

**FINAL REPORT**

**OPTIONS FOR IMPROVING THE COORDINATION OF TRANSPORTATION  
AND LAND USE PLANNING IN VIRGINIA**

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## PREFACE

Legislation enacted during the 2003 Virginia General Assembly Session—Item 472G of Chapter 1042 (House Bill 1400)—directed the Secretary of Transportation to document (1) best practices used by other states to coordinate transportation and land use planning, and (2) current state efforts to provide technical assistance to local governments in the area of developing the transportation component of the local comprehensive plan. The Virginia Department of Transportation (VDOT) was assigned responsibility for this request, and the Virginia Transportation Research Council (VTRC) was then asked by VDOT to conduct a study and deliver a report that met these two objectives.

The authors gratefully acknowledge those persons who provided valuable insights through reviewing the document, participating in the pilot planning projects, and assisting this effort in other ways. Reviewers included Unwanna Bellinger, George Conner, Holly Dale, Chris Detmer, Les Hoel, Brad Johnson, Kenneth Lantz, Robert McDonald, Jeff Southard, and Chad Tucker. Botetourt County pilot project participants included Jerry Burgess, Rob Cary, Jeff Echols, Herman Hollins, Jeff Kessler, Mark Jordan, James Laughlin, Ned McElwaine, Randall Phillips, Walter Pribble, and Chuck Supan; participants in the corresponding Caroline County effort who contributed to this study were Gerry Sears and Eric Vogel. Sherry Eagle and Felicia Young both gave information regarding alternative sources of funding; Connie Sorrell provided insights regarding the recodification of Title 15.1 of the *Code of Virginia*, Linda Evans edited this report; Randy Combs assisted with graphics; and legal insights were provided by Joe Matteo and Ben Oxley. Staff from the private, state, and federal organizations who answered interview questions also made a significant contribution. Inclusion of these names does not guarantee agreement with the contents of this report.

Within VDOT, the Transportation and Mobility Planning Division, Ken Lantz, Chris Detmer, and Chad Tucker were responsible for managing the study. Within VTRC, Wayne Ferguson was responsible for leading the study. John Miller served as principal investigator and received significant assistance from Roger Howe and Ryan Hartman (for the analysis of statutes in other states), Arkopal Goswami (for work with the Botetourt County pilot land use scenarios and the surveys of state technical assistance programs), and Marc Kirkland (for survey efforts).



## EXECUTIVE SUMMARY

### Introduction

The 50 states have, at times, been characterized as laboratories for experiments concerning alternative approaches to various social goals.<sup>1,2</sup> This characterization is evident in the areas of transportation services and land development, which may be used to pursue aims such as economic development, a better environment, reduced congestion, energy conservation, affordable housing, and more efficient use of public infrastructure.

Because transportation and land use are interdependent, the coordination of planning activities has received special attention. Item 472G of House Bill 1400 (Chapter 1042, which provides the FY 2004 budget) specifies that the Secretary of Transportation

shall report to the General Assembly by December 30, 2003 on the best practices used by other states to improve the link between state transportation and land use planning. The report shall also address the experience of the Department of Transportation in offering technical assistance and coordination of state resources to work with local governments, upon their request, in developing sound transportation components for local comprehensive plans.<sup>3</sup>

House Bill 2259 and Senate Bill 869 also indicated interest in this outreach effort from the state to localities, authorizing the Commonwealth Transportation Board (CTB) to “offer technical assistance and coordinate state resources to work with local governments, upon their request, in developing sound transportation components for their local comprehensive plans.”<sup>4</sup>

### Virginia’s Current Arrangement

Virginia permits coordination of transportation and land use planning at both the local and regional levels of government. At the local level, localities are required by the *Code of Virginia* to develop comprehensive plans that *may* include “land use, transportation, community facilities, historic preservation, and redevelopment.”<sup>5,6</sup> These plans may be implemented through four primary mechanisms: zoning ordinances, subdivision ordinances, site plan reviews, and a capital improvements plan. Of these four, the *Code* requires only subdivision ordinances; the others are enacted at the discretion of the county.<sup>5</sup> At the regional level, transportation and land use planning may be coordinated across jurisdictions through efforts of planning district commissions (PDCs), created by the General Assembly in 1968.<sup>7</sup> Because of 1991 federal legislation giving metropolitan planning organizations (MPOs) a greater role in the selection of transportation projects, the influence of PDCs, which in some cases staff the MPOs, has increased over the past decade. The exception is in the metropolitan Washington area, where the Northern Virginia PDC and the MPO are separate entities and transportation planning is done exclusively through the MPO.<sup>8</sup> At both levels, informal coordination also occurs, as when residency and district staff of the Virginia Department of Transportation (VDOT) periodically meet with county planning staff to discuss development issues.

## **The Unique Situation in Virginia**

Three factors differentiate the coordination of transportation and land use planning in Virginia from that in most other states.

*First*, only four other states in addition to Virginia (Alaska, Delaware, North Carolina, and West Virginia) leave maintenance and construction of county (generally secondary) roads with the state; other states generally leave some degree of responsibility for these roads to the county.<sup>9</sup> Thus except for roads within incorporated cities, most incorporated towns with a population over 3,500, Henrico County, and Arlington County, significant planning, construction, and maintenance responsibilities rest with the state whereas land use decisions are the responsibility of the locality.<sup>10</sup> However, counties receive secondary road funding and significantly influence the secondary road program by working with the VDOT resident engineer. Urban localities may influence any road projects that require federal funds where the MPO, of which VDOT is a member, programs projects for its Transportation Improvement Program.

*Second*, because there are 95 counties and 39 cities in Virginia, there are 134 jurisdictions that can make independent land use decisions, including situations where “an independent city is surrounded by an independent county.”<sup>5,11</sup>

*Third*, Virginia’s legislative environment is changing. In 1997, Virginia recodified Title 15.1 of the *Code of Virginia* and in its place enacted Title 15.2. Although the motivation for recodifying Title 15.2 was to simplify existing statutes, there were also some substantive changes in the statutes.<sup>12</sup> One of these refers to localities’ ability to coordinate powers in that Title 15.2 gave localities “greater flexibility in determining what provisions should be contained in a joint agreement” between these localities.<sup>12</sup> Under Title 15.1, section 21 had noted that joint agreements “shall” contain several items (such as how issues of liability would be addressed, amounts of insurance, and the precise organization of an administrator or joint board responsible for implementing the cooperative agreement). Title 15.2 replaced the “shall” with “may” in order to “avoid imposing burdensome and unnecessary requirements on political subdivisions wishing to exercise powers jointly.”<sup>12,13</sup>

### **Purpose and Scope**

The purpose of this study was to identify best practices for coordinating transportation and land use planning, including providing technical assistance, in accordance with the request of Virginia’s General Assembly. To achieve this purpose, three types of practices were identified and analyzed:

1. legislative practices that address the requirements of the statutes of various states, including Virginia, regarding coordinating transportation and land use planning
2. policy and technical practices by state and local agencies for coordinating transportation and land use planning
3. technical assistance practices undertaken by state and federal agencies.

The scope of this study was limited to information that could be obtained through a review of the literature, an assessment of state legislative codes, and interviews with practitioners in state and federal agencies. *Best practices* are herein defined as practices that explicitly coordinate transportation and land use planning through legislative, organizational, or technical means.

## Methods

Four tasks were undertaken to achieve the study objectives:

1. *Review statutes and interview representatives from a sample of states that reflect centralized and decentralized planning.*
2. *Conduct a literature review of policy and technical practices for coordinating transportation and land use planning.*
3. *Interview providers of technical assistance in other states and at the federal level.*
4. *Participate in the Botetourt County transportation and land use pilot project.* Insights from VDOT's Fredericksburg District planning staff who are participating in a parallel pilot transportation and land use effort in Caroline County were also noted.

## Legislative Practices for Coordinating Transportation and Land Use Planning

Eleven states including Virginia were surveyed to identify initiatives illustrating coordinated transportation and land use planning (see Table ES1). First, the appropriate legislation enacted by the state was reviewed as it pertained to transportation planning. Second, clarifying questions regarding the application of key legislative enactments were posed to at least one state transportation or planning agency representative by telephone or email.

The particular states were selected to represent a mix of states with centralized and decentralized planning authority and Dillon's Rule and Home Rule status (see Table ES1). The terms *centralized* and *decentralized* denote the degree of planning authority centralized at the state level or decentralized to the county, city, or regional level. In a Dillon's Rule state, any power enjoyed by a locality must spring from an express grant by the legislature; in a Home Rule state, municipalities have an inherent freedom to control their own affairs.<sup>5,14</sup> Thirty-nine states, including Virginia, are Dillon's Rule states in terms of defining the power of local governments: thirty-one states apply this rule to all municipalities and eight apply this rule to select municipalities.<sup>14</sup> Although Virginia applies Dillon's Rule more stringently than other Dillon's Rule states, Virginia counties and cities are cited as enjoying more local discretionary authority than most other states.<sup>14</sup>

**Table ES1. States Surveyed for Their Legislative Practices**

<b>Degree of State Control</b>	<b>Dillon’s Rule States<sup>14</sup></b>	<b>Home Rule States</b>
Centralized at State Level	Maryland, Hawaii, Florida*	Oregon, Florida*
Decentralized to Local Level	Georgia, North Carolina, Texas, Virginia, Wisconsin, Kansas**	South Carolina

\*Florida has conflicting rulings such that a determination of Dillon’s Rule and Home Rule status cannot be made.

\*\*Dillon’s Rule is applied for only some municipalities in Kansas.

### **States with Centralized Planning**

*Florida’s* concurrency statute requires that sufficient transportation infrastructure be present to accommodate anticipated growth. Further, localities are required to develop comprehensive plans, and both the plans and land use regulations must be consistent with the state comprehensive plan. This consistency is ensured by the fact that local plans are reviewed for compliance by a state agency that is empowered to require particular elements of the local plan. Required elements include levels of service, growth trends, and analysis of the ability of the transportation system to serve anticipated land use development.

*Hawaii* centralizes control through a single state agency, which creates a single state comprehensive plan with which localities must comply. Municipalities may create their own plans, but they must comply with the state comprehensive plan under the oversight of Hawaii’s Office of Planning. In addition, no agency may issue funds to localities for a project that is not in line with the state plan.

*Maryland* targets growth-related capital projects, such as significantly improved highway and transit facilities, to priority funding areas established through legislation (the Smart Growth and Neighborhood Conservation Act of 1997) and subsequent executive orders. Further, Maryland’s Department of Planning is responsible for developing the state comprehensive plan, enforcing planning laws, and providing technical assistance to localities.

*Oregon* uses a single state agency, its Land Conservation and Development Commission, to craft goals to which all local plans must adhere or risk rejection by the commission. The commission has this power when comprehensive plans are undergoing significant revisions or when an urban growth boundary will be extended in excess of 50 acres.

### **States with Decentralized Planning**

*Georgia* does not require localities to create comprehensive plans, but almost all of them have done so. The recently created Georgia Regional Transportation Authority can bring localities together and encourage collaboration in the face of elements in the plans of different counties that conflict. Although the authority has significant transportation powers, it is largely an advisory body in terms of immediate local land use decisions within a single county. The authority’s review of particular large-scale land development projects is binding with regard to whether the project should receive state or federal funds.



*Kansas* permits but does not require the formation of PDCs, and Kansans can point to examples where municipalities have voluntarily created joint commissions. At the moment, the loss of federal funding for planning efforts has diminished the planning being done by these commissions.

*North Carolina* localities are not required to create comprehensive plans, and the state's land use policy framework is purely advisory. However, the state maintains an almost \$15 million technical assistance effort to localities for transportation and land use assistance, air quality planning, conformity analysis, and transportation planning.

*South Carolina's* municipalities are required to develop comprehensive plans that include transportation and land use elements. The state also provides technical assistance, which localities may elect to accept. In one case, the state and a locality worked together to pinpoint the location of future access points.

*Texas* works with municipalities inside MPOs to write the transportation element of the comprehensive plan, but acceptance of the element rests with localities. Texas has also pursued legislation that gives greater authority to these MPOs, such as "stable formula-based funding" and legislation that allows suburban counties to vote to impose a sales tax dedicated to their public transportation projects.

*Wisconsin* encourages planning through a program that provides grants earmarked for planning activities to localities, giving preference to plans that address an array of planning issues, such as adequate transportation. Almost \$10 million in state and federal funds was used for these planning grants from 2000 through 2003, with \$2 million expected for the 2004 budget cycle. Close coordination between the Department of Transportation and the Department of Administration (which administers the grants) helps achieve transportation and land use goals. In addition, select larger local governments are given extraterritorial jurisdiction over land outside their borders and can enter into "cooperative boundary agreements" with adjacent localities to effect a more coordinated planning arrangement (as an alternative to unanticipated annexations). Finally, Wisconsin law requires that by 2010, "all programs, actions, and decisions of a community be consistent with the adopted local comprehensive plan."<sup>15</sup>

*Virginia* allows coordination through VDOT participation in site plan reviews for proposed developments (in cases when counties invite VDOT to participate) and periodic meetings between VDOT and county planning staff. These meetings may include briefings to staff and decision makers, longer-term discussions of development issues, and field visits to envision proposed development at a specific location. VDOT also provides \$48,000 as part of its rural transportation planning assistance program to each PDC (except Northern Virginia, which has no rural component) so long as the local government gives a \$12,000 match. Recent pilot efforts in Botetourt and Caroline counties where VDOT is working to provide specific deliverables requested by the counties are underway. These products are a compilation of the methods for funding transportation improvements in addition to the Six Year Improvement Program, a scenarios analysis that identifies potential transportation impacts from various types of proposed zoning changes and assists with creating the transportation element of a county

comprehensive plan. Although comprehensive plans are required, a transportation element is optional.<sup>16</sup>

Finally, the literature suggests that Virginia counties and cities may coordinate with each other in the areas of zoning, taxing, and issuing bonds.<sup>5,17</sup> This flexibility for land use coordination through zoning and bonding authority makes coordination more practical (than would be the case if zoning and bonding coordination were expressly prohibited) since localities can legally work together to ensure that transportation and land use policies in one locale are not negated by different policies in an adjacent locale. Section 1300 (A) of Title 15.2 states:

Any power, privilege or authority exercised or capable of exercise by any political subdivision of this Commonwealth may be exercised and enjoyed jointly with any other political subdivision of this Commonwealth having a similar power, privilege or authority except where an express statutory procedure is otherwise provided for the joint exercise.<sup>18</sup>

### **Summary of State Best Practices**

States coordinate transportation and land use planning through at least five mechanisms:

1. *In decentralized states*, voluntary formation of additional bodies for land and transportation planning on behalf of select cities and counties.
2. *In centralized states*, empowerment of a single state agency either to review local comprehensive plans to ensure that such plans meet minimum criteria or to conduct significant transportation and land use planning.
3. *In centralized states*, a decision as to how transportation and planning should occur through specific legislation.
4. *In both centralized and decentralized states*, a mix of financial incentives or disincentives for aligning local and state planning.
5. *In all states*, voluntary provision of technical assistance and advice.

### **Policy and Technical Practices for Coordinating Transportation and Land Use Planning**

#### **How the Legislature Determines Virginia's Direction**

The General Assembly can influence the coordination of transportation and land use planning through at least three primary avenues.

1. *By electing to centralize planning authority at the state level or have planning authority remain decentralized at the county, city, and regional level. Centralized planning* could be accomplished through creating a single agency with full land planning authority, creating a single agency that reviews localities' comprehensive plans, or passing legislation that dictates specific ways in which planning will occur.

*Decentralized planning* may be accomplished through encouraging localities and appropriate state agencies to coordinate efforts including, but not limited to, providing funding for these planning efforts, requiring consistency between local comprehensive plans and subsequent local actions, enacting legislation that gives greater authority to counties to form regional compacts, and expanding the decision-making powers of existing localities or PDCs. An example of the last would be to allow local governments to require proffers or impact fees when new development is proposed (current law in Title 15.2 of the *Code* allows proffers or impact fees only as part of a rezoning request).<sup>19</sup>

2. *By providing additional resources to local or state organizations for the purposes of planning coordination.* State survey results suggest that although enabling legislation provides a forum for land and transportation decisions to be considered jointly, such forums are enhanced through the use of staff to address issues on a case-by-case basis. Examples are using central planning staff to work with a locality to design a more compact land use plan, using VDOT staff to work with a locality to alter development plans so as not to build in land that will be taken for road construction, and providing money or personnel to existing planning-related entities.
3. *By setting a policy goal for this coordination.* Alternatively, the legislature may resolve that some other entity be charged with setting this policy goal. If the latter, the legislature may decide that this entity should be one with a statewide perspective, such as the CTB, or one with a local perspective, such as the individual counties, cities, or regional PDCs.

### **Policy Goals and Specific Technical Practices for Coordinating Transportation and Land Use Planning**

The literature and the practices of other states suggest at least seven goals this coordination is trying to achieve, as listed in Table ES2. At the state level, choosing a policy goal—if one is to be chosen at all—is a decision for either the General Assembly or an entity charged by the General Assembly to make this determination. At the local level (it could be argued), the policy goal is the choice of the county board of supervisors, a city council and mayor, or other elected officials.

### **Technical Assistance Practices Undertaken by State and Federal Agencies**

Agreement on legislation, policy goals, and specific technical practices that should be applied to coordinate transportation and land use planning still does not guarantee success, because so much of transportation and land use coordination requires cooperation. From a state perspective, this cooperation is the joint responsibility of the local governing bodies and an agency of the Commonwealth such as VDOT. One way the Commonwealth and a county can facilitate cooperation is through providing technical assistance.

**Table ES2. Seven Policy Goals and Examples of Specific Technical Practices to Achieve Them**

<b>Policy Goal</b>	<b>Active Involvement by State</b>	<b>Intermediate Involvement by State</b>	<b>Passive Involvement by State</b>
<b>1. Ensure adequate transportation infrastructure for existing land uses</b>	State provides adequate funding for localities to assess transport demand for land uses and encourages this analysis through appropriate legislation	State provides limited funding for localities to assess transport demand for land uses and encourages this through various agencies	State provides technical assistance to localities upon request
<b>2. Support compact development</b>	State conducts land planning or requires county plans to meet key criteria	State reviews county comprehensive plans, encouraging counties to meet such criteria	Localities have full responsibility for planning, state may provide funds
<b>3. Encourage greater choice for land development consumers</b>	State encourages nonrestrictive zoning	State encourages nonrestrictive zoning, such as permitting mixture of commercial and land uses and providing narrower streets	State provides assistance to localities as needed for zoning requests
<b>4. Provide greater choice for transportation consumers</b>	State might support street amenities (conducive to alternative modes)	Similar to above, but state might encourage certain types of zoning that encourage non-automobile modes	State provides assistance to localities as needed for zoning requests
<b>5. Improve air and water quality: example of reduce vehicle emissions</b>	Explicitly involve counties in attainment areas through modeling effects of alternative land uses on air quality	Provide technical assistance on sketch planning methods for air quality analysis	Conduct conformity analysis as required by law
<b>6. Align transportation infrastructure with land use goals: example of access management</b>	Work with communities to agree on functional purpose of key arterials and implement comprehensive access code; give localities resources to plan and build development connecting to frontage roads in lieu of direct access points to arterial network	In transportation planning, encourage development of parallel and interconnected roadway networks through site access guidelines	Provide assistance to localities when requested
<b>7. Assist localities with coordinating transportation and land use</b>	Establish and maintain a technical assistance program; seek out localities, offering to help devise realistic zoning ordinances	Provide periodic short courses on key planning software and extent to which urban form affects travel behavior	Provide assistance when requested by localities on site plan reviews

Participation in the Botetourt pilot effort and interviews with representatives of organizations that provide technical assistance in a variety of disciplines revealed several common themes regarding how to establish, conduct, and maintain a good program in a cost-effective manner:

- *Set a clear focus for the program; pick an area to target.* The North Carolina DOT has an extensive assistance program for rural planning organizations (RPOs) and is focusing on helping them evaluate the impacts of land use alternatives.
- *Dedicate staff.* Staff need not be numerous. The key feature is that staff have providing technical assistance as their focus. Maryland's Office of Capital Programming and Planning has three transportation/land use planners.
- *Retain staff.* Long-term staff familiar with the agency, environment, and nature of the technical work are key. Staff are ideally supported through ongoing training; the Federal Highway Administration has noted that familiarity with instructional materials is useful for any person involved with technical assistance efforts.
- *Work one on one to deliver a customized solution.* Clients appreciate having access to a live person as opposed to a website or voice recording only. This approach extended to teaching in the case of the FHWA Resource Centers, which noted that being able to tailor a short one- or two-day class to a client's needs was a key decision in using that format rather than a longer "canned" course presentation.
- *Deliver and budget for what is promised.* Results are the best way to spread the word about what a technical assistance program can accomplish. However, the implementation of a marketing plan for one organization's services was halted when it was determined that the resultant growth in the demand exceeded the budget for that effort.
- *Develop mechanisms to get information to customers quickly,* such as using a website to archive data or a having a small cadre of individuals who can quickly respond to technical assistance requests.
- *Keep making progress.* One insight that appears to be emerging from the ongoing Botetourt pilot effort is the dual needs to (1) keep the project moving forward, even if the problem is not fully defined, and (2) work to produce a deliverable, even if this product is imperfect.
- *Iteratively define the problem, and do so imperfectly rather than not at all.* One problem was defined through a couple of in-person meetings and several telephone calls and was done in increments as key issues became clear.
- *Plan for delays.* Something can almost always be done on a project, even in the absence of particular data elements or clarifying instructions.

- *Maintain communication.* All parties need access to the full level of detail. One way to address uncertainty is to give a best guess or estimate at an early state and to describe the particular data element as such, rather than to delay the release of information until uncertainty is eliminated.

## **Decisions for Virginia's Future**

### **The Legislature's Choices**

Three questions arise that require an answer from Virginia's elected officials that pertain to the coordination of transportation and land use planning.

*First*, should legislative steps be taken to institute this coordination or permit it to a greater degree?

*Second*, what policy should this coordination support? For example, Virginia may or may not wish to enact legislation that establishes concurrency statutes that require adequate transportation infrastructure to support proposed land uses, in support of a policy that explicitly requires counties to consider transportation effects of land use alternatives. As part of this step, it would be appropriate to study in greater depth a state that has implemented such concurrency statutes, e.g., Florida, to learn the strengths and weaknesses of this approach.

*Third*, what resources should be devoted to the technical and implementation aspects of this coordination? To a limited extent, VDOT or some other state-level agency responsible for planning can address this question within the context of providing more accurate and timely information to localities, where the county is the client and is thus leading the effort. There are also policy implications for more thorough technical assistance in the areas described throughout this report, such as access management, impacts on land use, or the matching of transportation infrastructure needs and land development and vice versa. The legislature will want to consider the quantity of these resources, and how they can be allocated to local and state bodies.

### **VDOT's Choices Within the Legislatively Prescribed Framework**

Under current law, VDOT cannot force a county or city to cooperate with the Commonwealth on transportation planning issues. However, VDOT may wish to consider several options within the planning framework established by the legislature. They are listed here and shown in Figure ES1.

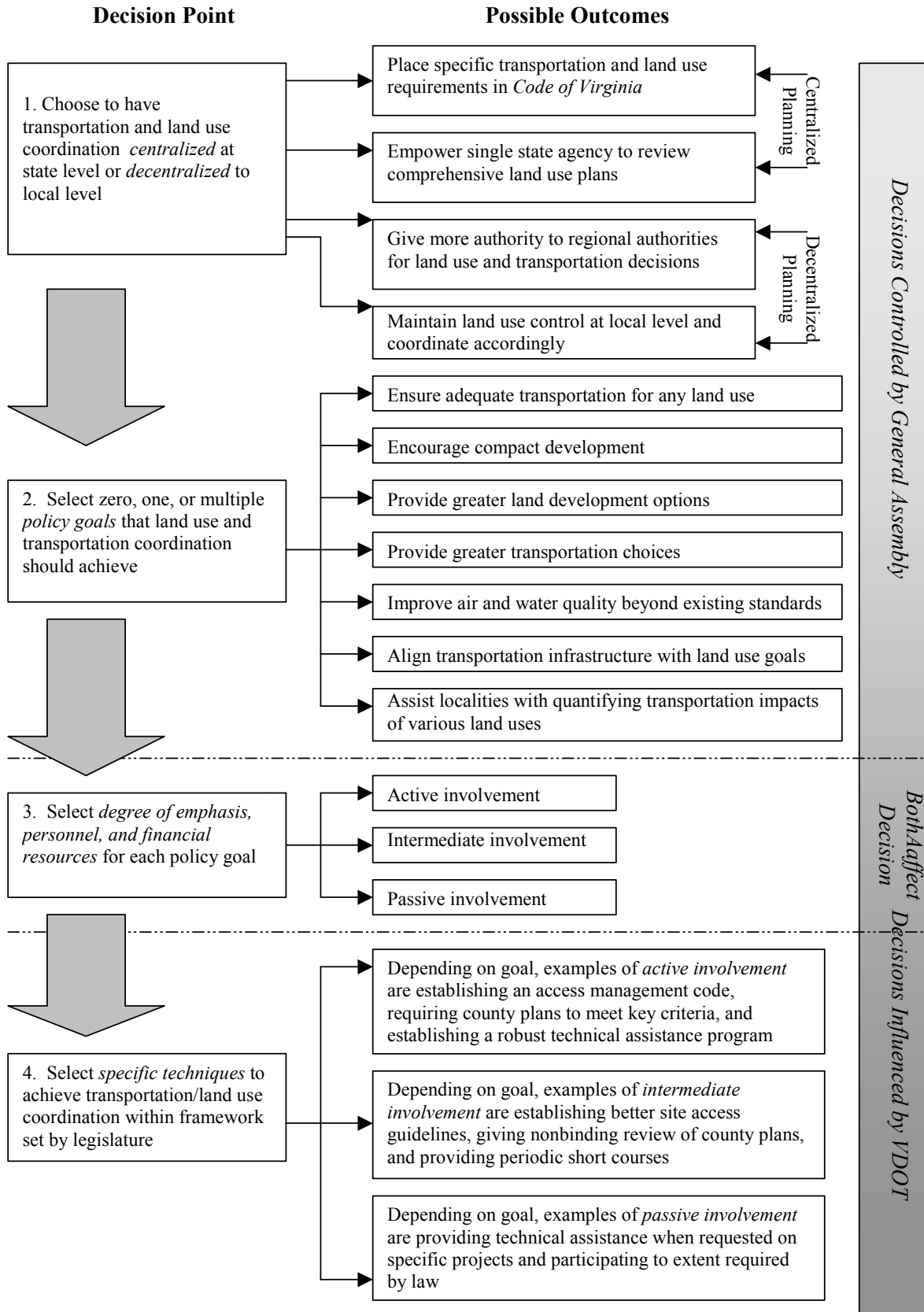


Figure ES1. Decision Processes for Virginia

1. *Make staff and funds available to localities for coordinating transportation and land use planning.* Fulfilling this recommendation will likely require additional staff; states with active and genuine technical assistance programs, such as Maryland, North Carolina, and Oregon, accomplish this through personnel or funding.
2. *Archive lessons learned and transfer these lessons from one county to another.* Three ongoing products from the pilot efforts in Botetourt County and Caroline County—documenting alternative funding sources, assisting with transportation elements of the county comprehensive plan, and modeling impacts of land use strategies on air quality—are transferable to other situations with modifications. Although such material can be stored on a website, maintaining a knowledge base can be helped by retaining people in such technical assistance positions.
3. *Work aggressively with localities to accomplish activities that are clearly within VDOT's purview.* Two such activities are working with counties to ensure that the transportation element of county comprehensive plans meet certain standards of quality such that land uses forecast in the plan can be related to realistic estimates of transportation demand, and establishing an access management code defining appropriate levels of access for the roadway.
4. *Help counties quantify transportation impacts of alternatives.* Staff can provide realistic estimates, based on the literature and previous case studies, of how transportation costs can be reduced by implementing particular land use strategies.
5. *Review existing planning and land use tools to ensure they are being used to maximum effectiveness.* Such tools and possibilities include the following:
  - ensuring that VDOT participates fully in site plan reviews when invited to do so by localities
  - ensuring that counties are adequately briefed on how road improvements they select may affect land development
  - exploring the efficacy of the CTB's option (provided to it by the *Code of Virginia*<sup>20</sup>) to designate particular highway as limited access highways (e.g., to preserve the mobility function of particular arterials, such as those that are part of the National Highway System)
  - using *Minimum Standards of Entrances to State Highways* to help resident and district engineers engaged in the permitting process consider corridor or system impacts of additional access points rather than only site-specific impacts.



## Summary

Without legislative action, there are steps that VDOT and localities can undertake to improve the coordination of transportation and land use planning. The degree of coordination exercised will naturally be affected by personnel resources, financial resources, and the willingness of the state and county to undertake coordinating steps.

Enabling legislation can increase the degree of coordination that is likely to occur. State and local elected officials would then want to ask: What policy goal should transportation and land use coordination support? Although the body of this report describes seven possible goals and technical practices that may be used to support them, there will need to be discussion concerning what goal or goals, if any, the coordination of transportation and land use planning should accomplish.

To place these findings within the context of the Budget Bill, it can be said that a survey of the different states shows a wide range of policy aims, with no perfect approach. The one best practice that seems to have been identified is for the governing body to establish a clear goal for what the coordination of transportation and land use planning should attain.

## **FINAL REPORT**

### **OPTIONS FOR IMPROVING THE COORDINATION OF TRANSPORTATION AND LAND USE PLANNING IN VIRGINIA**

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## **INTRODUCTION**

Although advocacy groups, citizens, and governments have long recognized that transportation and land use are interdependent, the desire to coordinate them has recently received renewed public attention. Local examples of such attention in Virginia are legislative efforts to control development (e.g., increasing the acreage requirement per new home constructed as in the case of a January 2003 ordinance approved by Loudoun County) and an emphasis in county comprehensive plans on placing development (e.g., Albemarle County's use of "preferred development zones").<sup>21,22</sup> At the state level, Virginia, along with Pennsylvania, Maryland, and Washington, D.C., has signed Chesapeake 2000, an agreement to "work with communities and local governments to encourage sound land use planning and practices that address the impacts of growth, development and transportation on the watershed" and to "promote coordination of transportation and land use planning."<sup>23</sup> At the national level, the proposed reauthorization of the federal surface transportation bill includes in the list of planning factors that state and transportation decisions should "promote consistency between transportation improvements and State and local planned growth and economic development patterns."<sup>24</sup>

Despite the increased attention on coordinating transportation and land use planning, the topic remains controversial for two main reasons: (1) differences in values regarding what this coordination should accomplish, and (2) uncertainty about the efficacy of such coordination in achieving social aims.

### **Historical Controversy Regarding Coordinating Transportation and Land Use Planning**

Concerns about how communities should grow through the coordination of transportation and land use planning, and the diversity of perspectives on the topic, are not new. In 1948, Opperman pointed out that not only was the expressway an efficient means of moving traffic, but

that it was a useful city planning tool for “penetrating the chaotic mass which present-day cities have become and separating this mass into proper functional divisions.”<sup>25</sup> More than 50 years later, few planners are likely to agree with Opperman’s approach to mixed use development; more members of the planning community probably agree with Von Storch’s 1948 assessment that “suburban sprawl” could bring a host of problems such as “increased cost in the provision of streets, public utilities, schools, and other community facilities.”<sup>26</sup> Yet both authors encouraged cooperation between the urban planning and transportation communities; sentiments echoed in Shattuck’s and Rykken’s call for comprehensive planning, especially in recognizing the effect that the “major thoroughfare” and the proposed interstate system would have on development.<sup>27</sup>

Debates about public benefits and private rights have continued. A quarter century ago, investigators suggested benefits of compact development, noting that communities could reduce transportation and energy consumption by 5 to 10 percent over several decades through better land use planning.<sup>28</sup> Yet disagreements arise in specific cases regarding the location of more compact development and the rights of landowners, and unanimity is lacking regarding how resources and authority should be allocated among local, regional, and state branches of government.

At the 1997 Annual Meeting of the Transportation Research Board, Kingham noted that although there was agreement on the *motivations* for coordinating transportation and land use planning, such as improving transit’s productivity, reducing new land consumption, and reducing growth in vehicle miles traveled (VMT), there was “little agreement among planners on how to integrate and how to coordinate transportation and land use planning.”<sup>29</sup> Similarly, the Federal Highway Administration (FHWA) interprets the mixed successes and failures of recent regional transportation referendums, and the different measures on the ballots, as meaning that there is a “general consensus that we need to be growing differently ... but ... there isn’t a clearly defined or universally correct way to grow.”<sup>30</sup>

### **Uncertainty Regarding the Efficacy of Coordinating Transportation and Land Use Planning**

There is a frank degree of uncertainty regarding how well coordination can achieve even a unanimously agreed-upon objective. This uncertainty results from the following six factors:

1. the large amount of time necessary for land use to respond fully to transportation investments
2. in contrast, the quick response of travel demand to changes in travel conditions
3. unforeseen future events, such as a gasoline shortage
4. variation in local conditions, such as community opposition to high-density development at one subway station but not at another<sup>31</sup>
5. disagreement on how to measure land use and transportation impacts

6. the existence of other influences on transportation and land use.

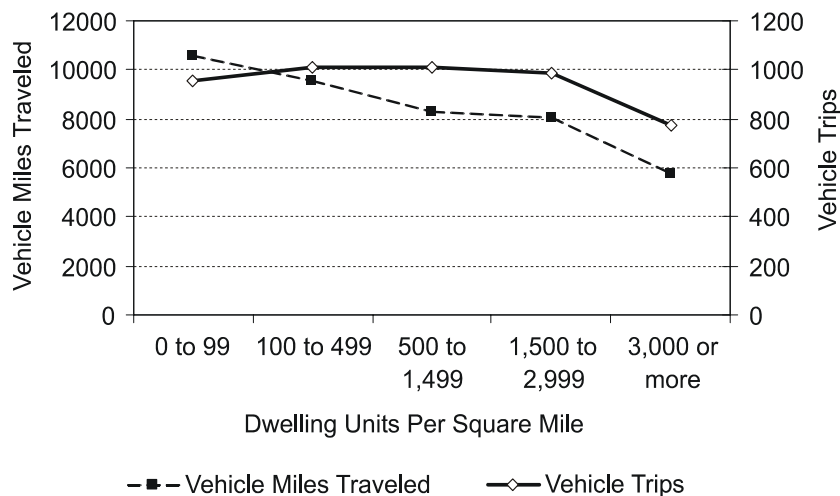
Illustrating the first two factors, Cervero points out that when adding lane miles to California freeways, econometric models suggested a 7- to 8-year cycle to achieve a full understanding of the effects of the transportation/land use system, where:

- Two to 3 years were required for development to occur as a result of a capacity expansion.
- Three more years were required for traffic volumes to result from the development.
- Still more time was required for the resultant congestion to influence freeway construction.<sup>32</sup>

Forkenbrock notes that 20 to 30 years are required to understand how land development fully responds to transportation investments on a regional scale.<sup>33</sup>

Contributing to this uncertainty are the different mechanisms for measuring transportation and land use; e.g., although it is generally true that more compact development will reduce automobile travel as reflected in Figure 1, the answer will vary depending on how such travel is defined: by number of miles driven or number of vehicle trips taken, on a per person basis (as shown in Figure 1) or as a regional total (in which case, based on the data, regional vehicle trips and VMT would be increasing as density increased). After finding significant differences in model forecasts of transportation and land use impacts, Hunt et al. called 25-year forecasting a “bit of a fool’s game,” suggesting that truly prescient forecasters, if they existed, would invest in real estate speculation rather than urban planning.<sup>34</sup>

In summarizing the results of three dozen studies that looked at the effects of land use and transportation impacts, Meyer and Miller note that it is not clear “given the high level of access currently provided by urban transportation systems (in particular road networks), whether



**Figure 1. Relationship of Individual Travel to Density.**  
Data extracted by Ross and Dunning from the 1995 NPTS.<sup>35</sup>

incremental improvements in this access can significantly affect metropolitan patterns of development.”<sup>36</sup> For example, the authors cite a 1996 study by Leinberger noting that the interstate system significantly affected urban form once development caught up with the improved accessibility offered by interstates and a study by Parsons et al. during the same year suggesting that the interstate system, along with other factors, contributed to the decentralization of urban areas. Yet a 1990 study by Forkenbrock and Foster is also given where highways were simply built “where development was going to happen;” further, a 1999 study by Hartgen and Curley of the impacts of beltways found that cities with no beltway or a partial beltway grew faster than cities with a completed or almost completed beltway.<sup>36,37</sup> There is literature supporting the notion that changes in transportation can at least redistribute growth, e.g., a 1968 study that interviewed industry executives found that access to the Capital Beltway in the Washington, D.C., metropolitan area influenced their location decision.<sup>38</sup>

Finally, although transportation and land interact, each is influenced by external factors. Land use is just one of several variables that affect transportation demand. Hess and Ong concluded in a Portland, Oregon, case study that land use mix did significantly affect auto ownership rates, noting that households in neighborhoods with mixed land uses were 31 percent more likely to be without an automobile than those in single-use neighborhoods. The authors also noted, however, that other statistically relevant factors included household income, family size, whether the home was a detached dwelling unit, and whether a male householder was present.<sup>39</sup> A further complication in studying these interactions is the need to delineate correlation from causation and to parse local redistribution of growth from net regional growth. The aforementioned beltways effort pointed out that the most critical factor influencing a region’s growth was employment, a finding supported by other literature indicating that decentralization of jobs drove decentralized land uses.<sup>37,89</sup>

### **Current Legislative Interest in Coordinating Transportation and Land Use Planning in Virginia**

Three pieces of legislation passed during the 2003 Session of Virginia’s General Assembly indicate Virginia’s current legislative interest in coordinating transportation and land use planning. Item 472G of Chapter 1042—the Budget Bill—indicates that the Secretary of Transportation should report “on the best practices used by other states to improve the link between state transportation and land use planning.”<sup>40</sup> In recognition of the fact that enabling legislation is not the sole catalyst for transportation and land use coordination, Item 472G also indicates that the report should discuss the experience of the Virginia Department of Transportation (VDOT) in “offering technical assistance and coordination of state resources to work with local governments, upon their request, in developing sound transportation components for local comprehensive plans.”<sup>40</sup> House Bill 2259 and Senate Bill 869 also indicated interest in this outreach effort from the state to localities, authorizing the Commonwealth Transportation Board (CTB) to “offer technical assistance and coordinate state resources to work with local governments, upon their request, in developing sound transportation components for their local comprehensive plans.”<sup>41</sup>

Title 15.2 of the *Code* states that:

Any power, privilege or authority exercised or capable of exercise by any political subdivision of this Commonwealth may be exercised and enjoyed jointly with any other political subdivision of this Commonwealth having a similar power, privilege or authority except where an express statutory procedure is otherwise provided for the joint exercise.<sup>18</sup>

An interpretation from the literature is that this statute permits local governments to share common powers but does not explicitly state what those powers are.<sup>5,17</sup>

Thus, although future case law will determine the extent of these powers, it can be stated that according to Title 15.2, there is the possibility that counties and cities may at least *coordinate* powers in the areas of zoning, taxing, and issuing bonds.<sup>18</sup> The literature suggests that a locale can probably coordinate zoning, taxing, and bond issuing powers with other localities but probably cannot delegate these powers to another entity.<sup>17</sup>

Title 15.2, which recodified Title 15.1, eliminated the requirement that following must be included in joint agreements between localities, thereby giving localities “greater flexibility” in establishing joint agreements between localities:<sup>12</sup>

1. Provision for an administrator or a joint board responsible for administering the undertaking. The precise organization, composition, term, powers, and duties of any administrator or joint board shall be specified.
2. The manner of acquiring, holding (including how title to such property shall be held) and disposing of real and personal property used in the undertaking.
3. How issues of liability will be dealt with and the types, amounts, and coverages of insurance.

Of significance is that Title 15.2 made inclusion of these three items optional, so as to “avoid imposing burdensome and unnecessary requirements on political subdivisions wishing to exercise powers jointly.”<sup>12</sup>

## **PURPOSE AND SCOPE**

The purpose of this study was to identify best practices for coordinating transportation and land use planning, including providing technical assistance, in accordance with the request of Virginia’s General Assembly (see Appendix A). To achieve this purpose, three types of practices were identified and analyzed:

1. legislative practices that address the requirements of the statutes of various states, including Virginia, regarding coordinating transportation and land use planning
2. policy and technical practices by state and local agencies for coordinating transportation and land use planning
3. technical assistance practices undertaken by state and federal agencies.

The scope of this study was limited to information that could be obtained through a review of the literature, an assessment of state legislative codes, and interviews with practitioners in state and federal agencies. *Best practices* are herein defined as practices that explicitly coordinate transportation and land use planning through legislative, organizational, or technical means, with the understanding that stakeholders may disagree on what constitutes a best practice based on the growth policies that a practice supports. The phrase “coordination of transportation and land use” herein denotes explicit efforts to link transportation actions with land development actions to achieve some public policy goal.

## METHODS

To achieve the study objectives, four tasks were conducted to address the different disciplines required to coordinate transportation and land use planning. As is the subject of the first task, *legislation* can be enacted that allows the state, counties, cities, and planning district commissions (PDCs) to coordinate efforts. But what should these efforts be? Numerous *policy goals*—and resultant technical practices—that staff at the affected state agencies and local governments can undertake. Yet the reality of the situation in Virginia is that because of VDOT’s large size relative to local governments and the fact that such governments control local land use, VDOT is in a unique position to provide technical assistance to help those governments make land use decisions that can help with this coordination. The mechanisms for providing this technical assistance are the subject of the third and fourth tasks.

