<b>Discussion</b>	<b>Implementation Issues</b>	
Service District	Can be established for sidewalks, beautification, public parking, street, cleaning, snow removal, and general street maintenance. Funded by additional real estate assessments within boundaries of district. Suitable for on-going maintenance costs.	Requires adoption of an ordinance following a public hearing. Service district for general street maintenance requires petition from property owners.	

**Table VI-7: Summary of Options to Enhance Funding/Revenues**

*Potential revenue sources are shown for informational purposes only and should not be considered as support or non support by Fairfax County at this time.*

<b>Create a Tax District (continued)</b>			
<b>Code Provision</b>	<b>Discussion</b>	<b>Implementation Issues</b>	
Urban Transportation Service District (UTSD)	Counties perform maintenance within these districts and receive VDOT payments at the rates used for cities and towns. Suitable for on-going maintenance costs.	Requires county population greater than 90,000. UTSD requires a gross density greater than one residential unit per acre.	
Transportation Improvement District	Powers to construct and maintain improvements within the District through real estate tax surcharges. Uses to date have been to fund major capital projects (Rt. 28, Dulles Metrorail extension). Suitable for capital construction.	Initiated by petitions from commercial and industrial landowners; adopted after hearing comments from affected residents and landowners. Powers exercised through an appointed Commission.	
<b>Implement Other Sources</b>			
<b>Revenue Source</b>	<b>Discussion</b>	<b>Implementation Issues</b>	<b>Annual Revenue Potential</b>
Proffers	Suitable for capital construction. Must relate to impacts of development.	Proffer terms are set during rezoning process.	NA
Tolls	Tolls are most appropriate for limited access facilities. Revenues estimated here assume tolling a facility with average daily traffic of at least 50,000. A portion of revenues would need to be set aside for annual cost of toll collection operations. Suitable for on-going maintenance costs and capital construction.	Needs identification of appropriate facilities for tolling. May require significant capital costs in order to prepare a facility for tolling. Federal and state laws may prevent County from owning and operating toll facilities.	<b>\$9.1 M per road segment</b> <i>(For a road segment with ADT of 50,000 and \$0.50 toll)</i>
Public Private Partnerships	Allows for private entity to provide a government service, with potential cost savings and / or improved service delivery. Principal applications to date have been for funding major capital projects. Unclear how a partnership could be set up which could fund maintenance of primary and secondary roads.	Partnership agreement required. If maintenance responsibility remains with VDOT, partnership would need to include VDOT.	NA

## **CHAPTER VII. DISCUSSION**

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As the County contemplates the alternatives presented in this report, there are several factors to consider which may significantly affect the best course of action to take. In many cases, these factors cannot be numerically quantified but should be kept in mind as some could increase or decrease the cost of an alternative or prolong the time needed to implement an alternative. Factors that might affect the scope of an alternative include public expectations, the current condition of the road system in the County, the appropriate form of government, and the experiences of other jurisdictions that maintain their roads. These issues along with others are discussed in this section. Whatever course of action the County may choose, these issues will likely become key points for discussion. They should be explored in more depth should the County pursue assuming maintenance of the road system. The section concludes with a summary of the advantages and disadvantages of each alternative.

### **A. Managing Public Expectations**

One element common to all alternative strategies is the extent to which public expectations may influence the provision of the services provided by the County. Responsiveness, accountability, and funding have been cited as perceived benefits of the County assuming greater highway maintenance and operations responsibilities. However, if the County's role in these functions grows larger it is likely that the public's expectations for the provision of services will also expand.

The potential that the public may desire enhanced services from the County may take at least two forms. First, there is likely to be an expectation that the County will provide a better overall level of service than does VDOT. For example, whereas VDOT may only mow once or twice a season, the County may be expected to perform this activity on a more frequent basis. Obviously, such changes may have significant cost implications which are not quantified in this study.

In addition, if the County assumes greater authority over its roads, the Board is likely to be confronted with more requests from citizens to resolve maintenance and operations concerns of a purely local nature. In the absence of firm countywide standards and procedures, such local pressures could lead to a significant expansion in program levels, a potentially inconsistent distribution of resources, and / or the proliferation of projects at a local level that may not promote the overall performance of the transportation network.

### **B. Uncertainty in VDOT Cost Estimates**

The cost estimates presented in this report have been derived using information provided by VDOT. There are inherent limitations in the ability of VDOT to identify precise values for some costs that are identified at a district and regional level, rather than directly to activities within Fairfax County. In addition, while these figures include the fully loaded (e.g. indirect) costs associated with such elements as personnel benefits, facility leasing and other overhead charges, the overhead rates used by VDOT may not be comparable to those for Fairfax. A comparison of these costs at the state and county level is beyond the scope of this initial study, but it should be recognized that any costs incurred by the county would necessarily include some or all of these indirect cost elements.

### **C. Condition of Fairfax County Road System**

The cost of maintaining the road system is directly related to the condition of its components. This study has attempted to capture the recent VDOT maintenance expenditures in the County. However, it has not been possible to evaluate the condition of the various assets that comprise

this system at this time. Thus, it should be recognized that recent VDOT maintenance expenditures may not be keeping pace with all of the maintenance needs in the County. Moreover, while VDOT maintains an asset management inventory, it consists primarily of the major network elements including pavement, bridges and other structures, and traffic signals. The condition of other lesser assets such as traffic signs is not well-documented. Therefore, if the County pursues the assumption of additional maintenance functions, the condition of the assets to be maintained should be more thoroughly examined.

According to information published on the VDOT “Dashboard” website<sup>25</sup>, the condition of existing pavement and bridges on various road systems in Fairfax County is as shown in Table VII-1.

**Table VII-1: Current Condition of Pavement and Bridges in Fairfax County**

<b>Percent of Pavement Lane-Miles Rated Fair or Better</b>				
	<b>Goal</b>		<b>Current Condition</b>	
Primary System	82%		61%	
Secondary System	na		na	
<b>Percent and Number of Bridges Requiring Monitoring</b>				
	<b>Goal</b>		<b>Current Condition</b>	
	<b>%</b>	<b>No.</b>	<b>%</b>	<b>No.</b>
Primary System	6%	8	4%	5
Secondary System	11%	59	4%	20

Source: VDOT Dashboard. See User’s manual for explanations.

**D. Equipment, Facilities, and Personnel**

Some maintenance functions may be performed under contract by the private sector and thus may not involve publicly-owned equipment or facilities. However, unless all such functions are performed by contractors, it is likely that additional equipment and facilities will be needed to support maintenance and operations activities undertaken by the County. To a large extent, the cost of providing these resources will depend on the degree to which the County assumes maintenance and operations responsibilities. However, three important aspects of acquiring these resources should be recognized.

First, existing County facilities cannot absorb the additional equipment that would be needed to accommodate the assumption of a large-scale increase in maintenance responsibilities, particularly if VDOT retains its existing facilities at Merrifield, Van Dorn, Camp 30, Newington, and Reston. Moreover, some VDOT maintenance functions (e.g. signing, painting and traffic signal) are conducted from facilities that are currently located in other jurisdictions. If the County pursues a significant expansion of roadway maintenance functions, it will be necessary to expand existing County maintenance facilities and / or establish new ones. In addition to the cost of such facilities, both of these approaches involve land use issues that could be complicated.