Thus, the four tasks undertaken in this study were:

1. *Review statutes and interview representatives from a sample of states that reflect centralized and decentralized planning.* Rather than studying all 50 states, 11 states were examined in detail because they were known to comprise a diverse range of planning authority. Interview questions were tailored to each state’s legislation and thus provided additional insight into how the state’s ability to coordinate transportation and land use planning occurs in practice.
2. *Conduct a literature review of policy options and resultant technical practices for coordinating transportation and land use planning.* A robust body of literature that addresses coordinating transportation and land use planning exists as a result of interest in the topic by states, localities, consultants, and federal agencies. Literature sources were identified through the Transportation Research Information Service (TRIS) and conversations with practitioners who suggested sources that might not be available in the literature but that illustrated specific technical practices.
3. *Interview providers of technical assistance in other states and at the federal level.* Lessons learned from these interviews provide clues about how Virginia can effectively offer technical assistance and manage such a program within budgetary constraints. To broaden the sample size of interviewees, programs were not restricted to transportation and land use and included any kind of technical assistance or outreach effort in the public sector.

4. *Participate in the Botetourt County transportation and land use planning pilot project.* Staff from Botetourt County, VDOT, and the Virginia Transportation Research Council worked together to make progress on two deliverables desired by the county: (1) a list of funding sources other than the Six Year Improvement Program for transportation improvements, and (2) a land use scenarios analysis for Botetourt County to evaluate potential zoning options to accompany the redesign of the Exit 150 interchange for I-81. To obtain a broader perspective of how other pilot efforts might proceed, insights from VDOT’s Fredericksburg District planning staff who are participating in a parallel pilot transportation and land use effort in Caroline County were also noted.

## LEGISLATIVE PRACTICES FOR COORDINATING TRANSPORTATION AND LAND USE PLANNING

As noted previously, 11 states including Virginia were surveyed to identify initiatives illustrating coordinated transportation and land use planning. First, the appropriate legislation enacted by the state was reviewed as it pertained to transportation planning. Second, clarifying questions regarding the application of key legislative enactments were posed to at least one state transportation or planning agency representative by telephone or email.

The particular states were selected to represent a mix of states with centralized and decentralized planning authority and Dillon’s Rule and Home Rule status (see Table 1). The terms *centralized* and *decentralized* denote the degree of planning authority centralized at the state level or decentralized to the county, city, or regional level. In a Dillon’s Rule state, any power enjoyed by a locality must spring from an express grant by the legislature; in a Home Rule state, municipalities have an inherent freedom to control their own affairs.<sup>5,42</sup>

Appendix C presents the salient portions of statutes from the 11 states. For brevity, key inferences from legislation and comments from practitioners are directly incorporated into this section. Appendix C provides the full citations from state statutes and the interview responses. In addition, references to the state statutes and references to the personal interviews are given in Appendix C rather than repeated in this section.

**Table 1. States Surveyed for Their Legislative Practices**

Degree of State Control	Dillon’s Rule States <sup>14</sup>	Home Rule States
Centralized at State Level	Maryland, Hawaii, Florida*	Oregon, Florida*
Decentralized to Local Level	Georgia, North Carolina, Texas, Virginia, Wisconsin, Kansas**	South Carolina

\*Florida has conflicting rulings such that a determination of Dillon’s Rule and Home Rule status cannot be made.

\*\*Dillon’s Rule is applied for only some municipalities in Kansas.



## In Virginia

Virginia has characteristics that differentiate its planning processes from those of many other states, such as incorporated cities not being part of an adjoining county and the maintenance and construction of county secondary roads being the responsibility of the state. (Most states leave some degree of responsibility with the county; for example, Texas has a county road system whose “maintenance is the responsibility of the counties; however, a farm-to-market program process does enable counties to request that roads with a high degree of connectivity and with a minimum average daily traffic volume per day be incorporated into the state system.”<sup>43</sup>) Further, Virginia’s Title 15.2 (Section 1300) permits interjurisdictional coordination in the absence of specific statutory provisions to the contrary, which the literature notes “probably” includes zoning and taxing.<sup>17, 18</sup> (For example, Section 1301 of Title 15.2 points out that any city, county, or town may enter into a “revenue, tax base, or economic growth-sharing agreement” provided the period exceeds 1 year and the agreement does not conflict with other statutes in the *Code*.<sup>44</sup>)

At present, Virginia has several mechanisms available for influencing the coordination of transportation and land use planning without additional enabling legislation.

### Mechanisms Available to Counties

Being a Dillon’s Rule state in itself does not separate Virginia from the rest of the nation: 38 other states are Dillon’s Rule states.<sup>14</sup> Richardson et al. note that Virginia applies Dillon’s Rule more stringently than any other state, but they argue that, nonetheless, Virginia localities rank eighth in the United States in terms of autonomy enjoyed by localities.<sup>14</sup> (Those authors also acknowledge disparity in the number of Dillon’s rule states estimated by various sources and argue that their 2003 work represents the best data available to date because of attention paid to studying legal research, reviewing case law, interviewing local government attorneys, and examining state constitutional provisions.)<sup>14</sup>

There are a number of ways in which Virginia counties can influence transportation and land use planning.

*Counties can specify their intentions through the county comprehensive plan, which is required by the Code.*<sup>6</sup> Counties must update their plan every 5 years, and they may implement the intent of the plan through zoning ordinances, subdivision ordinances, site plan reviews, and participation in the six year improvement program for secondary roads.

*Counties can influence land use planning through zoning ordinances.* Zoning ordinances are permitted by the *Code*, and counties can use them to influence the location, mix, and type of development and other factors that will facilitate the provision of public services, such as transportation.<sup>5,45</sup> The *Code* does specify in Section 15.2-2283 that zoning ordinances may be enacted to “to reduce or prevent congestion in the public streets” and to protect against “danger and congestion in travel and transportation.” Oft-quoted truisms are that no zoning ordinance can ensure that development will proceed in a desired fashion unless driven by the market and that governments can only regulate but not create such demand. These statements are accurate,

but in practice, zoning ordinances already exist in urbanizing areas; thus there may be options for local governments to reduce or increase regulations to affect land development. The county's power is limited by market forces and legal challenges to changes in existing zoning.

*Counties can influence changes to land use plans (and demands placed on the transportation system) through subdivision ordinances, which are required by the Code.*<sup>46</sup> These ordinances may specify details for streets, intersections, and right of way, and counties may use them to ensure that the standards of the roads are sufficient to be accepted into the VDOT secondary system.<sup>5</sup> VDOT then influences transportation and land use criteria through its subdivision street requirements and criteria for accepting privately maintained streets into the state system.<sup>47</sup>

*Counties can influence land development through the process of site plan reviews, and VDOT can influence transportation and land use development when invited to review site plans at the county's request.* Local governments control land use decisions, but they can and do in some cases invite VDOT to participate in the site plan review process.<sup>48</sup>

*Counties can influence transportation planning through the six year improvement program for secondary highways.* Section 33.1-70.01 of the *Code* specifies an annual meeting between VDOT (generally represented by the resident engineer) and the governing body of each county (generally represented by the board of supervisors) to identify improvements to the secondary system in the following year. Further, every 2 years, the secondary six year improvement program for each county must be updated, again by VDOT and the county. Thus land use and roadway improvements can be coordinated by local elected officials through such official's influence on zoning ordinances and secondary highway projects. The county's power is realistically limited by the amount of funds available for the secondary program.

*To some extent, counties can influence the coordination of transportation and land use through proffers and impact fees.* As described in Appendix C, proffers and impact fees, under certain conditions, can be used by localities for transportation infrastructure provided by developers. There are two chief limitations to this approach. First, because these fees are placed on the developer, such costs may be passed on to new residents and businesses. Second, the *Code* generally allows these fees only when a rezoning is being requested; land that is already zoned for development (but not developed) is not subject to proffers or impact fees.<sup>19</sup>

## **Mechanisms Available to VDOT**

As with counties, VDOT has several mechanisms available for influencing the coordination of transportation and land use planning

*VDOT can influence how development is connected to the roadway through the Minimum Standards of Entrances to State Highways.*<sup>49</sup> Section 33.1-198 of the *Code* gives VDOT the authority to require that commercial development obtain a permit from VDOT and to provide for the cost of building the entrance to the roadway, including costs for needed safety improvements. This responsibility rests with the resident engineer for ensuring that minimum standards are met, although counties and cities may implement more stringent guidelines, and under those

circumstances, the more stringent standards apply.<sup>50</sup> Further, no language in the *Code* directly limits VDOT's ability to use the *Minimum Standards* to enact a comprehensive access management program. However, one legal interpretation of this authority is that because the *Minimum Standards* currently look at impacts on a "site-by-site" basis rather than collectively, VDOT has only the power to control traffic flow through site-specific techniques, such as adding left-turn lanes and closing medians, rather than looking systematically at the number and alignment of connection points along the corridor.<sup>51</sup>

*The CTB can designate highways as limited access highways under the authority granted to it by § 33.1-58 of the Code; subsequent sections 33.1-59 and 33.1-60 indicate that "no commercial establishment or business enterprise" may be constructed within the right of way of these limited access highways. (Section 33.1-61 provides language permitting, but not requiring, the CTB to build frontage roads to provide access for abutting properties.)*

In practice, VDOT has not established a comprehensive access program. One possible explanation is that § 33.1-197 and § 33.1-198 of the *Code*, which require "suitable connections" to the roadway network for private and commercial residences, the standard of reasonable access is not firmly established and thus may be challenged in the courts.<sup>51</sup> A contributing factor is likely that the lack of firm guidance from any legal or practical reference means that when a conflict arises over what type of access should be granted, the resident engineer does not have a resource that can be cited as justification for not granting the developer's preference unless there is a safety defect directly attributable to the particular site.

Finally, should the CTB exercise its provision to designate a highway as a limited access highway under § 33.1-58, the Commonwealth may incur a cost depending on the nature of existing access points. The reason for this ambiguity stems from the relevant case law. Generally, so long as direct access is not eliminated but merely modified or reduced, an abutting landowner may not be compensated. Compensation was required, however, in a case where there was a "complete extinguishment and termination of all the landowners' rights of direct access to Route 17."<sup>52</sup> Such compensation, if required, may be the difference between the value of the land immediately before and the value of the land immediately after the removal of direct access. Thus, should compensation be required, the cost to Virginia for this designation would be expected to depend on the economic value of the land and its reliance on direct as opposed to indirect access. Under such a scenario, designation of a limited access roadway is still an option that merits consideration, and the CTB would compare the cost of the compensation to the benefits associated with the limited access movement, such as reduced congestion and safety improvements.

### **Informal Coordination**

Both the state and localities may coordinate informally through periodic meetings, information sharing, and special studies. Although conceptually simple, comments from practitioners in Virginia and other states indicate that informal coordination is critical regardless of the legislative environment.

Two examples of feasibility studies were described by planning staff in the Hampton Roads area.<sup>53</sup> One project entails the City of Virginia Beach, which is developing a central business district (CBD) that would include high-rise buildings at the intersection of Virginia Beach Boulevard and Independence Boulevard; the resulting traffic will use the Independence Boulevard interchange of I-264. Without the high rises, the intersection currently functions close to capacity, with Level of Service (LOS) E or F during peak periods. The city has asked VDOT for assistance with obtaining traffic counts and identifying strategies to mitigate the effects of increased travel demand that will result once the new development is in place. A second project entails VDOT, the city, and a private developer working to identify and fund needed improvements that will result when additional development is placed in the vicinity of the I-64/Indian River Road interchange. In this case, the developer and VDOT will contribute funds to the improvements.

Finally, in addition to its rural transportation planning assistance program, VDOT supports a rural transportation planning grant program. On an annual basis, VDOT makes grant awards from a statewide pot of approximately \$200,000 to PDCs that apply for the grant funds with a specific proposal. The grants are made on a competitive basis, and awards must have a 20 percent local match. That is, if the PDC is awarded \$40,000 from VDOT (80% funding) then the local governments must contribute an additional \$10,000 (20% local match).

### **Summary of Virginia's Legislative Practices**

Virginia's *transportation authority* is centralized at the state level with three large exceptions: secondary projects where counties have significant influence, federally funded projects within metropolitan planning organization (MPO) areas where regions have significant influence, and non-interstate projects within incorporated cities and most towns with a population over 3,500. In those cases, VDOT plays a role but is not the only decision maker. Virginia's *land development authority* is decentralized to the local level, and the *Code* gives counties the authority to consider both mobility and safety in their enactment of zoning ordinances.<sup>45</sup>

Virginia does have instruments through which to coordinate transportation and land use decisions. Legislatively driven instruments include the CTB's power of limited access designation and the *Minimum Standards for Entrances to State Highways*; the implementation of both is controlled by VDOT.<sup>49</sup> Localities and VDOT can use site plan reviews and periodic meetings to encourage coordination; however, the success of these instruments requires the agreement of both VDOT and the locale.

### **In Other States**

The ten states other than Virginia surveyed are discussed in terms of those with centralized comprehensive planning and those with decentralized comprehensive planning.

## States with Centralized Comprehensive Planning

Vis-à-vis the decentralized states, these governments have a role in directing local planning that goes well beyond advisory. This centralization is accomplished through any combination of three broad mechanisms: (1) having a state agency review local plans and provide binding commentary, (2) having a state agency create a single state comprehensive plan with which localities must comply, and (3) enacting specific requirements in the legislative code.

### *Florida*

Florida uses three broad techniques for coordinating transportation and land use planning. First, as with all centralized states, Florida employs a state comprehensive plan that is reviewed every two years by the state legislature. Explicitly stated in the Florida statutes are goals such as encouraging development and/or redevelopment within areas that have the capacity to accommodate population and commercial growth, assisting local governments with related analytical procedures, and providing educational programs. Of significance is the fact that the statutes address specific objectives of coordinating transportation and land use planning, such as acquiring advanced right of way for transportation projects, minimizing resurfacing costs, and aligning state transportation improvements with local transportation plans. Comprehensive plans and amendments are transmitted to several entities: the state land planning agency, the appropriate regional planning council and water management district, the department of environmental protection, the department of state, and the department of transportation.

Second, localities are required to develop comprehensive plans, and third, both the plans and land use regulations must be consistent with the state plan. This consistency is ensured in that local plans are reviewed for compliance by a state agency. Some of the required items are detailed, such as peak hour headways for public transit facilities, ridership by route, and projected intermodal deficiencies (e.g., high-occupancy vehicle [HOV] lanes without park and ride lots). In fact, the comprehensive plan is statutorily required to have several elements that directly influence the coordination of transportation and land use planning:

- *A capital improvements element* covering a 5-year period, including when facilities will be needed, their general location, anticipated sources of revenue, and assurance that facilities will operate at acceptable LOSs.
- *A future land use plan element* designating expected residential, commercial, industrial, and agricultural development, including land needed to accommodate projected population growth and the availability of public services.
- *A traffic circulation element* showing routes for vehicle, bicycle, and pedestrian travel. Specific components that must be included are current transportation LOSs, expected future levels of service, analysis of growth trends and travel patterns, and internal consistency of the plan.
- *An intergovernmental coordination element* that indicates how other local entities, such as school boards and adjacent localities, will coordinate efforts.

*Concurrency* means that transportation and land use planning are tied together directly by the requirement that sufficient transportation infrastructure be present to accommodate any proposed growth in urban areas. This requirement ties into the local plan review, because localities must show how they will maintain adopted LOS standards for transit and roadway facilities. Florida law calls for transportation facilities necessary to serve new development to be in place or under construction no more than 3 years after new development is constructed and occupied, except in the case of the transportation facilities being part of the Florida Intrastate Highway System, under which the period is 5 years.

One critical point pertaining to the concurrency statute was noted by a Florida representative: it will not work well without a strong urban service area designation policy. The implication is that otherwise, concurrency statutes may have an adverse effect of accelerating dispersed development to edges of existing urban areas, where development is not subject to costs and restrictions imposed by the concurrency statute.

### *Hawaii*

Hawaii arguably surpasses the other centralized states in control over localities, retaining a large degree of control over transportation and land use planning through its Office of Planning within the Department of Business, Economic Development & Tourism. Hawaii statutes specify 13 policy objectives of state planning, such as transportation systems that serve present and future needs of communities, development of transportation systems to spur economic growth, and multimodal transportation. Of significance is that Hawaii's statewide plan guides both local and state activities.

At the local level, although statutes specify that counties' zoning and subdivision policies must comply with the state plan, the Office of Planning does not enforce plans per se. Rather, it ensures that all expenditures are consistent with this statewide plan. Thus it is through this financial control that the state plan is advanced, as no agency may issue funds to localities for a project that is not in line with the state plan. (Interestingly, one Hawaii representative noted that because each island is a county, jurisdictional boundaries are easier to define.) Although counties with a population over 200,000 are governed by the MPO process, counties with a population under 100,000 may create a county planning commission with responsibilities for the county plan (covering growth, land development, roadways, and public lands), zoning ordinances, recommendations for "building zones," and a county traffic commission to advise the Hawaii legislature on traffic issues.

Yet the statewide plan is also a reference document for other state agencies. One representative noted that although land use agencies lead land planning, the transportation agencies are involved in the decision in a support role, indicating how their decisions will affect transportation demand and recommending mitigations.

Hawaii is much more centralized than other states in part owing to the state's unique heritage; it is the only state with a statewide land use classification system (e.g., urban, rural, agricultural, and conservation defined consistently).<sup>54,55</sup> The land use designations are a direct input into the Hawaii statewide transportation plan, with the Department of Business, Economic

Development & Tourism allocating population and other socioeconomic forecasts as inputs to the plan based on information from the county comprehensive plans. Thus Hawaii does at the statewide level what some Virginia MPOs do at the regional level: work with county plans and forecasts to develop a statewide future allocation for population, employment, and other socioeconomic data.<sup>56</sup> At the statewide level Hawaii also has an objective to understand the impacts of growth, which presumably include transportation demand that results from such growth.<sup>57</sup>

### *Maryland*

Maryland employs three significant planning-related statutes that differentiate its approach from that of Virginia: priority funding areas, staff dedicated to providing technical assistance, and a strong county comprehensive plan.

Growth-related capital projects, such as significantly improved highway and transit facilities, are targeted to priority funding areas that were established through legislation (the Smart Growth and Neighborhood Conservation Act of 1997) and subsequent executive orders. The Maryland representative indicated that priority funding areas include municipalities, the City of Baltimore, areas inside the Baltimore and Washington beltways, neighborhoods designated for revitalization by the Maryland Department of Housing and Community Development, “Enterprise and Empowerment Zones,” and certified “heritage areas” within county-designated growth areas. Major capital projects are covered under this legislation.

Further, Maryland’s Department of Planning is responsible for developing the state comprehensive plan, enforcing planning laws, and providing technical assistance to localities. In addition, prior to passage of the act, the Maryland Department of Transportation (MDOT) also had regional transportation planners; following passage of this act, MDOT formed an Office of Planning and Capital Programming that focuses explicitly on coordinating transportation and land use planning. At present, three full-time MDOT staff serve in this capacity.

The Maryland representative gave several examples of how this technical assistance works in light of both the priority funding areas and outreach to localities. One such example concerned the rural area of Westminster, where a proposed bypass was deleted from MDOT’s capital program because the bypass was located outside Maryland’s priority funding areas. Accordingly, MDOT led a process that involved the Maryland State Highway Administration, the Office of Planning and Capital Programming, and the city to define staged improvements to existing roadways (e.g., lane additions, streetscaping, and sidewalks) and to perform vision planning that looked at how participants wanted Westminster to grow in the short and long term. Because of the initial success, the City of Westminster invited MDOT, the Office of Planning and Capital Programming, and the Governor’s Office of Smart Growth for further assistance. Additional stakeholders such as nearby Carroll County were brought into the process, and a plan was developed to “focus infill and development in the Town Center, rather than the periphery.”<sup>58</sup>

Like Virginia, Maryland requires a comprehensive plan, but unlike Virginia, Maryland’s comprehensive plans are required to contain a transportation element. Once accepted by the county, the comprehensive plan enjoys the force of law, allowing planning commissions to reject

proposed projects that fail to meet it, even if they conform to all other zoning requirements. Virginia law also requires counties to develop comprehensive plans, and the plans must meet statutory criteria; otherwise they will be held invalid.<sup>59</sup> In addition to requiring conformity to the comprehensive plan for any “widening, narrowing, extension enlargement, vacation, or change of use of streets,” the law instructs that:

[N]o *street or connection to an existing street*, park or other public area, public building or public structure, public utility facility or public service corporation facility other than railroad facility, whether publicly or privately owned, shall be constructed, established or authorized, unless and until the general location or approximate location, character, and extent thereof has been submitted to and approved by the commission as being *substantially in accord with the adopted comprehensive plan* or part thereof.<sup>60</sup>

However, courts have downplayed this ostensibly inclusive language, holding that a comprehensive plan is not a stand-alone zoning ordinance, but a guide for zoning ordinances, and that a body making a zoning decision “must consider not only the general boundary guidelines of the plan but also location of property lines, physical characteristics of the land, and other factors affecting optimum geographical alignment.”<sup>61</sup> Moreover, the language is rampant with qualifiers (e.g., “general,” “approximate,” “substantially”), leaving it vulnerable to manipulation.

In contrast, the Maryland statute states that any one of the enumerated structures, including streets, “may not be constructed or authorized . . . until the location, character, and extent of the development has been submitted to and approved by the planning commission as consistent with the plan.”<sup>62</sup> In short, the county comprehensive plan in Maryland carries more authority than that of Virginia.

Finally, although Maryland requires a two-thirds vote of the local governing body to overrule the planning commission, Virginia requires only a simple majority.<sup>62,63</sup>

### *Oregon*

Oregon has often been mentioned as a model of statewide planning, and it is true that Oregon has significant powers at the state level. One of these is through Oregon’s Land Conservation and Development Commission (LCDC), a state agency empowered to craft goals to which all local plans must adhere. LCDC uses an acknowledgment process where it may accept or reject the plans. Specifically, transportation plans must meet five criteria: consider all modes of transportation, draw upon an inventory of existing needs, minimize adverse impacts, improve the flow of goods and services to improve the economy, and conform with local and regional plans. Localities are required to create these plans, and then they are approved or disapproved by LCDC. LCDC has the authority to withhold grant money and county/state shared revenues until a county changes its plan such that it passes the acknowledgment process. This review process is required when there are substantial changes to the plan or if LCDC or the local government determines the comprehensive plan is not meeting state land use goals.

Oregon statutes define an amendment to a plan as significantly affecting a transportation facility, as if the amendment changes the functional classification of the facility or allows land



uses that will reduce mobility to unacceptable levels for that class of facility. In such an instance, the statutes require a locale to do one of the following:

- limit land development to preserve corridor mobility
- improve transportation infrastructure to preserve corridor mobility
- reduce demand for automobile travel by enhancing other options
- modify performance standards to accept greater congestion.

In short, from a statutory perspective, Oregon does not mandate particular LOSs but does require plans to state explicitly the impacts of new development and how such travel demand will be addressed, even if the answer is to accept greater travel congestion because of benefits in other areas.

An Oregon representative explained that the acknowledgment process does indeed affect plans. An example was given of a small community situated at an interchange of the only north-south interstate highway in Oregon. When the community wanted to expand its urban growth boundary, which is supposed to encompass the land needed for the next 20 years for all future uses, the city council embarked on a high growth plan, predicting sprawl on all sides of the freeway interchange, where transportation demand already exceeds capacity. Using the transportation planning rule as one of several leveraging tools, LCDC made the community look more carefully at urban form and how development would occur. The result was that the community scaled back the magnitude of development, the location, and the amount of land consumed, *without changing their population forecast*. Rather, they emphasized compact development, redevelopment at infill locations inside the city, the mix of single and multifamily housing centers, and mixed use centers. (LCDC points out that transportation changes such as local circulation, street widths, and the number of intersections, were *probably* also examined.)

However, LCDC's acknowledgment authority is not absolute and extends primarily to the review of significant updates to the comprehensive plans or extensions of the urban growth boundary in excess of 50 acres. Unless zoning or mitigation measures are in error, LCDC does not have jurisdiction over single amendments to a comprehensive plan, such as an individual owner who wants requests a rezoning. Thus it is incumbent on the three LCDC transportation planning specialists (and/or the nine LCDC generalists) to work effectively with localities

### **States with Decentralized Planning**

The key distinction of these states is that although localities *may* coordinate planning, there is no explicit requirement to do so; instead, coordination is done in an advisory role.

#### *Georgia*

Although local governments in Georgia are not required to create comprehensive plans, almost all of them have. Local plans are facilitated by efforts on behalf of the Georgia

Department of Community Affairs (DCA), which sets five goals for local plans (economic development, natural and historic resources, community facilities, housing, and land use). DCA also reviews plans for both minimum standards and continuity with other local governments. DCA approves or disapproves the plan, but DCA's review is not binding; a locale can choose to disagree with DCA and still implement the plan. (Although there is a statutory mandate for a statewide comprehensive plan, no such plan exists. Further, the statewide plan will not exert any influence on local plans; in fact, it will simply be an amalgamation of local plans.)

The Georgia Regional Transportation Authority (GRTA) was created in response to the possible lack of federal transportation funds because of poor air quality in Atlanta. The Georgia statutes allow GRTA to coordinate transportation and land use planning, and GRTA has significant *transportation* authority. For example, GRTA can issue up to \$1 billion in revenue bonds and \$1 billion in general obligation bonds (that latter requires state legislature approval), and GRTA can assist with counties with public transportation projects.<sup>64</sup> Although GRTA does not take over land use planning per se, it does exert influence on transportation and land use planning in a few distinct ways.

- GRTA has the authority to review “development of regional impacts,” known as DRIs, which are developments that are likely to have an influence outside their immediate jurisdiction, and the outcome of this review is that GRTA recommends whether state and federal funds should be used for related transportation improvements.<sup>65</sup>
- GRTA has the ability to bring localities together and encourage collaboration in the face of conflicting elements of plans, although it seems to have only an advisory role in this manner.
- GRTA's 15-member board serves as part of the Governor's Development Council, and in that role they “are responsible for assuring that local governments meet state requirements for land use planning.”<sup>64</sup>

In areas not encompassed by GRTA, the recommendation from the review of DRIs is not binding, although the review process is required. Local governments must submit reviews for DRIs to their appropriate regional development center (Georgia's equivalent to a PDC), and the regional development center then reviews the DRI and gives findings back to the county or city. The county or city then makes a decision to move forward with the DRI or make modifications. In areas encompassed by GRTA, however, the DRI takes on more significance, since GRTA is responsible for determining if the proposed project will contribute favorably to mobility and air quality. If GRTA recommends against allowing funds for the DRI, unlike the case of a review from a regional development center, GRTA's verdict is binding and remains in place for 5 years.<sup>66</sup> (For clarification, DRIs within GRTA's bounds are also reviewed by the appropriate regional development center, but only GRTA's review is binding.)

In 2002, there were 82 DRIs statewide. Georgia maintains 38 thresholds for determining what size development constitutes a DRI and thus requires this review. Thresholds, some of

**Table 2. Select Thresholds Used by Georgia to Determine Whether Proposed Development Qualifies as Development of Regional Impact**

<b>Type of Development</b>	<b>Minimum Size for Metropolitan Regions</b>	<b>Minimum Size for Non-metropolitan Regions</b>
Commercial	Over 300,000 square feet	Over 175,000 square feet
Hotels	More than 400 rooms	More than 250 rooms
Housing	More than 400 lots or units	More than 125 lots or units

which are indicated in Table 2, depend on the type of development, the size of the development, and whether it is located in a metropolitan region.<sup>67</sup>

Detailed procedures used by the Atlanta Regional Commission (which is the regional development commission for the Atlanta region) and GRTA illustrate how a DRI might be evaluated.<sup>68</sup> The procedures are comparable to those for a Virginia site plan review in the sense that travel demand in the form of vehicle trips and resultant levels of service on the roadway network are identified. Within GRTA, however, the approach differs in that detailed, consistent guidelines are offered as review criteria, such as the impact the DRI is likely to have on VMT or its location relative to transit. For example, in terms of mixing land uses, specific criteria include one of the following:

- Ten percent of the DRI employment may plausibly live within the DRI.
- Twenty-five percent of the persons who live within the DRI may plausibly work within the vicinity of the DRI.
- Twenty-five percent of the persons employed in the DRI may plausibly live within the vicinity of the DRI.

Additional guidance is given for other components of the project; e.g., as is mentioned in standard site planning texts such as ITE’s *Trip Generation Handbook*, mixed use developments can show lower travel demand for the network by adjusting the internal capture rate.<sup>69</sup> (In other words, from a developer’s perspective, a lower travel demand can be claimed if land uses are mixed such that some automobile trips will be eliminated.) The guidance goes further, however, in coupling the distance between mixed uses with the availability of bicycle and pedestrian facilities to determine the internal capture rate; e.g., if complementary uses are within a quarter mile of the project, full reductions as per ITE are allowed only if bicycle/pedestrian facilities are in place; otherwise, only two-thirds of the reductions are allowed.

In short, through its review of transport funds for these larger land development projects, GRTA influences the coordination of transportation and land use planning at a regional level.

### *Kansas*

No locality in Kansas is required to draft a comprehensive plan, although all are empowered to do so. There are minimum requirements if a locality wishes to craft a plan,

including consideration of types of land use, density of population, and the need for transportation infrastructure; however, there is no state approval process. If a plan is created, localities are required to review it annually. Joint planning commissions may be formed by counties and cities, which currently cover about half of the state; the Kansas representative noted that with the loss of federal funding, these commissions have focused more on grant work and less on planning.

The position of the Kansas DOT (KDOT) is that since Kansas statutes place land use planning “squarely in the hands of cities and counties,” KDOT’s role is to react as land use issues arise and potentially impact the state highway system. A Kansas representative points out that although the Bureau of Traffic Engineering is responsible for approving connections to the highway system, the developer will approach the bureau for a permit. However, this process is not necessarily coordinated with the local development review process, and cities and counties sometimes, but not always, give subdivision or rezoning applications to KDOT. (As in Virginia, this practice of involving the state DOT in site plan reviews is optional.) One obstacle mentioned by the Kansas representative is conveying the importance of making transportation and land use decisions simultaneously, where an example was given of a city approving subdivisions that would “make it more difficult” to select an alignment for a proposed bypass.

#### *North Carolina*

Like their peers in many other decentralized states, North Carolina’s localities are not required to fashion comprehensive plans, though they possess this power. Neither are they required to conform to a state land use plan. The legislature has legislated an intent to create a land use policy, and statutorily the entity charged with this duty is the North Carolina Land Policy Council. However, the council’s role seems to be almost exclusively advisory, given its lack of enforcement authority, and it was not recognized by the North Carolina representative. The North Carolina representative noted that localities have been encouraged to create multiple land development scenarios, which the North Carolina DOT (NCDOT) could then analyze to determine transportation impacts, but this has not occurred.

However, NCDOT also works with RPOs to create regional transportation plans. NCDOT is now trying to assist these staff with core planning functions such as air quality conformity analysis and transportation planning.

#### *South Carolina*

South Carolina’s municipalities are required to construct comprehensive plans, which must include land use and transportation elements. The government encourages regional continuity of plans by doing more than allowing joint planning among localities (which all states studied do) by requiring localities to note explicitly any potential conflicts between their plans and the plans of adjacent localities or regional plans. Although zoning ordinances cannot be enacted without an adopted plan, the transportation element of such plans does not have to be adopted. An interview with a representative of South Carolina illustrated how a state transportation department can and cannot influence the coordination of transportation and land use planning in this environment:

- In terms of the transportation element, the South Carolina DOT (SCDOT) reviews plans in the urban areas through interactions with the appropriate council of governments and is moving toward reviewing comprehensive plans in the rural areas.
- In terms of the land use element, SCDOT stays at arm's length from land use decisions because of stiff resistance from localities in the past. SCDOT has on occasion been able to reduce costs of projects through corridor protection techniques, such as acquiring right of way prior to development, but because of local resistance such practices are difficult.
- SCDOT can offer technical assistance but it is incumbent on localities to accept this offer. One successful case involved a road widening in the northern portion of the state, where right-of-way costs were quite high, on the order of \$700,000 per acre. Local officials had planned development on this land, and developers were planning to build prior to the roadway construction. SCDOT worked with developers, the city, and the county to accomplish two objectives: to delay the development until the roadway was widened (thereby reducing right-of-way costs!) and to pinpoint the exact location of access points. It helped SCDOT to make the case by showing the results of traffic simulation models assuming the development had taken place as originally intended: city and county officials saw queues and delays that would have resulted had the city and county not been willing to cooperate with SCDOT on this issue.

Finally, South Carolina localities are in relatively exclusive company with those of a few other states, with the ability to require new development to internalize costs through development impact fees. The fees must be based on either actual improvement costs or reasonable estimates of costs; further, the fee must be levied by an ordinance that describes acceptable levels of service for the system improvements.

### *Texas*

In Texas, there is neither a statewide land use plan nor an obligation for local governments to plan. Once a locality decides to plan, there is no mandate for what it must include, only recommendations, including one for the inclusion of land use, transportation, and public facilities. Naturally, no state review of the plan is required. Localities are empowered to plan jointly or effect regional planning commissions, which are political subdivisions of the state forming stronger and more permanent arrangements between local governments. Yet there are several initiatives that the Texas DOT (with appropriate legislation) has pursued to improve the coordination of transportation and land use planning:

- Assist municipalities in the creation of the transportation element of the comprehensive land use plan and generally provide technical assistance to the MPOs.
- Provide “stable formula-based funding” for the eight largest MPOs, thereby giving them a more reliable revenue stream and the ability to program projects with more local authority.

- Allow the creation regional mobility authorities for the purposes of planning, designing, and operating turnpike projects. One such example exists: the Central Texas Regional Mobility Authority, which is planning toll projects in the Austin area.
- Permit one or more counties adjacent to counties with a population over 1 million to form county-coordinated transportation authorities. These authorities enable counties to vote to impose a sales tax that can provide revenue for public transportation projects; the advantage is that these suburban counties are not restricted to the central counties' funding schedule.

### *Wisconsin*

There is no statewide comprehensive plan in Wisconsin, and there is no local planning mandate at present; however, recent legislation will require that community actions be consistent with local plans by 2010. Regional planning, performed by the state, is merely advisory. Moreover, there are particular requirements for a plan once a locality undertakes to create one: among other things, it must contain land use, transportation, and intergovernmental cooperation elements.

Pursuant to the desire for regional coordination among plans, some of the larger local governments are given extraterritorial jurisdiction over a swath of land outside their borders and empowered to enter into “cooperative boundary agreements” with adjacent localities to effect a more coordinated planning arrangement. Under such a scenario, a village, town, and city establish a boundary for 10 years or more; the cooperative boundary agreement is viewed as less controversial than a municipal boundary change. The cooperative agreements are done on a case-by-case basis and provide for resolution of some potentially controversial issues. Although only a few have been implemented in Wisconsin, they are viable planning tools for bringing jurisdictions together. For example, one such agreement was described as allowing

town and city officials to jointly address a major state highway bypass project, while also giving considerable flexibility to landowners to decide how and when they will receive public services. The agreement includes a mechanism to compensate the town for declining revenues as town territory is attached to the city.<sup>70</sup>

Such a technique has also been used to reduce “the premature conversion of agricultural lands” by enabling a town and a city to work together on land use issues. The Wisconsin representative noted that for communities with these cooperative boundary plans and agreements, the Wisconsin DOT (WisDOT) “has been able to plan and size facilities knowing that appropriate land use controls are in place, and that their investment will not be overwhelmed by unanticipated land development.”

The state also encourages planning through a program that provides grants earmarked for planning activities to localities, giving preference to plans that address an array of planning issues, such as adequate transportation. For 2003, \$4.6 million in grant funds was requested and \$3 million was awarded, although annual award totals have been as low as \$1 million. With the case-by-case consent of the Wisconsin Land Council, the Department of Administration “may provide grants to local governmental units to be used to finance the cost of planning activities,

including contracting for planning consultant services, public planning sessions and other planning outreach and educational activities, or for the purchase of computerized planning data, planning software or the hardware required to utilize that data or software.” Local governments receiving such a grant are required to contribute to the cost, depending on the number of grants and financial availability. Suggested criteria for making grant awards include

- Encouraging neighborhood designs that support multiple transportation choices, including transit.
- Encouraging land uses that support efficient development patterns and reduce state and agency costs.
- Providing adequate transportation infrastructure.
- Enacting ordinances that implement these concepts, such as zoning and subdivision requirements.
- Managing the tradeoff between property rights and community goals.

Additional criteria are listed, but one of the two salient features of Wisconsin’s program is the concept that grants may be made based on the quality of the plan (or planning activity). The other key element appears to be the process for monitoring grants: the Wisconsin representative noted several key steps for ensuring that grant awards are used effectively. At the outset, a broad-based committee reviews initial grant applications to ensure a linkage with comprehensive plan goals; the review committee includes local, regional, and state governments; the private sector; and professional associations. Then, the work is monitored through outreach on behalf of WisDOT district representatives and review of draft plans by the state’s Office of Land Information Services.

Finally, in response to 1999-2001 legislation requiring that community actions be consistent with the community comprehensive plan by 2010, WisDOT prepared a guide for local communities on the topic of preparing the transportation element of the local comprehensive plan.<sup>15</sup> The guide devotes a chapter to land use topics such as access management, corridor planning, intergovernmental partnerships, setbacks, and corridor preservation. Additional detail is given on how to implement the plan through existing tools in Wisconsin, which for that state include zoning ordinances, site plan reviews, the aforementioned land use legislation pertaining to consistency between local comprehensive plans and local actions, and funding opportunities.

### **Impact of Centralized or Decentralized Comprehensive Planning**

At first glance, examination of the legislation and the state surveys shown in Appendix C and reported here seems to suggest that legislation requiring centralized comprehensive planning is an important tool for coordinating transportation and land use planning, given the emphasis of Maryland, Oregon, and Florida on coordination. These statements can be contrasted with those from decentralized states, such as North Carolina, indicating that localities develop the land use

plan and then states use the plan to develop transportation plans (rather than having the transportation and land use planning be more interactive). Observations of an assistant resident engineer in Virginia that in one particular case the county board of supervisors was not active in evaluating transportation impacts of zoning changes also support the view that legislation mandating some type of comprehensive coordination is productive. Georgia indicates that planning does not have to be centralized to enjoy the force of law, as the GRTA illustrates a regional approach to coordination that preserves some local land use decisions yet goes beyond purely voluntary approaches.

However, results from some of the interviews with planning-oriented agencies also seem to suggest that an equally important component of this coordination is resources—in the form of available staff—to implement this coordination. As an example, an interview with a representative of LCDC in Oregon, well known for centralized planning, described an instance where LCDC was able to make a particular community (whose upcoming plan entailed what might be called sprawl) look more carefully at urban form and reduce the amount of land consumed through emphasizing compact development, redevelopment at infill locations inside the city, the mix of single and multifamily housing centers, and mixed use centers. This was not a no-growth strategy or even a reduced growth strategy, as these actions were taken without reducing the population forecast. Yet the same representative also made clear that LCDC's role was to make the locality look at new strategies. The fact that LCDC does not have jurisdiction when a locality performs an individual amendment, such as a single property owner subdividing her land, would logically place an impetus on LCDC to work cooperatively with localities, since those localities control these individual amendments where significant development of land can occur. It also implies a staffing need for LCDC to engage the county in an advisory manner so that LCDC could influence how the county resolves these individual amendments.

South Carolina, a state with decentralized planning, was able to coordinate transportation and land use planning successfully in a very specific instance. Despite the fact that local officials had planned development on land SCDOT was planning to acquire and use for a widening project, SCDOT was able to work with developers, the city, and the county to delay the development until the roadway was widened through illustrating the results of technical analysis. Similarly, observations from another VDOT residency representative that the residency played an active role in providing assistance on a rezoning for a supermarket also suggest that decentralized states can make progress in coordinating transportation and land use planning.

Wisconsin is an interesting example in that it ties legislation to resources. In Wisconsin, legislation has been enacted requiring community actions to be consistent with local comprehensive plans by 2010. The grant program to develop comprehensive plans, with annual funding amounts ranging between \$1 million and \$3 million, appears to be a way to enable willing localities to comply with the spirit of this requirement by developing higher quality comprehensive plans.

Table 3 lists select legislative practices in the states surveyed. There is not a perfect link between columns; e.g., Wisconsin's merit-based grant program may not exactly parallel VDOT's rural transportation planning grant and assistance programs in terms of grant amount or selection



**Table 3. Select Legislative Practices from Review of State Legislation and Interviews**

<b>Topic</b>	<b>Practice</b>	<b>Tangentially Related Virginia Statutes or Practices</b>
Adequate transportation infrastructure for planned development	Required concurrency statutes (Florida)	None required, although county comprehensive plan may indicate needed transportation infrastructure
Sufficient quality and detail in county comprehensive plan	Required planning elements (Florida) Required acknowledgment process (Oregon) Optional guidance for developing transportation element (South Carolina and Wisconsin)	Legislative requirement for county comprehensive plan; transportation element optional but not required.
State plan for guiding county comprehensive plans	Required adherence to state plan (Hawaii and Florida) Optional review of county comprehensive plan by regional development centers (Georgia)	Optional Chesapeake Bay 2000 agreement for affected counties CTB designation of certain highways as limited access
Financial incentives and disincentives	Optional grant program (Wisconsin) Priority funding areas (Maryland) Required funding concurrence of GRTA (Georgia)	Virginia’s rural transportation planning grant and assistance programs
Technical assistance	Full time staff who work with counties (Maryland and Oregon) Significant funding to RPOs (North Carolina)	Informal coordination between VDOT and counties Pilot efforts in Botetourt and Caroline Counties
Technical practices to bring localities together	Optional joint planning commissions (Kansas) Optional cooperative boundary agreements (Wisconsin) Optional bringing together of counties by GRTA (Georgia)	Planning district commissions and metropolitan planning organizations
Allocation of greater powers to localities or regions	Development impact fees (South Carolina) Provision of stable funding amounts (Texas) Regional turnpike projects among multiple counties (Texas) Individual suburban counties can use sales tax to raise funds for public transportation (Texas)	Optional Special Tax Districts Optional zoning ordinances Optional site plan reviews Proffers and impact fees (but only allowed in case of rezoning) Required subdivision ordinances Required county input into secondary six year improvement program

criteria. However, both programs are possible examples of incentives from the state to encourage coordination efforts.