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<sup>25</sup> <http://dashboard.virginiadot.org/>, <http://dashboard.virginiadot.org/Help/DB%20User%20Guide.PDF> for User’s Guide

Secondly, while it may be possible to obtain some equipment from VDOT in conjunction with a shift in responsibilities, there is no assurance that the amount of such equipment will be sufficient to perform the necessary functions. Even if VDOT is able to transfer an appropriate amount of equipment, its condition may not be ideal from the County's perspective.

Finally, depending on the alternative selected, the County will need to hire additional personnel. Some specialized functions (e.g. sign fabrication, pavement marking, traffic signal maintenance, ITS maintenance, bridge and structure maintenance, etc.) may be performed primarily by VDOT staff at the present time, and these employees may prefer to remain with VDOT. Thus, in addition to absorbing additional staffing costs, the County may face some recruitment issues if it assumes certain maintenance and operations functions.

#### **E. Long Term Commitments**

The assumption of any maintenance, construction, or operation function presented in this report will most likely require a long-term, if not perpetual commitment of resources by the County. It is possible that any agreement negotiated with the state for the performance of these activities could also contain some sort of sunset clause by which these functions would revert to VDOT. However, given the recent financial trends at the state level and the likely start-up costs that the County would incur, it is probably unrealistic to assume that these responsibilities would ever be returned to VDOT.

#### **F. Form of Government**

The prospect of changing the County's current form of government – in many cases, to change to City status – is frequently mentioned as a possible way to improve roadway service delivery. A change in the form of government is not necessary in order to pursue any of the alternatives presented in this report.

The process of changing from the urban county executive form of government to a city form of government can be expected to take three to four years. Several actions would need to occur. Some of the major actions include:

- A decision by a special three-judge court declaring the County met the statutory eligibility requirements to become a city.<sup>26</sup>
- Appointment by the Board of a commission to draft a charter for the new city.
- Special election within the County to determine whether the County should adopt the charter drafted by the commission.
- Introduction of the charter as a bill in the General Assembly which may approve the charter, decline to enact the charter, or enact a revised charter with provisions different than what was approved by the voters.

If the charter were to be approved by the voters, additional time would then be required to allow for a suitable transition and to synchronize the governmental changes with a following tax year. The new city would have up to 10 years to assume responsibility of the secondary road system. The towns within the County would automatically continue as townships within the new city and

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<sup>26</sup> Requirements are set forth in §15.2-3907. An initial review indicates the County would easily meet these requirements.

their charters would continue as charters for the townships. No action would be required of the towns and they would continue to exercise the same powers they exercised before the change.

The purpose of this report is not to fully document the relative merits of changing the County's form of government. However, two specific facets of city status under the *Code of Virginia* should be noted. Most city councils are elected in the May general elections rather than in November. In addition, in Virginia, counties have a greater level of sovereign immunity than do cities. As a result of this, counties have a greater protection from tort claims than do cities. This immunity could be beneficial for claims in some transportation-related activities.

The County has studied the issue of becoming a city and also of assuming additional roadway responsibilities numerous times. Several of these studies are listed and summarized in Table VII-2.

**Table VII-2: Previous County Studies on Form of Government and Assumption of Road Maintenance Responsibilities**

Study	Major Conclusions
<i>The Financial Effects of the Incorporation of Fairfax County as a City (August 1965)</i>	Most governmental activities would remain unchanged. Biggest impact would be assuming responsibility of road system.
<i>Report from Committee on Forms of Government (December 1965)</i>	Nothing "magic" about city or county status. Recommend making changes to current County form of government instead.
<i>Road Takeover Feasibility Study (March 1975)</i>	Recommended tentative commitment to takeover of secondary system of roads pending a suitable agreement over transfer of equipment and facilities and financial support from the Commonwealth.
<i>Road Takeover Feasibility Study (April 1990)</i>	Recommended implementing "non-takeover strategies" to improve service. Study remained neutral on future takeover of road system. A takeover will require significant financial resources.
<i>Report from County Government Committee (November 1993)</i>	Change to city status not recommended.

The studies have concluded that the delivery of most governmental services would change very little if the County were to change to city status, and that the assumption of road maintenance responsibilities would be the single largest impact of a change. The studies thus generally recommended that a change in government status is not necessary. Instead, they indicated that the County should retain the existing Urban County Executive form and work with the General Assembly to obtain enabling legislation for other powers that may be beneficial.

This conclusion holds true when evaluating the alternatives presented in this report. Some of the service delivery alternatives as well as some of the options to raise revenue that are presented in this report require powers the County currently does not have. One way the County could obtain these powers is to change to a form of government that possesses them. The other way – recommended by the previous studies on form of government – is to obtain these powers legislatively under the County's current form of government. The process of changing to a city form of government is lengthy. Working through the legislative process may consume less time. Moreover, by obtaining specific legislation the County may attain only the authority needed to accomplish specific service delivery goals. In contrast, a change in the fundamental form of

government may require the assumption of additional responsibilities that the County may or may not have the capacity and/or resources to provide. Either process would require action by the General Assembly.

Finally, one of the primary reasons identified in the past for changing to city status is to gain the responsibility for operating and maintaining all (non-Interstate) roads within the County, as well as the maintenance payment rate that cities and towns currently receive. In fact, as discussed in the alternatives, the entire County could meet the requirements set forth for the establishment of an Urban Transportation Service District. Such an action would achieve both of these objectives without introducing other facets associated with changing form of government.

### **G. Experiences from Jurisdictions that Currently Maintain their Roadway System**

As part of this study, County staff visited several Virginia localities that maintain their road systems, including those falling within both of the other two arrangements for road maintenance found in Virginia. Visits included the cities of Chesapeake, Suffolk, and Virginia Beach, and the counties of Arlington and Henrico.

Jurisdictions that maintain their systems have greater flexibility and control. They can set standards for their roadway system and these standards can vary within the jurisdiction according to local conditions. These jurisdictions can also respond to routine requests more directly. In most cases, one agency is responsible for fielding requests, prioritizing needs, and implementing responses. This contrasts the current patchwork within the County where some road related requests must be routed through VDOT while others may be handled by the County.

Most jurisdictions also maintain sophisticated audits and inventories of their system. While all localities are required by the *Code of Virginia* to perform an annual audit, one of the requirements for receiving maintenance payments from VDOT is the submission of audited maintenance expenditures by category to VDOT. The County would most likely need to develop an asset management system should it assume responsibility for all or part of the roads within the County.

In most cases, the funding that jurisdictions receive from VDOT to maintain their roadway system does not cover all maintenance expenditures, and they supplement the payments with other local funding sources. In fiscal year 2008, VDOT provided approximately \$329 million statewide to jurisdictions that maintain their roadway systems. In that same fiscal year, jurisdictions reported approximately \$453 million of eligible maintenance expenditures.<sup>27</sup> Of the 81 cities and towns included in this program (including Arlington and Henrico counties), only 12 reported that they spent less than the amount provided by the state.<sup>28</sup> This appears to suggest that these payments are insufficient. However it is possible that some of these reported payments reflect activities that may fall beyond a strict definition of road maintenance (e.g. lighting, off-site drainage, etc.). In fact, Fairfax County currently spends significant resources on a number of such activities although they are not currently considered to be strictly highway maintenance functions. Nevertheless, these could be “eligible” costs in calculating potential payments from the state.