Table 3 summarizes practices but does not indicate the extent to which they are used. For example, the CTB’s ability to designate certain highways as limited access highways could, in the long term, help to guide or be guided by local comprehensive plans. Listing of this option does not indicate that this practice is always used, however.

Finally, one topic that did not come out in the interviews but that should be noted is the effect of Dillon’s Rule. The literature seems to suggest that the status of Dillon’s Rule versus

Home Rule for a state is not an indicator as to whether growth will be well managed.<sup>14</sup> Richardson et al. compares the examples of Maryland, Virginia, and Oregon to suggest that effective growth management is not affected by Dillon's Rule or Home Rule but rather by philosophical differences, amount of infrastructure funding provided directly to localities, number of jurisdictions, and the presence of a growth management plan.<sup>14</sup> The survey of state legislation conducted for this report supports the concept that factors other than a Dillon's Rule versus Home Rule classification affect the coordination of transportation and land use.

The lack of Home Rule status clearly does not prevent the centralized states of Maryland and Hawaii from pursuing particular technical practices that seem to align land use goals in a particular vein. Of the decentralized states, only South Carolina is definitely a Home Rule state, and there is no compelling evidence that the Home Rule status causes South Carolina to enjoy substantially better coordination of transportation and land use planning than the other decentralized states surveyed.

Instead, other initiatives affect success in the decentralized states. Although Georgia's GRTA appears to be a positive example of coordination, its creation was an act of the state legislature and thus would be technically feasible (although not necessarily politically feasible) in a Home Rule and a Dillon's Rule state. Similarly, South Carolina's use of impact fees is an option codified at the state level.

In summary, there are a range of options at the local and state level used by different states to coordinate transportation and land use planning. Some are required, and some are permitted. The resources available for an effort appears to be a factor in that programs that dedicate staff or funding show activity, whereas some programs seem to exist in name only. A weakness of Table 3 is that the impacts of these technical practices on the transportation and land use system are not shown; e.g., from looking at Table 3 it is not clear whether resources are more effectively spent in the form of required concurrency or the provision of technical assistance. One reason for this lack of an effectiveness measure is that localities and states may differ on the fundamental purpose of coordinating transportation and land use planning.

## **POLICY AND TECHNICAL PRACTICES TO COORDINATE TRANSPORTATION AND LAND USE PLANNING**

The previous section outlined legislative practices that might enable jurisdictions and the Commonwealth to relate transportation planning and land use planning decisions. But the question still remains: What policy goal should such coordination accomplish?

Determination of the policy goal is not trivial. For example, the literature suggests that modifying zoning ordinances to permit narrower residential streets, as part of a comprehensive set of residential design techniques, can reduce automobile trips by replacing these trips with pedestrian, bicycle, and transit trips. Yet the literature also points out that these practices tend to "affect mainly short trips within neighborhoods rather than the longer trips that generate most of the traffic congestion in large metropolitan areas."<sup>71</sup> Thus, modifying the zoning ordinances to permit narrower residential streets might be a good idea or a poor idea depending on community

aims: The streets can provide greater travel choices, but they will not necessarily improve regional mobility.

### **Seven Potential Policy Goals for Coordinating Transportation and Land Use Planning**

Seven potential policy goals emerged from the literature and are presented here. The list is not all-inclusive. These policy goals are simply possible goals for what coordinating transportation and land use planning may accomplish:

1. Ensure adequate transportation facilities for any land use that exists.
2. Encourage compact development.
3. Encourage a wider range of land development options for consumers.
4. Provide greater choice for transportation consumers.
5. Improve air and water quality (even beyond required standards).
6. Align transportation infrastructure development with land use goals.
7. Explicitly consider transportation and land use impacts in the planning process.

This categorization is imperfect, incomplete, and overlapping; in fact, many jurisdictions may claim to be pursuing all seven goals simultaneously. The literature suggests, however, that each policy goal has a particular emphasis, and the degree of emphasis placed on each goal suggests the specific technical practices that are eventually pursued. Unfortunately, it is generally at the level of specific practices as opposed to broad goals that disagreement will arise.

#### **Policy Goal 1: Ensure Adequate Transportation Facilities for Existing Land Use**

The framework for this goal is that since the locale plans for land development, coordination should entail responding with adequate transportation infrastructure or operations improvements. There may also be opportunities to coordinate transportation and future land use planning so that needs may be met more efficiently, such as through acquiring right of way prior to development to reduce construction costs. The salient feature of this goal is that coordination of transportation and land use planning means satisfying transportation demands exerted by the land development. Given the length of time required to plan and build land uses, one role for coordination is to realize, and point out to decision makers, the explicit impacts of anticipated but unimplemented transportation and land use investments.

#### **Policy Goal 2: Encourage Compact Development**

This goal pushes land development in a particular direction, namely, reducing the amount of land occupied by new development than would be otherwise be the case. For example, some

have noted that compact development may be accomplished by stimulating transit and pedestrian-oriented development, supporting infill development, and preserving agricultural and environmentally sensitive areas.<sup>90</sup>

Research sponsored by the Transit Cooperative Research Program (TCRP), *TCRP Report 79*, identifies seven policy strategies, some of which, although presented as strategies for reducing sprawl, may also be described as potential policy goals in themselves.<sup>71</sup> (Sprawl therein is defined as “significant residential or nonresidential development in a relatively pristine setting.”) Although the strategies are not mutually exclusive or consistent, their common theme is that they provide technical practices for ultimately supporting compact development:

1. supporting spatially compact development through incentives and regulation (e.g., urban growth boundaries, state aid to specific targeted growth areas)
2. reducing automobile usage
3. reducing reliance of local governments on sales taxes and property taxes
4. making it possible for “low-income and minority households to move out of concentrated-poverty neighborhoods”
5. including “new elements of urban design” in local zoning
6. revitalizing poorer neighborhoods in urban areas
7. creating regional entities to coordinate land use planning of individual jurisdictions.

None of these policy strategies is presented by TCRP as a painless path to reduce sprawl or achieve some other public benefit. For example, potential tactics for achieving the fourth strategy include (1) more inclusive local zoning ordinances where developers are required to provide housing that is affordable for residents with below-median incomes, (2) more permissive local zoning ordinances that allow residents to rent out apartments in their homes, and (3) regional use of Housing and Urban Development vouchers. However, TCRP notes that each strategy is a challenge: the first is “controversial” for developers and jurisdictions, the second may be opposed by local residents who do not want renting permitted in their development, and the third can be expensive as it requires a large number of regional vouchers available for use throughout the metropolitan area.<sup>71</sup>

### **Policy Goals 3 and 4: Encourage a Wider Range of Land Development Options and Transportation Options for Consumers**

These goals are grouped together because the literature disagrees about the role of the market and the need for regulation.

### *Providing Greater Choice Through the Markets*

There is a body of literature arguing that better planning would make use of market forces instead of “smart growth” techniques.<sup>72</sup> This literature notes that market mechanisms such as high-occupancy toll (HOT) lanes are effective because they allocate a scarce resource efficiently and democratically; the same publication, on the other hand, argues against urban growth boundaries because they exclude lower income residents.<sup>72</sup>

Instead of regulation indicating where properties may be built, Stroup points out that a market-driven purchase of development rights is more productive, not only because property owners are compensated but also so that purchasers make judicious use of their funds.<sup>73</sup> In fact, sprawl in itself has been suggested as a positive outcome where it is correlated to an increase in living standards, with higher racial integration in edge cities rather than more traditional cities with stronger public transportation.<sup>74</sup> Perhaps a salient quote from such literature is from Gordon and Richardson, who note: “Suburbanization in response to residential preferences and technological change is efficient.”<sup>72</sup>

Inam, Levine, and Werbell agree that market forces are generally more desirable than additional planning regulations, but with an interesting twist: a policy goal is to provide greater choice for persons who purchase transportation or land use services. The authors note that at present, one of the greatest obstacles to alternative developments is local regulations, such as street widths, parking requirements, and zoning ordinances.<sup>75</sup> The authors suggest that proof of the local planning process being an obstacle to higher density may be found in the fact that some municipalities are able to sell rights to develop a parcel at higher densities than might be permitted by local regulation. Since parcels will not be developed unless there is a suitable market, the fact that developers are willing to pay an additional tax, in the form of purchasing development rights, suggests that it is the market, rather than the local planning process, that can lead to higher densities.<sup>75</sup>

### *Providing Greater Choice Through Regulation or Intervention*

Another school of thought is that greater choice can be fostered by adding requirements or additional subsidies to land use or transportation procedures. Two policy concerns are raised by Glaeser and Kahn, for example, regarding sole reliance on the marketplace. One is that persons who suffer the most as a result of sprawl are those who cannot afford more than one automobile (thus subsidies for automobile purchases are recommended). Another is that a negative impact of local zoning controls has been artificially high home prices that are unaffordable (hence coordination of local zoning across multiple jurisdictions is needed).<sup>74</sup>

### **Policy Goal 5: Improve Air and Water Quality Even Beyond Required Standards**

The General Accounting Office (GAO) points out that better land uses can actively serve to improve water and air through the use of encouraging alternative transportation modes with tactics such as bicycle and pedestrian facilities and urban redevelopment.<sup>76</sup> Ward notes Neckar’s view that growth of subdivisions adversely affect water quality, both in terms of ground water (which does not benefit from rain because of more impervious surfaces) and surface water

(having contaminants from runoff sources).<sup>89</sup> The GAO report suggests that the reasons transportation and land use planning has not been coordinated in the past for the purposes of environmental improvements are organizational. For example, three reasons are given for state transportation planners not explicitly modeling the effects of land use on air quality: (1) this is not required outside nonattainment areas, (2) transportation planners view land use as being a local government decision over which the state has little influence, and (3) there is not a collaborative relationship between localities and the state. To incorporate explicitly the impacts of alternative land uses on air and water quality, the GAO recommends that at the federal level three strategies be undertaken: (1) provide financial incentives for interagency collaboration, (2) provide public education on how transportation and land use affect the environment, and (3) provide technical assistance for understanding land use impacts on air and water quality. This third strategy could take the form of access to knowledgeable staff, user-friendly and better models, and equipment to monitor water quality.<sup>76</sup>

The improvement of air and water quality also necessarily dovetails with some of the other policy goals.<sup>23</sup> For example, the aforementioned *Chesapeake 2000* agreement also mentions compact development; promotion of alternatives to the automobile such as transit, walking, and bicycling; and encouragement of clean vehicles that will reduce emissions. That agreement also suggests looking closely at federal statutes for opportunities to purchase easements for the purposes of stormwater management and preserving resource lands. The *Chesapeake 2000* agreement options are advisory; e.g., one of the goals is to preserve at least one fifth of the land in the watershed from development by 2010, but the agreement does not require this goal to be achieved. Yet Virginia and other states could devote resources to this non-mandatory goal if this fifth policy goal of air and water quality were to be pursued.

### **Policy Goal 6: Align Transportation Infrastructure with Land Use Goals**

Forkenbrock cites the case of Atlanta's CBD, where it was revealed that the CBD's "water, sewer, and communications infrastructure" could support at least a 50 percent increase in the number of businesses located therein, and although local access within the CBD was good, regional access through the freeways was poor because of heavy congestion.<sup>33</sup> Simultaneous freeway widenings and the construction of a passenger rail system coincided with the multibillion-dollar construction of new office buildings in the CBD. Under this particular policy goal, the strategy is to recognize explicitly that particular types of transportation investments, through their impacts on local access, regional mobility, and land values, encourage particular land uses and to design the transportation infrastructure accordingly. Table 4 illustrates how this coordination of infrastructure influence and community goals might occur, excerpting just two potential land uses shown in the left of the table and two potential facility types shown in the right of the table.

The italicized areas in Table 4 indicate areas where, as per the Atlanta example, the characteristics of the transportation facility types were mapped to the redevelopment goals of the

**Table 4. Mapping Land Use and Transportation Infrastructure**

Land Use Type	Local Access Needed	Regional Mobility Needed	Ability to Pay for Land	Facility	Local Access Provided	Regional Mobility Provided	Impact on Adjacent Land
CBD	High	<i>Medium to high</i>	<i>High</i>	Freeways	Low	<i>High</i>	<i>Medium to high</i>
Multifamily residential	High	Medium	Low to medium	Local Streets	High	Low	Low to Medium
...(additional land use types and characteristics)				...(additional facility types and characteristics)			

Adapted from Forkenbrock.<sup>33</sup>

CBD.<sup>33</sup> On the surface it may appear that Table 4 is trite and unnecessary, as it is common knowledge that freeways will serve regional mobility needs better than other roadway types such as local streets. Interestingly, however, the study advocated freeway expansions to enhance the business opportunities in the CBD, rather than assuming freeway expansions would necessarily cause businesses in the CBD to decline. The salient feature of that literature is a relatively thorough mapping between roadway characteristics and land use types, especially through identifying what accessibility and mobility needs are currently hindering development in a desired direction. This approach has relevance to Virginia in the sense of working to develop an agreement on the purpose of various arterial systems.

**Policy Goal 7: Explicitly Study Transportation and Land Use Impacts**

This policy goal is also process driven. For example, FHWA suggests that this coordination could be reflected in specific programs such as (1) context sensitive design, which “equally addresses safety, mobility, and the preservation of scenic, aesthetic, historic, environmental, and other community values;” (2) community impact assessments; and (3) rigorous application of secondary and cumulative project impacts beyond the immediate area of the project location.<sup>30,77</sup>

An example of explicitly studying transportation/land use impacts is evident from the recommendations of the effort commissioned by the Transportation Coordinating Council of Northern Virginia and VDOT entitled *Alternatives Transportation and Land Use Activities Strategies* (ATLAS), which synthesizes a wide variety of transportation and land use coordinating efforts.<sup>78</sup> (The Transportation Coordinating Council has been replaced by a legislatively established Northern Virginia Transportation Authority.<sup>79</sup>) The study is noteworthy in two respects. First, as shown in Table 5, it highlights a wide range of initiatives, some of which, taken in isolation, might not be immediately apparent as a transportation/land use strategy. Second, although the study indicates where particular technical practices have been applied, the study also carefully points out that the implementing agency (whether VDOT or the council), should test these strategies to gauge their effectiveness. Language in the report denotes the need, for example, for the following:

- *Demonstration projects* “to test the integration of transportation and land use at the regional level.”

**Table 5. Select Strategies for Coordinating Transportation and Land Use Planning as Defined by the ATLAS Study<sup>78</sup>**

<b>Transportation Strategies</b>	<b>Land Use Strategies</b>
<b>General Strategies with Transportation Focus</b>	<b>General Strategies with Land Use Focus</b>
Access Management	Bonus/Incentive Zoning
Bike/Transit Integration	Comprehensive Plans
Congestion Pricing	Concurrency Statutes
Guaranteed Ride Home Programs	Land Use and Utility Coordination
HOV Lanes	Location Efficient Development
Parking Pricing or Restrictions	Purchase of Development Rights
Suburban Scale Transit	Transfer of Access Rights
Telework Centers	Targeted Development Areas
Traffic Calming	Transit Oriented Development
Vehicle Use Restrictions	Zoning Ordinances
<b>Fiscal Strategies with Transportation Focus</b>	<b>Fiscal Strategies with Land Use Focus</b>
Tax Assessment Districts	Impact Fees
Proffers	Split-Rate Tax Districts
<b>Regional Tools with Transportation Focus</b>	<b>Regional Tools with Land Use Focus</b>
Priority Funding Areas	Revenue Sharing
Regional Funding Authority	Urban Growth Boundary

Adapted from *Alternatives Transportation and Land Use Activities Strategies (ATLAS)*.<sup>78</sup>

- *Further research* “to define the cumulative effectiveness of implementing the strategies included in the ATLAS.”
- *Additional investigation for feasibility in Northern Virginia.* Of the 44 strategies shown in the ATLAS study, some of which are excerpted in Table 5, a dozen are highly ranked locally and regionally. Of these, five have not been used in the region (priority funding areas, distance-based fees, congestion pricing, location efficient development, and split-rate tax districts, although the latter are being pursued legislatively), and three have been pursued but on a limited basis (tax increment financing, regional land use plans, and suburban scale transit).
- *Clarifying whether particular initiatives are enabled.* Although the report notes particular actions as permitted (e.g., trip reduction ordinances) and other actions as prohibited (e.g., priority funding areas), the legality of some initiatives, such as access management ordinances, is not certain.

Despite these items, the report notes the ATLAS strategies “have already been implemented or have been extensively researched in anticipation of implementation . . . .” Further, the study indicates Northern Virginia’s experience with the four remaining strategies favorable at the local and regional level: bonus or incentive zoning, transit-oriented development, regional compacts, and requirements to balance employment to residential needs.

In short, although the ATLAS initiatives are designed to support a range of policy goals such as reducing VMT; concentrating development along transit corridors; and mixing jobs,



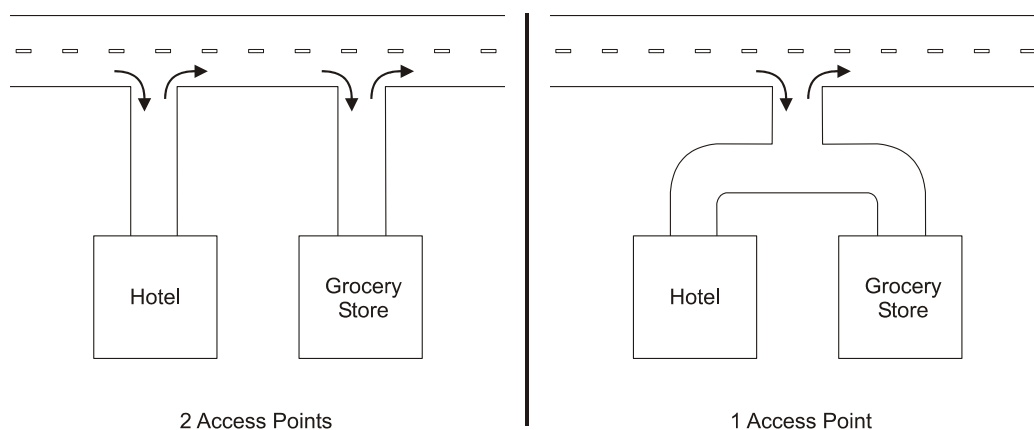
housing, and services within a walkable environment, many of the key recommendations of ATLAS imply a need for further evaluation, testing, and guidance in the form of learning lessons from demonstration projects (at the local level), archiving best practices or lessons learned (at the statewide level through VDOT), and enabling legislation.<sup>78,79,81</sup> Thus part of this seventh policy goal of coordinating transportation and land use planning is to pass the lessons learned from these initiatives on to other localities.

### Technical Practices for Coordinating Transportation and Land Use Planning

During the course of this study, several persons questioned what a transportation/land use coordinating entity would do. In other words, what day-to-day activities would staff perform? The purpose of this section is to address that question.

To be successful, specific efforts to coordinate transportation and land use planning often require three components: some type of *enabling legislation* that, at the very least, legalizes the coordination or removes key barriers; *institutional practices* that encourage coordinating transportation and land use planning through the reorganizing public sector agencies, implementing public involvement efforts, or providing additional resources; and *design practices*, where the design of the transportation facility or land development are used to extract greater efficiencies between the two. In Virginia, for example, passage of legislation creating PDCs might be a legislative practice; then creating a technical assistance program where VDOT works with county planners in a particular district would be an institutional practice, and the particular topics covered in the course are the design practices.

A frequently given example of good transportation/land use coordination is characterized as access management, and one of these specific access management practices is the consolidation of unsignalized commercial driveways, as shown in Figure 2. In theory, this



**Figure 2. Example of Consolidating Unsignalized Driveways to Reduce Traffic Conflicts**

consolidation of driveways may seem straightforward, but in practice, implementation may be difficult because proprietors of the privately owned hotel and gas station may each desire their own access point onto the roadway. Realistically, therefore, the situation described in Figure 2 may not occur unless some legislative and institutional arrangements are made, such as establishing a comprehensive access management code that restricts the density of unsignalized driveways for particular types of roadway facilities and an effective state/county dialogue regarding the functional purpose of the various arterial roadways in question.

The degree of activeness (or passiveness) played by an agency impacts how transportation/land use technical practices are described. Table 6 provides examples for each of the seven policy goals presented.

**Table 6. Seven Policy Goals and Examples of Specific Technical Practices to Achieve Them**

<b>Policy Goal</b>	<b>Active Involvement by State</b>	<b>Intermediate Involvement by State</b>	<b>Passive Involvement by State</b>
1. Ensure adequate transportation infrastructure for existing land uses	State provides adequate funding for localities to assess transport demand for land uses and encourages this analysis through appropriate legislation	State provides limited funding for localities to assess transport demand for land uses and encourages this through various agencies	State provides technical assistance to localities upon request
2. Support compact development	State conducts land planning or requires county plans to meet key criteria	State reviews county comprehensive plans, encouraging counties to meet such criteria	Localities have full responsibility for planning, state may provide funds
3. Encourage greater choice for land development consumers	State encourages nonrestrictive zoning	State encourages nonrestrictive zoning, such as permitting the mixture of commercial and land uses or and providing narrower streets	State provides assistance to localities as needed for zoning requests
4. Provide greater choice for transportation consumers	State might support street amenities (conducive to alternative modes)	Similar to the above, but state might encourage certain types of zoning that encourage non-automobile modes	State provides assistance to localities as needed for zoning requests
5. Improve air and water quality: example of reduce vehicle emissions	Explicitly involve counties in attainment areas when modeling effects of alternative land uses on air quality	Provide technical assistance on sketch planning methods for air quality analysis	Conduct conformity analysis as required by law
6. Align transportation infrastructure with land use goals: example of access management	Work with communities to agree on the functional purpose of key arterials and implement a comprehensive access code. Give localities resources to plan and build development connecting to frontage roads in lieu of direct access points to the arterial network.	In transportation planning, encourage the development of parallel and interconnected roadway networks through site access guidelines	Provide assistance to localities when requested
7. Assist localities with coordinating transportation and land use	Establish and maintain a technical assistance program. Seek out localities; offer to help devise realistic zoning ordinances.	Provide periodic short courses on key planning software and the extent to which urban form affects travel behavior.	Provide assistance when requested by localities on site plan reviews

As a further illustration, Beimborn states that there are six broad areas where statewide planning and policy can affect land uses: (1) specifying standards or guidelines for how coordination of transportation and land use planning must be accomplished, (2) providing assistance with land use models, (3) providing public education and technical assistance in other areas, (4) implementing access management, (5) providing land use controls, and (6) supporting economic development.<sup>83</sup> The key contribution of Beimborn’s work is that the delineation between states’ involvement in coordinating transportation and land use planning is not simply a yes/no indication of participation in these areas but rather placement of a state on a scale, from active to passive, for each of these areas.

For example, borrowing the concept of active versus passive and then simplifying potential overlap in some of these categories, Table 7 shows the degree to which a state can be involved in coordinating transportation and land use planning. For example, the Commonwealth could elect to be passive in terms of planning requirements (e.g., simply provide planning funds with no oversight) and/or be highly active in terms of access management (e.g., working to establish an access management code and following consistent spacing criteria on arterial roadways).

**Table 7. Passive Versus Active State Planning Approaches for Coordinating Transportation and Land Use Planning**

<b>Topical Area</b>	<b>Active Involvement by State</b>	<b>Intermediate Involvement by State</b>	<b>Passive Involvement by State</b>
Land Use and Transportation Planning Requirements	State conducts land planning or requires county plans to meet key criteria	State reviews county comprehensive plans and provides input	Localities have full responsibility for planning, state may provide funds
Education and Technical Assistance	State provides in-person assistance, land use modeling, and economic forecasting	State provides guidebooks, possibly helps organize conferences, and offers GIS assistance	State answers local questions when requested and helps with data collection
Access Management	Capacity expansion limited in certain locations	State develops comprehensive access management plan	State provides access permitting guidelines
Land Use Controls	Direct control of land use at state level	Assistance provided with open space preservation	Counties are required to discuss land use in comprehensive plan
Economic Development	Provide transportation facilities with funds allocated specifically for economic development	State infrastructure banks	Provide help on projects designed to assist local businesses

Simplified and modified slightly based on data from Beimborn.<sup>82</sup>

The remainder of this section indicates select technical practices that correspond to each policy goal. Not all practices are applicable to all situations; instead, these practices should be viewed as options that may merit consideration during both the transportation planning process and the land development planning process. Further, the technical practices shown do not necessarily support only one policy goal, rather, it is the degree of emphasis that determines a policy.

### **Technical Practices for Policy Goal 1: Assurance of Adequate Transportation Facilities for Existing Land Use**

A variety of analytical approaches exist that enable an estimate of the travel demand that will result from land uses. For analyzing a particular location, VDOT's *Land Development Manual* may be used to assess the number of trips that will be generated and the resultant demand that will be placed on the transportation network.<sup>84</sup> For analyzing a region, a variety of off-the-shelf software packages may similarly be used. VDOT staff and consultants currently use these packages.

Being able to quantify demands placed on the transportation system is advantageous. When disagreement over the use of this quantification arises, it is generally over specific points, such as how the transportation demand should be estimated, whether proposed development should be altered should travel demand substantially increase, what types of transportation improvements should be made as a result of increased travel demand, and who is responsible for financing improvements in transportation infrastructure

For example, if the hotel in Figure 2 is already operational but the new grocery store is being proposed, differences of opinion may arise regarding the portion of grocery store trips that are generated anew versus being pulled from hotel traffic, the amount of delay caused by these turning movements into the commercial driveway, and whether the grocery store developer is responsible for the full cost of a new traffic signal installation if such is warranted.

### **Technical Practices for Policy Goal 2: Compact Development**

These technical practices are a microcosm of some of the larger arguments that arise in coordinating transportation and land use planning. Examination of these arguments and practices is productive not because compact development necessarily should be a policy goal for Virginia, but because it succinctly illustrates the conflict between public good and private rights.

#### *Example of Advantages Given in the Literature*

As an illustration of what some note as a benefit of compact development, it has been suggested that infrastructure costs can be reduced by reducing sprawl. While sprawl is not easily defined, Table 8, adapted from a TCRP study, shows the savings that would result from reducing sprawl over the next quarter century, based on 2000 figures.<sup>71,85,86</sup> Although the percentages are relatively small in terms of land consumption, infrastructure expansions, and personal travel costs, the monetary savings are potentially quite large when viewed in totality.

**Table 8. Select Benefits of Reducing Sprawl in U.S. from 2000 to 2025 Cited in *TCRP Report 74*<sup>71</sup>**

<b>Benefit</b>	<b>Total without Reducing Sprawl</b>	<b>Total With Reducing Sprawl</b>	<b>Net Reduction</b>	<b>% Savings</b>
Amount of newly developed land	10.8 million acres	14.8 million acres	4.0 million acres	21.3
New water and sewer infrastructure	\$89.8 billion	\$177.2 billion	\$12.6 billion	6.6
New roadway construction	\$27.0 billion	\$817.3 billion	\$109.7 billion	11.8
Personal daily travel costs	\$86.6 billion	\$962.5 billion	\$24.1 billion	2.4

The report is a useful illustration in that it catalogs the advantages and disadvantages of reducing sprawl.<sup>71</sup> Readers may not necessarily agree with the report’s conclusions, but the report presents a useful cataloging of benefits and costs for controlling versus not controlling growth.

*Examples of Disadvantages Given in the Literature*

Juxtaposed against the infrastructure cost savings are the reports that generally agree that land prices will rise as growth is controlled; conversely, without land use controls, the price of single family dwelling units at the border of metropolitan areas tends to be lower.<sup>71,85</sup> Studies have indicated that the urban growth boundary of Portland (Oregon) has effectively reduced sprawl and yielded compact development, but that this boundary has also contributed to higher housing prices. Similarly, in a comparison of two California cities, the city with growth controls showed housing prices that were 8 percent higher than in the city without growth controls.<sup>85</sup> Studies in San Francisco and Ann Arundel County (Maryland) also suggest that land use controls raise housing prices.<sup>85</sup> Other regulatory mechanisms, such as developer impact fees, also raise prices, although the underlying reasons are sometimes more complex.<sup>87</sup> In short, there is substantial evidence that controlling the supply of a good (such as land) results in the price of that good being higher, assuming demand continues.

The literature also provides caveats to these price comparisons that give important nuances. For example, *TCRP Report 74* indicated that under a controlled growth scenario, the average housing cost would *decrease* by \$13,000 relative to an uncontrolled growth scenario. TCRP notes that growth controls “in the presence of slightly increased density and more non-single family housing types, do not increase the price of housing in locations where they are put in place. There is, however, a cost amenity reduction (*smaller units and lots*) that has not been calculated here (emphasis added).”<sup>71</sup> In short, *housing costs*—not *land costs*—would drop according to TCRP under that scenario. Other researchers have drawn a distinction between controlling growth and managing growth (an example of which might be the mandatory provision of a particular amount of low-income housing), where controlling growth yields higher housing costs than managing growth.<sup>85</sup> Finally, although growth controls do have a tendency to raise land prices, the literature gives examples of other factors that affect interpretation, such as

growth controls causing construction quality to increase (and prices still increase) or the lack of research data on non-residential land affected by growth controls.<sup>85</sup>

It is argued that implementing higher density developments can be difficult for two broad reasons: local opposition and the lack of a market. A survey of developers revealed a substantial market for more compact housing; 75% of 693 developers surveyed indicated that at least 10 percent of the local housing market in their location was for alternative development. Yet 66% of the survey respondents noted that when they presented proposals for alternative development, these were scaled back through reductions in density, the land use mix, the number of types of housing, or pedestrian/transit amenities.<sup>75</sup> When those authors studied two new proposed developments that had been significantly altered to be more conventional, they found that local residents who desired reduced density, reduced rental units, and reduced traffic congestion were key factors in leading to the change in the development. Gordon and Richardson suggest that traffic impacts can lead to community objections to high-density infill developments.<sup>88</sup>

Exacerbating these trends are income growth and market mechanisms. Ward suggests that as incomes increase, humans tend to want larger homes and larger lot sizes; further, tax policies encourage this behavior, and as new suburban communities are formed, there is less political support for a centralized planning authority from such communities.<sup>89</sup> In a survey by Fannie Mae in 1997, 70 percent of the respondents preferred to live in a “suburb near a large city, a small town not near a city, or a rural area.”<sup>90</sup>

### *Examples of Technical Practices*

To implement compact development, actions are needed at the jurisdictional and regional level. At the jurisdictional level, compact development can be supported by the use of (1) “infill” locations (e.g., locations that are already within the urban area or older suburbs rather than at urban fringe), (2) shared parking facilities, (3) buildings being quite close to one another, (4) large lot zoning, and (5) sidewalks that “bind the street to the building” with minimal setback.<sup>71,107</sup> Oregon has worked to make these concepts accessible to planners through a collaborative effort that produced a guide for designing streets, giving information on a dozen design elements: lane widths, design speeds, median treatments, parking requirements, bicycle facilities, pedestrian facilities, pedestrian buffers, benches and lighting for pedestrians, signalized and unsignalized intersection density, turning radii, landscaping, and signal timing.<sup>91</sup>

At the regional level, there is a need to coordinate land development throughout neighboring jurisdictions. One practice advocated in the literature is to ensure that leapfrog development is avoided by (1) having jurisdictions agree on what land should be residential, commercial, industrial, etc., and (2) encouraging more compact density, rather than random density, through priority funding for denser areas. In fact, in a critique of South Carolina’s land use planning, research funded by the South Carolina State University Transportation Center notes that for the County of Orangeburg, the same LOS must be provided to citizens whether they live within 3 miles or 45 miles of the county service center.<sup>92</sup> The ATLAS effort in Northern Virginia strongly implies the need for interjurisdictional cooperation, noting (1) that comprehensive plans are in conflict in that region and (2) proposed developments that one jurisdiction approves can have adverse impacts on other jurisdictions.<sup>80</sup> Consequently, one

ATLAS recommendation is for additional investigation into the feasibility of regional compacts and/or transfer of some authority from jurisdictions to a regional entity for coordinating transportation and land use planning.

An implied but unstated technical practice may be framed in a negative manner: coordinating land use plans so that jurisdictions do not place development toward the fringes of the county without considering the transportation impacts on neighboring counties. The Virginia Chapter of the American Planning Association notes that sprawl development is a natural product of market forces and government policies and will result unless communities manage growth together through cooperation, planning, zoning, and altering funding mechanisms so that counties are not encouraged to compete for growth to increase their tax base.<sup>93</sup>

### **Technical Practices for Policy Goal 3: Wider Range of Land Development Options**

One set of technical practices mentioned in the literature are methods to improve aesthetics in residential areas to improve land development options. These practices may be of interest because of other community goals, however, such as mixing land uses, providing more housing choices, and encouraging greater “personal interaction.” These practices, also in some instances described as “new urbanist,” include the following:<sup>71</sup>

- *Make residential zoning ordinances more permissive* to allow potential developers to do the following: (1) provide alleys behind homes (thereby making the street less auto-oriented in appearance), (2) mix commercial and land uses, (3) allow multifamily attached and single family detached dwelling units in the same neighborhoods, and (4) provide narrower streets. Leal suggests two additional design practices as tools that can cut infrastructure costs: *coving* (which varies green space between homes and the roads and also makes use of winding streets) and *bay home developments* (where all land outside the immediate home is held jointly by a homeowners’ association).<sup>94</sup>
- *Make residential zoning ordinances more restrictive* to require potential developers to include pedestrian and bicycle facilities and a gridded street pattern in lieu of cul-de-sacs.

(To clarify, the former two practices entail the removal of some restrictions, such as the requirement that neighborhoods can consist of only single-family dwelling units, and the addition of others, such as requirements for pedestrian facilities.)

- *Support cluster development in residential areas*, which “concentrates buildings or lots on a part of the site to allow the remaining land to be used for common open space.”<sup>95</sup> In rural areas, such an approach can preserve the appearance of rural character but still permit residential development.<sup>103</sup>

## Technical Practices for Policy Goal 4: Wider Range of Transportation Options

Two practices are illustrated to achieve this policy goal: providing street amenities that support alternative modes and managing facility access.

### *Providing Street Amenities That Support Alternative Modes*

One technical practice to provide greater travel choices are to make the transportation network conducive to non-automobile alternatives through street improvements. These amenities need not be restricted to residential subdivisions and include street trees, pedestrian crossings, “pedestrian scale lighting,” bicycle lanes, and lighted bus stops.<sup>107</sup> Although these practices and those in the previous section are presented as discrete items, a substantial portion of the literature points out that they should be holistically integrated as a manner of making streets a part of, rather than barriers to, a community. In that vein, for example, Burden outlines 15 principles of community design, where specific design tactics are chosen to meet each principle. Examples are keeping traffic moving through the use of roundabouts rather than the stop and go effects of signals, creating buildings and streets that are at a human scale, and having “green” streets with trees that not only improve aesthetics but also reduce traffic speeds in residential neighborhoods.<sup>96</sup>

Aesthetics are not the only determinant, however. Moudon et al. note that density, land use mix, and income are not the sole determinants of pedestrian travel; block length, sidewalk length, and the ability to travel on foot in a noncircuitous route also affect pedestrian travel, even in the suburbs.<sup>97</sup> The authors found that “quiet, narrow residential streets” were not where people wanted to walk, even in urban sites where sidewalks are ubiquitous; instead, people wanted routes that they would find “stimulating to their senses,” which in this case were streets that had substantial commercial activity.

### *Managing Facility Access*

Implementation of access management principles can support multimodal planning: the literature points out at least one category of technical practices where reducing access points makes alternatives to the automobile more feasible. A widely quoted study of “road diets”—where four-lane undivided roadways (two lanes in each direction) are converted to three lanes (one lane in each direction plus a two-way left turn lane)—indicates that the conversion can improve traffic safety and still maintain an acceptable LOS provided the facility has 20,000 or fewer vehicles per day.<sup>77</sup> The same study also notes that “numerous transportation engineers and planners” are surprised by this finding.<sup>77</sup>

An important component of these road diets is that they reduce the number of conflict points by reducing the number of unsignalized driveways that traverse the length of the facility, which, for these lower volume roads, means that speed variance is reduced and traffic flow is smoothed.<sup>98</sup> The net impact is that motorists benefit as well as users of other modes, such as pedestrians crossing a narrower facility or bicyclists who can be given bicycle lanes with the three-lane design. The details of the road diet studies are important because they illustrate exactly why the four- to three-lane conversion works in those particular cases: at moderate to



low volumes, the removal of the lane is not performed in isolation but rather as part of a more comprehensive strategy of reducing conflict points: in short, implementing access management.

### **Technical Practices for Policy Goal 5: Reducing Vehicle Emissions Through Decreased Auto Travel**

Several of the technical practices described thus far, if they are successfully deployed and work as intended, can indeed reduce vehicle emissions. One additional technical practice that merits discussion should air quality become a core focus of transportation/land use planning is explicitly to involve counties in attainment areas through modeling the effects of alternative land uses on air quality. The U.S. Environmental Protection Agency (EPA) points out that changes in land use may bring significant improvements to air quality, that localities can model the effects of changes in land use on air quality, and that this is done where required by law in the nonattainment areas.<sup>99</sup> Yet EPA points out that although the conformity requirement exists only in areas not meeting air quality standards, the opportunities to use land use to improve air quality are ubiquitous. One option for VDOT is to work with counties in smaller areas, where local planning staff may be insufficient, to model explicitly the impacts of different land use strategies on air quality. (Given the computational level of detail required to apply regulatory EPA models such as MOBILE, there may be less time-intensive and data-intensive sketch planning techniques that would be appropriate.)

Another opportunity that may merit exploration is to promote coordination among different agencies in terms of scheduling. In testimony of how federal programs can influence air quality goals, the GAO singled out the Washington, D.C., region as one where emissions models and data (for the region's transportation plans) are not on the same schedule as updates to the region's emissions budget (for the region's air quality plan.)<sup>99</sup> In that case, GAO explains that since the emissions budget for the air quality plan was not updated at the same time as the transportation plan, modelers could not determine whether increases in proportions of sport utility vehicles necessitated modifying the emissions budget. A subsequent GAO report explained that this discrepancy is not a one-time occurrence limited to Northern Virginia but happens frequently and in other locations around the United States.<sup>100</sup> Although recommendations in the subsequent report target federal agencies, there may be a role for VDOT to help align emissions budgets from these two sources: the air quality plan and the transportation plan. GAO poignantly argues that such an alignment of schedules could yield significant cost savings for nonattainment areas, suggesting that if states, such as Virginia, updated air quality plans at the same time transportation plans were updated, states could have the flexibility to determine whether the most cost-effective means of achieving emissions reductions was in the transportation sector or from other sectors, such as stationary sources.<sup>100</sup>

### **Technical Practices for Policy Goal 6: Align Transportation Infrastructure and Land Development Goals: Managing Highway Access**

One technical practice that may help to align transportation and development from a statewide perspective is managing highway access.

Access management has been described as “the process that provides (or manages) access to land development while simultaneously preserving the flow of traffic on the surrounding road network in terms of safety, capacity, and speed.”<sup>101</sup> Specific roadway design practices involve reducing conflicts between different traffic streams. Examples of these practices are (1) using divided rather than undivided medians, (2) providing frontage roads, (3) establishing minimum distances between interchanges (or intersections) and adjacent driveways, (4) consolidating unsignalized driveways, (5) eliminating U-turns, (6) prohibiting left turns in key locations, and (7) maintaining minimum distances between traffic signals.<sup>102</sup> In fact, although recent research lists more than 100 specific practices, the common element in access management practice is to minimize disruptions to the traffic flow.<sup>102</sup>

### *How Managing Highway Access Exemplifies Coordinated Transportation and Land Use Planning*

Although many access management practices may appear to be transportation driven, they are, in fact, realistically supported by land use policies. For example, in an arterial corridor study of Route 16, the New Hampshire DOT recommended reducing permitted development density for areas immediately adjacent to the arterial yet increasing density in areas served by “consolidated access points.”<sup>103</sup> In other words, by strategically determining the access needs for various parcels of land, it is possible to reduce the number of driveways interrupting a corridor yet still permit development to occur. Interestingly, participants in the corridor study, whose focus was transportation, felt that recommendations pertaining to land use, community design, and access management were “at least as, if not more, important than the transportation recommendations for preserving the corridor.”<sup>104</sup> The concept of clustering development away from the roadway instead of having development span the length of the roadway is an important land use action that supports the transportation performance of Route 16, or any other arterial corridor.

This example illustrates the benefits of coordinating transportation and land use at the local level. As is the case with other goals, it is also possible to derive benefits from regional coordination of transportation and land use planning. For example, previous research showed inconsistent comprehensive plans for two adjoining counties through which Route 29, a national highway system route functionally classified as a principal arterial, passes.<sup>105</sup> Culpeper County’s 1995 comprehensive plan emphasizes the mobility function of Route 29, where additional development would be supported by interchanges, collector roads, frontage roads, and improvements to the northbound lanes to increase the design speed. In contrast to Culpeper County, Madison County’s 1995 comprehensive plan emphasizes the accessibility function of Route 29, where industrial, commercial, and residential development would be encouraged by maintaining at least 900-foot distances between entrances. The properties and character of this road, therefore, would change as one moved from one county to the next.