Table VII-3 lists VDOT maintenance payments and maintenance expenditures for several jurisdictions, including those visited as part of this study. For some of these jurisdictions, VDOT’s maintenance payments cover all expenses. For others, local effort can range from one quarter to more than half of maintenance expenditures. Most jurisdictions also face similar budgetary challenges as the County. During the current economic downturn, these jurisdictions face similar

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<sup>27</sup> FY 2008 Weldon Cooper Public Finance Survey

<sup>28</sup> Ibid.

pressures as VDOT to reduce maintenance programs to core services and to defer non-critical maintenance activities.

**Table VII-3: VDOT Maintenance Payments and Eligible Expenditures for Selected Virginia Jurisdictions - FY 2008**

<b>Jurisdiction</b>	<b>VDOT Maintenance Payment</b>	<b>Maintenance Expenditures</b>	<b>Local Effort Share</b>
Arlington County	\$14,559,659	\$32,391,442	55%
City of Alexandria	\$6,234,184	\$17,259,987	64%
City of Fairfax	\$2,020,065	\$3,530,521	43%
City of Falls Church	\$828,634	\$1,747,925	53%
Town of Herndon	\$1,410,675	\$2,362,436	40%
Town of Vienna	\$1,396,591	\$1,707,549	18%
Henrico County	\$31,794,043	\$23,684,030	NA
Chesapeake City	\$27,003,407	\$36,835,033	27%
Suffolk City	\$17,064,454	\$16,718,850	NA
Virginia Beach City	\$36,130,914	\$47,297,466	24%
<b>Statewide Total</b>	<b>\$329,373,040</b>	<b>\$453,160,494</b>	<b>24%</b>

*Source: FY 2008 Weldon Cooper Public Finance Survey*

In FY 2008 Northern Virginia jurisdictions appear to have absorbed a higher percentage of their road maintenance costs with local funding than did other localities. (Stated differently, payments from the state appear to have supported a generally lower percentage of maintenance costs in Northern Virginia than elsewhere.) It is not clear whether this is a definite pattern or a one-year aberration. Factors that suggest that it might be a pattern include the generally higher traffic volumes in this region in comparison with the rest of the state, coupled with potentially higher public expectations and local jurisdiction revenues.

Jurisdictions that maintain their roads also assume liability for their roads. When asked about this, jurisdictions reported that this can be difficult to plan for. Claims may not come often but one claim can incur significant costs.

#### **H. Recent Examples of Jurisdictions Assuming Responsibility of Road Maintenance from VDOT**

There are few examples of jurisdictions that have recently assumed road maintenance responsibilities from VDOT. As discussed previously, the devolution statute provides a process for counties to assume responsibility of the secondary road system within their jurisdiction. No locality has yet to pursue this option. Under the devolution statute, a county would receive a payment from VDOT equal to the expenditures VDOT incurred to maintain the secondary system within that county in the prior year. In most cases, this would not be a great enough financial incentive to compel a locality to pursue devolution.

Recent examples of jurisdictions assuming the responsibility for roads from VDOT are special cases. The City of Suffolk recently assumed responsibility for roads that were previously maintained by VDOT under a special arrangement. Arlington County and VDOT have recently executed an agreement to transfer Columbia Pike, a road within the primary system, into the secondary system and into the County's maintenance program. Both jurisdictions were primarily

concerned with improving the delivery of road-related services. Assuming responsibility of Columbia Pike will allow Arlington to implement a streetcar system along the route which would have been incompatible with VDOT's design standards. In Suffolk, assuming responsibility of the roads allowed the City to better respond to routine requests such as signal modifications. The following summarizes Suffolk's experiences in more detail.

Prior to assuming full responsibility of its roads, Suffolk had been operating under a special agreement with VDOT where the City maintained a small portion of the roads in the urban center of the city while VDOT maintained the remainder. The agreement came about after the City merged with its surrounding jurisdiction, Nansemond County (which was briefly Nansemond City prior to the merger) to encompass its current boundaries. At the time of the merger the new expanded city decided to continue maintaining the roads within the original city while VDOT would continue to maintain the roads within the former Nansemond County. While Suffolk is not as populous as Fairfax County and its road system is far less extensive than the County, its experiences do shed light on what the process may be like should the County assume responsibility of its roads.

Suffolk began a series of studies and public outreach efforts on assuming the remaining roads within the City in the early 2000's. The studies found that the maintenance payments the City would receive from VDOT should the City assume responsibility of the roads would be much greater than what VDOT currently allocated towards maintenance for the same roads. One study estimated that the City would receive \$12 million more annually than what VDOT allocated. The City also began documenting VDOT response times and outcomes for routine requests the City made to VDOT. This was done to make the case to the public that the City could potentially respond to these requests more directly and in less time than VDOT if the City maintained all the roads. The studies concluded that the City could assume responsibility for the remaining roads, provide a higher level of service, and fund the entire effort with the increased maintenance payments from VDOT. After approximately five years of study and outreach, the City began maintaining all of its roads in July of 2006. The City was able to fund the entire effort including start-up costs with the increased payments and no additional funding.

Suffolk was able to receive more funding from VDOT because by assuming responsibility of their roads they qualified to receive maintenance payments at the same rates as the other cities and towns in Virginia. In Suffolk's case, these payments would have been more than what VDOT currently allocated to maintain the same roads for Suffolk.

Other issues the City dealt with during the process of assuming responsibility for its remaining roads included:

- Securing transfers of maintenance facilities from VDOT to the City;
- Determining whether to purchase new equipment or transfer equipment from VDOT; and
- Providing terms of employment that would attract veteran VDOT employees to transfer to the City

Suffolk was able to obtain a maintenance area headquarters from VDOT, but the City decided to purchase new equipment rather than taking on VDOT's older equipment. The City was not as successful in providing terms of employment that were attractive enough for VDOT employees. Few of these people transferred over to the City.

Suffolk's experiences have some useful lessons for the County. The assumption of responsibility for the roads will be a long multi-year process. For a small system where assuming responsibility had clear financial benefits, the process took approximately five years. Fairfax County has a much larger system and the options available to the County to assume additional responsibilities

do not currently provide clear financial benefits. It could take the County well over five years if it decided to assume full responsibility for both the primary and secondary system. The County will most likely need to work closely with VDOT to determine agreeable terms for transfer of facilities and equipment. This process could potentially be more complex than Suffolk. Some VDOT facilities outside the County may be used for maintenance within the County while other facilities within the County may be used for activities outside the County. Also, given the size of the system and the limited experience the County has in maintaining roads, the County would need to be more successful than Suffolk in attracting VDOT employees to work for the County.

## **I. Summary of Alternatives**

Table VII-4 summarizes the major advantages and disadvantages of each of the alternatives evaluated in this report. In addition, this Table presents a very approximate range of the annual expenditures that may be required to maintain service levels at current VDOT standards, based on expenditure and allocation data provided by VDOT. In addition to these costs, each alternative entails certain start-up costs related to staff, equipment, and / or facilities. These initial costs could be significant for alternatives in which the County assumes a number of major responsibilities. Finally, the Table also includes a subjective evaluation of the approximate ease of implementation of each option.

As expected, alternatives in which the County assumes increasing responsibilities entail increasing levels of complexity and cost. The cost to the County of any alternative will be determined by the level of service provided by the County in conjunction with the payment provided by the state. With respect to levels of service, this study has relied on cost information provided by VDOT, reflecting existing overall levels of service. While approximate expenditures for major functions (e.g. mowing, paving) have been provided, information about the unit costs associated with those activities is not available. Thus, the costs of enhanced levels of service that the County might provide can only be estimated as order-of-magnitude increments above existing levels.

With very few exceptions, the payments provided by the state under any alternative arrangement are subject to the development and execution of an agreement setting forth the responsibilities of the agencies under the new arrangement. The *Code of Virginia* does specify payment amounts in certain circumstances such as for Urban Transportation Service Districts or the assumption of maintenance on the Secondary system. However, there appears to be some ambiguity even in the latter case.

In view of the foregoing, definitive financial conclusions are difficult to draw. It does appear that on average, the VDOT spending level under current arrangements is comparable to the amounts that would be made available to the County using the urban rate formulas. In addition, any alternative will induce certain start-up costs. These non-recurring costs will of course be modest for some alternatives, but can be very significant for more ambitious ones.

Thus, decisions regarding future directions should probably consider the variety of other factors identified in this report, including potential changes in efficiency, accountability and customer service, as well as enhanced flexibility and autonomy. Table VII-4 summarizes the most significant of these attributes.

**Table VII-4: Summary of Alternatives**

Advantages	Disadvantages	Estimated VDOT Annual Costs	Ease of Implementation
<i>Enhance Select Maintenance Activities: Provide Funding to VDOT for Select Maintenance Activities</i>			
<ul style="list-style-type: none"> <li>Minimal new administrative tasks for County</li> <li>Low cost relative to other options, low start up costs</li> <li>No change to current roles and responsibilities for VDOT and County</li> </ul>	<ul style="list-style-type: none"> <li>Requires increased auditing of VDOT expenditures</li> <li>May not improve responsiveness and accountability</li> </ul>	Pavement: <b>\$21.5 - \$35.4 M</b> Turf: <b>\$1.0 - \$2.0 M</b> Sidewalk: <b>\$0.3 - \$1.5 M</b> Signals: <b>\$3.9 - \$7.0 M</b>	Easiest / Least Complex
<i>Enhance Select Maintenance Activities: Assume Responsibility for Select Maintenance Activities</i>			
<ul style="list-style-type: none"> <li>County control over maintenance priorities and schedules for selected activities</li> <li>May improve responsiveness and accountability</li> <li>Low cost relative to other options, low start up costs</li> </ul>	<ul style="list-style-type: none"> <li>VDOT standards and permitting required</li> <li>Potential County liability for County activities</li> <li>Potential for unclear roles and responsibilities between VDOT and County</li> </ul>	Pavement: <b>\$21.5 - \$35.4 M</b> Turf: <b>\$1.0 - \$2.0 M</b> Sidewalk: <b>\$0.3 - \$1.5 M</b> Signals: <b>\$3.9 - \$7.0 M</b>	Relatively easy depending on Function(s) assumed
<i>Assume Responsibility for Various Functions of the Secondary System under VDOT Devolution Guidelines</i>			
<p><i>Maintenance Only Option</i></p> <ul style="list-style-type: none"> <li>County control over maintenance priorities and scheduling</li> </ul> <p><i>Construction Only Option</i></p> <ul style="list-style-type: none"> <li>County control over construction priorities and scheduling</li> </ul> <p><i>Maintenance, Construction, and Operations Option</i></p> <ul style="list-style-type: none"> <li>Full control over entire Secondary system including signals and traffic operations activities</li> <li>Ability to set standards and grant permits</li> </ul> <p><i>All Options</i></p> <ul style="list-style-type: none"> <li>May improve responsiveness and accountability</li> </ul>	<p><i>Maintenance Only and Construction Only Options</i></p> <ul style="list-style-type: none"> <li>VDOT standards and permitting required</li> <li>No County control over signals and traffic operations activities</li> </ul> <p><i>All Options</i></p> <ul style="list-style-type: none"> <li>High start up costs for County</li> <li>Unlikely to result in increased funding from VDOT</li> <li>Auditing and reporting requirements</li> <li>Potential County liability for County activities</li> <li>Unclear roles and responsibilities between VDOT and County when secondary roads cross primary roads</li> </ul>	Maintenance only (no operations): <b>\$36 M</b> Construction only (assuming continuing recent levels): <b>\$21.1 M</b> Maintenance, Construction, and Operations: <b>\$64 M</b>	<p><i>Maintenance Only Option and Maintenance, Construction, and Operations Option</i></p> <ul style="list-style-type: none"> <li>Difficult due to need to negotiate payment and develop County program and resources</li> </ul> <p><i>Construction Only Option</i></p> <p>Relatively easy due to existing County program</p>

**Table VII-4: Summary of Alternatives**

Advantages	Disadvantages	Estimated VDOT Annual Costs	Ease of Implementation
Assume Responsibility for Primary and Secondary System within Certain Geographic Areas			
<ul style="list-style-type: none"> <li>• County control over all functions within areas:                             <ul style="list-style-type: none"> <li>○ Setting maintenance priorities</li> <li>○ Scheduling</li> <li>○ Setting standards and granting permits</li> </ul> </li> <li>• Flexibility to increase maintenance responsibilities only in areas where citizens desire</li> <li>• Costs can be controlled by limiting size of areas to assume responsibilities</li> <li>• May improve responsiveness and accountability within areas</li> </ul>	<ul style="list-style-type: none"> <li>• Potential inefficiencies if multiple areas established</li> <li>• Potential service inconsistencies in different areas</li> <li>• Potential County liability for County activities</li> <li>• Auditing and reporting requirements</li> <li>• Unclear roles and responsibilities between VDOT and County if too many areas are created</li> <li>• Potentially high start up costs for County, depending on size of area</li> </ul>	<p style="text-align: right;">75 lane miles: <b>\$0.9 M</b></p> <p style="text-align: right;">125 lane miles: <b>\$1.4 M</b></p> <p style="text-align: right;">250 lane miles: <b>\$2.9 M</b></p>	<ul style="list-style-type: none"> <li>• Relatively easy in terms of VDOT payments</li> <li>• Need for development of County resources</li> </ul>
Assume Responsibility for Primary and Secondary System for Entire County			
<ul style="list-style-type: none"> <li>• County control over all functions of entire system :                             <ul style="list-style-type: none"> <li>○ Setting maintenance priorities</li> <li>○ Scheduling</li> <li>○ Setting standards and granting permits</li> <li>○ Coordination of land use and transportation</li> </ul> </li> <li>• Roles and responsibilities between VDOT and County are simplified</li> <li>• May improve responsiveness and accountability</li> </ul>	<ul style="list-style-type: none"> <li>• High cost to County (ongoing and start up) regardless of state funding level</li> <li>• Unlikely to receive maintenance reimbursement from VDOT at urban rates for entire County</li> <li>• Auditing and reporting requirements</li> <li>• County assumes all liability</li> </ul>	<p style="text-align: right;">Secondary System: <b>\$43 M</b></p> <p style="text-align: right;">Primary System: <b>\$30 M</b></p> <p style="text-align: right;">Total System: <b>\$73 M</b></p>	<p>Most difficult due to size of system, uncertainty in level of reimbursement from VDOT, and need for development of County resources</p>

## J. Conclusions

As the County continues to urbanize, the demands on its roadway network are likely to continue to evolve from those associated with suburban and semi-rural environments to more urban conditions. At the same time, the current and likely near-term financial position of the state and the centralized, statewide perspective exhibited by VDOT both result in services that are occasionally incompatible with local citizens' expectations. Looking ahead many years into the future, it is difficult to imagine a scenario in which the County's entire roadway system continues to be almost completely under state responsibility. Thus, it is reasonable for the County to give serious consideration towards assuming a higher degree of authority over its roadway network.