Unfortunately, the example of Route 29 shows a difference in perspective between state or regional sources and local sources, where the impetus of a through traveler is not necessarily the same as that of a local resident. In fact, in a commentary on the feasibility of regional land use coordination, the literature notes that the “tension between the regional effects of land-use decisions and the purely local perspective of those who make or regulate such decisions poses

the *single greatest challenge to effective and efficient planning and action* within each region (emphasis added).”<sup>71</sup> National research suggests that “interjurisdictional cooperation” is critical to addressing metropolitan problems; however, it is also suggested that little research has been accomplished that effectively documents how to achieve such cooperation.<sup>114</sup>

### *How Managing Highway Access May Be Implemented*

At least three policy level initiatives could be taken to coordinate transportation and land use planning within the context of access management:

1. *Establish a comprehensive access management code* that defines appropriate spacing for traffic signals and unsignalized driveways along a roadway as a function of roadway classification.<sup>102</sup> For example, the Commonwealth might agree that traffic signals on principal arterials such as U.S. Route 29 should not exceed a particular density for a given section of the corridor. Such a code could be supported by specific implementation techniques such as requiring internal circulation and institutionalizing “advance purchase of right of way” to facilitate corridor preservation.<sup>102</sup> (Internal circulation presumably means enabling the movement of pedestrians and vehicles within activity centers; solutions include better traffic engineering to improve traffic flow within the activity center, improvement of walking conditions for pedestrians through lighting, separation from vehicle flows, weather protection and other amenities, and improved transit.<sup>106</sup>)
2. *Provide “parallel and interconnected local roadway networks” of arterial roads, collector roads, and local roads to move local trips from the roads of statewide significance.*<sup>107</sup> Such local network transportation would ideally support intense urban development that is “guided away from” statewide routes, such as major arterials, rather than “along” the state arterial system.<sup>107</sup> Thus one of the ingredients of making such a program work is having a transportation plan of parallel street networks supported by a land use plan that centers intense development within local networks rather than along arterials that are intended to move mostly through traffic. These networks of roads, such that urban traffic has several possible routes rather than one major route to travel, may also be thought of as “building redundancy in the transportation system.”<sup>108</sup>
3. *Work with communities to agree on the critical purpose of each transportation facility.* Much of the work touted under context sensitive design requires the involvement of both transportation and land use stakeholders. For example, consider two cases that exemplify context-sensitive design in the literature:<sup>77</sup>
  - *Improvements to Connecticut State Route 6.* A major principal arterial two-lane facility running through historic Brooklyn was studied for safety improvements. A rather unique combination of design features was selected: a narrower roadway with reduced shoulders through the historic district, a wider roadway with full shoulders on either side of the district, reduced design speeds, landscaping to make the road appear narrower than it was, and reduced access points.

- *Improvements to Maryland State Route 355*, where a two-lane facility was widened to six lanes. The median design and alignment were changed to preserve, rather than destroy, a large oak tree; an 8-foot-wide pedestrian/bicycle facility was constructed; and funds were spent on landscaping and aesthetically pleasing timber-covered guardrail.

Both cases involved improvements to primary routes, both are lauded in the literature as exemplifying context sensitive design, and both involved wide participation from the community, including local landowners.<sup>77</sup> The two cases differ, however, in the emphasis placed on mobility: mobility has a much larger role in the Maryland widening than in the Connecticut safety improvement. One inference from the descriptions that is implied but not explicitly stated is that in each case, it was clear to stakeholders how important the factor of mobility was relative to other competing goals, such as aesthetics or environmental footprints. The extension to coordinating transportation and land use planning is that it can be quite helpful to have agreement from the community as to how important the mobility function should be for a certain corridor.

### *Example of Opposition*

The discussion illustrates how access management might align transportation and land use planning from a statewide perspective, but localities may or may not be in agreement. Using the Route 29 illustration, counties may desire that Route 29 be an unlimited access facility with land use designed accordingly. Three points of contention can arise:

1. What should be the purpose of the Route 29 Corridor?
2. If there is disagreement between the state and a county, in whose favor should the dispute be settled?
3. What mitigations should be implemented for the losing side of the dispute? (If Route 29 becomes an unlimited access facility, what should the county offer to help mitigate the reduced mobility faced by users of the facility? If Route 29 becomes a limited access facility, what should the state offer to the county?)

These disagreements are affected by other state and federal regulations, but they illustrate how public benefits and county rights may not always coincide.

### **Technical Practices for Policy Goal 7: Assist Localities with Coordinating Transportation and Land Use**

A variety of initiatives can be undertaken to help jurisdictions understand and coordinate transportation and land use impacts. These initiatives should also support any or all of the technical practices previously discussed; the distinguishing feature of the initiatives that follow, however, is that they can provide more information about transportation and land use. Thus, if VDOT were to focus on these technical practices alone, they would in effect be trying to give jurisdictions the best information possible but remain essentially silent on how jurisdictions

should make land use decisions. Four practices are discussed here: (1) collaborating with local governments regarding zoning ordinances, (2) working with local governments to understand the extent to which changes in urban form can influence travel behavior, (3) providing assistance with technical tools, and (4) responding to local government requests.

### *Collaborating with Local Governments to Develop Realistic Land Use and Subdivision Ordinances*

The Commonwealth could offer, but not require, assistance to localities with respect to zoning. This collaboration would ideally achieve three key deliverables: (1) a process for reviewing new land development proposals, where such reviews culminate in conditions being established for future development; (2) refinement of zoning such that the effects of land use on trip generation are explicitly considered in the zoning; and (3) establishment of access densities (e.g., signals and unsignalized driveways) that are consistent with development permitted in the zoning ordinance.<sup>107</sup>

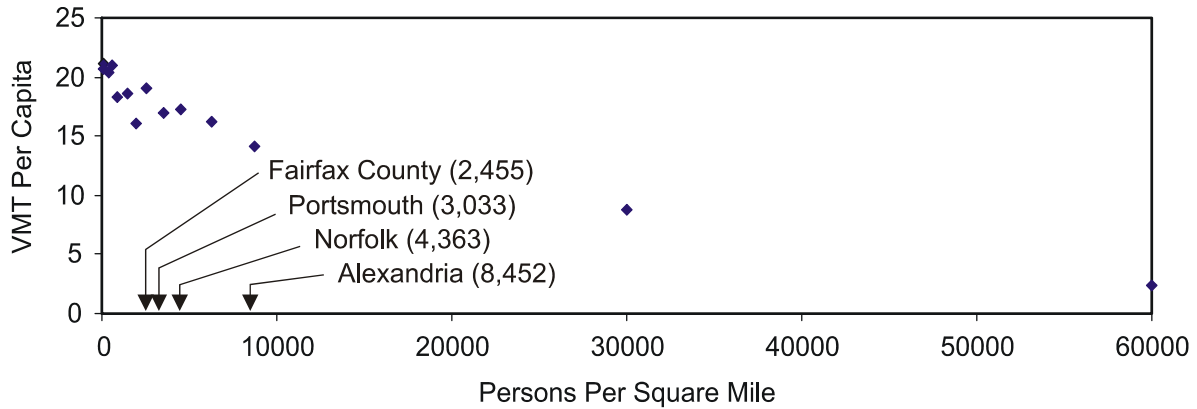
### *Identifying the Point at Which Changes in Urban Form Will Result in Changes in Travel Behavior*

General caveats are given in the literature pertaining to how traveler choices can be influenced by the design of the environment. It is appropriate to help jurisdictions evaluate what magnitude of behavioral change can be expected from modifying a community. For instance, if a community encourages neotraditional design in concert with additional investments in bicycle trail infrastructure, what kind of return can they return on their investment? Similarly, how can narrower streets with reduced design speeds help to reduce cut-through traffic? Answering questions such as these at the county or community level can be an appropriate form of technical assistance.

As an illustration, a rule of thumb is that increasing density will lead to decreased VMT. Although this generalization is true, an increase in density can also be a surrogate for other factors that truly affect travel, such as income, availability of transit, and the proximity of destinations. Dunphy and Fisher point out that based on 1990 National Personal Transportation Survey (NPTS) data, substantial increases in density would be required to reduce per capita VMT.<sup>109</sup>

Figure 3 graphs VMT per capita against midpoint densities from NPTS; e.g., since NPTS had a category for densities between 10,000 and 49,999 persons per square mile, the midpoint for this value is 30,000 persons per square mile, and NPTS data show the corresponding vehicle travel as being slightly less than 9 VMT per capita. The dots reflect these national data.

Densities of Virginia jurisdictions are quite far to the left in Figure 3: of the 135 cities and counties in Virginia, only 10 have densities greater than 3,000.<sup>110</sup> The jurisdictions of Alexandria (most densely populated), Norfolk (5th most densely populated), Portsmouth (10th), and Fairfax County (15th) are superimposed on Figure 3. For example, Figure 3 suggests that if Norfolk data are comparable to national data, then its density of 4,363 persons per square mile would suggest a figure of slightly greater than 15 VMT per capita.



**Figure 3. Relationship of Vehicle Travel to Density**  
Data extracted by Dunphy and Fisher.<sup>109</sup>

Figure 3 shows that higher densities provide a reduction in VMT on a *per capita* basis only—not an absolute reduction in VMT for the region. According to Figure 3, for regions with densities of 10,000 persons per square mile or less, reductions in per capita VMT would be more than offset by increases in VMT resulting from additional population. Literature also notes that larger densities will mean larger traffic congestion and that dispersal can reduce congestion by spreading VMT over a larger system of roads.<sup>37</sup> (It can be argued, of course, that these statements do not negate the value of reducing VMT given that an area’s population will expand to a certain number; the statement simply points out that in a region, one should not necessarily expect the data in Figure 3 to lead to an *absolute* reduction in VMT.) Thus, a technical assistance role can be to show the conditions under which density increases will significantly affect per-capita VMT and the resultant impact on absolute VMT.

As another illustration, consider the goal of “encouraging spatially compact development.” The literature notes that not all practices are equally effective for achieving this goal; Table 9 shows that regional urban growth boundaries are effective for rendering a region

**Table 9. Select Technical Practices for Supporting Compact Development (TCRP Report 74<sup>671</sup>)**

Practice	Likelihood of Success	Political Challenges
Regional urban growth boundary	High (if fully implemented)	High: requires state legislation that prohibits growth outside the boundary
Large amounts of state funding made available only to “local growth zones”	High (if funds are large enough to “motivate localities to restrict growth to growth zones”)	High: requires state legislation
Large lot zoning in rural areas	Medium (is effective only if all counties cooperate)	Medium: requires coordination of counties and may be opposed by holders of large tracts of land or developers
High development impact fees	Low (is effective only if all counties agree to fees, otherwise growth is dispersed)	Few: existing residents are happy to have new residents pay development costs
Adequacy of facilities requirements	Low for two reasons: (1) new development is dispersed to areas without requirements; (2) measurement of “adequacy” is labor intensive	Few in terms of getting legislation passed

<sup>671</sup>TCRP Report 74 acknowledges Anthony Downs, The Brookings Institution, for this information.

more compact, whereas high development fees are generally not.<sup>71</sup> The practices shown in Table 9 that have been shown to be effective, however, are generally those that are the most politically unpalatable. A state DOT can work with localities, however, to at least identify the likely impact of these practices in which the community is interested, with the understanding that the county, not VDOT, ultimately makes the call.

In sum, the “coordination” of transportation and land use illustrated by these two examples—density’s role in trip generation and various sprawl reduction strategies—is to provide information regarding their expected impacts.

### *Providing Assistance with Technical Tools*

A variety of sophisticated tools for helping decision makers, such as citizens, elected officials, and local planning staff, understand transportation and land use impacts are available. None of these tools is a panacea, and in some instances the effort required to implement the tool may not be justified by the amount of information it provides; however, they are another resource that may be used to understand the land use phenomenon. Examples are geographic information systems (GIS), 3D/4D visualization, and transportation/land use models.

For example, a starting point may be to work with VDOT’s GIS integrator, which should be available to localities in 2004.<sup>111</sup> The integrator is an online GIS instrument that simply requires a browser and is available through VDOT’s internal website. This instrument proved quite effective when, on short notice, one of the pilot counties needed a quick view of an interstate interchange for land use planning purposes. The GIS integrator, like any software application, will not solve land use/transportation problems, but it is a very cost-effective way for VDOT to provide assistance to localities with obtaining and visualizing data. Use of the integrator for technical assistance may still require additional staffing.

### *Responding to Local Requests*

VDOT may provide technical assistance by fulfilling requests of local governments for planning and land use assistance. The success of this task is dependent on at least two factors: Can VDOT devote sufficient staff effort to address the request, and can the locale make use of VDOT’s work?

Appendix B is an example of one completed deliverable: a county had requested that VDOT identify the alternative sources of funds for transportation improvements beyond those in the Six Year Improvement Program. This information was publicly available but was not synthesized in one location; rather, it had to be culled from various sources. This practice requires more effort than simply providing informational requests; instead, it entails VDOT and local staff spending substantial time working on a particular issue.

## **Summary of Policy and Technical Assistance Practices**

Clearly, “coordination of transportation and land use” does not mean achieving the same goal to all people. For example, some view “suburban sprawl” as a problem that needs a

solution with more compact growth, whereas others view some of the proposed alternatives as being worse than the original problem. Similarly, “smart growth” does not signify the same set of techniques to all people—although there may be common elements, it is quite possible to identify two or more publications with “smart growth” in the title that reflect different perspectives on how smart growth should be accomplished. Depending on the speaker, smart growth has a range of meanings from urban growth boundaries to education about transportation and land use interactions.<sup>112</sup>

Additional goals besides the seven provided here may be named, and it could be argued that some technical practices overlap: air quality improvement may be supported by compact development. Similarly, FHWA states that there are a variety of techniques to strengthen the transportation/land use connection, such as using intelligent transportation systems (ITS) to maximize the efficiency of existing transportation infrastructure. In that view, ITS could support the dual goals of requiring less infrastructure to be built and providing alternatives to the automobile.<sup>30</sup>

Often, the discriminating feature of the seven goals is not the nomenclature used to describe them or the conceptual principles used to support them, but rather the degree to which they are emphasized by practitioners. For example, with the general goal “improve air quality,” the extent to which improvements beyond those required by law are sought directly indicates the relevance of the goal to actual planning practice. Thus, because the specific details supporting the seven goals offered can be controversial, Table 10 summarizes potential areas of agreement and disagreement with each policy goal.

**Table 10. Possible Support for and Opposition to Each of the Seven Policy Goals by Virginians**

<b>Policy Goal</b>	<b>Possible Areas of Agreement from Virginia Constituents</b>	<b>Possible Areas of Disagreement from Virginia Constituents</b>
1. Ensure adequate transportation facilities for existing land use	State is fulfilling mission to provide transportation supporting how people want to live	State is spending significant funds to keep pace with high rates of growth
2. Encourage compact development	State is preventing “sprawl” and achieving reducing infrastructure costs	State is deciding how private land should be developed
3. Encourage wider range of land development options for consumers	State is looking at source of transportation demand—people and how they live	State is intruding on a local issue
4. Encourage wider range of transportation options for consumers	State is considering needs of all travelers, not just auto users	State is attempting to influence individual travel choices
5. Improve air and water quality even beyond required standards	State is working to improve environment	Air and water quality are affected by aspects besides transportation
6. Align transportation infrastructure with land use goals	State is maximizing utility of its investment	State is taking away land use decisions from localities
7. Explicitly study transportation and land use impacts	State is giving greater consideration to joint planning efforts	State is spending scarce resources on a process that might not yield benefits



As with the policy goals, there are areas of support and opposition for each technical practice that might be used to achieve the goals; thus, it is important to consider carefully the extent to which Virginia wishes to achieve the related policy goal. Table 11 identifies one technical practice for each policy goal and summarizes its advantages and disadvantages. Table 11 is not comprehensive but rather shows a full range of optional incentives and required mandates that are available to coordinate transportation and land use planning.

**Table 11. Summary of Possible Pros and Cons for Select Technical Practices**

<b>Supports Policy Goal</b>	<b>Technical Practice</b>	<b>Pro</b>	<b>Con</b>	<b>One Way to Implement Practice</b>
1	Quantify travel demand likely to result from land development	Know needed operational and infrastructure improvements	Controversy regarding who is financially responsible for providing improvements	VDOT increases staff to assist local governments in site plan reviews
2	Implement regional coordination to prevent leapfrog development	May reduce sprawl and infrastructure costs if done well	Intrudes on local government powers and may not be desired by the public	Regional compacts <i>may</i> be permitted under Virginia law <sup>80</sup>
3	Make zoning more permissive to facilitate greater mixing of commercial and land uses	May encourage non-automobile travel and provide a wider range of land development options	May be opposed by residents; zoning categories can be quite broad	Local governments have this power; VDOT can offer more thorough guidance and possibly fund demonstration project.
4	Provide street amenities that support alternative modes	May make travel more conducive for biking, pedestrians, and transit	Diverts funds that could be spent on other needed projects	Work aggressively with localities to identify critical paths needing improvement
5	Work with counties to model effects of alternative land uses on air quality in attainment areas	Could affect development if practices were accurate and if results were used in land development decisions	Variety of factors affect air quality besides transport emissions; resources are required for this effort	VDOT could provide funds for training on use of sketch planning methods in air quality analysis
6	Establish comprehensive access management code that outlines standards for each primary roadway	Could provide mobility needs and information to localities regarding how roads are likely to develop	State intrudes on what has historically been local decision; on some roads, state and locale will differ	VDOT could work with localities to develop a code and then implement it through <i>Minimum Standards</i> and CTB's power to designate limited access highways
7	Provide technical assistance through responding to local requests	A customer-driven program to address locale's needs; localities retain authority	Cost	VDOT would need to dedicate full-time staff to this function

The rightmost column of Table 11 indicates *only one way* in which the practice may be implemented within Virginia’s bureaucratic framework. VDOT is mentioned quite frequently. Each practice may be supported or repudiated by legislation, however, as discussed earlier. For example, if the General Assembly adopted the first policy goal, what options would be available to achieve this goal? Table 12 summarizes how this might occur in practice.

Although this section described seven possible goals and the technical practices that might be used to support them, there will need to be discussion concerning what goal or goals, if any, the coordination of transportation and land use planning should accomplish.

To place these findings within the context of the Budget Bill, it can be said that the survey of the different states revealed a wide range of policy goals, with no perfect approach to achieving them. The one best practice that seems to have been identified is for the governing body to establish a clear goal for what the coordination of transportation and land use planning should attain. Thus, if Virginia desires a greater degree of transportation and land coordination, a critical step is to decide what policy goal, if any, should be adopted. At the state level, Virginia could choose one or more of the seven goals listed, substantially modify one of the seven goals, choose a different goal altogether, or leave the decision to be made by individual localities.

**Table 12. Options for Implementing Policy Goal of Ensuring Adequate Transportation Infrastructure for Given Land Use**

<b>Option</b>	<b>What State Would Need to Do to Achieve This Policy Goal</b>	<b>What Localities Would Need to Do to Achieve This Policy Goal</b>	<b>Potential Areas of Resistance</b>
State gives localities significantly more responsibility for transportation projects	Give more power and resources to localities to take on transportation planning functions	Use anticipated impacts on transport network to make land development decisions	Possibly regional entities bypassed or groups representing through travelers
State vests regions with significant transportation planning responsibilities	Give more power and resources to localities to take on transportation planning functions	Successfully integrate counties with potentially competing interests; give some land use control to region	Some local concerns, some statewide concerns
State retains transportation planning responsibilities	Work closely with counties and regions to link funding to needs	Work with state to link land use decisions to transportation needs	Local level, possibly regional level
State allows counties, regions, or state to enact concurrency statutes comparable to Florida’s	Carefully consider concurrency concept to prevent adverse effects (sprawl, higher housing costs)	Coordinate concurrency requirements with neighboring jurisdictions	Many, once specific details discussed

## **INSIGHTS FROM TECHNICAL ASSISTANCE PROGRAMS FOR COORDINATING TRANSPORTATION AND LAND USE PLANNING**

Because the provision of technical assistance to jurisdictions necessarily involves meeting customer expectations with a finite budget and staff, representatives of other

organizations that provide technical assistance were interviewed by telephone. These organizations were not limited to those providing assistance in the area of transportation; they included different federal and state agencies as indicated in Table 13, and spanned a range of responsibilities, such as maintaining a reference center, providing liaison services between agencies, and actively serving as staff support. A wide variation in technical services was desired, since the exact form VDOT’s technical assistance program should take was not known. A sample interview format as well as interview responses are given in Appendix D.

Insights from the Botetourt and Caroline county pilot efforts are also noted. The Botetourt County pilot illustrates lessons learned from an ongoing request: a county requested that VDOT work with it to identify zoning options and resultant travel demand given the reconstruction of an interstate interchange. Because the project is not complete, there is no indication as to whether the request will ultimately be successful. However, staff resources are being dedicated to that request and the lessons learned up to the present time are noted.

**Table 13. Technical Assistance Interviews**

<b>Organization</b>	<b>Date of Interview</b>	<b>Interviewees</b>
Bureau of Transportation Statistics	July 10, 2003	Jane Watson, Nelda Bravo
Delaware Department of Transportation (DelDOT)	July 22, 2003	William Brokenbrough
FHWA’s Resource Centers Program	August 7, 2003	Brian Bentlyon
Maryland Department of Planning	August 6, 2003	Mark Gradecak
Michael Baker Jr., Inc., on behalf of FHWA’s Peer-to-Peer Program	July 9, 2003	Ali Abdelfettah
National Household Travel Survey (NHTS)	July 8, 2003	Bryant Gross, Susan Liss, Felicia Young
North Carolina Department of Transportation (NCDOT)	July 22, 2003	Mike Bruff
Virginia Agriculture Research and Extension Center	July 8, 2003	Dave Starner

**Results Based on Interviews with Representatives of Other Technical Assistance Programs**

Interview topics focused on how to establish, maintain, and improve the assistance programs, addressing topics such as managing customer expectations, establishing useful but financially feasible customer service programs, maintaining adequate but cost-effective staffing levels, and suggesting mistakes to avoid. No attempt was made to derive statistically significant confidence levels; rather, the main focus of the interview was to capture key insights attained by practitioners experienced in providing assistance. An additional motivation for contacting the Delaware and North Carolina DOTs was that they are two of the four states besides Virginia where the DOT has responsibility for the secondary road system. Full interview narratives and sample interview questions are available from the authors.

Although the interview subjects provided a range of insights into developing effective technical assistance programs, several common themes that emerged regarding how to establish, conduct, and maintain a good program.

### **Setting the Goal for the Program**

- *The words suggested by a Maryland senior planner applied to all eight interviews: make the client a better planner, rather than “spoon feed” a particular solution for a particular problem.* Generally, all eight interviews emphasized giving the client technical tools or information rather than defining the solution for client. In the Maryland case, the state was providing information on grant opportunities, interpretation of state and federal laws, or other information that might help a decision maker with no formal technical training in the planning field become an effective planner; however, the state was not making the decision for the individual. For example, one type of assistance requested was for the state to provide, within the context of an adequate public facilities ordinance for a particular county, draft developer responsibility agreements. In this instance, the state did provide technical input, but only after the county had decided to place responsibility on developers for sharing some development costs. As another example, NCDOT tries to avoid performing administrative tasks for MPOs and RPOs and instead aims to give MPOs the tools they need to accomplish their missions so that MPOs can take on more of these planning responsibilities. For example, instead of reviewing transit grant applications from separate counties, NCDOT is working with RPOs so that they can “regionalize” the individual county transit systems.

### **Establishing the Program**

- *Focus.* The programs surveyed were often quite small, with some offices having as few as 1.5 full-time employees. The programs tended to address a few key areas well rather than performing too many duties less rigorously. In some cases, the focus was on technical issues rather than on policy issues; in another instance, the focus was on how the program is delivered (e.g., training, technical assistance, and some one-on-one interaction), and in other instances the emphasis was on linking requests to the correct individual. In each case, however, there generally was a well-defined area of assistance; to recap in the words of the representative of the FHWA’s Peer-to-Peer Program, one must identify (1) what can be provided and (2) the customers.
- *Dedicate staff.* The individuals interviewed were active in the technical assistance programs and could identify tangible deliverables they had made happen, such as teaching a course, writing a section of a comprehensive plan, or being at a telephone and available to answer a request. Although this inference cannot be proven without looking in detail at the organizational structure, it appeared from the telephone interviews that the various programs could identify a staff person where “technical assistance” was a key part of his or her job description. Internal coordination was not a substitute for delivering a product.

- *Retain staff.* Several interviewees were long-term staff familiar with the agency, the environment, and the nature of the technical work. Staff had not necessarily worked for only a single agency, but the interviews implied a low turnover rate. When all else failed, they could transfer the client to just one other source. In the case of NHTS, for example, having experienced staff who understood NHTS enabled NHTS to have a reasonable estimate of the scope of the technical assistance program.
- *Use a mixture of experts and customer service personnel.* The Bureau of Transportation Statistics (BTS) pointed out, for example, that sometimes the people who can best manage the question and scope well (e.g., answer the question in an efficient manner) are not necessarily the technical experts; thus having technical experts as a resource for these persons to contact has been advantageous. Even if staff were not teaching a course, FHWA noted that familiarity with instructional materials was useful for any person involved with technical assistance efforts.

### **Conducting the Program**

- *Work one on one with a customer.* Several organizations explicitly mentioned that when one can take the time to provide a live person—whether on the telephone or in person—it is always appreciated by the client. This approach extended to teaching in the case of the FHWA Resource Centers, which noted that being able to tailor a short one- or two-day class to a client’s needs was a key decision to use that format rather than a longer “canned” course presentation.
- *Support staff needs.* At BTS, for example, those providing the technical assistance have benefited from three discrete types of training: (1) initial training for how to handle a request, given that requesters may not pose their question in the most direct manner; (2) ongoing training for how to answer a question more directly or obtain a better referral source; and (3) placement of the contactor staff on site rather than off site.
- *Take the time to meet with customers.* The Maryland representative pointed out, for example, that initiating a program necessarily means meeting with representatives from the local jurisdictions. Good working and personal relationships with the county authorities result in an informal network with the local administration, which is always very helpful in understanding the local needs.
- *Deliver what is promised.* The message from the interviews seemed to be that results were the best way to spread the word about what a technical assistance program can accomplish. As a cautionary tale, implementation of a marketing plan for the FHWA Peer-to-Peer program has been stopped because of concerns that the resultant growth in the demand for the Peer-to-Peer Program could be on the order of \$2 million, which exceeds the budget for that effort.
- *Archive experiences not only to avoid duplication of efforts but also to present a consistent message.* An interesting insight came from the Delaware DOT (DelDOT)

in terms of coordinating transportation and land use planning: Delaware uses an Office of State Planning Coordination, which is housed outside DelDOT, with one of the key benefits being that such an office can offer a consistent voice on development issues to the localities. Although DelDOT's comment was within the context of how that office was established, the lesson is that a consistent message was important enough an issue to affect the placement of that office within the state's system.

- *Develop mechanisms to get information to customers quickly.* These methods may vary by organization; e.g., the National Household Transportation Survey (NHTS) has archival data such as relevant presentations, published papers, and reports directly on their website; similarly, the Virginia Cooperative Extension Service has seen its call volume drop significantly as a result of material being available on the web. Yet the web is not the only technique; the Maryland planner who handles 33 municipalities also can get information very quickly to his clients by simply making use of his computer archives. The two mechanisms are different, but the commonality is the ability to respond efficiently to clients.

## **Evaluating the Program**

- *In the short term, three schools of thought emerged from the interviews with respect to direct customer surveys.* Although there was widespread agreement that customer surveys could be useful, one view was that such surveys should be done in moderation, since surveying too often can take too much of a customer's time; instead, a useful indicator as to whether a valuable service is being provided is whether customers return for more. Another view was that maintaining customer feedback was critical to the success of the program. A third view concerned the value of independent assessments: in the case of NHTS, a critical review of their program fundamentally changed how they made NHTS data available to the public and the level of support they offered.
- *In the long term, in the four cases where the interviewee had been involved with a reorganization that affected the technical assistance program, the interviewee seemed to convey (but did not directly state) that the reorganization had directly benefited customers, rather than being driven by management fiat.* If this inference is true, it suggests that periodic restructuring to respond to customers directly is healthy when such restructuring is supported or led by staff providing the technical assistance.
- *For decision makers, a key issue is funding.* In the case of the program supporting use of the NHTS data, its low cost relative to that of the survey helped make the case: NHTS points out that with the 2001 survey costing approximately \$10.3 million, it makes sense to spend a tiny bit more money to make this large data set accessible. In other words, a small additional investment in a program leverages a large investment in collecting survey data.

## Early Botetourt and Caroline County Results

The Botetourt County pilot project for coordinating transportation and land use planning has two purposes: to provide assistance to Botetourt and, more important, to understand better how VDOT can work cooperatively with localities.

To some extent, the VDOT efforts with Botetourt and Caroline counties merely echoed insights from other states' assistance programs: (1) that VDOT offer assistance but not make the final call as to how this assistance is used, (2) a focus on a tangible product, (3) the allocation of staff for some of the actual work, (4) a mixture of personnel such that different policy and technical areas are represented, and (5) active support from agency leadership such that staff put time into these technical assistance efforts.

Several other insights specific to the Botetourt efforts are helpful for initiating concrete tasks in the more nebulous planning environment. Knowing how to get started given multiple stakeholders can be difficult. Working with uncertainty, being able to update the definition of the problem continually, and giving information to those outside the agency at the same time it was given to those inside the agency are examples of findings that appear to be necessary for these types of efforts.

To place the lessons learned in the context of how technical assistance is accomplished, it is helpful to look at how VDOT translated a general request for coordination of transportation and land use planning to a specific set of deliverables. Seven steps were found helpful in this regard, based on the experiences acquired thus far in the Botetourt pilot:

1. Define an initial problem imperfectly in the absence of perfect information.
2. Use iterations to derive a more appropriate problem statement.
3. Keep making progress.
4. Plan for delays by realizing there is always something that can be done.
5. Recognize that although VDOT may provide staff support, the county is the client.
6. Produce something tangible and bring the process to a conclusion.
7. Archive lessons learned and results for future use.

## *Defining an Initial Problem Imperfectly in the Absence of Perfect Information*

The coordination of transportation and land use planning is fraught with missing pieces and uncertainties, and the fact that so many stakeholders are needed in order to make reasonable decisions may at first appear daunting.

At an initial meeting of Botetourt, VDOT, PDC, and VTRC (Virginia Transportation Research Council) representatives, Botetourt clearly expressed that their interest was Exit 150—that is the most significant land development issue currently facing the county. VDOT’s concern was that plans for redesigning Exit 150 are not finalized: the consultant has not completed the design for the interchange and two proposals submitted under the Public-Private Transportation Act (PPTA) for I-81 are under consideration by VDOT. As a result, it is not known with certainty which tracts of land will be available for development, and thus VDOT’s credibility is at risk should it prematurely and incorrectly indicate the extent of land taken for the interchange.

However, the option of doing nothing was also unacceptable. Botetourt faces risk from a development perspective: very attractive establishments that are interested in the county are hesitant to relocate until a decision is made about the Exit 150 design. Since Botetourt is faced with rezoning requests continually, the county needs some basis on which to make decisions.

Both VDOT and Botetourt faced risk and benefits from sharing information, and these risks and benefits were expressly pointed toward the beginning of the effort. VDOT, for example, would benefit from having early information about proposed zoning changes in Botetourt that will affect transportation demand, and Botetourt would benefit from having early information about how the exit would be redesigned. Yet the liabilities of erroneous information persist. Explicitly stating these risks did not eliminate them, but it did allow discussion to proceed and for a decision to be made, which in this case was to focus on the problem of interest to Botetourt.

An excerpt of that problem statement is shown here.

Exit 150 of Interstate-81 converges with U.S. 220 and State Route 11 in a congested location, and accordingly the Virginia Department of Transportation (VDOT) is studying alternatives for improving this location, including the option of making no improvements. Given that a reconstruction of Exit 150 at Interstate 81 will take land, relocate businesses, and result in additional land becoming promising for development, the Botetourt County Planning Commission and the Botetourt County Board of Supervisors *would like to coordinate the new transportation improvements and adjacent land uses in the vicinity of Exit 150*. For this specific effort, the County would like to look cautiously but critically at how the available land will affect the County’s economic base: as businesses are taken for interchange reconstruction and as the reconstruction makes the interchange area look more attractive, new businesses will seriously consider coming to the area. The county would like to have a transportation and land use plan that coordinates these uses; for example, providing a reasonable degree of access for businesses while still preserving the mobility of the corridor.

In sum, uncertainty is a fundamental piece of this technical assistance effort. Yet, this situation is not unique: not only is planning in flux but often the “best practices” themselves are



either not known or not universally agreed upon. Thus uncertainty is likely to be a key part of future technical assistance efforts.

*Using Iterations to Derive a More Appropriate Problem Statement*

Because transportation and land use are multidisciplinary and multi-jurisdictional, it simply is not feasible to have one person who can describe the entire situation or one data source that can provide all necessary information. Further, it is unlikely that someone would necessarily know all of the “right questions” to ask such a person (or data source) upon their first meeting. Accordingly, one approach that seemed appropriate was for staff to take some guesses at what work needed to be done.

For example, VTRC knew that there would need to be a relationship between Botetourt County zoning and trip generation rates (e.g., how are the trip generation rates affected if the zoning is changed from agricultural to high intensity commercial)? Yet it was not clear exactly which trip generation rates should be studied: Botetourt could not provide that information without having some estimate of how the road would be designed, and thus VTRC did not know at the outset which types of zoning to study more closely. Accordingly, a sample set of trip generation rates was created, and a portion of these rates is shown as Table 14.

**Table 14. Excerpt of Initial Trip Generation Estimates for Botetourt Zoning Designations**

Example Land Use	Zoning Designation	Number of Vehicle Trips per 24 Hours per Acre		
		Minimum Rate	Average Rate	Maximum Rate
Single family detached houses	(A-1)	2	4	9
Single family detached houses	(R-1)	9	19	44
Library (5,000 square feet)	(R-2)	144	270	441
Residential condo/townhouse	(R-3)	15	47	94
Golf course	(PUD)	2	5	11
Restaurants	(B-2)	585	1574	2447

VTRC had made some mistakes in creating this table, and in retrospect, it was advantageous to know about these problems sooner rather than later. *First*, for comparison purposes, it was appropriate to use the PM peak hour generator rather than the 24-hour rates for the land uses. *Second*, Botetourt had a greater interest in only select land uses: M-1, B-1, B-2, B-3, and POP designations. *Third*, there was general interest in understanding the quality of the data for the various rates, since quality was not uniform by land use. Quickly taking a guess and providing an incorrect answer early in the process, however, may have facilitated obtaining review comments. In other words, it may be more effective to determine what is needed by offering a sample (where flaws can be rapidly agreed upon) rather than by creating something from scratch.

In sum, working with the available data and uncertainty and making educated guesses that can at least highlight what else needs to be learned take practice. A corollary is not to become so mired in details that work is halted altogether.

### *Continuing to Make Progress*

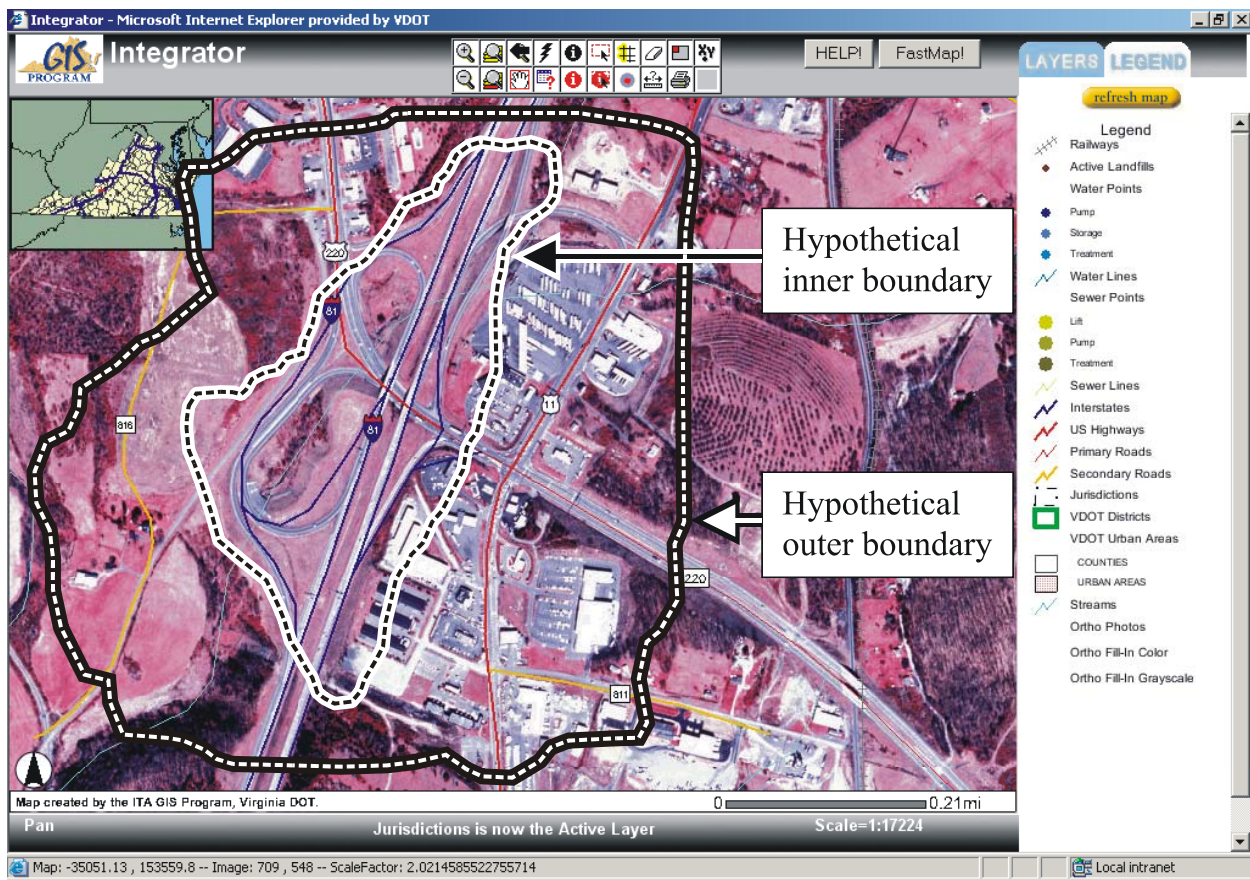
Delays themselves were understandable and did not seem to cause significant loss of interest in the project. Four steps, however, seemed helpful for continually moving the project forward:

1. *Assign staff to serve as liaisons.* All work units involved (Botetourt County, VDOT's Salem District, VDOT's Central Office, and VTRC) identified persons who would at least play a liaison and reviewing role, since it takes time and effort to attend meetings and review materials.
2. *Assign technical staff to perform work.* In addition to the liaison staff, staff must be available to produce deliverables for the group. For example, VDOT's Salem District office identified two people who, with consultant help, were responsible for providing the design of the interchange to the county.
3. *Keep everyone updated at all times.* Emails were provided to the group as work progressed, and generally the emails were three to five pages and sent weekly. At the two in-person meetings, agendas were also provided. After the first meeting, it was clear that Exit 150 would be the focus, but without drawings in hand, it was not necessarily clear what the next steps would be. Simple graphics such as the one shown in Figure 4 were used in the emails to clarify what was being sought: in this case, an estimation of what land would be impacted with the understanding that because the designs were not finalized, it was appropriate to show minimum and maximum amounts of land that would be impacted.
4. *Demonstrate how the information is being used.* Discussions about how to interface with the public, who was responsible for the process, and the tentativeness or certainty of the information can illustrate exactly how this information is being used.

### *Planning for Delays by Realizing There Is Always Something That Can Be Done*

Initially, following a second meeting, there was concern that the project would be delayed unnecessarily, since following the meeting it would be necessary (1) for VDOT to provide electronic copies of the interchange design to Botetourt, (2) for Botetourt to overlay existing zoning onto these plans in a GIS environment, and then (3) for Botetourt to identify more precise zoning scenarios that would be appropriate to study, all before the next analytical step could occur.

Yet, given the feedback VTRC had received on the trip generation rates shown in Table 14, it became apparent that significant work remained for VTRC's scenarios. Thus, during the interim period, VTRC prepared low, middle, and high estimates of trips generated according to various high-intensity land uses within the M-1, B-1, B-2, B-3, and POP designations. Information from ITE's *Trip Generation* on the reliability of these estimates for various land uses was also included, since data quality varies widely depending on the development studied.<sup>113</sup>



**Figure 4. Rough Cut of Potentially Impacted Areas (Before Revisions)**

*Recognize That Although VDOT May Provide Staff Support, the County Is the Client*

In the Botetourt County instance, although Salem District personnel performed interchange design work and VTRC performed trip generation computations, the county played a lead role in identifying the zoning scenarios to be studied. (This does not imply an authoritative command and control structure on behalf of the county but simply clarifies that the technical assistance efforts are ones where VDOT is helping local governments at their request.)

This situation was replicated in another instance: in a separate technical assistance effort in Caroline County, VDOT is working with the county to develop a transportation element of an updated comprehensive plan. In that situation, responsibility for actually writing the outline and the subsequent plan rests with VDOT, whereas the authority for the plan rests with the county. In other words, VDOT staff produce drafts for the county's review: in this sense, VDOT served as staff and the county planning department served as the final decision makers.

*Producing Something Tangible and Bringing the Process to a Conclusion*

In some cases, it is appropriate to pick a smaller scale, less grandiose project, especially if a pilot effort is being undertaken. One comment from the VDOT location and design engineer

involved with this effort pointed out that by not tackling transportation and land use for the entire county but instead by working on a specific effort—the Exit 150 interchange—the project became more feasible.

VDOT management had emphasized that the goal of the pilot projects should be to create a product, such as a report, a list of scenarios, a summary of key issues, a transportation element of a county’s comprehensive plan, or something else, that is tangible and can be implemented.

There are several ways to bring collaborative work to a conclusion that can help other counties facing similar problems, such as archiving results in a website, creating a short course and offering it through a technology transfer program, or performing some other dissemination service that the county deems appropriate. In short, the product should not merely “raise awareness” with nothing documented for posterity.

Concluding the project does not mean concluding the relationship between VDOT and the counties. Botetourt County representatives pointed out that making headway on developing a more collaborative and productive process for working with VDOT was significantly more important than the particular details of the land use scenarios at Exit 150. This step, therefore, simply recognizes that with limitations on the time of parties involved, it is appropriate to bring each project to a conclusion and then be ready to start fresh on future efforts.

#### *Archiving Lessons Learned and Results for Future Use*

Two types of items are worth keeping for future use: (1) products that are applicable to other situations, and (2) the lessons learned in each technical assistance effort.