The best course of action will depend on the value the County places on the benefits that may arise from increased responsibility over the roads. This study outlined four potential benefits:

- Overall funding level
- Enhanced influence in transportation decision making
- Improved responsiveness and accountability
- Increased flexibility in establishing priorities and standards

At this time, the financial benefits of assuming additional road maintenance responsibilities are unclear. In most cases, assuming additional responsibilities will result in additional costs to the County. None of the alternatives examined will result in higher funding from the Commonwealth. At best, state funding for road maintenance in Fairfax County may become more stable if the County assumed responsibility for its roads and received payments similar to cities and towns.

While the financial benefits are unclear, the County would receive clear benefits in decision making, responsiveness, and flexibility. The experiences of jurisdictions who maintain their roadways demonstrate that they have a greater ability than the County to respond to citizen requests, shift priorities, and set standards that are compatible with local patterns of development. The County strives for a similar level of responsiveness and control through close coordination with VDOT staff. However, as some jurisdictions expressed during the visits for this study, sometimes the only way to definitely secure the level of roadway service delivery desired by the community is to assume responsibility over the system.

Should the County wish to enhance the provision of roadway services beyond those currently provided by VDOT, several options are available. In view of the size and complexity of this issue, it is most prudent for the County to pursue incremental changes in the current structure, beginning with relatively narrow actions and gradually expanding its responsibilities over time. In many ways, this is the course the County is currently taking. Since the 1980's the County has continued to assume greater responsibility for the roads within the County. Almost 30 years ago, the County began funding the design and construction of road projects. More recently the County has assumed smaller duties such as traffic calming and various residential parking programs. Currently, the County is working with VDOT to establish urban design standards. All of these efforts demonstrate that the County continues down the course of assuming greater responsibilities for the roads. Assuming more maintenance responsibilities may be the next step.

Three actions for the Board's consideration would continue the County on this course:

- *Work with VDOT to Identify Additional Administrative, Planning, or Engineering Functions that the County could Assume:* Just as the County now administers the traffic calming and residential parking programs, there may be additional activities that are more local in nature that the County could assume from VDOT. Speed studies and signal warrant studies could

be potential candidates for the County to assume. As part of assuming responsibility of the traffic calming program, the County negotiated with VDOT a streamlined permitting process for these projects. Other streamlined permitting exists for some pedestrian and bus stop projects. Similar streamlined permitting may be possible for other projects with significant County funding.

- *Work with VDOT to Enhance Selected Maintenance Activities Countywide:* The next step the County may take might be to enhance selected maintenance activities such as countywide mowing activities. This could be done under either alternative presented in this report: provide additional funding to VDOT and set up a system to monitor progress or form an agreement with VDOT to assume responsibility for that function. Providing additional funding would be easier to implement but would not provide the same amount of control as assuming responsibility for the function. Further discussion and study with VDOT would be needed to craft the best approach.
- *Assume Full Maintenance Responsibilities for Identified Geographic Areas under the Provisions for Urban Transportation Service Districts:* A subsequent expansion might be to undertake full maintenance responsibilities in an identified geographic area under the provisions for Urban Transportation Service Districts. These provisions would allow the County to gradually assume full maintenance responsibilities for the roads in manageable portions. The Tysons Corner area would appear to be a strong candidate for such an approach, which might be followed by other distinct centers such as Springfield, Reston, Merrifield, Bailey's Crossroads, Annandale and others. Further study would be needed to identify an appropriate area or areas for an Urban Transportation Service District.

Regardless of the specific option that is selected, an agreement setting forth responsibilities, procedures, payment levels, and a variety of other things will need to be executed with the state. The preparation and negotiation of such an agreement could itself require an extended period of time. All options would require follow up work to refine cost estimates, identify appropriate revenue sources, and work out implementation issues.

## CHAPTER VIII. APPENDICES

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### A. Cost Estimation Procedures for VDOT Data

VDOT provided the County with data over several years to estimate VDOT funding for the primary and secondary systems in Fairfax County. This included data on VDOT allocations, which represent the amount of funding VDOT budgeted for a certain fiscal year, and also data on VDOT expenditures, which represent the actual amounts of money spent in a certain fiscal year. In addition to these two sources, VDOT has also developed a spreadsheet model for counties to use in order to estimate costs if a county decided to assume responsibility of its secondary road system. These three data points – VDOT allocations, VDOT expenditures, and the VDOT spreadsheet model outputs – form the basis for funding estimates and cost estimates used throughout this report.

These data represent actual expenditures for FY 2007 through FY 2009 as reported by VDOT. However, since expenditure information is not yet available for FY 2010, the cost data presented in this report for FY 2010 and FY 2011 represent allocations. As might be expected, maintenance and operations expenditures in a given year do not necessarily match the amounts allocated at the beginning of the fiscal year.

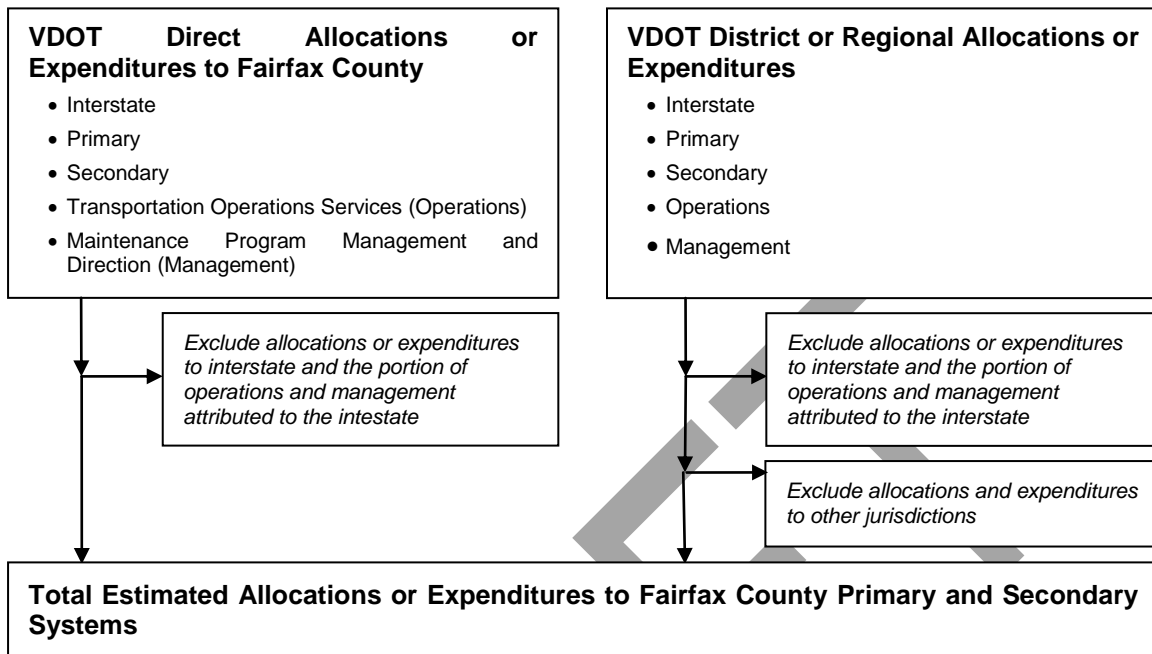
The costs presented in this report represent estimates based on information provided by VDOT. Every effort has been made to determine these values as accurately as possible, but several factors limit the precision of these estimates. These factors are discussed in the following paragraphs.