Several of the deliverables that are underway in the pilot efforts, such as the development of the transportation element for the Caroline County Comprehensive Plan, the creation of land use scenarios for Botetourt County, and the identification of sources for funding alternative transportation improvements, are products that may be applicable to other counties if VDOT chooses to continue to provide technical assistance with coordinating transportation/land use planning.

The literature lists several “lessons” that are helpful for interagency coordination; however, applying these concepts is not always straightforward, and their application to the Botetourt case was apparent only in hindsight.<sup>114</sup> Table 15 shows some of the relevant concepts that were helpful in this instance. The work with Botetourt provides several lessons, and as VDOT gains experience working with other counties on these efforts, there will likely be additional lessons that can be added to Table 15.

The mechanism for archiving and sharing results—such as a combination of publicly accessible web sites, periodic training programs, one-to-one technical assistance, and institutional memory—will need to be resolved by the VDOT work unit responsible for providing this assistance, but probably no single method listed here will suffice by itself.

**Table 15. Applying Lessons from the Literature to the Botetourt Case Study**

<b>Principle for Interagency Cooperation from Literature</b>	<b>Application to Botetourt</b>
Address politics explicitly	<p>Recognize the political risks associated with making a premature decision on the Exit 150 design, but also recognize that this course of action was preferable to doing nothing</p> <p>Mitigate risks by using maximum and minimum values of land taken and trips generated rather than presenting only a single value; explicitly state the assets and liabilities of each party's information being shared with the other</p>
Build on interdependence among agencies	Although it is well known that VDOT controls the roads and the county controls zoning, share information regarding proposed designs not finalized and proposed zoning not finalized, with the understanding that all information is tentative
Include extensive public involvement	Keep all parties informed simultaneously; e.g., all details were emailed to different VDOT, PDC, and county personnel at the same time, without internal review by VDOT first
Emphasize results rather than inputs	Process is important, producing something the county can use but it is also important
Involve communities early in the project development process and show how that involvement influences the decisions that are made	After comments from Botetourt on what should be studied (Exit 150) and VDOT (the methodology that should be used with trip generation rates), this advice was followed

**RESULTANT OPTIONS FOR COORDINATING TRANSPORTATION AND LAND USE PLANNING**

Evidence from legislative efforts in other states and the technical assistance programs of various agencies suggest initiatives that can improve the coordination of transportation and land use planning in Virginia, both at a legislative level and at an agency staffing level. The states do not show a uniform approach to implementing this coordination, and careful examination of the seven potential policy goals suggests lively debate can be expected if one or more of the goals is pursued with vigor.

The legislature can set the tone for the degree to which coordination is sought through the allocation of planning authority, the selection of a goal for what coordination should accomplish, and the amount of resources devoted to planning. Within that legislative framework, the various state and local agencies may further enhance this coordination through their own initiatives. Figure 5 provides an overview of these opportunities.

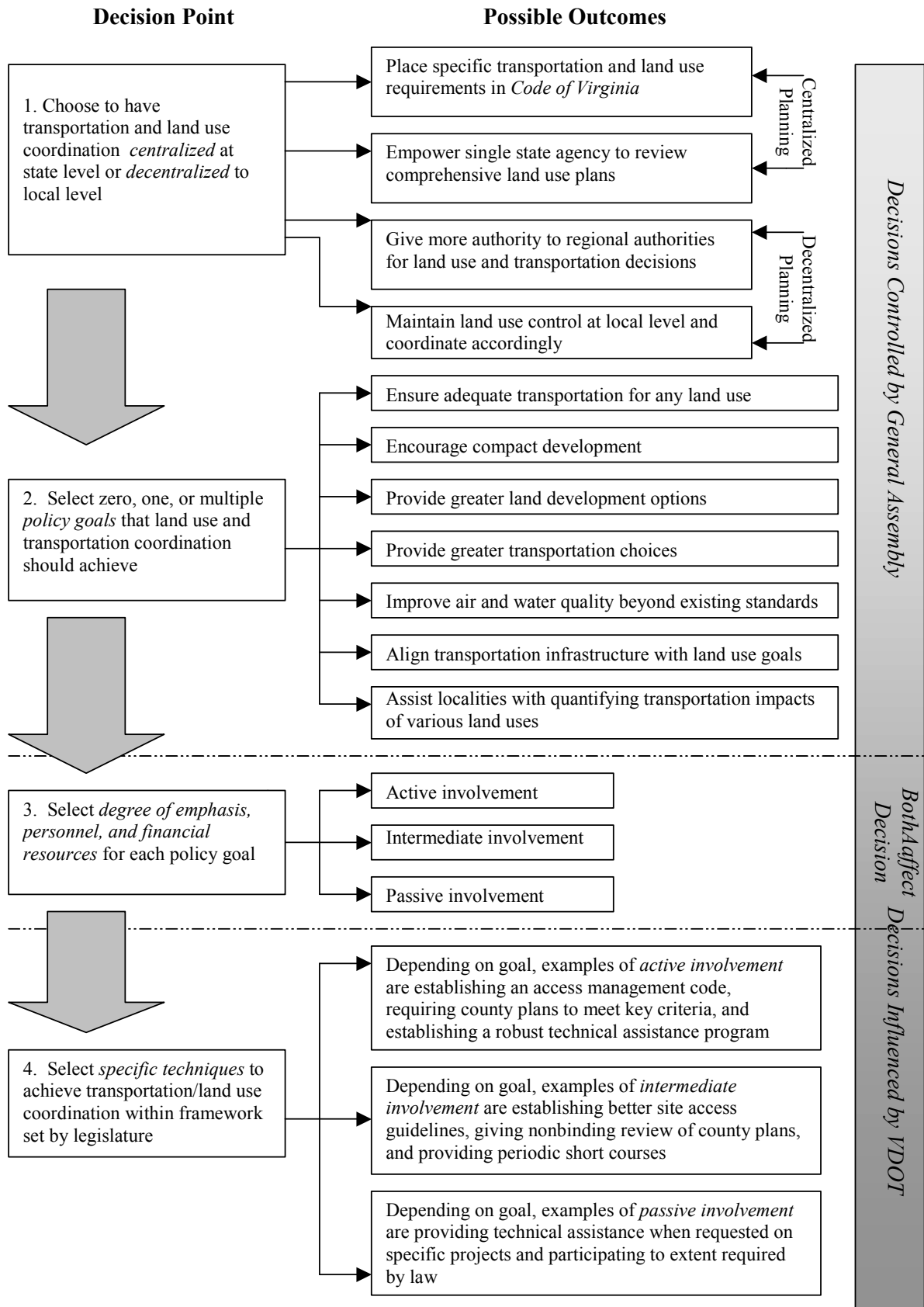


Figure 5. Decision Processes for Virginia

## Options for the General Assembly

Three options stand out:

1. *Decide whether the coordination of transportation and land use planning should be centralized to the state level or decentralized to the local level.* Options include placing specific requirements in the *Code*, giving some entity responsibility for this coordination at the state level, giving greater authority to regional entities, and giving greater authority to counties and cities.
2. *Select one or more policy goals and resolve the degree to which those goals should be pursued.* The seven policy goals discussed in this paper are fundamentally distinct and require an implicit decision regarding how the Commonwealth will grow and balance individual, community, local, and state rights. For example, the goals of providing adequate transportation infrastructure for a given land use and supporting more compact land use do not necessarily have to be contradictory, but they convey different emphases on what coordination should accomplish.
3. *Resolve the degree to which planning resources should be allocated at the state, local, or regional level.* One consistent message from all of the states and agencies surveyed was that some staff are required for assistance to be meaningful. The question is where these personnel should be located.

There are multiple legal mechanisms to pursue a given policy goal as may be illustrated by returning to Figure 5. If the legislature were intrigued by the first policy goal of providing adequate transportation infrastructure to support an existing land use:

- The legislature could give localities greater authority to accomplish this goal by passing enabling legislation allowing proffers or impact fees to be received when a building permit is sought (at present proffers may not be received except when a rezoning request is submitted).<sup>19</sup>
- The legislature could give regional entities more authority by modifying Title 15.2 of the *Code of Virginia* to expressly permit localities to delegate power to PDCs in the areas of zoning and taxing.
- The legislature could give the state greater authority to accomplish this goal by strengthening VDOT's authority with respect to granting or denying entrance permits, enabling VDOT not to grant a permit unless mobility would be preserved.<sup>20</sup>

## Options for VDOT

Five options for VDOT's consideration are provided in order of increasing controversy. For some of these initiatives, it would benefit VDOT to receive guidance from appointed or elected officials.

1. *Make staff and funds available to localities for coordinating transportation and land use planning.* One role VDOT can play is to provide funding and staff for helping localities evaluate transportation impacts of alternative land use configurations—a process that, although sounding reasonable in theory, can be quite time-consuming in practice. Given VDOT’s relatively large size, it may be productive to achieve economies of scale by having a formal program of technical assistance where results can be shared throughout the different districts. Indeed *TCRP Report 74* points out that state DOTs can act as “regional coordinators of some specific function, especially if they supply or administer most of the funding required.”<sup>71</sup> In this vein, state DOT staff may be a resource for technical knowledge that supports, but does not replace, the policy authority held by localities, MPOs, or PDCs.
  
2. *Archive lessons learned and transfer these lessons from one county to another.* Several outreach efforts in one region in Virginia may be transferable to others, such as documentation of alternative funding sources and assistance with transportation elements of the county comprehensive plan. The ATLAS study, for example, specifically recommends that VDOT develop “best planning practices” to coordinate transportation and land use planning, although the same report carefully points out that VDOT should do so “while at the same time acknowledging the land use authority of localities.”<sup>80</sup>
  
3. *Work with localities aggressively to accomplish activities that are clearly within VDOT’s purview.* Two activities directly affect VDOT:
  - *Working with counties to ensure that the transportation element of county comprehensive plans meet specified standards of quality in terms of quantifying the transportation demand placed that will result from the proposed land use.* Land development of almost any form will generate demand for travel, and having a reasonable expectation of how development may influence travel demand, especially in the long term, is necessary in order for VDOT and local jurisdictions to consider realistically alternative scenarios—including doing nothing.
  
  - *Establishing an access management code defining appropriate levels of access for the roadway.* VDOT is ultimately responsible for connecting new developments to the roadway network and in theory already influences this activity. In practice, however, VDOT would benefit from explicit authority to maintain appropriate levels of access for different roadway classifications.

In both of these activities, VDOT can work with localities in an educational and collaborative role. However, at some level, these activities restrict the authority of local jurisdictions. Localities will therefore likely—and reasonably—want to look at VDOT’s latitude in these areas.

4. *Quantify transportation impacts of alternatives.* An observation of some comprehensive plans is that they are conceptually strong but lack numerical estimates



that, in some cases, show the extent to which a given land use will affect the transportation system. It is not VDOT's role to choose the land use plan for a locale. Instead, VDOT staff may serve as transportation specialists who provide technical information as requested. An illustration is a community outside Virginia where grocery stores are not allowed to be bigger than 30,000 square feet as part of an effort to design communities at a proper scale.<sup>96</sup> In Virginia, the decision to implement or eliminate such zoning is the county's decision, not VDOT's. Hypothetically, however, if a community was interested in adopting or eliminating such zoning, VDOT could assist with determining the traffic impacts be and how they could be mitigated.

5. *Ensure existing planning and land use instruments are being used to maximum effectiveness.* These instruments include:

- *Site plan reviews.* Ensure that VDOT participates fully in site plan reviews when invited to do so by localities and that VDOT staff have access to references, training, and resources as necessary.
- *Secondary road improvements.* Ensure that counties are adequately briefed on how road improvements they select may affect land development.
- *Limited access designation.* The *Code of Virginia* gives the CTB authority to designate certain highways as limited access.<sup>20</sup> Accordingly, VDOT should explore the efficacy of this option for preserving the mobility function of certain arterials, such as those that are part of the National Highway System.
- *Use of the Minimum Standards of Entrances to State Highways.*<sup>49</sup> By incorporating additional guidance on how to consider corridor or system impacts of additional access points rather than only site-specific impacts, this document could be used as a resource by resident and district engineers in the permitting process.

These items will not eliminate controversy and will necessitate outreach efforts on behalf of VDOT. Their effective use, however, may give front-line VDOT staff at the district and residency levels some tools and guidance they can rely on to help address some of the more difficult permitting questions that arise.

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**APPENDIX A  
LEGISLATIVE MANDATE FOR THIS STUDY**

**(Budget Bill: Item 472G Within Chapter 1042, House Bill 1400)**

The Secretary shall report to the General Assembly by December 30, 2003, on the best practices used by other states to improve the link between state transportation and land use planning. The report shall also address the experience of the Department of Transportation in offering technical assistance and coordination of state resources to work with local governments, upon their request, in developing sound transportation components for local comprehensive plans.



**APPENDIX B**  
**EXAMPLE OF A TECHNICAL ASSISTANCE PRODUCT:**  
**ALTERNATIVE SOURCES OF TRANSPORTATION FUNDING**

**Abstract**

One of the technical assistance products desired from the Botetourt County pilot effort was a single source of documentation for nontraditional transportation funding sources. Appendix B summarizes this documentation.

**List of Alternative Sources of Transportation Funding**

The “traditional” source of funds for transportation improvements is the Virginia Six Year Improvement Program, where projects are allocated by district and roadway system (interstate, primary, secondary, or urban). The *Code of Virginia* prescribes or implies steps that must be taken for the 16-member CTB to ratify the Six Year Improvement Program when it is submitted by VDOT.<sup>115</sup> These steps include public hearings for projects involving the primary system, coordination with city governments for urban system projects, and approval by county boards of supervisors for secondary system projects. These projects, distributed by district, are generally listed in the first volume of the Six Year Improvement Program.

There are, however, opportunities to fund transportation improvements using alternative funding sources. These alternatives are usually special programs with a unique emphasis, such as conservation, alternative modes, hazard elimination, and economic development. Generally these alternative funds are awarded on a competitive basis, and further information about each program is available from the citations shown at the end of this appendix. These programs are described in six categories depending on who administers and/or initiates them:

- programs administered by VDOT
- programs administered by the Virginia Department of Rail and Public Transportation
- programs administered by the U.S. Department of Transportation
- programs administered by the Virginia Department of Conservation and Recreation
- programs that may be initiated by counties in Virginia
- programs that may be initiated by the private sector.

**Programs Administered by VDOT**

A few transportation improvement opportunities under VDOT’s purview are outside the interstate/primary/urban and secondary system projects outlined in the Six Year Improvement Program. These funds are generally listed in the second volume of VDOT’s Six Year Improvement Program. These alternative sources include the following:

- *Funds for upgrading roads that are not maintained by the state for the purposes of adding them to the state secondary system.* Privately maintained streets can be incorporated into the state system provided several eligibility criteria are met, such as being open to the public at all times, serving at least three occupied residences, and including sufficient right of way for maintenance and safety purposes.<sup>47</sup> If the road does not meet state standards, then a county may use up to 5 percent of their secondary road construction funds to upgrade the private road for the purposes of incorporating it into the state system. (Residents may want relief from the expense of maintaining streets, such as some subdivision streets, privately.)
- *Transportation Enhancement funds.* This program can provide funds for “sidewalks, bike lanes, and the conversion of abandoned railroad corridors into trails” as well as cultural enhancements, such as renovations of historic buildings or the establishment of “transportation museums and visitor centers.”<sup>132</sup> Although this program has a federal funding source, its administration is the responsibility of VDOT. Grant applications are submitted annually and require a 20 percent match from non-federal sources. Projects are initially scored and ranked by the Local Assistance Division, with final selection the responsibility of the CTB.<sup>132</sup> Examples of successful projects in 2002 are boardwalk trails and pedestrian paths at the Jamestown Settlement, riverwalk and waterfront improvements in York County, restorations to a 100-year-old train station in Bristol, rehabilitation of a railroad and coal museum in Bristol, and establishment of a greenway connecting a historic tunnel in Augusta County to the Appalachian Trail.<sup>116</sup>
- *Recreational Access Program.* This program provides funds for recreational access roads or bikeways that make a “publicly developed recreational area or historic site” accessible, provided such a site is not private or federally maintained.<sup>117</sup> The main purpose of the project is to make these recreational or historic sites accessible as opposed to solely creating a new transportation facility; e.g., a bikeway funded under this program might connect an area having heavy bicycle traffic to a park that presently is not accessible to cyclists. This program is authorized by §33.1-223 of the *Code*.
- *Industrial, Airport, and Rail Access Program (Roadway Portion).* Section 33.1-221 of the *Code* authorizes this program, which provides access to employment centers.<sup>118</sup> This access may entail providing improvements to an existing facility (e.g., widening a turn bay to accommodate heavy vehicles) or providing a new facility, although in both cases the emphasis is on providing access to an existing industrial site as opposed to facilitating land development. (Each project is limited to \$300,000 unless the town, city, or county provides matching funds; under that scenario, VDOT can provide up to an additional \$150,000 provided the amount is matched by the city, county, or town.)
- *Route 58 Corridor Development Program.* This program was established by the General Assembly in 1989, with the express purpose being to “enhance economic

development potential” in southern Virginia.<sup>119</sup> The projects all involve Route 58, which is almost 680 miles in length and stretches from Virginia Beach to Lee County.

- *Hazard Elimination Safety (HES) and Highway Rail Grade Crossing (HRGC) Program.* These programs entail projects that eliminate roadside hazards and reduce risk at highway rail grade crossings. The HES program requires 10 percent funding from localities and 90 percent funding from VDOT.<sup>120</sup> An example of an HES project is the installation of a new traffic signal at the intersection of U.S. 501 and Halifax Shopping Center, where studies had shown such a signal was needed.<sup>121</sup> In addition, the HES and HRGC Programs are being modified such that 10 percent of the funds are dedicated to bicycle and pedestrian projects.<sup>122</sup>
- *Special transportation districts that may be created by state law.* For example, in 1987 the General Assembly formed the Route 28 Transportation District 2, where \$138.5 million was authorized to improve Route 28. Restrictions were that 51 percent of landowners (whose land was zoned commercial or industrial) must support the tax district, with a maximum of 20 cents per \$100 of assessed value.
- *Revenue Sharing Program.* This program enables localities to contribute matching funds that enable a project, whose cost exceeds available funds, to be completed earlier than would be the case if the project could not be completed until all funds were available.<sup>123</sup> In such cases, the county contributes half the needed additional funds and VDOT contributes the other half. Projects are eligible if they are on the primary or secondary system, although the entire program is capped at \$10 million per fiscal year.
- *Congestion Mitigation and Air Quality (CMAQ) Improvement Program.* This program seeks to improve air quality and is restricted to projects that are thus expected to reduce transportation-related emissions in areas that do not meet National Ambient Air Quality Standards.<sup>124</sup> (As of 2003 these areas formally included Richmond, Northern Virginia, and Hampton Roads.<sup>125</sup>) CMAQ projects are diverse and include, but are not limited to, (1) encouraging motorists to use alternative forms of transportation (e.g., transit improvements such as new express bus service or bicycle/pedestrian improvements), (2) encouraging motorists to share existing vehicles (e.g., carsharing programs or guaranteed ride home programs), (3) improving traffic flow for motorists (e.g., traffic operations centers to disseminate information or synchronization of traffic signals), and (4) encouraging vehicle emissions reduction measures, such as inspection and maintenance programs. Virginia projects funded under CMAQ have included rehabilitation and expansion of bus shelters, bike lanes, turning lanes, guaranteed ride home programs, bicycle racks, employer-sponsored ridesharing, and access improvements to commuter rail.<sup>126</sup>

Finally, although *not* a source of funds per se, the Rural Rustic Roads Program may be of interest to counties that want certain projects to go into the secondary portion of the Six Year Improvement Program. The county has the option of designating a particular low-volume road with low-density development as a “rural rustic road” where the county agrees to limit growth



along the road through zoning and planning.<sup>127</sup> In addition to having between 50 and 500 vehicles per day, the road should be in the VDOT secondary system, should be a priority in the Six Year Improvement Program, and should serve familiar drivers. In return, VDOT can maintain the roadway by paving within the ditchlines (thereby requiring less right of way) and not necessarily maintaining the road to minimum design standards. In short, the idea behind the program is that for certain low-volume, locally traveled roads, costs and impacts to the environment may both be significantly reduced; the tradeoff is that some improvements that would be necessary for higher volume roads (or roads with higher density abutting them) are not made. For example, six pilot sites in Augusta County were paved at a cost of \$325,818 in four months; VDOT estimates that had those sites been constructed and engineered according to conventional standards, the cost would have been \$3.28 million and the project would have taken 2 to 6 years.<sup>128</sup>

### **Programs Administered by the Virginia Department of Rail and Public Transportation**

The Virginia Department of Rail and Public Transportation administers the Industrial Access Railroad Tracks Program, which “fosters rail development for new or expanding industries.”<sup>129, 130</sup> As is the case with the roadway portion of the Industrial, Airport, and Rail Access Program, the program is authorized by §33.1-221 of the *Code*.<sup>130</sup> Eligible work under the program includes track construction, reconstruction, improvement, engineering, environmental mitigation, and grading or drainage at the site.<sup>130</sup> (Funding limitations are the same as with the Industrial, Airport, and Rail Access Program: each project is limited to \$300,000 unless the town, city, or county provides matching funds; under that scenario, VDOT can provide up to an additional \$150,000 provided the amount is matched by the city, county, or town.<sup>130</sup>)

### **Programs Administered by the U.S. Department of Transportation**

FHWA has several programs available for transportation improvements under federal surface transportation legislation. These programs illustrate some of the different funding mechanisms for transportation improvements eligible for federal funds.<sup>131</sup> The programs differ in eligibility, scope, and funding availability: e.g., for 2003 the scenic byways program was limited to \$25 million for all projects nationally, whereas the enhancement program had \$18.5 million available for Virginia projects alone.<sup>132,133</sup> Complete documentation for each program is available from websites maintained by VDOT and/or FHWA, and specific links are shown for each program in the reference list.

- *Transportation and Community System Preservation Program (TCSP)*. The TCSP is a “comprehensive initiative for planning, implementation and research of transportation and community and system preservation practices” available under Section 1221 of TEA-21. Although some of the grant language emphasizes concepts such as efficiency, reducing environmental impacts, improving access to jobs and recreation, and supporting private sector efforts to achieve these goals, the 2002 awards show that most projects have a strong environmental component. The 2002 Virginia recipients under the TCSP included implementing a park and ride facility,

developing a master plan for Route 17 that included “environmental conservation,” extending a trail system, and purchasing easements for the purposes of watershed preservation.<sup>134</sup> Eligibility under this program is not restricted to states; MPOs and local governments are also able to compete for these grants. (Although all TCSP projects were earmarked last year, the TCSP program is currently under consideration for inclusion in Section 1816 in the proposed SAFETEA legislation.)<sup>135</sup>

- *Scenic Byways Program.* This program provides funds for “eligible scenic byway projects along All-American Roads or designated scenic byways and for the planning, design, and development of State scenic byway programs,” where such programs might include scenic roads or bicycle or pedestrian trails.<sup>136</sup> Limited funds are available for this program: \$25 million is available nationwide. In order for a project to be eligible, it must be an existing byway or scenic road. Successful Virginia projects have included acquiring an eight-acre parcel to protect two designated Virginia byways in James City County, constructing the “Capital to Capital” bikeway between Williamsburg and Richmond, and revising current VDOT scenic byways maps.<sup>137</sup> (Virginia’s scenic byways coordinator points out that one project in Botetourt and Craig counties was previously under serious consideration for a Virginia submission but was withdrawn at the request of local citizens.<sup>133,138</sup> The counties had initially expressed an interest in converting an abandoned railroad line owned by VDOT, stretching 26 miles from Bedrock to New Castle, to a multiuse facility for pedestrians and equestrians. A citizen’s advisory committee, composed of residents from both counties, had supported the conversion and VDOT had funded a feasibility study conducted by the Shenandoah Valley Regional Planning District that was a precursor to the submission of the project to the Scenic Byways Program. At a series of meetings held after the feasibility study was completed, however, local residents objected to the trail conversion, and eventually the project was abandoned as a submission to the program.)
- *Public Lands Highways Program.* This program consists of two types: public lands discretionary funds and forest highway funds.<sup>139</sup> The purpose of the public lands discretionary funds is to “improve access to and within the Federal lands of the nation.”<sup>140</sup> Examples of improved access are planning for recreational travel, acquiring easements, and providing physical amenities such as visitor centers, rest areas, vehicle parking, and “interpretative signage.”<sup>140</sup> Successful Virginia projects have included intersection improvements at Route 29 and State Route 234 providing safer vehicular and pedestrian access to and within the Manassas National Battlefield Park in Prince William County; the construction of buildings, parking lots, pedestrian and bicycle trails, and access roads to support access to an educational center at the Chincoteague National Wildlife Refuge; and improvements to Route 600 to support the Jefferson National Forest.<sup>141</sup> The purpose of the forest highway program is to enhance access to and within national forests by improving forest highways.<sup>142</sup> Forest highways are public roads owned by state or local agencies that serve the national forest system and are designated as such by FHWA’s Federal Lands Highway Division. Successful Virginia projects have included improvements to

Route 600 in Smyth County and improvements to Route 614 in Highland County, both to support the Jefferson National Forest.<sup>139</sup>

- *Value pricing.* FHWA defines value pricing as “congestion pricing or peak-period pricing, [and] entails fees or tolls for road use which vary by level of congestion.” Under this program, up to 15 states may establish pilot programs; although Virginia does not have any programs in this category, value pricing projects from other states include feasibility studies and implementation of HOT lanes, variable pricing of heavy vehicles, and parking cash-out practices.<sup>143</sup>
- *Other programs.* A variety of other federal programs are available that are not described in detail here simply because they represent much more detailed programs. For example, the Transportation Infrastructure Finance and Innovation Act (TIFIA) allows loans or credit lines for major surface transportation projects (e.g., on the order of \$100 million or greater).<sup>144</sup>

### **Program Administered by the Virginia Department of Conservation and Recreation**

One program is the Recreational Trails Program. The program provides funds for developing and maintaining trails, which may serve “hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving [or] other off-road motorized vehicles . . . .”<sup>145</sup> A wide variety of uses are permitted under the program, such as purchasing easements, constructing new trails, restoring existing trails, and improving signage. FHWA also lists three prohibited uses: property condemnation, the construction of new trails for motorized use on national forest or Bureau of Land Management lands (unless consistent with management plans), and projects that entail permitting motorized use of trails that are currently off limits to motorized vehicles.<sup>145</sup> Virginia’s contact person for this program notes that successful projects have often involved trails within park systems, such as the W&OD trail in Northern Virginia, the “Creeper” Abingdon-Damascus trail, and the New River State Park Trail in Pulaski and Grayson counties.<sup>146</sup>

### **Programs Administered by the County**

As pointed out by the Virginia Chapter of the American Planning Association, a county can acquire funds for transportation improvements through three general mechanisms.<sup>19</sup> None of these practices is a panacea, and all have limitations and possibly adverse consequences, but they are options in some situations.

- *Tax increment financing* is an option for blighted areas: a jurisdiction sells bonds or receives loans and uses the revenue to make public improvements to an area, where such improvements may include “roads, water, sewer, safety services, parks, and schools.”<sup>19</sup> To the extent that the improvements increase property values and encourage development in the designated area, the increase in real estate taxes are used to pay back the interest and principal on the loan.

- *Road impact fees for new development* is an option for counties with a population of 500,000 or more and adjacent localities, which in Virginia restricts such practices to Fairfax County and the Northern Virginia jurisdictions.<sup>19</sup> These localities, however, are not using impact fees but instead are using proffers because proffers are easier to administer. (All counties, regardless of population, however, may use connection fees for water and sewer systems.) Impact fees cannot be accepted, however, unless the county has a capital improvement program as stated in § 15.2-2321 of the *Code*.
- *Proffers* are monetary payments from developers to localities and can be delineated into two categories: fees for improvement (or cash proffers) and conditional zoning (or non-cash proffers).<sup>19</sup> With the first category, if a county has a population growth of at least 10 percent according to the 2000 census, it can accept fees for road improvements or other public facilities when the developer submits a rezoning request. For example, in 1990, Botetourt County had a population of 24,492 and by 2000 had grown to 30,496; since this figure exceeds 10 percent, the county had a high rate of growth and thus can accept cash proffers.<sup>147,148</sup> The situation in Caroline County was similar: it grew from 19,217 in 1990 to 22,121 in 2000. Additional restrictions are placed on the cash proffer; e.g., a locality cannot accept such a proffer unless it has a conditional improvement program in place.<sup>149</sup> Conditional zoning is appropriate for improvements such as turn lanes, reconstruction or widening turn lanes, etc.<sup>150</sup> Prince William County, for example, requires submission of a final subdivision plan when land is proposed for subdivision into five or more lots.<sup>151</sup> As part of that plan, developers include a completed unit price list, which gives fees for various types of public improvements needed as a result of the new development, such as median construction, sidewalk construction, guardrail, street lighting, and entrances to public streets.<sup>152</sup>
- *Coal and Gas Severance Tax*. Section 58.1-3713 of the *Code* authorizes local governments to tax businesses that extract coal or gas from the ground and to use a portion of the revenue from this tax to improve roads. The distribution of this money is controlled by a local Coal and Gas Road Improvement Advisory Committee. This committee is made up of four members: a member from the local governing body (board of supervisors), the VDOT resident engineer, and two citizens of the locality connected with the coal or gas industry. Each locality's committee prepares an annual plan for use of the fund, a copy of which should be sent to VDOT.

The *Code* also mentions four additional funding mechanisms that are administered or influenced by the county. The uses of general funds and local bonding authority are options available to all counties; the uses of special tax districts and a local gas tax require enabling legislation for specific counties.<sup>153</sup>

- *General funds*. Sections 33.1-75.1, 75.2, and 75.3 indicate that counties have the ability to use their own general funds to contribute to transportation improvements. Section 75.2 specifically points out that counties may make contributions to facilitate primary and secondary road construction, whereas Section 75.3 notes that counties may use these general funds for other activities related to the primary and secondary

system, such as “curbs, gutters, drainageways, sound barriers, sidewalks, and all other features or appurtenances conducive to the public safety and convenience.”<sup>149</sup>

- *Local bonding authority.* Section 33.1-75.3 also provides explicit bonding authority for counties to make such improvements; however, such bonds must be approved by voters.<sup>154</sup> The Transportation Coordinating Council points out that the Prince William County Parkway was funded partly from local bond sales.<sup>155</sup>
- *Special tax districts or special transportation districts.* Commercial landowners in the vicinity of Route 28 in Northern Virginia have established the Route 28 Tax District, through which businesses pay an additional tax that funds a widening of Route 28.<sup>155</sup> To create such a district, at least 51 percent of the owners of commercial- or industrial-zoned land must petition for its creation and such districts must be approved by the county board of supervisors.<sup>156</sup> In the case of the Route 28 Tax District, a maximum of 20 additional cents per \$100 of assessed property value may be used to raise funds for transportation improvements. (Additional legislation has been enacted for specific locations; e.g., § 15.2-4839 of the *Code* authorizes the Virginia Transportation Development Authority to issue bonds, and House Bill 2671 created a special transportation tax district for the Dulles Corridor.<sup>157</sup>)
- *Local gas tax.* It is highly probable that counties do not have the authority to impose a local gasoline tax without enabling legislation. The phrase “highly probable” is used because §15.2-1104 of the *Code* does, in fact, permit municipal corporations to raise funds in manners not prohibited by law. However, the *Code* also has special legislation pertaining to the Northern Virginia and the Potomac Rappahannock District in § 58.1-1720. This legislation states that a 2 percent sales tax on fuels for transportation improvements is permissible for areas that meet one of two criteria: (1) an area where “a rapid heavy rail and bus commuter mass transportation system is owned, operated, and or controlled by an agency or commission” where such an entity is a transportation district, or (2) the area is “contiguous to the Northern Virginia Transportation District” (including that district, as denoted in § 15.2-4515.<sup>149,158</sup> The fact that this legislation exists in the *Code* suggests that despite § 15.2-1104, localities do not have this power to exercise a local gasoline tax unless such a power is explicitly granted by the General Assembly, as it has been for the Northern Virginia area.<sup>153</sup>

### **Programs Initiated by the Private Sector**

Although administered by VDOT, the PPTA of 1995 allows private sector organizations to design, construct, build, and maintain transportation systems. Examples of projects being undertaken through the PPTA are construction of Route 28 in Northern Virginia, design work for one of the segments for Route 58, and the maintenance of portions of I-81. PPTA guidelines indicate that the project must be “one or a combination of the following: a road, bridge, tunnel, overpass, ferry, airport, mass transit facility, vehicle parking facility, port facility or similar commercial facility used for the transportation of persons or goods.”<sup>159</sup>

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## APPENDIX C LEGISLATIVE PRACTICES IN ELEVEN STATES

### Abstract

Appendix C summarizes the relevant transportation and land use legislative practices in the selected states representing a combination of centralized and decentralized planning practices and a combination of Dillon’s Rule and Home Rule states. Interviews with representatives of selected states are included following each legislative summary. Table C1 describes the states surveyed.

**Table C1. States Surveyed for Their Legislative Practices**

Characteristics <sup>14</sup>	States Surveyed
Centralized planning, Dillon’s Rule	Maryland, Hawaii, Florida*
Centralized planning, Home Rule	Oregon, Florida*
Decentralized planning, Dillon’s Rule	Georgia, North Carolina, Texas, Virginia, Wisconsin, Kansas**
Decentralized planning, Home Rule	South Carolina

\*Florida has conflicting rulings such that a determination of Dillon’s Rule and home rule status cannot be made.

\*\*Dillon’s Rule is applied for only some municipalities in Kansas

### Florida

Florida undoubtedly falls within the scope of centralized states, with a colossal statewide plan; mandated local comprehensive planning with detailed statutory and administrative requirements and state-level review; and numerous explicit mandates for continuity among local, regional, and state plans.

#### **State Comprehensive Plan**

The state comprehensive plan, reviewed every 2 years by the state legislature, consists of 25 extremely diverse goals and the policies underlying each goal.<sup>160</sup> Relevant to this study are the goals of land use, transportation, urban and downtown revitalization, and plan implementation.<sup>161</sup>

The land use goal states that “development shall be directed to those areas which have in place, or have agreements to provide, the land and water resources, fiscal abilities, and *service capacity* [i.e., transportation infrastructure] to accommodate growth in an environmentally acceptable manner.”<sup>162</sup> To this end, it is the policy of the state to, among other things,

Promote state programs, investments, and development and redevelopment activities which encourage efficient development and occur in areas which will have the capacity to service new population and commerce. . . . Encourage and assist local governments in establishing comprehensive impact-review procedures to evaluate the effects of significant development activities in their jurisdictions. . . . [and] Provide educational programs and research to meet state, regional, and local planning and growth-management needs.<sup>163</sup>

Related to its land use goal, Florida, in its urban and downtown revitalization goal, also strives to “encourage the centralization of commercial, governmental, retail, residential, and cultural activities within downtown areas” in order “to use existing infrastructure and to accommodate growth in an orderly, efficient, and environmentally acceptable manner . . . .”<sup>164</sup> This goal specifically mandates a policy of “[enhancing] the linkages between land use, water use, and transportation planning in state, regional, and local plans for current and future designated urban areas.”<sup>165</sup>

Florida’s transportation goal is to “direct future transportation improvements to aid in the management of growth,” and requires “a state transportation system that integrates highway, air, mass transit, and other transportation modes.”<sup>166</sup> The policies underlying this goal are, *inter alia*, to

Promote a comprehensive transportation planning process which coordinates state, regional, and local transportation plans; Promote timely resurfacing and repair of roads and bridges to minimize costly reconstruction and to enhance safety; Emphasize state transportation investments in major travel corridors and direct state transportation investments to contribute to efficient urban development; Coordinate transportation improvements with state, local, and regional plans; [and] Acquire advanced rights-of-way for transportation projects in designated transportation corridors consistent with state, regional, and local plans.<sup>167</sup>

Finally, the goal for plan implementation is that “[s]ystematic planning capabilities shall be integrated into all levels of government in Florida with particular emphasis on improving intergovernmental coordination and maximizing citizen involvement.”<sup>168</sup> To this end, the state sets policies to

Establish strong and flexible agency and regional planning functions at all levels of government capable of responding to changing state policies and goals; Ensure that every level of government has the appropriate operational authority to implement the policy directives established in the plan; Establish effective monitoring, incentive, and enforcement capabilities to see that the requirements established by regulatory programs are met; Simplify, streamline, and make more predictable the existing permitting procedures; Ensure that each agency’s functional plan and management process is designed to achieve the policies and goals of the state plan consistent with state law; Encourage citizen participation at all levels of policy development, planning, and operations; Ensure the development of strategic regional policy plans and local plans that implement and accurately reflect state goals and policies and that address problems, issues, and conditions that are of particular concern in a region; and Encourage the continual cooperation among communities which have a unique natural area, irrespective of political boundaries, to bring the private and public sectors together for establishing an orderly, environmentally, and economically sound plan for future needs and growth.<sup>169</sup>

Although the plan enjoys much more force than those in less centralized states, it is not iron clad, with the caveat that it is a “direction-setting document” whose “policies may be implemented only to the extent that financial resources are provided pursuant to legislative appropriation or grants or appropriations of any other public or private entities.”<sup>170</sup> It “does not create regulatory authority or authorize the adoption of agency rules, criteria, or standards not otherwise authorized by law,”<sup>171</sup> and its “goals and policies . . . shall be *reasonably applied* where they are economically and environmentally feasible, not contrary to the public interest, and consistent with the protection of private property rights.”<sup>172</sup> In other words, it is not self-effecting or self-enabling in every regard, but it does carry comparatively significant weight.

This conclusion is echoed in practice, as one individual from the Office of Policy Planning noted the lack of meaningful implementation of the plan and that notwithstanding state control, much of the growth management policy has evolved from the local level up.<sup>173</sup>

## Local Planning

All localities are required to craft comprehensive plans, which must conform to the state plan and statutory criteria, including the goals described, and are subject to review at the state level: “Each local government shall review all the state comprehensive plan goals and policies and shall address in its comprehensive plan the goals and policies which are relevant to the circumstances or conditions in its jurisdiction.”<sup>174</sup> The local comprehensive plan enjoys not only the force of law, but also retroactive force in one respect:

All land development regulations enacted or amended shall be consistent with the adopted comprehensive plan, or element or portion thereof, and any land development regulations existing *at the time of adoption* which are not consistent with the adopted comprehensive plan, or element or portion thereof, *shall be amended so as to be consistent.*<sup>175</sup>

After a comprehensive plan for the area, or element or portion thereof, is adopted by the governing body, no land development regulation, land development code, or amendment thereto shall be adopted by the governing body until such regulation, code, or amendment has been referred either to the local planning agency or to a separate land development regulation commission created pursuant to local ordinance, or to both, for review and recommendation as to the relationship of such proposal to the adopted comprehensive plan, or element or portion thereof.<sup>176</sup>

Regulations may be challenged as inconsistent by any “substantially affected person, within 12 months after final adoption of the land development regulation,” with such a determination being made by the state land planning agency, subject to appellate review.<sup>177</sup>

Should a local government fail to create a comprehensive plan or part of the plan, “the regional planning agency having responsibility for the area in which the local government lies shall prepare and adopt by rule . . . the missing elements or adopt by rule amendments to the existing plan . . . .”<sup>178</sup> Should this occur,

the regional planning agency and the local government may agree to a method of compensating the regional planning agency for any verifiable, direct costs incurred. If an agreement is not reached within 6 months after the date the regional planning agency assumes planning responsibilities for the local government . . . or by the time the plan or element, or portion thereof, is completed, whichever is earlier, the regional planning agency shall file invoices for verifiable, direct costs involved with the governing body. Upon the failure of the local government to pay such invoices within 90 days, the regional planning agency may, upon filing proper vouchers with the State Comptroller, request payment by the State Comptroller from unencumbered revenue or other tax sharing funds due such local government from the state for work actually performed, and the State Comptroller shall pay such vouchers,<sup>179</sup>

subject of course to an unsuccessful administrative appeal by the locality.

Each local plan must be “consistent” with the state plan; i.e., it cannot be “in conflict with the state comprehensive plan or appropriate regional policy plan,” and it must “take action in the direction of realizing goals or policies of the state or regional plan.”<sup>180</sup> Every locality must

submit “its complete proposed comprehensive plan or its complete comprehensive plan as proposed to be amended to the state land planning agency . . . .”<sup>181</sup>

Local planning is performed by the local planning agency, which may be either truly local, a joint agency among localities, or a combination of the two. The local planning agency is responsible, in general, “for the preparation of the comprehensive plan or plan [amendments],” for “[holding] at least one public hearing” during the latter process, for “[monitoring] and [overseeing] the effectiveness and status of the comprehensive plan and [recommending] to the governing body such changes in the comprehensive plan as may from time to time be required, including preparation of the periodic reports required” by law, and, in some cases, for “[reviewing] proposed land development regulations, land development codes, or amendments thereto, and [making] recommendations to the governing body as to the consistency of the proposal with the adopted comprehensive plan . . . .”<sup>182</sup>

Localities are empowered to engage in joint planning with their neighbors, even delegating their planning responsibilities to a joint commission.