#### Isolating Allocations and Expenditures Attributed to the Primary and Secondary Systems in Fairfax County

VDOT allocation data and expenditure data provide the most detail in developing estimates of funding to the primary and secondary systems in Fairfax County. However, the nature of how allocations and expenditures are accounted by VDOT makes it difficult to isolate only those allocations and expenditures that can be attributed to the primary and secondary systems in Fairfax County. Some allocations and expenditures are made directly to Fairfax County while other allocations and expenditures are made at the VDOT District level (and in some years prior to FY 2009, some costs were also assembled at a Regional level). Some management and operations costs are spread over all systems, further complicating the isolation of those attributable to the Primary or Secondary system alone. Figure VIII-1 illustrates how VDOT funding flows to the primary and secondary systems in Fairfax County, and why the total funding devoted exclusively to individual systems in individual counties can only be estimated.

Some allocations and expenditures are made directly to the County. These are broken down into allocations/expenditures to the interstate system, primary system, secondary system, transportation operation services (operations), and maintenance program management and direction (management). In this instance, it is straightforward to exclude allocations/expenditures to the interstate system, however; allocations/expenditures to operations and management can be attributed to all three systems. Operations include activities such as traffic management which span all systems. Management activities also span all systems. If the County presumably assumed responsibility of the primary and secondary systems, VDOT would continue to perform activities from these two categories for the interstate system within the County. Therefore, an assumption needs to be made on how much from these categories can be attributed to the primary and secondary systems.

**Figure VIII-1: Estimating VDOT Allocations and Expenditures to Fairfax County Primary and Secondary Systems**



Some allocations and expenditures are also made at district and regional levels. Just like the direct allocations/expenditures to Fairfax County, district and regional allocations are broken down into allocations/expenditures to the interstate system, primary system, secondary system, operations, and management. District and regional allocations/expenditures can also be attributed to multiple jurisdictions. For example, some VDOT maintenance activities (e.g. traffic engineering studies) are charged to cost centers at the District level (and for FY 2007 and FY 2008 at the Regional level). An additional assumption needs to be made on how much can be attributed to Fairfax County as opposed to other jurisdictions.

VDOT advised the County on additive rates to apply in order to estimate the share of VDOT's district and regional costs attributable to the County. For costs to operations, an additive rate of 9% can be applied to the direct costs to the County. For costs to management, an additive rate of 10% can be applied to the direct costs to the County. This implies that an additional 19% can be added on top of VDOT's direct costs to the County in order to account for Fairfax County's share of district and regional costs.

Precision in Categorizing Maintenance Activities

While the procedures described above can be used to provide estimates of costs at a high level, such as the entire primary system or the entire secondary system in the County, it is difficult to derive reliable estimates for costs at lower levels. When reviewing the details of maintenance expenditures provided by VDOT, sometimes individual maintenance expenditures with common elements are charged as a single function.

Furthermore, the accuracy of any accounting system depends on the accuracy of its input data. As these systems become increasingly complex and the coding of time and costs becomes increasingly cumbersome, the accuracy of individual charges is likely to decrease. While VDOT has a detailed financial reporting system, judgment must be used in interpreting charges at increasingly finite levels. Thus, for all of these reasons, all allocation and expenditure data

presented in this report, especially those for specific maintenance activities, should be interpreted as rounded approximations.

### Year-to-Year Fluctuations

Both expenditures and allocations over a period of several years have been examined in an attempt to reflect average values and minimize the influence of unusual events (e.g. significant snow removal costs). Unfortunately this exercise is complicated by several factors. Primarily, VDOT modified its maintenance and operations program budget structure in FY 2007, and changed its budget allocations reporting process several times in the FY 2007 – FY 2010 period. Thus, it is not possible to directly compare individual elements of the allocated maintenance budgets in FY 2007 and FY 2010. For example, in FY 2010, VDOT allocated \$1.14 million to “vegetation control” on the Secondary System in Fairfax County, but allocations for this task in prior years are included in a broader “Roadside” maintenance category in prior years. In addition, VDOT implemented significant changes in levels of service for maintenance functions during this period. Finally, variation in annual maintenance allocations and expenditures is to be expected because some significant and costly maintenance activities (e.g. repaving) fluctuate from year to year and among counties.

### Limitations of VDOT Spreadsheet Model

VDOT has developed a spreadsheet model to provide Virginia’s counties with a tool for exploring the costs and institutional implications (staffing, equipment, and facility needs) of assuming secondary system responsibilities.<sup>29</sup> As indicated in the model documentation, to the extent possible the model is designed to replicate what would be required to deliver a county-level secondary system program if a county mirrored VDOT’s current approach and service levels. Thus, numerous default values are incorporated in the calculations. These include factors ranging from basic overhead and inflation rates, lane-mileage added per year, and the cost of land on the one hand, to the number and cost of individual pieces of equipment at the other extreme. While these default values are customized for individual counties, they can also be overridden to produce more precise estimates.

Although it may be desirable to develop precise estimates of the costs of assuming various maintenance, construction, and / or operations functions, it is not practical at this early stage of investigation to determine exact equipment and staffing requirements. Therefore, this analysis has applied the VDOT model only in a very broad sense to gauge the order-of-magnitude costs of these needs without adjusting any of the numerous parameters that can influence the calculations. As noted above, the model incorporates data that is specific to individual counties, but none of these county-specific values were modified in the analysis conducted for this Study. In addition, it should also be noted that the model was developed between 2006 and 2007. Data used for this model has not been updated since 2005. Current services and staffing levels are different from those incorporated in the model, and thus the model outputs do not reflect current conditions.

Moreover, regardless of the results produced by the model, the ultimate cost of the assumption of additional highway responsibilities that a locality may bear (e.g. whether some VDOT equipment be transferred to the county, etc.) will be determined by the formal agreement with VDOT.

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<sup>29</sup> *The Feasibility Model for Secondary System Assumption by Virginia Counties*, March 2007 (Secondary System Analysis Model or “the model”)

## B. Selected Provisions of the Code of Virginia

### § 33.1-84.1. Resumption of responsibility for secondary highways by counties.

Notwithstanding any provisions of § 11 of Chapter 415 of the Acts of Assembly of 1932 and §§ [33.1-84](#), [33.1-85](#), [33.1-87](#), and [33.1-88](#), the Commonwealth Transportation Commissioner, following receipt of a resolution adopted by the Board of Supervisors of a county requesting such action, may enter into an agreement with any county that desires to resume responsibility over all or any portion of the state secondary system of highways within such county's boundaries for the purposes of planning, constructing, maintaining, and operating such highways. Such agreement shall specify the equipment, facilities, personnel, and funding that will be provided to the county in order to implement such agreement's provisions.

Any county that resumes full responsibility for all of the state secondary system of highways within such county's boundaries (i) shall have authority and control over the secondary system of highways within its boundaries, (ii) shall be deemed to have withdrawn from the state secondary system of highways, and (iii) will receive payments in accordance with § [33.1-23.5:1](#). The resolution requesting resumption of all responsibilities shall also include a request for the transfer and release of all rights-of-way and rights of access along the state secondary system of highways within the county's boundaries.

(2001, cc. [257](#), [273](#), [277](#); 2009, c. [476](#).)

[33.1-23.5:1](#). Funds for counties which have withdrawn or elect to withdraw from the secondary system of state highways.

Notwithstanding the provisions of § [33.1-23.5](#), pursuant to subsection A of § [33.1-23.1](#), the Commonwealth Transportation Board shall make the following payments to counties which have withdrawn or elect to withdraw from the secondary system of state highways under the provisions of § 11 of Chapter 415 of the Acts of Assembly of 1932, and which have not elected to return: to any county having withdrawn prior to June 30, 1985, and having an area greater than 100 square miles, an amount equal to \$3,616 per lane-mile for fiscal year 1986, and to any county having an area less than 100 square miles, an amount equal to \$7,201 per lane-mile for fiscal year 1986; to any county that elects to withdraw after June 30, 1985, the Commonwealth Transportation Board shall establish a rate per lane-mile for the first year using (i) an amount for maintenance based on maintenance standards and unit costs used by the Department of Transportation to prepare its secondary system maintenance budget for the year in which the county withdraws, and (ii) an amount for administration equal to five percent of the maintenance figure determined in (i) above. The payment rates shall be adjusted annually by the Board in accordance with procedures established for adjusting payments to cities and towns under § [33.1-41.1](#), and lane mileage shall be adjusted annually to include (i) streets and highways accepted for maintenance in the county system by the local governing body, or (ii) streets and highways constructed according to standards set forth in the county subdivision ordinance or county thoroughfare plan, and being not less than the standards set by the Department of Transportation. Such counties shall, in addition, each receive for construction from funds allocated pursuant to subdivision B 3 of § [33.1-23.1](#) an annual amount calculated in the same manner as payments for construction in the state secondary highway system are calculated.

Payment of the funds shall be made in four equal sums, one in each quarter of the fiscal year, and shall be reduced, in the case of each such county, by the amount of federal-aid construction funds credited to each such county.

The chief administrative officer of such counties receiving such funds shall make annual reports of expenditures to the Board, in such form as the Board shall prescribe, accounting for all expenditures, including delineation between construction and maintenance expenditures and reporting on their performance as specified in subdivision B 3 of § [33.1-23.02](#). Such reports shall

be included in the scope of the annual audit of each county conducted by independent certified public accountants.

(1985, c. 42; 2004, c. [118](#).)

§ 33.1-23.02. Definition of the terms "maintenance" and "asset management."

A. For the purpose of this title, unless otherwise explicitly provided, the term "maintenance" shall include (i) ordinary maintenance, (ii) maintenance replacement, (iii) operations that include, but are not limited to, traffic signal synchronization, incident management, other intelligent transportation system functions, and (iv) any other categories of maintenance which may be designated by the Commissioner.

B. 1. For the purposes of this title, unless otherwise explicitly provided, the term "asset management" shall mean a systematic process of operating and maintaining the state system of highways by combining engineering practices and analysis with sound business practices and economic theory to achieve cost-effective outcomes.

2. The Department shall develop asset management practices in the operation and maintenance of the state system of highways.

3. The Commissioner shall advise the Board, on or before June 30 of even-numbered years, of performance targets and outcomes that are expected to be achieved, based upon the funding identified for maintenance, over the biennium beginning July 1 of that year. In addition, not later than September 30 of even-numbered years, the Commissioner shall advise the Board on the Department's accomplishments relative to the expected outcomes and budget expenditures for the biennium ending June 30 of that year and also advise the Board as to the methodology used to determine maintenance needs and the justification as to the maintenance funding by source.

(1985, c. 42; 2002, cc. [302](#), [570](#); 2006, Sp. Sess. I, c. [9](#).)

§ 15.2-2403.1. Creation of urban transportation service districts.

A. The boundaries of any urban transportation service district created pursuant to this article shall be agreed upon by both the local governing body of an urban county and by the Commonwealth Transportation Board. The overall density of an urban transportation service district shall be one residential unit per gross acre or greater. In the event of a disagreement between the Board and the governing body of an urban county in regard to the boundaries of an urban transportation service district, the parties may request that the Commission on Local Government serve as a mediator. For purposes of this section, an "urban county" means any county with a population of greater than 90,000, according to the United States Census of 2000, that did not maintain its roads as of January 1, 2007.

B. Any urban county that has established an urban transportation service district in accordance with this section shall maintain the roads within such district. Any such county shall receive an amount equal to the per lane mile maintenance payments made to cities and certain towns pursuant to § [33.1-41.1](#) for the area within the district for purposes of road maintenance.

(2007, c. [896](#).)

Income Tax Authorization:

§ 58.1-540. Levy of the tax.

A. The Counties of Arlington, Fairfax, Loudoun, and Prince William, and the Cities of Alexandria, Fairfax, Falls Church, Manassas, Manassas Park, Norfolk, and Virginia Beach hereby authorized to levy a local income tax at any increment of one-quarter percent up to a maximum rate of one percent upon the Virginia taxable income as determined in § [58.1-322](#) for an individual, § [58.1-361](#) for a fiduciary of an estate or trust, or § [58.1-402](#) for a corporation, for each taxable year of every resident of such county or city or corporation having income from sources within such county or city, subject to the limitations of subsection B of this section. The same rate shall apply to individuals, fiduciaries and corporations.

B. The authority to levy a local income tax as provided in subsection A may be exercised by a county or city governing body only if approved in a referendum within the county or city. The referendum shall be held in accordance with § [24.2-684](#). The referendum may be initiated either by a resolution of the governing body of the county or city or on the filing of a petition signed by a number of registered voters of the county or city equal in number to ten percent of the number of voters registered in the county or city on January 1 of the year in which the petition is filed with the circuit court of such county or city. The clerk of the circuit court shall publish notice of the election in a newspaper of general circulation in the county or city once a week for three consecutive weeks prior to the election. The ballot used shall be printed to read as follows:

"Shall the governing body of (.... name of county or city ....) have the authority to levy a local income tax of up to one percent for transportation purposes in accordance with § 58.1-540 of the *Code of Virginia*?