Unincorporated areas adjacent to incorporated municipalities may be included in the area of municipal jurisdiction for the purposes of this act if the governing bodies of the municipality and the county in which the area is located agree on the boundaries of such additional areas, on procedures for joint action in the preparation and adoption of the comprehensive plan, on procedures for the administration of land development regulations or the land development code applicable thereto, and on the manner of representation on any joint body or instrument that may be created under the joint agreement.<sup>183</sup>

The ratification of such an arrangement requires “a public hearing on the subject with public notice has been held by each governing body involved” and approval by each governing body.<sup>184</sup> Localities that use a joint planning agency may also retain their local planning agency, and “may designate which local planning agency functions, powers, and duties will be performed by each such local planning agency.”<sup>185</sup>

### **Contents of the Local Comprehensive Plan**

There is quite a bit of emphasis on consistency, not only between state and local plans, but also within each local plan. “Coordination of the several elements of the local comprehensive plan shall be a major objective of the planning process. The several elements of the comprehensive plan shall be consistent, and the comprehensive plan shall be economically feasible.”<sup>186</sup>

One important constituent of the local plan is the capital improvements element, which is “designed to consider the need for and the location of public facilities,” i.e., roads, and is required to be reviewed annually.<sup>187</sup> This element must

set forth: 1. A component which outlines principles for construction, extension, or increase in capacity of public facilities, as well as a component which outlines principles for correcting existing public facility deficiencies, which are necessary to implement the comprehensive plan. The components shall cover at least a 5-year period. 2. Estimated public facility costs, including a delineation of when facilities will be needed, the general location of the facilities, and projected revenue sources to fund the facilities. 3. Standards to ensure the availability of public facilities and

the adequacy of those facilities including acceptable levels of service. 4. Standards for the management of debt.<sup>188</sup>

Another vital constituent is the “future land use plan element,” which “[designates] proposed future general distribution, location, and extent of the uses of land for residential uses, commercial uses, industry, agriculture, recreation, conservation, education, public buildings and grounds, other public facilities, and other categories of the public and private uses of land.”<sup>189</sup>

Among other things, this element must take into account “the amount of land required to accommodate anticipated growth; the projected population of the area; the character of undeveloped land; [and] the availability of public services . . . .”<sup>190</sup>

Also included in the plan is a “traffic circulation element consisting of the types, locations, and extent of existing and proposed major thoroughfares and transportation routes, including bicycle and pedestrian ways.”<sup>191</sup> This element will be elaborated on later.

Finally, there is

[a]n intergovernmental coordination element showing relationships and stating principles and guidelines to be used in the accomplishment of coordination of the adopted comprehensive plan with the plans of school boards and other units of local government providing services but not having regulatory authority over the use of land, with the comprehensive plans of adjacent municipalities, the county, adjacent counties, or the region, with the state comprehensive plan and with the applicable regional water supply plan, . . . as the case may require and as such adopted plans or plans in preparation may exist. This element of the local comprehensive plan shall demonstrate consideration of the particular effects of the local plan, when adopted, upon the development of adjacent municipalities, the county, adjacent counties, or the region, or upon the state comprehensive plan, as the case may require.<sup>192</sup>

## **Pre- and Post-Adoption Review**

Rather than waiting until after it approves a comprehensive plan or plan amendment, the local governing body must

transmit the complete proposed comprehensive plan or plan amendment to the state land planning agency, the appropriate regional planning council and water management district, the Department of Environmental Protection, the Department of State, and the Department of Transportation, and, in the case of municipal plans, to the appropriate county, and, in the case of county plans, to the Fish and Wildlife Conservation Commission and the Department of Agriculture and Consumer Services, immediately following a public hearing . . . as specified in the state land planning agency's procedural rules.<sup>193</sup>

Those agencies are required “to provide comments to the *state land planning agency* within 30 days after receipt by the state land planning agency of the complete proposed plan amendment.”<sup>194</sup> “The appropriate regional planning council shall also provide its written comments to the state land planning agency within 30 days after receipt by the state land planning agency of the complete proposed plan amendment and shall specify any objections, recommendations for modifications, and comments of any other regional agencies to which the regional planning council may have referred the proposed plan amendment.”<sup>195</sup> At this point, the state land planning agency must “review a proposed plan amendment upon request of a regional

planning council, affected person, or local government transmitting the plan amendment,” and “may review any proposed plan amendment regardless of whether a request for review has been made . . . .”<sup>196</sup> “The local government, upon receipt of written comments from the state land planning agency, shall have 120 days to adopt or adopt with changes the proposed comprehensive plan or . . . plan amendments.”<sup>197</sup> The municipality is then required to “transmit the complete adopted comprehensive plan or plan amendment . . . to the state land planning agency . . . within 10 working days after adoption.”<sup>198</sup> Then, the state land planning agency, which employs a full time staff for this purpose,<sup>199</sup> has “45 days for review and to determine if the plan or plan amendment is in compliance . . . .”<sup>200</sup> Should the state land planning agency find the local comprehensive plan noncompliant, an administrative review is then held at which

[t]he local government’s determination shall be sustained unless it is shown by a preponderance of the evidence that the comprehensive plan or plan amendment is not in compliance. The local government’s determination that elements of its plans are related to and consistent with each other shall be sustained if the determination is fairly debatable.<sup>201</sup>

Should a locality still fail to comply, the administrative body “may direct state agencies not to provide funds to increase the capacity of roads, bridges, or water and sewer systems within the boundaries of [the locality] . . . .”<sup>202</sup>

### Specific Oversight of Elements

The state land planning agency, subject to approval of the legislature, is charged with setting “minimum criteria for the review and determination of compliance of the local government comprehensive plan elements required” by statute.<sup>203</sup> It is up to the agency to craft

criteria for determining whether [*inter alia*]: [1] Proposed elements are in compliance with the requirements of . . . [the statute]. [2] Other elements of the comprehensive plan are related to and consistent with each other. [3] The local government comprehensive plan elements are consistent with the state comprehensive plan and the appropriate regional policy plan . . . , [4] Proposed elements identify the mechanisms and procedures for monitoring, evaluating, and appraising implementation of the plan. Specific measurable objectives are included to provide a basis for evaluating effectiveness as required [by statute] [and] . . . [5] Proposed elements contain programs and activities to ensure that comprehensive plans are implemented.<sup>204</sup>

An example of this can be found under the section of Florida’s administrative code, promulgated by the state land planning agency, which addresses, among other things, the type and level of analysis required for the transportation element. The state land planning agency has rather extensive requirements, including:

- (a) An analysis of the existing transportation system levels of service and system needs based upon existing design and operating capacities; most recently available estimates for average daily and peak hour vehicle trips; existing modal split and vehicle occupancy rates; existing public transit facilities, including ridership by route, peak hour capacities and headways; population characteristics, including transportation disadvantaged; and the existing characteristics of the major trip generators and attractors within the community.
- (b) An analysis of the availability of transportation facilities and services to serve existing land uses.

(c) An analysis of the adequacy of the existing and projected transportation system to evacuate the coastal population prior to an impending natural disaster.

(d) An analysis of the growth trends and travel patterns and interactions between land use and transportation, and the compatibility between the future land use and transportation elements, including land use compatibility around airports.

(e) An analysis of existing and projected intermodal deficiencies and needs such as terminals, connections, high occupancy vehicle lanes, park-and-ride lots and other facilities.

(f) An analysis of the projected transportation system levels of service and system needs based upon the future land use categories, including their densities or intensities of use as shown on the future land use map or map series, and the projected integrated transportation system. The analysis shall demonstrate integration and coordination among the various modes of transportation, including rail, airport and seaport facilities. The analysis shall address the need for new facilities and expansions of alternative transportation modes to provide a safe and efficient transportation network and enhance mobility. The methodologies used in the analysis, including the assumptions used, modeling applications, and alternatives considered shall be included in the plan support document. . .

(h) The analysis shall demonstrate how the local government will maintain its adopted level of service standards for roads and transit facilities within its jurisdiction and how the level of service standards reflect and advance the purpose of this section and the goals, objectives, and policies of the future land use element and other elements of the comprehensive plan.

(i) The analysis shall explicitly address and document the internal consistency of the plan, especially its provisions addressing transportation, land use, and availability of facilities and services.

(j) An analysis which identifies land uses and transportation management programs necessary to promote and support public transportation systems in designated public transportation corridors . . .

..<sup>205</sup>

## Concurrency

The purpose of the statutorily mandated concurrency system is “to establish an ongoing mechanism that ensures that public facilities and services needed to support development are available concurrent with the impacts of the proposed development.”<sup>206</sup> Localities are required to perform “multimodal level-of-service analysis” to “evaluate increased accessibility by multiple modes and reductions in vehicle miles of travel in an area or zone.”<sup>207</sup> FDOT is required to “develop methodologies to assist local governments in implementing this multimodal level-of-service analysis,” and “work with [t]he Department of Community Affairs . . . [to] provide technical assistance to local governments in applying these methodologies.”<sup>208</sup> This analysis proves quite important because

[c]onsistent with the public welfare, and except as otherwise provided in this section, transportation facilities designated as part of the Florida Intrastate Highway System needed to serve new development shall be in place or under actual construction not more than 5 years after issuance by the local government of a certificate of occupancy or its functional equivalent. Other transportation facilities needed to serve new development shall be in place or under actual construction no more than 3 years after issuance by the local government of a certificate of occupancy or its functional equivalent.<sup>209</sup>



Aside from its initial “public welfare” qualification, there are limited exceptions to this rule, generally subject to the discretion of local governments, including projects that promote public transportation or have a statutorily defined *de minimis* impact on service volume.<sup>210</sup>

One individual from Florida’s Office of Planning Policy noted that, in practice, it is essential that any concurrency statute be implemented in tandem with a strong urban service area designation policy. Otherwise, developers will simply seek available capacity on the outer edges of existing urban areas to circumvent the costs and restrictions imposed by the concurrency statute.<sup>211</sup>

## **Regional Planning Council**

Regional planning councils are empowered, inter alia,

[1] To enter into contracts to provide, at cost, such services related to its responsibilities as may be requested by local governments within the region and which the council finds feasible to perform, . . . [2] To provide technical assistance to local governments on growth management matters, [3] To perform a coordinating function among other regional entities relating to preparation and assurance of regular review of the strategic regional policy plan, with the entities to be coordinated determined by the topics addressed in the strategic regional policy plan, [4] To establish and conduct a cross-acceptance negotiation process with local governments intended to resolve inconsistencies between applicable local and regional plans, with participation by local governments being voluntary, [and] [5] To coordinate land development and transportation policies in a manner that fosters regionwide transportation systems.<sup>212</sup>

They also craft the strategic regional policy plans, which, “consistent with the state comprehensive plan,”

[contains] goals and policies that shall address affordable housing, economic development, emergency preparedness, natural resources of regional significance, and regional transportation, and that may address any other subject which relates to the particular needs and circumstances of the comprehensive planning district as determined by the regional planning council.<sup>213</sup>

Strategic regional policy plans (or for that matter, regional planning councils) do not wield as much authority as their state counterparts. For one, “a two-thirds vote of the membership of the governing body of a regional planning council” is required to pass a regional plan.<sup>214</sup> Naturally, this leads to a plan more in the middle, satisfying most of the members of the council. Further, there are several limitations on the regional planning council. It “may not, in its strategic regional policy plan or by any other means, establish binding level-of-service standards for public facilities and services provided or regulated by local governments.”<sup>215</sup>

## **Georgia**

Georgia’s planning scheme is accurately termed “a ‘bottom-up’ approach to planning.”<sup>216</sup> Local comprehensive planning is not per se required, however, nearly all of Georgia’s municipalities have adopted a comprehensive plan.<sup>217</sup> The state prescribes a sparse group of local planning standards, but conditions certain funding on the successful creation, state review, and implementation of the plans.

## Local Planning

Localities are empowered “[t]o develop, or to cause to be developed pursuant to a contract or other arrangement approved by the governing body, a comprehensive plan; [and] [t]o develop, establish, and implement land use regulations which are consistent with the comprehensive plan of the municipality or county, as the case may be . . . .”<sup>218</sup>

The Georgia Department of Community Affairs is charged with setting “minimum local planning standards . . . to guide local governments in developing and implementing their comprehensive plans.”<sup>219</sup> As such, “the Department has established statewide goals for five topical elements,” requiring that

[g]oals developed in local plans . . . be consistent with these initial statewide goals:

- (a) Economic Development: To achieve a growing and balanced economy, consistent with the prudent management of the state's resources, that equitably benefits all segments of the population.
- (b) Natural and Historic Resources: To conserve and protect the environmental, natural and historic resources of Georgia's communities, regions and the state.
- (c) Community Facilities and Services: To ensure that public facilities throughout the state have the capacity, and are in place when needed, to support and attract growth and development and/or maintain and enhance the quality of life of Georgia's residents.
- (d) Housing: To ensure that residents of the state have access to adequate and affordable housing.
- (e) Land Use: To ensure that land resources are allocated for uses that will accommodate and enhance the state's economic development, natural and historic resources, community facilities, and housing and to protect and improve the quality of life of Georgia's residents.<sup>220</sup>

In furtherance of these goals, “[t]he following six topical planning elements have been established and . . . [are required to] be included in all local comprehensive plans: population, economic development, natural and historic resources, community facilities and services, housing, and land use.”<sup>221</sup> Transportation is nestled within the community facilities and services element, and there is no explicit requirement for coordination of transportation and land use planning.

Once a locality crafts a plan, it is reviewed by the Department of Community Affairs to ensure that it complies with the minimum standards and to allow “1. Local governments within the region that are contiguous to the submitting local government, and other local governments within the region that are likely to be affected by the plan; 2. Local governments outside the region that are contiguous to the submitting local government and their regional development center(s); and 3. Affected state agencies and the Department” to comment on the plan.<sup>222</sup> If the plan is not approved, the government may “[d]isagree with the recommendation and adopt the plan as originally submitted. However, for a local government to be certified as a Qualified Local Government, the plan adopted must be in compliance with the minimum standards and procedures.”<sup>223</sup> The Department of Community Affairs “may make grants or loans to eligible recipients or qualified local governments from appropriations made to the department generally for grant or loan purposes, without appropriations language specifying amounts, recipients, and

purposes,” and it is up to the Department of Community Affairs to “condition the award of any such grants or loans to a county or municipality upon the county or municipality, as the case may be, being a qualified local government.”<sup>224</sup>

## **Regional Planning**

Regional plans (and the state plan in progress) are essentially an amalgamation of local plans, as can be gleaned from the duties of the Department of Community Affairs:

- (1) The department, utilizing the comprehensive plans of qualified local governments, shall assist the Governor in coordinated and comprehensive planning on the state level and throughout the state, including, but not limited to, assistance in the development of a comprehensive plan for the state;
- (2) The department, utilizing the comprehensive plans of qualified local governments, shall assist the Governor in defining the state's long-term goals, objectives, and priorities and implementing those goals, objectives, and priorities through coordinated and comprehensive planning;
- (3) The department shall examine and analyze plans of state agencies, comprehensive plans of regional development centers, and comprehensive plans of municipalities and counties, undertaken as part of the coordinated and comprehensive planning process, and advise the Governor with respect to those plans . . . .<sup>225</sup>

The department’s role in regional planning includes “[developing] planning procedures with respect to regionally important resources, for planning with respect to developments of regional impact, and for encouraging interjurisdictional cooperation among local governments,” with the department having discretion as to “what shall constitute developments of regional impact.”<sup>226</sup> They also take on a mediation role should the comprehensive plans of governments conflict, as it “may act to mediate or otherwise assist in resolving conflicts upon written request from any regional development center or local government or may act, without any such request, on its own initiative.”<sup>227</sup> They may “establish rules and procedures which require that local governments submit for review any proposed action which would, based upon guidelines which the department may establish, affect regionally important resources or further any development of regional impact.”<sup>228</sup>

## **Georgia Regional Transportation Authority**

Formed in response to the Atlanta area’s non-compliance with the federal Clean Air Act,<sup>229</sup> the Georgia Regional Transportation Authority (GRTA) has jurisdiction over the territory of every county which was designated by the United States Environmental Protection Agency (USEPA) in the Code of Federal Regulations as of [or after] December 31, 1998, as a county included in whole or in part within a nonattainment area under the Clean Air Act and which the [GRTA’s] board designates, through regulation, as a county having excess levels of ozone, carbon monoxide, or particulate matter.<sup>230</sup> The GRTA retains its jurisdiction over a county for 20 years.<sup>231</sup> As a constitutional matter, Georgia established 159 “special districts,” with “one such district . . . [existing] within the geographic boundaries of each county, and the territory of each district . . . [including] all of the territory within its respective county.”<sup>232</sup> “Any special district within a county within the geographic area over which the authority has jurisdiction shall be deemed activated for purposes of [the Georgia Regional Transportation Authority Act] . . . .<sup>233</sup>

## The GRTA is vested with the primary power

[t]o plan, design, acquire, construct, add to, extend, improve, equip, operate, and maintain or cause to be operated and maintained land public transportation systems and other land transportation projects, and all facilities and appurtenances necessary or beneficial thereto, within the geographic area over which the authority has jurisdiction or which are included within an approved transportation plan or transportation improvement program and provide land public transportation services within the geographic jurisdiction of the authority, and to contract with any state, regional, or local government, authority, or department, or with any private person, firm, or corporation, for those purposes, and to enter into contracts and agreements with the Georgia Department of Transportation, county and local governments, and transit system operators for those purposes . . . .<sup>234</sup>

It may also “provide advisory, technical, consultative, training, educational, and project assistance services to the state and local government and to enter into contracts with the state and local government to provide such services [with reciprocal authority given to state and local governments to enter into and pay for such contracts].”<sup>235</sup> It may “coordinate and assist in planning for land transportation and air quality purposes within the geographic area over which the authority has jurisdiction, . . . between and among all state, regional, and local authorities charged with planning responsibilities for such purposes by state or federal law, and to adopt a regional plan or plans based in whole or in part on such planning.”<sup>236</sup>

Further,

[t]o review and make recommendations to the Governor concerning all proposed regional land transportation plans and transportation improvement programs prepared by metropolitan planning organizations wholly or partly within the geographic area over which the authority has jurisdiction, . . . and to negotiate with such metropolitan planning organizations concerning changes or amendments to such plans which may be recommended by the authority or the Governor consistent with applicable federal law and regulation, and to adopt such regional plans as all or a portion of its own regional plans.<sup>237</sup>

Finally, it may

review and make recommendations to the Governor concerning all land transportation plans and transportation improvement programs prepared by the Department of Transportation involving design, construction, or operation of land transportation facilities wholly or partly within the geographic area over which the authority has jurisdiction, . . . and to negotiate with that department concerning changes or amendments to such plans which may be recommended by the authority or the Governor consistent with applicable federal law and regulation, and to adopt such plans as all or a portion of its own regional plans.<sup>238</sup>

In addition to the foregoing powers, with respect to “special districts” created by law, the GRTA has the authority

to contract with local governments within such special districts for funding, planning services, and such other services as the authority may deem necessary and proper to assist such local governments in providing land public transportation services and instituting air quality control measures within the bounds of such special districts where the facilities for such purposes are located wholly within the jurisdiction of such local governments and such special districts or are the subject of contracts between or among such local governments, and where such services and

measures are certified by the authority to be consistent with the designated metropolitan planning organizations' regional plans, where applicable.<sup>239</sup>

Once a special district has been activated, localities are required to comply with the GRTA or face devastating losses of funding:

No local government which, upon the activation of a special district created by this chapter, fails or refuses to plan, coordinate, and implement local government services in such special district as provided for in this chapter and authorized pursuant to a resolution of the authority shall be eligible for any state grant of any kind whatsoever except such grants as may be related directly to the physical and mental health, education, and police protection of its residents, nor shall any funds appropriated to or otherwise obtained by the Department of Transportation . . . be utilized for designation, improvement, funding, or construction of any land public transportation system or any part of the state highway system lying within the boundaries of such local government's jurisdiction, or for the nonsafety related maintenance of any land public transportation system, highway, road, or bridge operating or located within such local government's jurisdictional boundaries, nor shall such local government be permitted to receive federal grants or funds for any such purpose, unless such funds are within categories applicable to state-wide inspection or improvement required for compliance with federal law or regulation.<sup>240</sup>

Should a locality take the opposite approach, “[t]he authority may make grants or loans to a local government to pay all or any part of the cost of a project,”<sup>241</sup> with a project liberally defined as

the acquisition, construction, installation, modification, renovation, repair, extension, renewal, replacement, or rehabilitation of land, interest in land, buildings, structures, facilities, or other improvements and the acquisition, installation, modification, renovation, repair, extension, renewal, replacement, rehabilitation, or furnishing of fixtures, machinery, equipment, furniture, or other property of any nature whatsoever used on, in, or in connection with any such land, interest in land, building, structure, facility, or other improvement, all for the essential public purpose of providing facilities and services to meet land public transportation needs and environmental standards and to aid in the accomplishment of the purposes of the authority.<sup>242</sup>

In the event the local government agrees to accept such grants or loans, the authority may require the local government to issue bonds or revenue bonds as evidence of such grants or loans. The authority and a local government may enter into such loan commitments and option agreements as may be determined appropriate by the authority.<sup>243</sup>

## Hawaii

Given the slim margin of error in land use and transportation planning under which Hawaii necessarily operates because of its limited resources, it naturally has a highly centralized system of planning.

### State-level Planning

The Office of Planning, part of the Department of Business, Economic Development & Tourism, rests at the helm of the state’s planning bureaucracy. It is charged with the broad mandate to “gather, analyze, and provide information to the governor to assist in the overall analysis and formulation of state policies and strategies to provide central direction and cohesion

in the allocation of resources and effectuation of state activities and programs, and effectively address current or emerging issues and opportunities.”<sup>244</sup> Specifically, the office performs the following statewide functions:

- (1) State comprehensive planning and program coordination. Formulating and articulating comprehensive statewide goals, objectives, policies, and priorities, and coordinating their implementation through the statewide planning system . . .
- (2) Strategic planning. Identifying and analyzing significant issues, problems, and opportunities confronting the State, and formulating strategies and alternative courses of action in response to identified problems and opportunities by: (A) Providing in-depth policy research, analysis, and recommendations on existing or potential areas of critical state concern; (B) Examining and evaluating the effectiveness of state programs in implementing state policies and priorities; (C) Monitoring through surveys, environmental scanning, and other techniques--current social, economic, and physical conditions and trends; and (D) Developing, in collaboration with affected public or private agencies and organizations, implementation plans and schedules and, where appropriate, assisting in the mobilization of resources to meet identified needs;
- (3) Planning coordination and cooperation. Facilitating coordinated and cooperative planning and policy development and implementation activities among state agencies, and between the state, county, and federal governments, by: (A) Reviewing, assessing, and coordinating, as necessary, major plans, programs, projects, and regulatory activities existing or proposed by state and county agencies; and (B) Formulating mechanisms to simplify, streamline, or coordinate interagency development and regulatory processes;
- (4) Planning information system. Collecting, analyzing, maintaining, and disseminating data and information to further effective state planning, policy analysis and development, and delivery of government services by: (A) Assembling, organizing, evaluating, and classifying existing data and performing necessary basic research in order to provide a common data base for governmental planning; (B) Planning, developing, implementing, and coordinating a statewide planning and geographic information system; . . . (C) Maintaining a centralized depository of state and national planning references;
- (5) Land use planning. Developing and presenting the position of the State in all boundary change petitions and proceedings before the land use commission, assisting state agencies in the development and submittal of petitions for land use district boundary amendments, and conducting periodic reviews of the classification and districting of all lands in the State, as specified in chapter 205 . . .
- [6] Regional planning and studies. Conducting plans and studies to determine: (A) The capability of various regions within the State to support projected increases in both resident populations and visitors; (B) The potential physical, social, economic, and environmental impact on these regions resulting from increases in both resident populations and visitors; (C) The maximum annual visitor carrying capacity for the State by region, county, and island; and (D) The appropriate guidance and management of selected regions and areas of statewide critical concern . . .
- [7] Regional, national, and international planning. participating in and assuring that state plans, policies, and objectives are consistent, to the extent practicable, with regional, national, and international planning efforts.<sup>245</sup>

Though enforcement power does not rest with the office of planning,

[a]ny of the agencies of the State to which general or special appropriations are made, or a part of whose budget contains an allocation, or which makes an allocation of funds for planning and

research, shall consult with the office of planning to ensure that all expenditures are in accordance with, or in furtherance of the goals and objectives of the Hawaii State Plan. After first consulting with the director of business, economic development, and tourism, the governor may withhold the expenditure of these funds by any agency until the governor is satisfied that the expenditures will implement those goals and objectives.<sup>246</sup>

This is the primary means of enforcement against localities and departments possessed by the state.

## **The State Plan**

To guide broad state planning, the legislature has codified objectives and policies in numerous and diverse subject areas.<sup>247</sup> The policy for transportation systems mandates that “[p]lanning for the State’s facility systems with regard to transportation shall be directed towards the achievement of the following objectives: (1) An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods. (2) A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State.”<sup>248</sup> To this end, it is the state’s policy to:

- (1) Design, program, and develop a multi-modal system in conformance with desired growth and physical development as stated in this chapter;
- (2) Coordinate state, county, federal, and private transportation activities and programs toward the achievement of statewide objectives;
- (3) Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties;
- (4) Provide for improved accessibility to shipping, docking, and storage facilities;
- (5) Promote a reasonable level and variety of mass transportation services that adequately meet statewide and community needs;
- (6) Encourage transportation systems that serve to accommodate present and future development needs of communities;
- (7) Encourage a variety of carriers to offer increased opportunities and advantages to interisland movement of people and goods;
- (8) Increase the capacities of airport and harbor systems and support facilities to effectively accommodate transshipment and storage needs;
- (9) Encourage the development of transportation systems and programs which would assist statewide economic growth and diversification;
- (10) Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawaii’s natural environment;
- (11) Encourage safe and convenient use of low-cost, energy-efficient, non-polluting means of transportation;

(12) Coordinate intergovernmental land use and transportation planning activities to ensure the timely delivery of supporting transportation infrastructure in order to accommodate planned growth objectives; and

(13) Encourage diversification of transportation modes and infrastructure to promote alternate fuels and energy efficiency.<sup>249</sup>

Land use decisions made by state agencies shall be in conformance with the overall theme, goals, objectives, and policies, and shall utilize as guidelines the priority guidelines . . . [enumerated in the statutes], and the state functional plans approved pursuant to [state law]. The rules adopted by appropriate state agencies to govern land use decisionmaking shall be in conformance with the overall theme, goals, objectives, and policies contained within [the statutes].<sup>250</sup>

One such set of priority guidelines “for regional growth distribution and land resource utilization” requires that the state “[e]ncourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures, and away from areas where other important benefits are present, such as protection of important agricultural land or preservation of lifestyles,” and “[u]tilize Hawaii's limited land resources wisely, providing adequate land to accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline, conservation lands, and other limited resources for future generations.”<sup>251</sup>

One commentator from the Department of State Transportation Planning believed that much of their success was attributable to the quality and quantity of interaction between state agencies. For example, although the land use agencies generally have the lead in land use matters, the transportation agencies are involved in the decision in a support role, “informing them of the impacts of their decisions on the transportation system, with recommendations for mitigative measures.”<sup>252</sup>

### **Limited Local Planning**

Among other things, the statewide plan is to include

[c]ounty general plans that shall indicate desired population and physical development patterns for each county and regions within each county. In addition, county general plans or development plans shall address the unique problems and needs of each county and regions within each county. County general plans or development plans shall further define the overall theme, goals, objectives, policies, and priority guidelines contained within [the statutes].<sup>253</sup>

Zoning and the subdivision of land, although the responsibility of localities, must also comply with the state plan.<sup>254</sup>

Counties with populations less than 100,000<sup>255</sup> may (1) “create a county planning commission (A) to formulate a master plan providing for the future growth, development, and beautification of the county in its public and private buildings, streets, roads, grounds, and vacant lots; (B) to formulate subdivision and zoning regulations; and (C) to recommend the establishment of building zones” and (2) “create a county traffic commission to advise the legislative body in the regulation of traffic.”<sup>256</sup> Hawaii law requires that “[z]oning in all counties



shall be accomplished within the framework of a long range, comprehensive general plan prepared or being prepared to guide the overall future development of the county.”<sup>257</sup>

Counties with a population over 200,000<sup>258</sup> must create an MPO to “[carry] out a continuing, comprehensive, transportation planning process in cooperation with the State and the appropriate county in order to advise appropriate state, county, and federal agencies regarding that process.”<sup>259</sup> It is further required to

develop through continuing cooperative input from state and county planning agencies, the transportation plans and planning processes or policies enumerated . . . [in state statutes] and shall submit those plans and planning processes together with any other advice on transportation planning as may be required to the state legislature, the state department of transportation, the state department of business, economic development, and tourism, the office of planning, the legislative body of the appropriate county, the transportation and planning agencies of the appropriate county, and appropriate federal agencies.<sup>260</sup>

It is important to note that all of the MPO’s “activities shall be primarily advisory, and that the policymaking powers shall remain with the legislature or the legislative body of the appropriate county, whichever the case may be.”<sup>261</sup>

Further, some of Hawaii’s success can be attributed to the fact that each island is a county, thus making it easier to define jurisdictional responsibilities.<sup>262</sup> Although this feature is, of course, unique to Hawaii, the methods and benefits of a clear delineation of local responsibility can certainly be extrapolated and applied in other states.

## **Kansas**

Kansas relies on a relatively decentralized framework for its land use and transportation planning, with no statewide plan, no requirement for local plans, and only minimal regulation of the substance of a plan any locality adopts.

### **Local and Joint Planning Commissions**

“The governing body of any city, by adoption of an ordinance, may create a planning commission for such city and the board of county commissioners of any county, by adoption of a resolution, may create a planning commission for the county.”<sup>263</sup> In addition,

[a]ny two or more cities or counties of this state may cooperate, pursuant to written agreement, in the exercise and performance of planning powers, duties and functions, [and] [a]ny city or county of this state may cooperate, pursuant to written agreement, with any city or county of any other state having adjoining planning jurisdiction in the exercise and performance of any planning powers, duties and functions provided by state law for cities and counties of this state and to the extent that the laws of such other state permit such joint cooperation.<sup>264</sup>

When such an agreement is created, the localities may establish

a joint planning commission for the metropolitan area or region comprising that portion of the areas of planning jurisdiction of the cities or counties cooperating jointly as shall be designated by

the joint ordinances and resolutions, [which] may be empowered to carry into effect such provisions of state law relating to planning which are authorized for such joining cities or counties and which each may under existing laws separately exercise and perform.<sup>265</sup>

## Comprehensive Plan

Although no locality is required to craft a comprehensive plan, several minimal requirements exist should a locality do so. The planning commission is required to “make or cause to be made comprehensive surveys and studies of past and present conditions and trends relating to land use, population and building intensity, public facilities, transportation and transportation facilities, economic conditions, natural resources and may include any other element deemed necessary to the comprehensive plan.”<sup>266</sup> The plan must

show the commission's recommendations for the development or redevelopment of the territory including: (a) The general location, extent and relationship of the use of land for agriculture, residence, business, industry, recreation, education, public buildings and other community facilities, major utility facilities both public and private and any other use deemed necessary; (b) population and building intensity standards and restrictions and the application of the same; (c) public facilities including transportation facilities of all types whether publicly or privately owned which relate to the transportation of persons or goods; (d) public improvement programming based upon a determination of relative urgency; (e) the major sources and expenditure of public revenue including long range financial plans for the financing of public facilities and capital improvements, based upon a projection of the economic and fiscal activity of the community, both public and private; (f) utilization and conservation of natural resources; and (g) any other element deemed necessary to the proper development or redevelopment of the area.<sup>267</sup>

The governing body of the municipality, which has the final say on approving the plan, “may: (1) Approve such recommendations by ordinance in a city or resolution in a county; (2) override the planning commission's recommendations by a 2/3 majority vote; or (3) may return the same to the planning commission for further consideration, together with a statement specifying the basis for the governing body's failure to approve or disapprove.”<sup>268</sup> Finally, “[a]t least once each year, the planning commission shall review or reconsider the plan or any part thereof and may propose amendments, extensions or additions to the same,” with the same procedure for adoption as was used for the original plan.<sup>269</sup>

## Interview Remarks from Kansas

1. *What role does Kansas DOT play in terms of working with municipalities for transportation and land use planning? (Legislatively, we did not identify any requirements for statewide comprehensive planning, but we did see that municipalities may adopt comprehensive plans, thus, we wondered if in so doing such municipalities worked with Kansas DOT.)*

Currently, KDOT does not play a direct role in land use planning activities. Kansas statutes places land use planning squarely in the hands of cities and counties. Because we are not directly involved we are reactive to land use issues as they come up and will potentially impact the state highway system. For example, the Bureau of Traffic Engineering has a unit called "Corridor Management." They are responsible for approving new access points and modifying existing access points on expressways and arterials that are part of the state highway system. Unfortunately, cities and counties are not required by state law to forward subdivision plats or rezoning applications to KDOT so this is done on a hit or miss basis. To get access the developer does have to apply to KDOT, but this is not always coordinated with the local development review process. The Bureau of Transportation

Planning is responsible for break-in-access requests on freeways and has started collecting local comprehensive plans to assist with traffic forecasts, travel demand models, highway capacity analysis and corridor studies. KDOT Secretary Deb Miller is interested in moving KDOT in the direction of coordinating land use and transportation issues more systematically, but nothing has been done yet to my knowledge.

2. *Have local and joint planning commissions been formed, and have those significantly impacted transportation and land use planning?*

Kansas statutes authorize but do not require the creation of planning commissions. Thus, local planning is permissive under state law rather than mandated. An individual city or county may create a planning commission for its own jurisdiction or it may enter into an inter-local agreement to create a joint planning commission that serves two or more cities and/or counties. Most cities do have city planning commissions. The City of Wichita and Sedgwick County have a joint city-county planning commission. The City of Topeka and Shawnee County have a joint city-county planning commission. The City of Lawrence and Douglas have a joint city-county planning commission. Other cities have planning commissions that exercise up to a three-mile extraterritorial planning and zoning jurisdiction beyond their city limits. Many of the very small cities and very rural counties don't have planning commissions or if they do, they don't have professional planners on staff. Only about half of the state is "covered" by regional planning commissions, but these largely stopped doing planning work after federal funding dried up and do more grant work than anything else.

It is very difficult to get planning commissions to understand that transportation and land use are interrelated issues that must be considered simultaneously. In many cities and counties, the development community (i.e., bankers, real estate agents, developers, etc.) essentially control the planning commissions. In these cases, they are more interested in approving development proposals than anything else. For example, the City of Wichita requested funding from KDOT to preserve right-of-way for a bypass around the northwest side of the city under KDOT's System Enhancement Program. This part of the region is experiencing extreme development pressure because the city built a new sewage treatment plant in the area. While KDOT is trying to select an alignment for the bypass, the city is approving subdivisions which are making it more difficult to "thread the needle." The city staff is unwilling to raise the issue of a development moratorium until such time as the alignment is selected. Their desire to promote residential and commercial development is in conflict with their desire for highway development. Interestingly, the city-county planning commission is also the MPO for the region.

3. *Can you give us a contact who can indicate whether Kansas charges developers or localities a fee for the states' participation in the four steps of land development (rezoning application review, site plan review, permit process, or acceptance of a privately built street into the state or local system)?*

As far as I know, KDOT does not charge fees to developers or localities for access permits, but you might contact Robb Ott, Corridor Management Administrator in the Bureau of Traffic Engineering. His email address is: roberto@ksdot.org.

## **Maryland**

### **State Overview**

Maryland's planning environment has been characterized as relatively centralized vis-à-vis other states. Although much of the actual planning occurs within local-level planning commissions, those commissions are subject to myriad rules imposed by the legislature and the Department of Planning—a centralized state agency responsible for interjurisdictional matters

and coordination, the state comprehensive plan, enforcement of planning laws, and technical assistance to localities.

At the department's disposal are several assistant attorneys general, who are mandated by statute to provide advice and counsel "required by the Secretary and *any other official* of the Department."<sup>270</sup> The department may need them, given its sizeable authority to intervene as a party or file a formal statement expressing its views in *any* adjudicatory or other proceeding "in the State concerning land use, development, or construction . . . ."<sup>271</sup> This broad statutory authority does not require the department to show any "substantial state or interjurisdictional interest,"<sup>272</sup> or that such interest may not be adequately represented—both of which are normally necessary prerequisites to a party intervening in a lawsuit or administrative proceeding.<sup>273</sup>

One of the department's major functions is to provide statutorily mandated planning assistance to local governments, "including surveys, land use studies, urban renewal plans, technical services, and other planning work . . . ."<sup>274</sup> It may also provide additional assistance, such as financial, when allowed for in the state budget. However, all of this comes at a price, as the department is entitled to be compensated by localities for any technical assistance it provides.<sup>275</sup>

Also coordinating and assisting on the state level is the State Economic Growth, Resource Protection, and Planning Commission. Among other things, this commission populates several subcommittees, which promote interjurisdictional cooperation and help implement state policy and local plans from both a technical and organizational standpoint.<sup>276</sup> The commission also implements Maryland's statutorily based growth policy, the State Economic Growth, Resource Protection, and Planning Policy. Promulgated in 1992, the eight tenets of the policy control substantive land use and transportation decisions by both the department of planning and localities.<sup>277</sup> One such precept requires that "[a]dequate public facilities and infrastructure," i.e., roads, be "available or planned in areas where growth is to occur . . . ."<sup>278</sup> Except when "extraordinary circumstances exist that warrant proceeding with the project and . . . no reasonably feasible alternative exists," unless a project meets these eight tenets and conforms to its local plan, it may not receive state funding.<sup>279</sup>

Maryland also employs a scheme that restricts state funding—"any form of assurance, guarantee, grant payment, credit, tax credit, or other assistance, including a loan, loan guarantee, or reduction in the principal obligation of, or rate of interest payable on, a loan or a portion of a loan"—for "growth-related projects" to priority funding areas (PFAs).<sup>280</sup> Growth-related projects include any major capital projects, defined as "any new, expanded, or significantly improved facility or service that involves planning, environmental studies, design, right-of-way construction, or purchase of essential equipment related to the facility or service,"<sup>281</sup> construction or purchase of new low-income single family homes or purchase of loans for new low-income single family homes, acquisition or construction of new low-income multifamily rental housing, and business and industrial development funding. Although a list of priority funding areas is enumerated in the state statutes,<sup>282</sup> localities are also given the power to designate areas as PFAs provided they meet a range of statutory criteria for certain uses (e.g., industrial) or density (e.g., units per acre). Additional restrictions on funding may be placed depending in part on the factors cited.<sup>283</sup>

## Local Level

State law grants local jurisdictions the power to create a planning commission, which in turn crafts a comprehensive plan for its locality.<sup>284</sup> Though created locally, comprehensive plans must conform to statewide standards and must include both a land use and a transportation element.<sup>285</sup> The planning commission is required to review and, if necessary, amend the plan at least once every 6 years.<sup>286</sup> Aside from these statutory checks on the planning commission, the plan they develop is merely a recommendation to the local legislative body, which may accept or reject it in whole or in part. However, once codified, the plan enjoys the force of law, allowing planning commissions to reject proposed projects that fail to meet it, even if they conform to all other zoning requirements.<sup>287</sup> No publicly or privately owned street, ground, open space, or public utility or building may be constructed or authorized unless and until the “location, character, and extent” of the proposed construction has been approved by the planning commission as germane to the plan.<sup>288</sup> The planning commission is given broad statutory authority in this regard, as a two-thirds vote in the local legislative body is necessary to overturn the commission’s decision.

Notably linking land use and transportation planning, the transportation component must “propose the most appropriate and desirable patterns for the general location, character, and extent” of roads.<sup>289</sup> This transportation component must also provide “for the circulation of persons and goods on a schedule that extends as far into the future as is reasonable,” as well as an “estimate of the probable utilization” of those roads.<sup>290</sup> This element enjoys the force of law. The planning commission, with the consent of the local legislative body, has the power to reserve land for a fixed period of time for future dedication as a public street.<sup>291</sup> Although the actual legal “taking” does not occur at the time of the reservation, the reservation serves essentially to put current and prospective property owners on notice that the land in question may be subject to a taking during the fixed period.<sup>292</sup> The commission is authorized to negotiate compensation and other claims with the landowner during this reservation period, and any such forthcoming agreement will bind the landowner and his or her successors in title.<sup>293</sup> This reservation also prevents the locality from issuing permits for the development of any land that is to be used for a street.<sup>294</sup>

The local legislative body is statutorily authorized to enact ordinances that punish violations of the land use code and any ordinance promulgated thereunder with civil and misdemeanor criminal sanctions, the latter of which may include both fines and imprisonment.<sup>295</sup> In addition, they may seek injunctive relief to prevent the unlawful construction or alteration of a building or land, as well as to compel the restraint or correction of a violation, prevent the occupancy of a building, or prevent any illegal use of premises.<sup>296</sup>

## Interview Remarks From Maryland

- 1. As you are aware, Maryland’s use of priority funding areas sets a different planning environment than what is found in some other states. How has the use of priority funding affected transportation plans at the state level?*

The Smart Growth and Neighborhood Conservation Act of 1997 and subsequent Executive Orders have substantially impacted MDOT plans and programs. The legislation and Executive Order direct

State spending on “growth-related projects” to Priority Funding Areas (PFAs). PFAs are existing communities and places where local governments and the State want State investment to support future growth. The Act legislatively designates certain areas—the traditional core of Maryland’s urban development and areas targeted for economic development—as PFAs:

- Municipalities;
- Baltimore City;
- Areas inside the Baltimore and Washington Beltways;
- Neighborhoods designated for revitalization by the Department of Housing and Community Development (“Designated Neighborhoods”);
- Enterprise and Empowerment Zones; and
- Certified Heritage Areas within county—designated growth areas.

For MDOT, growth-related projects covered by the legislation include major capital projects. This has meant all new, expanded, or significantly improved highway or transit facilities or services that involve the design, right-of-way, construction, or purchase of essential equipment related to a facility or service. Generally speaking, major projects found within our construction program in the MDOT Consolidated Transportation Program (CTP). Planning and environmental phases are exempted, but in practice the law is considered during these phases.

2. *What DOT staffing levels are needed to work with localities or the State Department of Planning when developing the transportation component of the local comprehensive plan?*

It should be noted that coordination with local jurisdictions on local plans occurred before the Smart Growth and Neighborhood Conservation Act was passed. MDOT and its Modal Administrations have had regional planners in place to work with local jurisdictions on transportation planning issues for some time. The Act did require MDOT to focus specifically on interactions between land use and transportation and this necessitated the creation of a special unit. In 1999 MDOT reorganized its Office of Systems Planning & Evaluation and created the Office of Planning and Capital Programming (OPCP). A unit in OPCP was established to coordinate planning activities with localities and other State agencies to meet the requirements of the law and other Departmental objectives that:

- address transportation needs;
- lower or eliminate barriers to department goals and projects;
- provide stability and certainty in our planning processes, and;
- address issues that might arise in future with a variety of stakeholders.