Yes

No"

If the voters by a majority vote approve the authority of the local governing body to levy a local income tax, the tax may be imposed by the adoption of an ordinance by the governing body of the county or city in accordance with general or special law, and the tax may be thereafter enacted, modified or repealed as any other tax the governing body is empowered to levy subject only to the limitations herein. No ordinance levying a local income tax shall be repealed unless and until all debts or other obligations of the county or city to which such revenues are pledged or otherwise committed have been paid or provision made for payment.

(1989, c. 245; 2007, c. [813](#).)

§ 58.1-549. Expiration of authority to levy tax.

Notwithstanding the provisions of subsection B of § [58.1-540](#) or any other provision of law, no tax levied by a county or city under the authority of this article shall continue to be levied on or after a date five years from the effective date of the tax in such county or city.

(1989, c. 245.)

§ 15.2-2297. Same (Conditional Zoning); conditions as part of a rezoning or amendment to zoning map.

A. A zoning ordinance may include and provide for the voluntary proffering in writing, by the owner, of reasonable conditions, prior to a public hearing before the governing body, in addition to the regulations provided for the zoning district or zone by the ordinance, as a part of a rezoning or amendment to a zoning map; provided that (i) the rezoning itself must give rise for the need for the conditions; (ii) the conditions shall have a reasonable relation to the rezoning; (iii) the conditions shall not include a cash contribution to the locality; (iv) the conditions shall not include mandatory dedication of real or personal property for open space, parks, schools, fire

departments or other public facilities not otherwise provided for in § [15.2-2241](#); (v) the conditions shall not include a requirement that the applicant create a property owners' association under Chapter 26 (§ [55-508](#) et seq.) of Title 55 which includes an express further condition that members of a property owners' association pay an assessment for the maintenance of public facilities owned in fee by a public entity, including open space, parks, schools, fire departments and other public facilities not otherwise provided for in § [15.2-2241](#); however, such facilities shall not include sidewalks, special street signs or markers, or special street lighting in public rights-of-way not maintained by the Department of Transportation; (vi) the conditions shall not include payment for or construction of off-site improvements except those provided for in § [15.2-2241](#); (vii) no condition shall be proffered that is not related to the physical development or physical operation of the property; and (viii) all such conditions shall be in conformity with the comprehensive plan as defined in § [15.2-2223](#). The governing body may also accept amended proffers once the public hearing has begun if the amended proffers do not materially affect the overall proposal. Once proffered and accepted as part of an amendment to the zoning ordinance, the conditions shall continue in effect until a subsequent amendment changes the zoning on the property covered by the conditions. However, the conditions shall continue if the subsequent amendment is part of a comprehensive implementation of a new or substantially revised zoning ordinance.

B. In the event proffered conditions include a requirement for the dedication of real property of substantial value or construction of substantial public improvements, the need for which is not generated solely by the rezoning itself, then no amendments to the zoning map for the property subject to such conditions, nor the conditions themselves, nor any amendments to the text of the zoning ordinance with respect to the zoning district applicable thereto initiated by the governing body, which eliminate, or materially restrict, reduce, or modify the uses, the floor area ratio, or the density of use permitted in the zoning district applicable to such property, shall be effective with respect to such property unless there has been mistake, fraud, or a change in circumstances substantially affecting the public health, safety, or welfare.

C. Any landowner who has prior to July 1, 1990, proffered the dedication of real property of substantial value or construction of substantial public improvements, the need for which is not generated solely by the rezoning itself, but who has not substantially implemented such proffers prior to July 1, 1990, shall advise the local governing body by certified mail prior to July 1, 1991, that he intends to proceed with the implementation of such proffers. The notice shall identify the property to be developed, the zoning district, and the proffers applicable thereto. Thereafter, any landowner giving such notice shall have until July 1, 1995, substantially to implement the proffers, or such later time as the governing body may allow. Thereafter, the landowner in good faith shall diligently pursue the completion of the development of the property.

Any landowner who complies with the requirements of this subsection shall be entitled to the protection against action initiated by the governing body affecting use, floor area ratio, and density set out in subsection B, unless there has been mistake, fraud, or a change in circumstances substantially affecting the public health, safety, or welfare, but any landowner failing to comply with the requirements of this subsection shall acquire no rights pursuant to this section.

D. The provisions of subsections B and C of this section shall be effective prospectively only, and not retroactively, and shall not apply to any zoning ordinance text amendments which may have been enacted prior to March 10, 1990. Nothing contained herein shall be construed to affect any litigation pending prior to July 1, 1990, or any such litigation nonsuited and thereafter refiled.

Nothing in this section shall be construed to affect or impair the authority of a governing body to:

1. Accept proffered conditions which include provisions for timing or phasing of dedications, payments, or improvements; or

2. Accept or impose valid conditions pursuant to subdivision A 3 of § [15.2-2286](#) or other provision of law.

§ 15.2-3530. Continuation of services of Department of Transportation after consolidation.

When a county and city consolidate into a city, or a combination of counties and a city or cities consolidate into a city, or when any county and all of the incorporated towns located entirely therein are consolidated into a city or cities, the Commonwealth Transportation Commissioner shall continue the full services of the Department of Transportation in those areas which were formerly a county or counties in the same manner and to the same extent such services were rendered prior to such consolidation. Funds for the maintenance, construction and reconstruction of streets within the areas formerly a county or counties shall continue to be allocated as if such areas were still in the county or counties, and such city or cities shall not receive funds for maintenance, construction or reconstruction of streets in those areas. In those areas where the Department of Transportation provides the above services, the governing body of such city or cities, as the case may be, shall have control over the streets and highways to the same extent as was formerly vested in the governing body of the county or counties.

Notwithstanding the above, at any time subsequent to the consolidation, when in the opinion of the Commissioner, the consolidated area which was formerly a county or counties or any portion thereof becomes substantially urbanized, the Commissioner may by agreement with the governing body of the city, transfer the streets in any area deemed urbanized to the city for construction, reconstruction and maintenance, and thereafter funds for such streets shall be allocated as otherwise provided by law for city streets.

### **C. List of Acronyms**

AASHTO: American Association of State Highway and Transportation Officials

ADT: Average Daily Traffic

COG: Council of Governments

CTB: Commonwealth Transportation Board

FCDOT: Fairfax County Department of Transportation

FHWA: Federal Highway Administration

HMOF: Highway Maintenance and Operation Fund

HOT Lanes: High Occupancy Toll Lanes

NHS: National Highway System

NVTA: Northern Virginia Transportation Authority

NVTC: Northern Virginia Transportation Commission

PPEA: Public Private Education Facilities and Infrastructure Act

PPTA: Public Private Transportation Act

SSYP: Secondary Six Year Plan

TEA-21: Transportation Equity Act for the 21st Century

TTF: Transportation Trust Fund

U.S.C.: United States Code

UTSD: Urban Transportation Service District

VDOT: Virginia Department of Transportation

VMT: Vehicle Miles of Travel

VRE: Virginia Railway Express

WMATA: Washington Metropolitan Area Transit Authority