Currently, three (3) full-time MDOT staff meet these needs. This unit necessitated the hire of two new planners, others were reassigned. See attached highlighted portion of OPCP’s organizational chart.

3. *Can you give us a contact who can indicate whether Maryland charges developers or localities a fee for the states’ participation in the four steps of land development (rezoning application review, site plan review, permit process, or acceptance of a private built street into the state or local system)?*

MDOT currently does not receive compensation for participation in any development review process it may be involved in with developers, local jurisdictions or other state agencies. Fees of this nature are being considered.

## North Carolina

Although North Carolina is a primarily decentralized state, there does exist a greater level of state oversight and assistance in planning than with some of the other states surveyed. Comprehensive plans, however, need not conform to any statewide plan.

### Local and Joint Planning

Municipalities are not required to create comprehensive plans, but they

may by ordinance create or designate one or more agencies to perform the following duties: (1) Make studies of the county and surrounding areas; (2) Determine objectives to be sought in the development of the study area; (3) Prepare and adopt plans for achieving these objectives; (4) Develop and recommend policies, ordinances, administrative procedures, and other means for carrying out plans in a coordinated and efficient manner; (5) Advise the board of commissioners concerning the use and amendment of means for carrying out plans; (6) Exercise any functions in the administration and enforcement of various means for carrying out plans that the board of commissioners may direct; (7) Perform any other related duties that the board of commissioners may direct.<sup>297</sup>

In other words, they may create comprehensive plans. Such an agency “may include but shall not be limited to one or more of the following: (1) A planning board or commission of any size (with not fewer than three members) or composition considered appropriate, organized in any manner considered appropriate; (2) A joint planning board created by two or more local governments . . . .”<sup>298</sup> Thus, it appears that both local and joint planning between governments is allowed under North Carolina law. Once a comprehensive plan is adopted,

[z]oning regulations *shall be made in accordance with a comprehensive plan* and designed to lessen congestion in the streets; to secure safety from fire, panic and other dangers; to promote health and the general welfare; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; and to facilitate the adequate provision of transportation, water, sewerage, schools, parks, and other public requirements.<sup>299</sup>

### State Land Use Policy

The legislature has legislated an intent to create policy

to undertake the continuing development and implementation of a State land-use policy, incorporating environmental, esthetic, economic, social, and other factors so as to promote the public interest, to preserve and enhance environmental quality, to protect areas of natural beauty and historic sites, to encourage beneficial economic development, and to protect and promote the public health, safety, and welfare.<sup>300</sup>

This policy should “serve as a guide for decision-making in State and federally assisted programs which affect land use, and shall *provide a framework for the development of land-use policies and programs by local governments.*”<sup>301</sup> To this end, the legislature has sought to “give local governments guidance and assistance in the establishment and implementation of local land planning and management programs so as to effectively meet their responsibilities for economically and environmentally sound land-use management . . . .”<sup>302</sup>

Undertaking this task is the North Carolina Land Policy Council, whose duties are, *inter alia*,

[t]o provide technical assistance and training programs for State and local agency personnel concerned with the development and implementation of State and local land-use programs, [t]o establish a method for coordinating all State and local agency programs and services which significantly affect land use, [and] [t]o assemble and analyze significant existing laws, policies and programs in State and local government as they pertain to or have substantial effect upon the use, management, development or conservation of all lands and waters, public and private, within the State of North Carolina . . . .<sup>303</sup>

However, the council's role seems to be almost exclusively advisory, given its lack of enforcement authority.

### **Interview Remarks from North Carolina**

1. *What role does NCDOT play in terms of working with municipalities for transportation and land use planning? (Legislatively, we did not identify any requirements for statewide comprehensive planning, but we did see that municipalities may adopt comprehensive plans, thus, we wondered if in so doing such municipalities worked with NCDOT?)*

North Carolina does not require localities to prepare or adopt comprehensive plans, other than in the 20 coastal counties covered by CAMA legislation. Localities within CAMA areas must adopt a plan meeting the requirements established by the Coastal Resource Council every five years. There is no requirement for a locality to work with NCDOT in this planning effort. Localities outside of CAMA areas may choose to develop and adopt plans. In most instances this has been a linear process - a locality creates a land development plan and this plan serves as the basis for a transportation plan and associated modeling efforts.

We have encouraged localities to create multiple development scenarios, which we would then model and provide feedback into their process. To date I am not aware of this occurring. We attempted this as a pilot project but the partner county had enough difficulties creating one scenario due to the controversy associated with their planning effort. the NC Division of Community Assistance coordinated a county/town planning effort where NCDOT concurrently developed a transportation plan, but this was for a very rural mountain community where most transportation elements were associated with enhancements or modernization, not TIP type projects.

Any locality may choose to work with NCDOT as part of their land development planning process but there is no legislation which mandates this. NCDOT works with MPOs and RPOs to create regional transportation plans. NCDOT also works with localities outside of MPOs for county and small urban plans. The best contact for more information about this process is Travis Marshall at [tmarshall@dot.state.nc.us](mailto:tmarshall@dot.state.nc.us).

2. *Has the North Carolina Land Policy Council significantly influence transportation planning? (If so, what has been the interaction between the Council and NCDOT?)*

I have never heard of this Council so my guess is no.

3. *Can you give us a contact who can indicate whether North Carolina charges developers or localities a fee for the states' participation in the four steps of land development (rezoning application review, site plan review, permit process, or acceptance of a privately built street into the state or local system)?*



Under normal circumstances the NCDOT is not involved with the first three steps. Depending on a local government's practices, Division engineers and perhaps the Traffic Engineering Branch may become involved in or after site plan review as this relates to driveway permits. Carteret County, for example, by policy has joint review with their Division engineer. This is the exception, not the rule. Traffic Engineering Branch becomes involved for projects where a traffic impact assessment indicates probable impacts on a state facility.

The Board of Transportation recently approved a new driveway policy. The new document can be found at [http://www.doh.dot.state.nc.us/preconstruct/highway/dsn\\_srvc/value/manuals/pos.pdf](http://www.doh.dot.state.nc.us/preconstruct/highway/dsn_srvc/value/manuals/pos.pdf)  
The best contact about this may be Jim Dunlop at [jdunlop@dot.state.nc.us](mailto:jdunlop@dot.state.nc.us).

We are involved with accepting roads onto the state maintenance system. Information on this process can be found at [http://www.doh.dot.state.nc.us/preconstruct/highway/dsn\\_srvc/value/manuals/newsdiv3-23-00.pdf](http://www.doh.dot.state.nc.us/preconstruct/highway/dsn_srvc/value/manuals/newsdiv3-23-00.pdf).  
The best contact may be Jim Rand at [jrand@dot.state.nc.us](mailto:jrand@dot.state.nc.us).

Now, the above relates only to NCDOT as my assumption is the question does not relate to other state agencies. Some divisions within DENR may be involved with some site plan review activities but I cannot answer the question as it relates to them.

## Oregon

Although Oregon is often characterized as having a system of primarily state control,<sup>304</sup> the overture to the state's planning statutes notes that

[t]he promotion of coordinated statewide land conservation and development requires the creation of a statewide planning agency to prescribe planning goals and objectives to be applied by state agencies, cities, counties and special districts throughout the state . . . [but] cities and counties should remain as the agencies to consider, promote and manage the local aspects of land conservation and development for the best interests of the people within their jurisdictions.<sup>305</sup>

Properly prepared and coordinated comprehensive plans [must be crafted] for cities and counties, regional areas and the state as a whole, . . . [and] must be adopted by the appropriate governing body at the local and state levels, . . . [and] shall be the basis for more specific rules and land use regulations which implement the policies expressed through the comprehensive plans.<sup>306</sup>

In fact, there are over 276 local comprehensive plans in operation throughout Oregon.<sup>307</sup>

### Land Conservation & Development Commission

Sitting at the apex of the land use planning chain of command, the Land Conservation and Development Commission (LCDC) consists of seven representatives from clusters of counties throughout the state appointed to 4-year terms by the governor and confirmed by the state senate.<sup>308</sup> The commission's primary responsibilities are to

[a]dopt, amend and revise goals consistent with regional, county and city concerns; [p]repare, collect, provide or cause to be prepared, collected or provided land use inventories; [p]repare statewide planning guidelines; [r]eview comprehensive plans for compliance with goals; [c]oordinate planning efforts of state agencies to assure compliance with goals and compatibility with city and county comprehensive plans; [and] [r]eview and recommend to the Legislative Assembly the designation of areas of critical state concern.<sup>309</sup>

LCDC heads the Department of Land Conservation and Development and has the power to appoint and remove its director at any time.<sup>310</sup>

The goals adopted by LCDC are a central part of Oregon's planning system, as all local plans are required to comply with them through a certification process, "acknowledgment," discussed later.<sup>311</sup> The commission has promulgated 19<sup>312</sup> statewide planning goals, 2 of which, i.e., land use and transportation, are discussed here.

To satisfy the transportation goal, a plan must, *inter alia*,

[1] consider all modes of transportation including mass transit, air, water, pipeline, rail, highway, bicycle and pedestrian; [2] be based upon an inventory of local, regional and state transportation needs; [3] minimize adverse social, economic and environmental impacts and costs; [4] facilitate the flow of goods and services so as to strengthen the local and regional economy; [and] [5] conform with local and regional comprehensive land use plans.<sup>313</sup>

Likewise, the land use goal requires the existence of particular elements. The plan is grounded in a "factual base," which "should include data on . . . (a) Natural resources, their capabilities and limitations, (b) Man-made structures and utilities, their location and condition, (c) Population and economic characteristics of the area, [and] (d) Roles and responsibilities of governmental units."<sup>314</sup>

### **Joint Legislative Committee on Land Use**

In addition to LCDC, an executive body, there exists a legislative arm, the Joint Legislative Committee on Land Use, whose members are appointed from the state house and senate by the speaker and president, respectively.<sup>315</sup> The chief functions of the committee are, among other things, to

[r]eview and make recommendations to the Legislative Assembly on goals and guidelines approved by the Land Conservation and Development Commission; [s]tudy and make recommendations to the Legislative Assembly on the political, economic and other effects of the state land use planning program on local government, public and private landowners and the citizens of Oregon; [s]tudy and make recommendations to the Legislative Assembly on improvements to the land use appeals process; [and] [m]ake recommendations to the Legislative Assembly on any other matter relating to land use planning in Oregon . . . .<sup>316</sup>

### **Comprehensive Planning**

Every city and county in Oregon is required to "[p]repare, adopt, amend and revise comprehensive plans in compliance with goals approved by the commission," and "[e]nact land use regulations to implement their comprehensive plans . . . ."<sup>317</sup> A comprehensive plan is defined as:

[A] generalized, coordinated land use map and policy statement of the governing body of a local government that interrelates all functional and natural systems and activities relating to the *use of lands*, including but not limited to sewer and water systems, *transportation systems*, educational facilities, recreational facilities, and natural resources and air and water quality management programs. "Comprehensive" means all-inclusive, both in terms of the geographic area covered and

functional and natural activities and systems occurring in the area covered by the plan. "General nature" means a summary of policies and proposals in broad categories and does not necessarily indicate specific locations of any area, activity or use. A plan is "coordinated" when the needs of all levels of governments, semipublic and private agencies and the citizens of Oregon have been considered and accommodated as much as possible. "Land" includes water, both surface and subsurface, and the air.<sup>318</sup>

One of the hallmarks of Oregon's planning system is the state control over local comprehensive plans, which begins with "acknowledgment," a process wherein LCDC certifies that a locality's comprehensive plan and accompanying land use regulations comply with statewide planning goals.<sup>319</sup> LCDC has the power to order a locality to comply with the statewide goals if, *inter alia*:

A local government has no comprehensive plan or land use regulation and is not on a compliance schedule directed to developing the plan or regulation;  
A local government is not making satisfactory progress toward performance of its compliance schedule;  
A local government has engaged in a pattern or practice of decision making that violates an acknowledged comprehensive plan or land use regulation;  
A comprehensive plan or land use regulation adopted by a local government . . . is not in compliance with the goals by the date set in [the statutes] for such compliance.<sup>320</sup>

An order for compliance with goals is subject to limited judicial review and may be reversed, modified, or remanded only if it (1) is "unlawful in substance or procedure, but error in procedure shall not be cause for reversal, modification or remand unless the court shall find that substantial rights of any party were prejudiced thereby;" (2) is "unconstitutional;" (3) "exceeds the statutory authority of the agency;" or (4) is "not supported by substantial evidence in the whole record."<sup>321</sup> Should a locality fail to comply with a final order, LCDC has the power to withhold grant funds and state shared revenues from the locality for the duration of its noncompliance.<sup>322</sup> "The commission may retain a portion of the withheld revenues to cover costs of providing services incurred under the order, including use of a hearings officer or staff resources to monitor land use decisions and limited land use decisions or conduct hearings. The remainder of the funds withheld . . . shall be released to the local government upon completion of requirements of the commission order."<sup>323</sup> Moreover, LCDC is not limited to using this carrot and stick enforcement, but "may institute actions or proceedings for legal or equitable remedies . . . to enforce compliance with the provisions of any order issued . . . or to restrain violations thereof."<sup>324</sup>

Oregon law also requires "periodic review" of comprehensive plans when

(a) [t]here has been a substantial change in circumstances including but not limited to the conditions, findings or assumptions upon which the comprehensive plan or land use regulations were based, so that the comprehensive plan or land use regulations do not comply with the statewide planning goals; (b) [d]ecisions implementing acknowledged comprehensive plan and land use regulations are inconsistent with the goals; (c) [t]here are issues of regional or statewide significance, intergovernmental coordination or state agency plans or programs affecting land use which must be addressed in order to bring comprehensive plans and land use regulations into compliance with the goals; or (d) [t]he local government, commission or Department of Land Conservation and Development determines that the existing comprehensive plan and land use regulations are not achieving the statewide planning goals.<sup>325</sup>

Periodic reviews also occur based on a schedule that corresponds to a locality's population.<sup>326</sup> Should a locality fail to file the periodic review in a timely fashion, it can be subject to sanctions, including (a) a requirement that "the local government to apply those portions of the goals and rules to land use decisions as specified . . . (b) Forfeiture of all or a portion of the grant money received to conduct the review, develop the work program or complete the work task, (c) Completion of the work program or work task by the department," where LCDC may also "require the local government to pay the cost for completion of work performed by the department . . ." and "(d) Application of such interim measures as the commission deems necessary to ensure compliance with the statewide planning goals."<sup>327</sup>

Amendments that can affect transportation are tightly controlled. Any amendment to the comprehensive plan "which significantly affect[s] a transportation facility shall assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility." An amendment "significantly affects" a transportation facility if it

(a) Changes the functional classification of an existing or planned transportation facility; (b) Changes standards implementing a functional classification system; (c) Allows types or levels of land uses which would result in levels of travel or access which are inconsistent with the functional classification of a transportation facility; or (d) Would reduce the performance standards of the facility below the minimum acceptable level identified in the TSP [Transportation System Plan].<sup>328</sup>

Assuring the consistency of allowed land uses is

accomplished by either (a) Limiting allowed land uses to be consistent with the planned function, capacity, and performance standards of the transportation facility; (b) Amending the TSP to provide transportation facilities adequate to support the proposed land uses consistent with the requirements of this division; (c) Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes; or (d) Amending the TSP to modify the planned function, capacity and performance standards, as needed, to accept greater motor vehicle congestion to promote mixed use, pedestrian friendly development where multimodal travel choices are provided.<sup>329</sup>

## Urban Growth Boundaries

Oregon implicitly weds land use and transportation planning through the utilization of urban growth boundaries, as outlined in Goal 14: Urbanization. When establishing urban growth boundaries, the following must be considered:

(1) Demonstrated need to accommodate long-range urban population growth requirements consistent with LCDC goals; (2) Need for housing, employment opportunities, and livability; (3) Orderly and economic provision for *public facilities and services* [e.g., roads]; (4) Maximum *efficiency of land uses* within and on the fringe of the existing urban area; (5) Environmental, energy, economic and social consequences; (6) Retention of agricultural land . . . and, (7) Compatibility of the proposed urban uses with nearby agricultural activities.<sup>330</sup>

By closely guarding the location of growth and development by the use of urban growth boundaries, the discontinuity between transportation and land use planning that normally occurs in unfettered growth situations is, by nature, avoided.<sup>331</sup>

## Interview Remarks from Oregon

1. *Given that there are over 276 local comprehensive plans in place throughout Oregon, what portion of the 64 LCDC staff are required to review these plans, and are these staff found also found within the Oregon Department of Transportation or exclusively within the Oregon Land Conservation and Development Commission?*

This program, known as the Transportation Growth Management Program, is a joint venture from LCDC and the Oregon Department of Transportation (ODOT). While ODOT has only an advisory role, LCDC has a regulatory role in the acknowledgment of the local comprehensive plans. LCDC has twelve representatives who are involved with reviewing these comprehensive plans: nine regional representatives who are generalists, and who focus on plan amendments, plus three additional staff who are transportation planning specialists and thus support the generalists. It should be emphasized that this only reflects the LCDC role and not the ODOT role. There are sometimes disagreements between LCDC and ODOT in these reviews, although each agency is working to understand more of the converse discipline (ODOT is working to understand land use and LCDC is working to understand transportation.)

It should be clarified that LCDC's acknowledgment authority extends primarily to the review of significant updates to the comprehensive plans or extensions of the urban growth boundary in excess of 50 acres. Unless zoning or mitigation measures are in error, LCDC does not generally have jurisdiction on single amendments to a comprehensive plan, such as an individual owner who wants requests a rezoning, despite the fact that such individual amendments are where significant development of land can occur. (On the other hand, LCDC can appeal individual amendments just as a neighbor might appeal these amendments – but LCDC does not have jurisdictional authority.)

2. *In the “acknowledgment” (the process where the Land Conservation & Development Commission certifies that the locality’s comprehensive plan and land use regulations comply with state planning goals), have there been cases where the Commission had to exercise its authority to make a locality alter its plans? If so, can you give an example?*

These instances do arise. For example, in the fertile western valley of Oregon, there is a small community situated at an interchange of the only north-south interstate in Oregon. Because this land is prime for agriculture, industry, and human habitation, the community has grown substantially since 1990.

When the community wanted to expand the UGB – which is supposed to encompass the land needed for the next 20 years for all future uses – the city council embarked on a high growth plan, predicting sprawl on all sides of the freeway interchange (which is already over capacity). Using the transportation planning rule as one of several leveraging tools, LCDC made the community look more carefully at urban form and how development would occur. The result was that the community scaled back the magnitude of development, the location, and the amount of land consumed, without changing their population forecast. Rather, they emphasized compact development, redevelopment at infill locations inside the city, the mix of single and multifamily housing centers, and mixed use centers. (Although not certain, LCDC points out that probably transportation changes such as local circulation, street widths, and the number of intersections, were also examined.)

3. *The “periodic review” of comprehensive plans that is required by law seems potentially quite valuable for areas where growth occurs faster or in a different pattern than was expected at the time the comprehensive plan was created. Can you give some examples where this periodic review occurred?*

The purpose of the periodic review is actually to allow counties and cities with small populations to reduce their administrative costs. Initially all jurisdictions were required to do periodic review but this took a long time for jurisdictions to get their plans updated, and frankly the money was insufficient. In 1999, the smallest cities (under 2,500) and counties (under 15,000) were exempted from periodic review, and then in 2003 any city under 10,000 is exempted – but only for the next four years.

Note that exemption from periodic review is not an exemption from statewide planning goals.

## South Carolina

South Carolina belongs to the cadre of decentralized states, having no statewide plan, although it does require localities to craft comprehensive plans based on state standards.<sup>332</sup> Most of South Carolina's planning legislation comes from the South Carolina Local Government Comprehensive Planning Act of 1994,<sup>333</sup> as amended in 1999,<sup>334</sup> the provisions of which are discussed here.

### Local Planning Commissions

To facilitate the creation of the mandatory comprehensive plans, city and county councils may create planning commissions for their respective municipalities, while, to encourage cooperation among localities, “[a]ny combination of municipal councils and a county council or any combination of municipal councils may create a joint planning commission.”<sup>335</sup> “Specific planning elements must be based upon careful and comprehensive surveys and studies of existing conditions and probable future development and include recommended means of implementation.”<sup>336</sup> Public officials are required to “furnish to the planning commission, within a reasonable time, such available information as it may require for its work.”<sup>337</sup> Absent consent from the owner, the “members and employees” of the planning commission “may enter onto private property . . . after ten days’ written notification to the owner of record, make examinations and surveys, and place and maintain necessary monuments and marks on them . . . .”<sup>338</sup>

### Comprehensive Planning

Like many states, South Carolina requires both a land use and a transportation element in its local comprehensive plans. The latter is amalgamated in the larger “community facilities” element, “which considers transportation network; water supply, treatment, and distribution; sewage system and wastewater treatment; solid waste collection and disposal, fire protection, emergency medical services, and general government facilities; education facilities; and libraries and other cultural facilities . . . .”<sup>339</sup> The land use element “considers existing and future land use by categories, including residential, commercial, industrial, agricultural, forestry, mining, public and quasi-public, recreation, parks, open space, and vacant or undeveloped.”<sup>340</sup> Every element must include, and is not limited to, an “inventory of existing conditions,” “a statement of needs and goals,” and “implementation strategies with time frames.”<sup>341</sup> In recognition of the inexorable conflicts created by differences in the planning philosophies and practices of different jurisdictions, “[s]urveys and studies on which planning elements are based must include consideration of potential conflicts with adjacent jurisdictions and regional plans or issues.”<sup>342</sup>

The commission is required to review the plan “as often as necessary, but not less than once every five years, to determine whether changes in the amount, kind, or direction of development of the area or other reasons make it desirable to make additions or amendments to the plan.”<sup>343</sup> The plan and all its elements “must be updated at least every ten years.”<sup>344</sup>

Also, as in many states,

[w]hen the local planning commission has recommended and local governing authority or authorities have adopted the related comprehensive plan element, . . . no new street . . . or other public way, grounds, or open space or public buildings for any use, whether publicly or privately owned, may be constructed or authorized in the political jurisdiction of the governing authority or authorities establishing the planning commission until the location, character, and extent of it have been submitted to the planning commission for review and comment as to the compatibility of the proposal with the comprehensive plan of the community.<sup>345</sup>

## **Zoning and Implementation**

Zoning ordinances, which the planning commission has the power to *recommend*, “must be for the general purposes of guiding development in accordance with existing and future needs and promoting the public health, safety, morals, convenience, order, appearance, prosperity, and general welfare.” In other words, they must be created with “reasonable consideration” of an enumerated list of purposes, which include, *inter alia*, “to prevent the overcrowding of land, to avoid undue concentration of population, and to lessen congestion in the streets,” and “to facilitate the adequate provision or availability of transportation, police and fire protection, water, sewage, schools, parks, and other recreational facilities, affordable housing, disaster evacuation, and other public services and requirements.”<sup>346</sup>

In furtherance of the commission-recommended comprehensive plan, the governing body may adopt zoning ordinances regulating, among other things, “the use of buildings, structures, and land,” “the size, location, height, bulk, orientation, number of stories, erection, construction, reconstruction, alteration, demolition, or removal in whole or in part of buildings and other structures, including signage,” and “the amount of off-street parking and loading that must be provided, and restrictions or requirements related to the entry or use of motor vehicles on the land . . . .”<sup>347</sup> However, only the land use element of the plan need be adopted for the governing body to enact ordinances; it is not necessary for the transportation, or “community facilities,” element to be adopted.<sup>348</sup> Similarly, “[w]hen at least the community facilities element . . . has been adopted, . . . the local planning commission may prepare and recommend to the governing body or bodies for adoption regulations governing the development of land within the jurisdiction,” including

for coordination of streets within subdivision and other types of land developments with other existing or planned streets or official map streets; for the size of blocks and lots; for the dedication or reservation of land for streets, school sites, and recreation areas and of easements for utilities and other public services and facilities; and for the distribution of population and traffic which will tend to create conditions favorable to health, safety, convenience, appearance, prosperity, or the general welfare.<sup>349</sup>

The governing body is empowered to implement “planned development district[s],” “conditional uses” zoning, and “performance zoning,” the latter of which “specifies a minimum requirement

or maximum limit on the effects of a land use rather than, or in addition to, specifying the use itself, simultaneously assuring compatibility with surrounding development and increasing a developer's flexibility."<sup>350</sup> The municipality may enforce zoning ordinance through criminal sanctions (misdemeanor), as well as relief at law and equity.<sup>351</sup>

The planning commission is required to recommend appropriate implementation measures to its municipal council, including zoning ordinances, "regulations for the subdivision or development of land and appropriate revisions thereof," "an official map and appropriate revision on it showing the exact location of existing or proposed public street, highway, and utility rights-of-way, and public building sites, together with regulations to control the erection of buildings or other structures or changes in land use within the rights-of-way, building sites, or open spaces within its political jurisdiction or a specified portion of it, as set forth in this chapter," "a capital improvements program setting forth projects required to implement plans which have been prepared and adopted, including an annual listing of priority projects for consideration by the governmental bodies responsible for implementation prior to preparation of their capital budget," and "policies or procedures to facilitate implementation of planning elements."<sup>352</sup>

### **Development Impact Fees**

Once a municipality has approved a compliant comprehensive plan, it may impose development impact fees, pursuant to a strict statutory evaluation and reporting process.<sup>353</sup> The locality must first "[estimate] the effect of recovering capital costs through impact fees on the availability of affordable housing within the political jurisdiction of the governmental entity."<sup>354</sup> "The amount of the development impact fee must be based on actual improvement costs or reasonable estimates of the costs, supported by sound engineering studies."<sup>355</sup> Finally, the fee must be levied by an ordinance, which, notably, must "include a description of acceptable levels of service for system improvements . . . ."<sup>356</sup>

### **Interview Remarks from South Carolina**

1. *How involved are SCDOT staff with the comprehensive plans performed by localities? (For example, does SCDOT review the transportation element of these comprehensive plans)?*

In terms of the *transportation element*, South Carolina reviews plans in the urban areas through interactions with the appropriate council of governments, and is moving toward reviewing comprehensive plans in the rural areas. For example, when the Buford Council of Governments indicates they want a particular project included in South Carolina's five year program, SCDOT asks whether this project is included in the comprehensive plan. For rural areas, the council of governments are not yet at the same level of sophistication in their planning, but they are moving in that direction and SCDOT plans to be reviewing the transportation element in the future.

In terms of the land use element, the SCDOT stays at "arm's length" from land use decisions because of stiff resistance from localities in the past. SCDOT has on occasion been able to reduce costs of projects through corridor protection techniques, such as acquiring right of way prior to development, but because of local resistance such practices are difficult.

2. *Does SCDOT provide technical assistance to localities to help with the coordination of transportation and land use? (Can you provide some examples?)*



SCDOT offers this assistance, but it is up to localities to accept this offer. One successful case involved a road widening in the northern portion of the state, where right of way costs were quite high, on the order of \$700,000 per acre. Local officials had planned development on this land and developers were planning to build prior to the roadway construction. SCDOT worked with developers, the city, and the county to accomplish two objectives: first to delay the development until the roadway was widened (thereby reducing right of way costs!) and second, to pinpoint the exact location of access points. It helped SCDOT to make the case by showing the results of traffic simulation models assuming the development had taken place as originally intended: city and county officials saw queues and delays that would have resulted had the city and county not been willing to cooperate with the SCDOT on this issue.

3. *Can you give us a contact who can indicate whether South Carolina charges developers or localities a fee for the states' participation in the four steps of land development (rezoning application review, site plan review, permit process, or acceptance of a privately built street into the state or local system)?*

SCDOT does not charge for these review services, primarily because it helps create partnerships between the DOT and these governments. While SCDOT might provide these services at no cost to localities, for example, these localities might then provide data, key maps, or other information at no cost to SCDOT.

## Texas

Texas falls within the gamut of relatively decentralized states. There is no statewide land use plan, although the Texas Transportation Commission is given the vague mandate to “plan and make policies for the location, construction, and maintenance of a comprehensive system of state highways and public roads.”<sup>357</sup> However, there seems to be no required conformity between this planning process and the myriad local and regional processes across the Lone Star State.

### Local Planning

Municipalities are allowed, but not required, to “adopt a comprehensive plan for the long-range development of the municipality. A municipality may define the content and design of a comprehensive plan,”<sup>358</sup> i.e., there is no statutory mandate concerning what the plan must include. However, it is recommended that it include “provisions on land use, transportation, and public facilities consist of a single plan or a coordinated set of plans organized by subject and geographic area; and be used to coordinate and guide the establishment of development regulations.”<sup>359</sup> Moreover, a locality has great latitude in determining how to actually implement the comprehensive plan, as “[a] municipality may define, in its charter or by ordinance, the relationship between a comprehensive plan and development regulations and may provide standards for determining the consistency required between a plan and development regulations.”<sup>360</sup> No state review of the comprehensive plan is required; it may be simply “adopted or amended by ordinance following: (1) a hearing at which the public is given the opportunity to give testimony and present written evidence; and (2) review by the municipality's planning commission or department, if one exists.”<sup>361</sup>

## Joint Planning

Municipalities may work together in a joint planning commission with one or more municipalities if “the area in which a municipality may exercise zoning authority is adjacent to any area in which one or more other municipalities may exercise zoning authority.”<sup>362</sup> “The governing bodies of each municipality participating in a joint planning commission shall appoint an equal number of representatives to the planning commission.”<sup>363</sup> Unlike a municipality, a joint planning commission is *required* to “prepare an organized master plan for the orderly growth of the area under the jurisdiction of the commission. In addition to other provisions, the plan must include: (1) highway design; (2) street and park layout; and (3) designation of areas for the location of schools, residences, business and commerce, industry, and water reservoirs.”<sup>364</sup> The plan must be approved by each of the participating municipalities in order for it to take effect.<sup>365</sup>

## Regional Planning

Regional planning commissions are “political subdivision[s] of the state,”<sup>366</sup> may be formed between “two or more adjoining counties that have, in any combination: (A) common problems of transportation, water supply, drainage, or land use; (B) similar, common, or interrelated forms of urban development or concentration; or (C) special problems of agriculture, forestry, conservation, or other matters.”<sup>367</sup> Unlike the joint planning commissions, this framework “permits participating governmental units greatest possible flexibility to organize a commission most suitable to their view of the region's problems.”<sup>368</sup> “Participating governmental units may by joint agreement determine the number and qualifications of members of the governing body of a commission,” with “[a]t least two-thirds of the members of a governing body of a commission . . . elected officials of participating counties or municipalities.”<sup>369</sup>

“A commission may plan for the development of a region and make recommendations concerning *major thoroughfares, streets, traffic and transportation studies*, bridges, airports, parks, recreation sites, school sites, public utilities, *land use*, water supply, sanitation facilities, drainage, public buildings, population density, open spaces, and other items relating to the commission's general purposes.”<sup>370</sup> The “plan or recommendation of a commission may be adopted in whole or in part by the governing body of a participating governmental unit;”<sup>371</sup> in other words, it does not need the blessing of all involved municipalities to become effective, such as is the case in joint planning. However, it would become effective only in those municipalities that wish to implement it. The commission is empowered though to “assist a participating governmental unit in: (1) carrying out a plan or recommendation developed by the commission; and (2) preparing and carrying out local planning consistent with the general purpose of [the law] . . . .”<sup>372</sup>

The commission, being a political subdivision, has the power to “(1) purchase, lease, or otherwise acquire property; (2) hold or sell or otherwise dispose of property; (3) employ staff and consult with and retain experts . . . .”<sup>373</sup> It “may contract with a participating governmental unit to perform a service if: (1) the participating governmental unit could contract with a private organization without governmental powers to perform the service; and (2) the contract to

perform the service does not impose a cost or obligation on a participating governmental unit not a party to the contract.”<sup>374</sup>

## **Interview Remarks from Texas**

### *1. What role does the Texas Department of Transportation play in terms of working with municipalities for transportation and land use planning?*

TxDOT works cooperatively with municipalities that are designated MPOs in crafting the transportation elements of their comprehensive plans. Typically, TxDOT staff actively participates in MPO technical committees. The District Engineer also typically has a seat on the MPO policy board. In general, Texas pursues decentralized transportation and land use planning. Several efforts are underway to increase local flexibility and provide new planning tools and funding mechanisms.

In the past, each MPO has had to propose projects to compete for TxDOT funding on a statewide basis. TxDOT has recently created a metropolitan mobility plan, scheduled for full implementation with the fiscal year 2005 Transportation Improvement Program (TIP), that will give stable formula-based funding to the 8 largest MPOs, and will give them the flexibility to program projects with more local authority. Details of this metropolitan mobility plan can be found on the TxDOT website at <http://www.dot.state.tx.us/btg/default.htm>.

Additional flexibility has been granted to municipalities and counties through several programs, as detailed below.

One or more counties may form Regional Mobility Authorities as authorized by the Texas Administrative Code Title 43, Part 1, Chapter 26, which is available at the Secretary of State’s website at <http://www.sos.state.tx.us/tac/index.shtml>. As of this date only one RMA, the Central Texas Regional Mobility Authority, has been formed. They are currently planning toll projects in the Austin area.

To promote local public transportation planning, one or more counties that are adjacent to counties with populations of over 1,000,000 may form County Coordinated Transportation Authorities. In practice, this allows suburban counties to develop a service plan, coordinate public transportation projects with the large transit agencies in the central counties, and to vote to impose a sales tax dedicated to its transportation projects. Suburban public transportation projects (i.e., extensions of commuter rail and light rail) can then proceed at the suburban counties’ time schedule, rather than be tied to the plans and funding limitations of the central county’s transit agency. Details of this program may be found on the website of the Denton County Transportation Authority at <http://www.dcta.net>.

TxDOT and MPOs also work with any unofficial planning agencies that citizens may form, such as the Austin-San Antonio Corridor Council at <http://thecorridor.org>, Envision Central Texas at <http://www.envisioncentraltexas.org>, and the Austin/San Antonio Intermunicipal Commuter Rail District, authorized under Vernon’s Ann. Civ. Stat. Art. 6550c-1. More details on this district are found on their website at <http://www.asarail.org>.

### *2. What strategies have you found successful for working with joint planning commissions?*

With decentralized transportation planning, TxDOT pursues a policy of cooperation with the local MPOs. The Districts generally provide substantial technical assistance and guidance as the MPOs prepare transportation plans and documents such as TIPs and UPWPs. This has resulted in the state having a greater role in making local transportation decisions (especially project selection) than we desire. As mentioned above, this has led us to develop new programs and enabling legislation to help create and support local planning agencies.

3. *Have regional planning commissions been formed, and have those significantly impacted transportation and land use planning?*

Regional planning bodies for highway and public transportation modes have been enabled, as well as unofficial bodies like the Austin-San Antonio Corridor Council. Like the newly formed RMAs and CCTAs, these are too new to have had significant impact yet, and their relationships to MPOs have not been explicitly defined in legislation.

Traditional transportation planning in a region is sometimes pursued by a single MPO designated for multiple urbanized areas. For example, the Houston-Galveston Area Council (a Council of Governments) is the single MPO designated for all the urbanized areas in the region, including Houston, the Woodlands, Lake Jackson-Angleton, Texas City-LaMarque, and Galveston.

4. *Can you give us a contact that can indicate whether Texas charges developers or localities a fee for the States' participation in the four steps of land development (rezoning application review, site plan review, permit process, or acceptance of a privately built street into the state or local system)?*

The State of Texas (specifically the Texas Department of Transportation) does not charge developers or localities a fee for the State's participation, as the State (TXDOT) as such, does not directly participate in the four steps of land development. In Texas, such four steps of land development are all handled at the local level (primarily by cities, and to some extent, but on a more limited basis, by counties). It is presumed that the various cities/counties do charge a fee for various permits required in the land development process (such as site plan review, and the various permit applications etc.). As far as what are "privately" developed streets/roads, once these have been dedicated to public use and accepted by the agency (usually city or county) in which they are located, they then become public roads/streets, and when the State develops a new state highway, the needed right of way land which crosses or encounters such an existing "public road or street", is incorporated into the highway without compensation, as it is already in public road use.

There are very few instances where a privately build road or street is accepted into the State highway system. However, sometimes an improvement to an existing State highway (such as a deceleration lane or turn lane) may be desired by a private commercial development. In such situations, such must first be approved and authorized from both a design and traffic operation standpoint, by TXDOT, and then the costs, including any needed right of way, would be paid for by the party requesting this, including the construction costs. Often, these are actually built by the State, with the developer paying the entire cost. Again, this does not occur without State approval, and it cannot be forced on the State.

## Virginia

### Comprehensive Planning

Several of the critical antecedents to transportation planning and land use planning in Virginia as it is done today go back to the early 20<sup>th</sup> century. Current state planning statutes relating to comprehensive planning are modeled closely on the Standard City Planning Enabling Act (SCPEA) of 1928, which was published by the U.S. Department of Commerce to encourage local comprehensive planning. Although it is not nearly as well known, the SCPEA had an important antecedent worth mentioning here: the Standard Zoning Enabling Act (SZA).

In the 1920s, the Supreme Court upheld the right for a city to regulate the use of private property through comprehensive zoning in *Village of Euclid, Ohio v. Ambler Realty Co.*<sup>375</sup> Immediately following this decision, almost all states adopted zoning enabling legislation that granted cities and, in most states, counties the power to zone. Most of the state acts were modeled on the SZEА, which was published by the U.S. Department of Commerce in 1926.<sup>376</sup>

Some of the most revealing and important parts of the SZEА are in the first three sections:

Section 1. Grant of Power. For the purposes of promoting health, safety, morals or the general welfare of the community, the legislative body of cities and incorporated villages is hereby empowered to regulate and restrict the height, number of stories, and size of buildings and other structures, the percentage of lot that may be occupied, the size of yards, courts, and other open spaces, the density of population, and the location and use of buildings, structures, and land for trade, industry, residence or other purposes.

Section 2. Districts. For any or all said purposes the local legislative body may divide the municipality into districts of such number, shape, and area as may be deemed best suited to carry out the purposes of this act; and within such districts it may regulate and restrict the erection, construction, reconstruction, alteration, repair, or use of buildings, structures, or land. All such regulations in one district may differ from those in other districts.

Section 3. Purposes in View. Such regulations shall be made in accordance with a comprehensive plan and designed to lessen congestion in the streets; to secure safety from fire, panic, and other dangers; to promote health and the general welfare; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; to facilitate the adequate provision of transportation water, sewerage, schools, parks, and other public requirements. Such regulations shall be made with reasonable consideration, among other things, to the character of the district and its particular suitability for particular uses, and with a view to conserving the value of buildings and encouraging the most appropriate use of land throughout such municipality.<sup>377</sup>

It is easy to see the relationship between the SZEА and the SCPEА. It has been said that zoning is the tool by which planning is carried out. The SZEА, in a sense, provided public officials and legislators an articulation of the uses and powers of zoning. The SCPEА focuses on the “master plan,” which, today, would be called the comprehensive plan. The SCPEА is the foundation of planning commission/comprehensive planning legislation in the United States. What follows is a portion of its more important elements, especially as they relate to planning:

1. Municipalities are authorized and empowered to make, adopt, amend, extend, add to or carry out a municipal plan and to create by ordinance a planning commission.”
2. [The] commission [is to be] comprised partly of public officials and partly of citizens....
3. The city plan commission is empowered to elect a chairman from among the citizen members....
4. It shall be the function and duty of the commission to make and adopt a “master plan” for the physical development of the municipality...showing the commission’s recommendations for...among other things, the general location, character and extent of streets, viaducts, subways, bridges, waterways, waterfronts, boulevards, parkways, playgrounds, and open spaces, the general location of public buildings and other public property, and the general location and extent of public utilities and terminals, whether publicly or privately owned or operated, for water, light, sanitation, transportation, communication, power, and other purposes, also the removal, relocation, widening, narrowing, vacating, abandonment, change of use or extension of any of the foregoing ways, grounds, open spaces, buildings, property,

- utilities, or terminals; as well as a zoning plan for the control of the height, area, bulk, location, and use of buildings and premises.
5. In the preparation of such plans the commission shall make careful and comprehensive surveys and studies of present conditions and future growth of the municipality...including, among other things, adequate provision for traffic, the promotion of safety from fire and other dangers, adequate provision for light and air, the promotion of the healthful and convenient distribution of population, the promotion of good civic design and arrangement, wise and efficient expenditures of public funds, and the adequate provision of public utilities and other public requirements.
  6. The commission may adopt the plan as a whole by a single resolution or may by successive resolutions adopt successive parts of the plan....
  7. Whenever the commission shall have adopted the master plan of the municipality or of one or more of the major sections or districts thereof no street, square, park or other public way, ground or open space, or public building or structure, or public utility, whether publicly or privately owned, shall be constructed or authorized in the municipality or in such planned section and district until the location, character, and extent thereof shall have been submitted to and approved by the commission: Provided, That in case of disapproval the commission shall communicate its reasons to council, which shall have the power to overrule such disapproval by a recorded vote of not less than two-thirds of its entire membership....<sup>378</sup>

State law mandates that “[e]very locality shall by resolution or ordinance create a local planning commission in order to promote the orderly development of the locality and its environs. . . [to] serve primarily in an advisory capacity to the governing bodies.”<sup>379</sup>

Recognizing the importance of cooperation among units of state government, the state authorized these commissions to “cooperate with [other] local planning commissions or legislative and administrative bodies and officials of other localities so as to coordinate planning and development among the localities,” and to “cooperate with state and federal officials, departments and agencies.”<sup>380</sup> Moreover, they “may request from such departments and agencies . . . such reasonable information which may affect the planning and development of the locality,” which the agencies are then required by law to give.<sup>381</sup> Localities are also authorized to abdicate their power to an adjoining county, or create joint commissions among municipalities: “[t]he governing body of any town may designate, with the consent of the governing body of a contiguous county, by ordinance, the county planning commission as the local planning commission of the town,” which “shall have all the powers and duties granted under this chapter to a local planning commission.”<sup>382</sup> If one or more “adjoining or adjacent counties or municipalities including any municipality within any such county” so wishes, they “may by agreement provide for a joint local planning commission for any two or more of such counties and municipalities,” which shall have the same powers and duties as a local planning commission.<sup>383</sup>

Planning commissions must be composed of between 5 and 15 members, “appointed by the governing body, all of whom shall be residents of the locality, qualified by knowledge and experience to make decisions on questions of community growth and development . . . .”<sup>384</sup> They are required to meet at least once every 2 months in all localities with populations over 7,500; otherwise, they must only meet once per year.<sup>385</sup>

The current Virginia statute requiring that all localities produce a comprehensive plan is Section 15.2-2223 of the *Code of Virginia*. This statute is a much-amended version of a statute

that was first made into law in 1975. Here are some of the more important provisions of this statute:

The local planning commission shall prepare and recommend a comprehensive plan for the physical development of the territory within its jurisdiction and every governing body shall adopt a comprehensive plan for the territory under its jurisdiction.

In the preparation of a comprehensive plan the commission shall make careful and comprehensive surveys and studies of the existing conditions and trends of growth, and of the probable future requirements of its territory and inhabitants. The comprehensive plan shall be made with the purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the territory which will, in accordance with the present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and general welfare of the inhabitants.

The comprehensive plan shall be general in nature, in that it shall designate the general approximate location, character, and extent of each feature shown on the plan and shall indicate where existing lands or facilities are proposed to be extended, widened, removed, relocated, vacated, narrowed, abandoned, or changed in use as the case may be.

The plan, with the accompanying maps, plats, charts, and descriptive matter, shall show the locality's long-range recommendations for the general development of the territory covered by the plan.<sup>386</sup>

The statute goes on to list some of the things a plan may include, such as (1) the designation of historical areas; (2) the designation of a system of community service facilities, such as parks, schools, playgrounds, etc.; (3) the designation of areas for various types of public and private development and use; (4) an official map; (5) a capital improvements program; and (6) a zoning ordinance and zoning district maps. But most important for the purposes of this report, the list includes "The designation of a system of transportation facilities such as streets, roads, highways, parkways, railways, bridges, viaducts, waterways, airports, ports, terminals, and other like facilities."<sup>387</sup>

The comprehensive plan must be approved by the appropriate governing body. Section 15.2-2232 of the *Code* makes clear the legal status of the approved plan through subsections A and C:

A. Whenever a local planning commission recommends a comprehensive plan or part thereof for the locality and such plan has been approved and adopted by the governing body, it shall control the general or approximate location, character and extent of each feature shown on the plan. Thereafter, unless a feature is already shown on the adopted master plan or part thereof . . . , no street or connection to an existing street, park or other public area, public building or public structure, public utility facility or public service corporation facility other than a railroad facility, whether publicly or privately owned, shall be constructed, established or authorized, unless and until the general location or approximate location, character, and extent thereof has been submitted to and approved by the commission as being substantially in accord with the adopted comprehensive plan or part thereof. In connection with any such determination, the commission may, and at the direction of the governing body shall, hold a public hearing. . . .

C. Widening, narrowing, extension, enlargement, vacation or change of use of streets or public areas shall likewise be submitted for approval, but paving, repair, reconstruction, improvement, drainage or similar work and normal service extensions of public utilities or public

service corporations shall not require approval unless involving a change in location or extent of a street or public area.<sup>388</sup>

Although there is no statewide comprehensive plan in Virginia,<sup>389</sup> the CTB is responsible for producing the Statewide Transportation Plan.<sup>390</sup> Updating the plan at least once every 5 years, the CTB must “[set] forth an inventory of all construction needs for all systems, and based upon this inventory, [establish] goals, objectives, and priorities covering a twenty-year planning horizon, in accordance with federal transportation planning requirements.”<sup>391</sup> The plan must consider “projects and policies affecting all transportation modes and promote economic development, intermodal connectivity, environmental quality, accessibility for people and freight, and transportation safety.”<sup>392</sup> Most notably, in the context of the coordination of transportation and land use planning, the General Assembly codified the following legislative intent: “that this plan assess transportation needs and assign priorities to projects on a statewide basis, avoiding the production of a plan which is an aggregation of local, district, regional, or modal plans.”<sup>393</sup>

### **Planning District Commissions**

In the 1960s, the federal government began emphasizing regional approaches to governmental problem solving. In 1965, the federal government passed the Housing and Urban Development Act, which provided federal funding to regional entities for two-thirds of the costs of studies, data collection, and preparation of regional plans and projects. Soon thereafter, the federal government required that all local applications for federal aid and loans be reviewed by and commented upon by a regional review agency. In order to receive the funding from these federal programs, regional agencies or councils had to be formed.<sup>394</sup>

At this time, the General Assembly created a study commission to examine and recommend solutions to problems faced by the Commonwealth’s metropolitan areas. This commission, The Metropolitan Areas Study Commission (the Hahn Commission), determined that there was a need for a regional governmental structure whose purpose would be to solve regional problems and promote intergovernmental corporation. Some of this Commission’s findings were subsequently codified as the Virginia Area Development Act (VADA).<sup>395</sup>

The commission found that as a result of rapid metropolitan growth it was increasingly the case that problems originating outside local boundaries eventually became problems that local governments had to solve. Prior to the Hahn Commission, attempts at solving regional problems generally involved expansion through annexation and the creation of single-purpose authorities to deliver specific regional services. The commission felt that these and other existing government structures were not adequately dealing with area-wide problems.<sup>396</sup>

To foster area-wide planning and service delivery and to stop the proliferation of single-purpose authorities, the Hahn Commission recommended the creation and implementation of regional planning districts, now called PDCs, and regional service delivery agencies (service district commissions) throughout the Commonwealth. The purpose of the PDCs was to develop solutions to regional problems brought on by suburban sprawl, such as water and air pollution, recreation needs, urban blight, congested highways, and piecemeal development. PDCs were meant to foster intergovernmental cooperation by bringing local units of governments together,



on a voluntary basis, to discuss and provide solutions to regional problems. PDCs were intended to mature into service district commissions (SDCs), and SDCs were intended to implement the regional service delivery plans created by PDCs and essentially serve as a regional level of government. Membership in PDCs was strictly voluntary.<sup>397</sup>

Following the release of the Hahn Commission's recommendations in 1967, the 1968 General Assembly enacted the VADA. Within a few years after passage of the act, PDCs were operating in all regions of the Commonwealth. In contrast, no one has even attempted to create a SDC in any region of the state.<sup>398</sup>

In VADA, the Division of State Planning and Community Affairs (a state agency) was given responsibility for dividing the Commonwealth into planning districts. Twenty-two planning districts were designated by 1969. Although the state designated the boundaries, it was the responsibility of the local governments within each district to organize the PDC. By 1973, all 22 planning districts had operating PDCs. There is significant variation in the way PDCs operate because VADA gives each PDC the responsibility for determining its organizational structure.<sup>399</sup>

Current law grants PDCs broad planning, coordinating, and implementing power. VADA states that the purpose of PDCs is:

To promote the orderly and efficient development of the physical, social and economic elements of the district by planning, encouraging and assisting governmental subdivisions to plan for the future and, if requested by a member governmental subdivision or group of member governmental subdivisions and to the extent the commission may elect to act, assisting the subdivisions by carrying out plans and programs for the improvement and utilization of said elements.<sup>400</sup>

In 1986, PDCs were given the power to implement services upon the request of their member local governments. This gave PDCs the power to provide services as well as plan for services.<sup>401</sup> VADA specifies two activities PDCs are required to perform:

1. *PDCs are required to prepare a regional comprehensive plan.* It is the responsibility of the PDC to determine the issues that should be addressed in the plan. The plan becomes effective with regard to the actions of the PDC upon approval by a majority of the local governing bodies which are members of the PDC. The plan does not become effective within a locality unless it is adopted by the local governing body.
2. *PDCs are required to review all local government applications to state or federal agencies for grants or loans.* The PDC is to determine whether or not the proposed project is in conflict with the regional plan or policies, and is adequately coordinated with other projects within the districts.<sup>402</sup>

Each PDC offers a variety of services to local governments and their region as a whole. There is no standardized set of services provided by each PDC. Each develops its own set of services based on the needs of its localities and the region. The services provided include economic development, transportation planning physical infrastructure development,

environmental resource planning, human services planning and coordination, data dissemination, and intergovernmental coordination, among others.<sup>403</sup>

All PDCs engage in transportation planning activities. Eight of the PDCs staff MPOs, which provide transportation planning to the urban areas of the state. The federal government mandated in 1975 that regional transportation planning organizations (MPOs) be created in order for states to receive highway funding. Since PDCs were regional planning organizations, VDOT used them to set up and staff the MPOs. Also, in response to provisions in ISTEA that required rural transportation planning, VDOT created a rural transportation planning program through PDCs in late 1993. All PDCs, except the Northern Virginia PDC, receive funding from VDOT to operate rural transportation planning programs.

Activities conducted within the rural and urban transportation programs include development of traffic reduction strategies, traffic zone forecasts, planned transportation capital improvements, and transit feasibility studies.<sup>404</sup>

### **Comments from Select Residency Staff on VDOT's Role in Providing Technical Assistance with Coordination of Transportation and Land Use Planning in Virginia**

- The Franklin Residency provides land use/transportation coordination assistance to two counties, which are primarily rural in nature, and hence are dependent heavily on the Residency to provide them with any kind of assistance they can. The residency is involved from day one, be it cases of land acquisitions, or re-zoning applications. The residency provides assistance on wide range issues, which includes, providing assistance on where to have the driveways for a future land use, providing existing traffic counts, providing assistance with where to put street lights, etc. Recently the residency was involved with developing zoning for a "Food Lion", where they were in touch with the county as well as the developer from a very early stage. The residency also sends representatives to the public hearings.
- In the City of Suffolk, currently one of the fastest growing cities in Virginia, we review almost all site and subdivision street plan submittals for the city and also offer guidance on Land Use issues where I attend the monthly zoning meetings with the city officials. The City of Suffolk is unique in that VDOT maintains all but 6 miles of the almost 500 miles. At this time we have a good working relationship with the city and we are both striving for adequate transportation and uses together. We also review plans and re-zoning issues for Isle of Wight County. It should be noted that as far as the re-zoning we usually do not object to the re-zoning as long as the existing transportation system does not suffer and we do notify them if turn lanes, signals, or other improvements may be needed so that they can let this be included as to if they should re-zone a parcel based on these requirements. We also review subdivision and sites in the Town of Smithfield and the Town of Windsor. Both of these towns rely heavily on our review as far as impacts to their streets.
- The [Suffolk] residency is involved with Suffolk city as well as the counties' planning and zoning activities. The residency mostly performs site plan reviews of both individual private sites, and commercial sites. The developer would go to the local government and submit their plan, who would then send it to the residency, who in turn would return it to the local government with a final decision. (For clarification, note that VDOT does not approve the development or re-zoning; instead, we act as advisors. The locality is the one that approves the development.)
- This is one of the biggest issues hurting transportation in Northern Virginia. Here in Prince William County, there is very little coordination between transportation and land use. The Board of Supervisors (BOS), who vote on land use issues, has little regard to the impacts on transportation when

they approve a development. It is especially detrimental to the existing transportation infrastructure when a large development (residential or commercial) is only required to construct minor frontage improvements. The vehicle trips generated by the development have an affect on more than a small right turn lane at the entrance. For example, in western Prince William County four large developments north of I-66 on Route 15 have more than doubled the vehicle trips along Route 15. Citizen on side streets have a hard time entering the traffic flow during the AM and PM peak periods and the LOS at the I-66/Route 15 interchange is estimated at F during the peak hours. I think it would be beneficial to VDOT, local governments, and the citizens to develop cooperative initiatives. One initiative that didn't get too far last year was an adequate facilities ordinance. This would have required the BOS to review the infrastructure around the development to see if it was in place or met certain requirements. I hope this helps and if you need any help working on developing initiatives, I would be willing to assist in an effort to resolve the GAP between transportation and land use in Virginia.

### **Comments from VDOT Northern Virginia District Personnel**

- On a broader level than reviewing rezonings, we [the Northern Virginia Land Development Section] also get involved when a locality is considering changes to their comprehensive plan. Often, both the Land Development section and the Transportation Planning section will comment on comprehensive plan issues. In some counties (notably Prince William and Loudoun), VDOT has assisted the locality in preparing “functional plans” or corridor studies. These are usually prepared by Transportation Planning section, revised per comments by county staff and Land Development section, then brought before the local Planning Commission and Board of Supervisors for adoption as a supplement to the transportation portion of the local comprehensive plan.
- NoVA District is unique among the VDOT districts in that it has a separate Land Development Section of over 20 staff members who focus on review of site development plans; this work involves coordination with local jurisdiction staff, as well as developers, in examining how proposed land use conforms to existing county comprehensive plans and what impacts on the surrounding transportation network the development may create; along those lines, the Land Development staff coordinates with jurisdiction technical staff on suggested modifications (relocation of entrances, turn-lane additions, etc.) that will reduce the transportation impacts of land development; in addition, these site plan reviews ensure that access to public streets meets VDOT standards; the Land Development staff is also closely involved with the Engineers and Surveyors Institute (ESI), a group of Northern Virginia professional engineers and developers that was created to improve the quality of site plans, and expedite site plan reviews, by developing and disseminating standards for the development industry.
- The Permits Section reviews applications from developers and others seeking to do work on VDOT property -- in the case of land development, the Permits staff reviews proposed access to state highways to ensure that VDOT standards and specifications are met, and that new roadways constructed by developers meet state geometric and pavement standards so that they can be accepted into the state system for maintenance.
- The Planning Section reviews proposed changes to county comprehensive plans, along with the Land Development Section, and also reviews consultant traffic impact analyses that developers produce to project the transportation impacts of proposed development; we are about to complete a study of the NoVA bike / trail network to identify gaps that should be constructed to enhance recreational biking and biking to work / major activity centers; we are also starting several SPR-funded studies that will examine land use and transportation, particularly a study (that is just getting underway) that will identify major choke points in our NoVA highway network and suggest projects to reduce those choke points. we're also doing a survey of bike users to identify obstacles to increased use of cycling as a commuting mode.
- While VDOT staff used to provide the primary staff support to the Transportation Coordinating Council (TCC, a forum of state and local elected officials focused on identifying and discussing

transportation matters), we now provide limited staff support to the NoVA Transportation Authority (NVTA), the successor to the TCC that was created by the legislature; the NVTA is currently reviewing the ATLAS study to determine which strategies our local jurisdictions may find beneficial to adopt in their quest to better tie transportation and land use planning at the local level; Secretary Clement has given the NVTA a \$25,000 grant to further NVTA planning activities.

- Regionally, our MPO (the Transportation Planning Board, or TPB) has several committees that involve state and local jurisdiction transportation professionals and land use / zoning planners in developing regional forecasts of employment and "activity centers" that need to be served by transportation; under the TPB's aegis there are also regional studies conducted (such as the access to jobs study) that examine the availability of public transportation, particularly regarding its proximity to low-income communities.

## Wisconsin

Compared to other states, Wisconsin employs a system that falls on the more decentralized end of the spectrum. Although planning is encouraged and, in limited circumstances, overseen by the state's Department of Administration, there is no statewide plan or mandated comprehensive planning for localities.<sup>405</sup> Regional planning is done by state-created commissions, but their plans are merely advisory.<sup>406</sup>

### Planning Grants

With the case-by-case consent of the Wisconsin Land Council, the Department of Administration "may provide grants to local governmental units to be used to finance the cost of planning activities, including contracting for planning consultant services, public planning sessions and other planning outreach and educational activities, or for the purchase of computerized planning data, planning software or the hardware required to utilize that data or software."<sup>407</sup> Local governments receiving such a grant are required "to finance a percentage of the cost of the product or service . . . based on the number of applications for grants and the availability of funding to finance grants for the fiscal year in which grants are to be provided."<sup>408</sup> As stated above, comprehensive planning is not required, however, if a locality undertakes crafting one, it must conform to statutory criteria,<sup>409</sup> and "[n]o local governmental unit is eligible to receive a grant . . . unless the local governmental unit agrees to utilize the grant to finance planning [in compliance with those requirements] . . . ."<sup>410</sup>

Further, grants are accorded preference based on their inclusion of an entire enumerated list of characteristics. One set of these characteristics includes "[p]lanning efforts that contain a specific description of the means by which all of the following local, comprehensive planning goals will be achieved:"<sup>411</sup>

Encouragement of neighborhood designs that support a range of transportation choices.

Encouragement of land uses, densities and regulations that promote efficient development patterns and relatively low municipal, state governmental and utility costs.

Encouragement of coordination and cooperation among nearby units of government.

Building of community identity by revitalizing main streets and enforcing design standards.

Providing adequate infrastructure and public services and an adequate supply of developable land to meet existing and future market demand for residential, commercial and industrial uses.

Balancing individual property rights with community interests and goals.

Providing an integrated, efficient and economical transportation system that affords mobility, convenience and safety and that meets the needs of all citizens, including transit-dependent and disabled citizens.<sup>412</sup>

Two other sets of characteristics are “[p]lanning efforts, including subsequent updates and amendments, that include development of implementing ordinances, including ordinances pertaining to zoning, subdivisions and land division,” and “[p]lanning efforts that identify smart growth areas.”<sup>413</sup> The latter is particularly important to the coordination of land use and transportation planning, with a smart growth area defined as “an area that will enable the development and redevelopment of lands with existing infrastructure and municipal, state and utility services, where practicable, or that will encourage efficient development patterns that are both contiguous to existing development and at densities that have relatively low municipal, state governmental and utility costs.”<sup>414</sup>

## **Comprehensive Planning Requirements**

Among other things, comprehensive plans must include a transportation element, a land use element, and an intergovernmental cooperation element.<sup>415</sup> Because the state requires simultaneous land use and transportation planning, it seems more likely that there will be better coordination between the two.

The land use element is defined as “[a] compilation of objectives, policies, goals, maps and programs to guide the future development and redevelopment of public and private property.”<sup>416</sup> It is to list the “amount, type, intensity, and net density of existing uses of land” and should “analyze trends in the supply, demand and price of land, opportunities for redevelopment and existing and potential land-use conflicts,” along with projections “for 20 years, in 5-year increments, of future . . . land uses” and underlying assumptions.<sup>417</sup>

The transportation element contains “[a] compilation of objectives, policies, goals, maps and programs to guide the future development of the various modes of transportation, including highways, transit, transportation systems for persons with disabilities, bicycles, electric personal assistive mobility devices, walking, railroads, air transportation, trucking and water transportation.”<sup>418</sup> It must “compare the local governmental unit’s objectives, policies, goals and programs to state and regional transportation plans,” “identify highways within the local governmental unit by function,” and “incorporate state, regional and other applicable transportation plans, including transportation corridor plans, county highway functional and jurisdictional studies, urban area and rural area transportation plans, airport master plans and rail plans that apply in the local governmental unit.”<sup>419</sup>

Finally, the intergovernmental cooperation element is defined as a compendium of “objectives, policies, goals, maps and programs for joint planning and decision making with other jurisdictions, including school districts and adjacent local governmental units, for siting and building public facilities and sharing public services.”<sup>420</sup> It should incorporate any

cooperative boundary agreements, to be discussed later, and “identify existing or potential conflicts between the local governmental unit and other governmental units [in cooperative boundary agreements] . . . and describe processes to resolve such conflicts.”<sup>421</sup>

## **Intergovernmental Cooperation**

Wisconsin law states that “[i]n addition to the provisions of any other statutes specifically authorizing cooperation between municipalities, unless those statutes specifically exclude action under this section, any municipality may contract with other municipalities and with federally recognized Indian tribes and bands in this state, for the receipt or furnishing of services or the joint exercise of any power or duty required or authorized by law.”<sup>422</sup> The legislature, encouraging cooperation, expressed a preference, in the form of a rule of construction, stating that “[t]his section shall be interpreted liberally in favor of cooperative action between municipalities and between municipalities and Indian tribes and bands in this state.”<sup>423</sup> Municipalities may jointly create a commission, which by their permission enjoys the bonding abilities of the individual counties.<sup>424</sup> However, the statute states that any commission created may not “[e]stablish, lay out, construct, improve, discontinue, relocate, widen or maintain any road or highway outside the corporate limits of a village or city or acquire lands for those purposes except upon approval of the *department of transportation* and the *county board* of the county and the *town board* of the town in which the road is to be located.”<sup>425</sup>

Localities are also given the power to create “interstate compacts” with municipalities in other states.<sup>426</sup> In most cases, they are subject to the consent of Wisconsin’s attorney general.<sup>427</sup>

## **Cooperative Boundary Agreement and Cooperative Plan**

Billed as a “less controversial alternative to municipal boundary and local government changes involving annexation and incorporation,” a cooperative boundary agreement is “[a] plan and agreement for maintaining or changing the natural and developed uses of a combination of town, village and city territory for a period of 10 or more years.”<sup>428</sup> As of April, 2003, 11 of these agreements existed between towns, cities, and counties throughout the state.<sup>429</sup> Cooperative boundary agreements work particularly well in Wisconsin because of the phenomenon of extraterritorial jurisdiction; i.e., “[r]ecognizing that land uses in town territory may affect neighboring cities and villages, which may need to grow beyond their borders, state laws have long provided these municipalities with certain ‘extraterritorial’ authority over adjacent town lands.”<sup>430</sup> Cities with populations of 10,000 or more have extraterritorial jurisdiction extending 3 miles outside their boundaries; those with less than 10,000 are allowed 1½ miles.<sup>431</sup> Cooperative boundary agreements allow two cities to adjust their adjacent boundaries but require them to develop a cooperative plan.

The purpose of the cooperative plan is “to [guide] and [accomplish] a coordinated, adjusted and harmonious development of the territory covered by the plan which will, in accordance with existing and future needs, best promote public health, safety, morals, order, convenience, prosperity or the general welfare, as well as efficiency and economy in the process of development.”<sup>432</sup> It may include, *inter alia*, “[t]he general location, character and extent of streets, highways, freeways, street grades, roadways, walks, bridges, viaducts, parking areas,

tunnels, public places and areas, parks, parkways and playgrounds,” “[s]ites for public buildings and structures,” and “[a] comprehensive zoning plan.”<sup>433</sup> The plan is required to “[i]dentify any significant adverse consequences to the natural environment, including air and water pollution, energy use, *development outside compact urban areas and contribution to urban sprawl*, that may be caused by the proposed physical development of the territory covered by the plan.”<sup>434</sup>

Once the local governing bodies have committed to crafting such a plan, “[a] county zoning agency . . . or regional planning commission whose jurisdiction includes any participating municipality shall comment in writing on the plan’s effect on the master plan adopted by the regional planning commission, . . . or development plan adopted by the county board or county planning agency, . . . and on the delivery of municipal services . . . .”<sup>435</sup> A public hearing is also required, and the denizens of each municipality have a veto-like check:

If within 30 days after the public hearing . . . a petition opposing the plan, signed by a number of qualified electors equal to at least 10% of the votes cast for governor in the municipality at the last gubernatorial election, is filed with the clerk of a participating municipality, the final version of the plan may be adopted in that municipality only by an affirmative vote of *three-fourths* of the members of the municipality’s governing body who are present and voting.<sup>436</sup>

There is also a state-level check on the cooperative plan, as it may not go into effect absent the Department of Administration’s blessing. To receive that assent, the following criteria are used:

The cooperative plan is consistent with current state laws, municipal regulations and administrative rules that apply to the territory affected by the plan.

Adequate provision is made in the cooperative plan for the delivery of necessary municipal services to the territory covered by the plan.

Any boundary maintained or any boundary change under the cooperative plan is reasonably compatible with the characteristics of the surrounding community, taking into consideration present and potential transportation, sewer, water and storm drainage facilities and other infrastructure, fiscal capacity, previous political boundaries, boundaries of school districts and shopping and social customs.

The shape of any boundary maintained or any boundary change under the cooperative plan is not the result of arbitrariness and reflects due consideration for compactness of area. Considerations relevant to the criteria under this subdivision include quantity of land affected by the boundary maintenance or boundary change and compatibility of the proposed boundary maintenance or boundary change with natural terrain including general topography, major watersheds, soil conditions and such features as rivers, lakes and major bluffs.

The cooperative plan adequately identifies and addresses the significant adverse environmental consequences to the natural environment that may be caused by the proposed physical development of the territory covered by the plan, the municipalities submitting the plan have adequately identified and considered alternatives to minimize or avoid the significant adverse environmental consequences, the proposals in the plan for compliance with federal environmental laws or regulations and state environmental laws or rules are adequate and the need for safe and affordable housing for a diversity of social and income groups in each community has been met.

The content of the plan . . . is sufficient to enable the department to make the [aforementioned] determinations . . . .<sup>437</sup>

## Interview Remarks from Wisconsin

### 1. *How does the Department of Administration liaison with the Department of Transportation to identify grants that "encourage neighborhood designs that support a range of transportation choices?"*

The language quoted above is from Goal #2 of the local comprehensive planning goals, enumerated in Wisconsin statute sections 1.13 and 16.965(4). There are four ways in which DOA and WisDOT coordinate to implement this goal.

1) *Grant application review.* One of the purposes behind the local comprehensive planning goals is to score comprehensive planning grant applications. Twenty-five percent of an applicant's total possible score is based on how these goals will be achieved. To assure that applicants appropriately address these goals, the applications are reviewed and ranked by teams of reviewers. Reviewers include representatives of state (including WisDOT), regional, and local governments, professional associations, private sector firm, and other stakeholder groups. WisDOT's participation in reviewing applications ensures that grant awardees appropriately address Goal #2, in addition to the other 13 local comprehensive planning goals.

2) *Grant contract review.* In the 2000, 2001, 2002, and 2003 grant cycles, WisDOT helped DOA develop grant contracts with each of the grant awardees by reviewing and commenting on proposed contracts. WisDOT was especially interested in these contracts because \$1 million of the \$3 million available for the comprehensive planning grant was Federal Highway Administration (FHWA) money, which had certain associated conditions and restrictions. Through this review and comment, WisDOT was able to assure that Goal #2 was appropriately addressed, along with other transportation-related requirements. Beginning with the 2004 grant cycle, WisDOT will no longer be involved in reviewing grant contracts. This is due to the recently passed FY 2003-05 state budget which removes the \$1 million FHWA portion of the comprehensive planning grant.

3) *WisDOT District participation.* WisDOT district offices do outreach with all of the communities receiving a comprehensive planning grant award. This outreach includes providing information and data, coordinating between jurisdictions, commenting on plan drafts, and serving on plan advisory committees, and helps ensure that Goal #2 and other transportation issues are addressed.

4) *Review of draft plans.* Pursuant to section 66.1001(4), Wis.Stats. and the grant contract, local communities send their draft comprehensive plans to the Land Council (Office of Land Information Services (OLIS)) for review. OLIS' review of these draft plans ensures that the plans address the local comprehensive planning goals, including Goal #2, and that all of the work items pledged to by awardees in their grant contracts were in fact performed.

### 2. *What funding levels are available for these planning grants?*

*For this question, see the enclosed document, Summary of Comprehensive Planning Grant Program. See also the enclosed map, Comprehensive Planning Grant Awards, 2000-2003.*

*To date the comprehensive planning grant program has awarded \$9.5 million to over 500 Wisconsin communities. However, as indicated by the summary document, funding for the comprehensive planning grant has varied over the past four grant cycles. In 2000, only the \$1 million transportation (FHWA) component of the grant was available. In 2001, the \$1 million transportation component and \$1.5 million from Wisconsin's general fund were available for a total of \$2.5 million. In the 2002 and 2003 grant cycles, the \$1 million transportation component and \$2 million from the general fund were available for a total of \$3 million for each year. The recently passed FY 2003-05 Wisconsin state budget eliminated the \$1 million transportation component. The budget continues to fund the grant*



*program at \$2 million per year, but changed the source of the funding from the general fund to the land records fee. This means that the 2004 grant cycle will have \$2 million available.*

*3. What have been the successes or pitfalls to using the cooperative boundary agreements? (We were intrigued by the ten year horizon and wondered if that had helped obtain some of the benefits of a growth boundary without some of the heavy opposition that might result).*

*Wisconsin has several intergovernmental agreement statutes, only one (s. 66.0307, Stats., the cooperative plan and agreement statute) requires state agency participation, state-level review, and state approval. Ten years have passed since the effective date of the “cooperative plan and agreement” statute, and 11 agreements and two amendments have been reviewed/approved; five more are in the development or agency review/approval stage. As intergovernmental agreements are promoted and talked about, the effect in many communities has been for them to turn to the less complicated forms of agreement – which has the effect of excluding state agencies who might otherwise have a stake in the agreement. Shortly after passage, the statute was amended allowing agreements of unlimited duration, and number of towns, cities and villages have elected to establish agreements that last in perpetuity (nominally 50 years).*

*Of the existing “cooperative plans and agreements,” a number have involved transportation projects, such as highway bypasses, airport upgrades, or interchange developments. DOA encourages municipalities participating in the “cooperative plan and agreement” process to involve the district WisDOT planning directors, and ultimately to obtain a “comfort letter” stating that land development, municipal boundary changes, or other activities (including zoning, transportation infrastructure planning, etc.) will be consistent with any enumerated transportation projects (such as may be present on any local transportation improvement plan (TIP) list either approved by the Wisconsin “major transportation projects commission, or the more local “metropolitan planning organization” (MPO). In a few cases, the ensuing conversations between the local governments and the WisDOT offices resulted in clearing up misunderstandings about right-of-way location, design issues, funding availability, and construction time lines. At the very least, DOA has been able to link parties together for discussions that hitherto had not occurred. That’s the good news.*

*The perceived complexity of the statute (such as the lengthy required waiting periods, and numerous plan-making and documentation requirements (that coincidentally are now fairly consistent with Wisconsin’s new comprehensive planning law), state and local agency review (the important coordination element), and appeal provisions (that include a potential petition for a super-majority vote by a board or council adopting the “cooperative plan and agreement,” or an advisory referendum, or Ch. 227, Stats., administrative appeal, along with the absence of a state- or local-level dispute resolution component) all contribute to perceived “friction” that inhibits use (despite DOA offering to work with parties to ease the inter/intra agency communication/coordination burden).*

*With respect to growth boundaries, establishing these was not the intent of the cooperative plan and agreement statute, rather it was to encourage towns, cities, and villages to establish semi-permanent boundaries, and exchange territory of unlimited size, depending upon their respective development/preservation goals. (In Wisconsin, towns lack home-rule powers, but they may do land divisions/platting, manage transportation infrastructure, adopt land use plans, and rezone property – in most cases subject to county board approval.) One of the primary purposes of the law was to get beyond the incremental land-owner-driven state annexation process that often frustrated municipalities who could otherwise get along. Another objective was to try to link land development over time with the appropriate types and scheduling of costly infrastructure necessary to serve the proposed development. By plan and agreement initiated by the governing bodies, parties could also choose to share services across municipal limit lines, consistent with the land uses proposed by each. In some situations, the resulting plan and agreement ratified municipal extraterritorial planning and zoning requirements, established phased installation of utilities prior to developed lands becoming part of a city or village, or actually provided utilities for town-based urbanization that would not be subject to “annexation” (the predominant method by which town territory is incrementally attached to*

*a city or village). For those communities with “cooperative boundary plans and agreements,” WisDOT has been able to plan and size facilities knowing that appropriate land use controls are in place, and that their investment will not be overwhelmed by unanticipated land development.*

## References

160. *See Fla. Stat. Ch. 187.201 (2003).*
161. The complete list of areas consists of (1) Children, (2) Families, (3) The Elderly, (4) Housing, (5) Health, (6) Public Safety, (7) Water Resources, (8) Coastal & Marine Resources, (9) Natural Systems & Recreational Lands, (10) Air Quality, (11) Energy, (12) Hazardous & Non-hazardous Materials & Waste, (13) Mining, (14) Property Rights, (15) Land Use, (16) Urban & Downtown Revitalization, (17) Public Facilities, (18) Cultural & Historical Resources, (19) Transportation, (20) Governmental Efficiency, (21) The Economy, (22) Agriculture, (23) Tourism, (24) Employment, (25) Plan Implementation.  
*Id.*
162. *Id.* (emphasis supplied).
163. *Id.*
164. *Id.*
165. *Id.*
166. *Id.*
167. *Id.*
168. *Id.*
169. *Id.*
170. Ch. 187.101.
171. *Id.*
172. *Id.* (emphasis supplied).
173. E-mail to the author from Robert McGee, Florida Office of Policy Planning, 29 Sep. 2003.
174. Ch. 163.3177.
175. Ch. 163.3194 (emphasis supplied).
176. *Id.*

177. Ch. 163.3213.
178. Ch. 163.3167.
179. *Id.*
180. Ch. 163.3177.
181. Ch. 163.3167.
182. Ch. 163.3174.
183. Ch. 163.3171.
184. *Id.*
185. Ch. 163.3174.
186. Ch. 163.3177.
187. *Id.*
188. *Id.*
189. *Id.*
190. *Id.*
191. *Id.*
192. *Id.*
193. Ch. 163.3184.
194. *Id.* (emphasis supplied).
195. *Id.*
196. *Id.*
197. *Id.*
198. *Id.*

199. E-mail to the author from Robert McGee, Florida Office of Policy Planning, 29 Sep. 2003.
200. Ch. 163.3184.
201. *Id.*
202. *Id.*
203. Ch. 163.3177.
204. *Id.*
205. Fla. Admin. Code Ann. Rule 9J-5.019 (2003).
206. *Growth Management: A Comparison of Selected States*, Florida Department of Community Affairs, (2000), at 13.
207. Fla. Stat. Ch. 163.3180 (2003).
208. *Id.*
209. *Id.*
210. *See* Ch. 163.3180.
211. E-mail to the author from Robert McGee, Florida Office of Policy Planning, 29 Sep. 2003.
212. Ch. 186.505.
213. Ch. 186.507.
214. *Id.*
215. *Id.*
216. Ed Bolen, Kara Brown, David Kiernan, & Kate Konschnik, *Smart Growth: A Review of Programs State by State*, 8 *Hastings W.-Nw. J. Envtl. L. & Pol’y* 145, 158 (2002).
217. *Growth Management Programs: A Comparison of Selected States*, Florida Department of Community Affairs (2000), 22-23.
218. Ga. Code Ann. § 36-70-3 (2003).
219. Ga. Comp. R. & Regis. r. 110-12-1-.04 (2003), referring to Ga. Code Ann. § 50-8-7.1(b).

- 220. *Id.*
- 221. *Id.*
- 222. Ga. Comp. R. & Regis. r. 110-12-1-.06.
- 223. *Id.*
- 224. Ga. Code Ann. § 50-8-8.
- 225. § 50-8-7.1.
- 226. *Id.*
- 227. *Id.*
- 228. *Id.*
- 229. *See Growth Management Programs: A Comparison of Selected States*, Florida Department of Community Affairs (2000), 22-23.
- 230. § 50-32-10.
- 231. § 50-32-12.
- 232. *Id.*
- 233. *Id.*
- 234. § 50-32-11.
- 235. *Id.*
- 236. *Id.*
- 237. *Id.*
- 238. *Id.*
- 239. *Id.*
- 240. § 50-32-53.
- 241. § 50-32-52.

242. § 50-32-2.
243. § 50-32-52.
244. Haw. Rev. Stat. § 225M-2 (2003).
245. *Id.*
246. § 225M-4.
247. *See generally* § 226-5 et seq.
248. § 226-17.
249. *Id.*
250. § 226-52.
251. § 226-104.
252. E-mail to the author from Julia Tsumoto, Statewide Transportation Planning Office, 30 Sep. 2003.
253. § 226-52.
254. E-mail to the author from Julia Tsumoto, Statewide Transportation Planning Office, 30 Sep. 2003.
255. According to the 2000 census, this includes only Kauai County.
256. § 46-5.
257. § 46-4.
258. According to the 2000 census, this includes only Honolulu County.
259. § 279E-2.
260. *Id.*
261. *Id.*
262. E-mail to the author from Julia Tsumoto, Statewide Transportation Planning Office, 30 Sep. 2003.

263. Kan. Stat. Ann. § 12-744 (2003).
264. *Id.*
265. *Id.*
266. § 12-747.
267. *Id.*
268. *Id.*
269. *Id.*
270. Md. Code Ann., State Fin. & Proc., § 5-204 (2003) (emphasis supplied).
271. § 5-305. *See also* 86 Op. Att’y Gen. No. 01-001, Jan. 16, 2001.
272. *Dept. of State Planning v. Mayor & Council of City of Hagerstown*, 415 A.2d 296, 300 (1980).
273. *See e.g.*, Fed.R.Civ.P.24 (permitting intervention “when the applicant claims an interest relating to the property or transaction which is the subject of the action and the applicant is so situated that the disposition of the action may as a practical matter impair or impede the applicant's ability to protect that interest, unless the applicant's interest is adequately represented by existing parties”).
274. Md. Code Ann., State Fin. & Proc., § 5-403.
275. § 5-404.
276. § 5-707.
277. *See generally* § 5-7A-01 et seq. The eight tenets are: (1) Development shall be concentrated in suitable areas; (2) Sensitive areas shall be protected; (3) In rural areas, growth shall be directed to existing population centers and resource areas shall be protected; (4) Stewardship of the Chesapeake Bay and the land shall be a universal ethic; (5) Conservation of resources, including a reduction in resource consumption, shall be practiced; (6) To encourage the achievement of paragraphs (1) through (5) of this subsection, economic growth shall be encouraged and regulatory mechanisms shall be streamlined; (7) Adequate public facilities and infrastructure are available or planned in areas where growth is to occur; and (8) Funding mechanisms shall be addressed to achieve this policy.
278. § 5-7A-01.

279. § 5-7A-02.
280. § 5-7B-01.
281. Md. Trans. § 2-103.1(4).
282. Md. Code Ann., State Fin. & Proc., § 5-7B-02. PFAs include: (1) Municipal corporations, (2) Designated neighborhoods, (3) Enterprise zones, (4) Certified heritage areas, (5) Areas of the State located between I-495 and the Washington D.C., (6) Areas of the State between I-695 and Baltimore City, and (7) Areas designated by the governing body of a county. *Id.*
283. § 5-7B-03 (funding for one type of project may “be provided only if the project serves to maintain the character of the community and does not serve to increase the growth capacity of the community except for limited peripheral or in-fill development.”).
284. Md. Code Ann. Art. 66B, § 3.01.
285. § 1.03.
286. § 3.05.
287. *Board of County Com’rs of Cecil County v. Gaster*, 401 A.2d 666 (1979).
288. Md. Code Ann. Art. §66B, 3.08.
289. *Id.*
290. *Id.*
291. § 6.01.
292. *Id.*
293. § 6.01(f).
294. § 6.02(a).
295. § 7.01(a).
296. § 7.01(b).
297. N.C. Gen. Stat. § 153A-321 (2003) (enumerating planning powers of counties). For cities, see N.C. Gen. Stat § 160A-361, which is substantively identical.



298. *Id.* (enumerating planning powers of counties). For cities, see N.C. Gen. Stat § 160A-361, which is substantively identical.
299. § 160A-383.
300. § 113A-151.
301. *Id.* (emphasis supplied).
302. *Id.*.
303. *Id.*
304. See Oregon Department of Land Conservation & Development, *Land Use Planning Basics*, <http://www.lcd.state.or.us/programb.html> (visited July 30, 2003).
305. Or. Rev. Stat. § 197.005 (2003).
306. § 197.010.
307. Fast Facts: Oregon's Statewide Land Use Planning Program. <http://www.lcd.state.or.us/fastpdfs/fastfacts.pdf> (visited July 25, 2003).
308. Or. Rev. Stat. § 197.030.
309. § 197.040.
310. § 197.085.
311. § 197.175.
312. The nineteen goals include (1) Citizen Involvement, (2) Land Use Planning, (3) Agricultural Lands, (4) Forest Lands, (5) Open Spaces, Scenic and Historic Areas, and Natural Resources, (6) Air, Water and Land Resources Quality, (7) Areas Subject to Natural Disasters and Hazards, (8) Recreational Needs, (9) Economic Development, (10) Housing, (11) Public Facilities and Services, (12) Transportation, (13) Energy Conservation, (14) Urbanization, (15) Willamette River Greenway, (16) Estuarine Resources, (17) Coastal Shorelands, (18) Beaches and Dunes, (19) Ocean Resources. See Or. Admin. R. 660-015-0000, 660-015-0005, 660-015-0010.
313. Or. Admin. R. 660-015-0000(12) (emphasis supplied).
314. Or. Admin. R. 660-015-0000(2).
315. Or. Rev. Stat. § 197.130.

316. § 197.135.
317. § 197.175.
318. § 197.015.
319. §§ 197,175, 197.015.
320. § 197.320.
321. § 197.335.
322. *Id.*
323. *Id.*
324. *Id.*
325. § 197.628.
326. § 197.629.
327. § 197.636.
328. Or. Admin. R. 660-012-0060(1).
329. Or. Admin. R. 660-012-0060(2).
330. Or. Admin. R. 660-015-0000(14).
331. *See generally* Timothy V. Ramis & Andrew H. Stamp, *Integrating Procedural Aspects of Transportation & Growth Management in Oregon: A Critical Look at the Oregon Department of Transportation's Role as a Growth Management Agency*, 77 Or. L. Rev. 845 (1998).
332. *See* Ed Bolen, Kara Brown, David Kiernan, & Kate Konschnik, *Smart Growth: A Review of Programs State by State*, 8 Hastings W.-Nw. J. Env'tl. L. & Pol'y 145, 212 (2002). *See also* S.C. Code Ann. § § 6-29- 500 et seq. (2003).
333. *See* The South Carolina Local Government Comprehensive Planning Enabling Act of 1994, Act No. 355 § 2, enacted as S.C. Code Ann. §§ 6-29- 500 et seq.
334. *See* 1994 Act No. 355, § 2, as amended by 1999 Act No. 15, § 1, effective April 30, 1999.

335. S.C. Code Ann. § 6-29-320.
336. § 6-29-340.
337. *Id.*
338. *Id.*
339. *Id.*
340. *Id.*
341. *Id.*
342. *Id.*
343. *Id.*
344. *Id.*
345. § 6-29-540.
346. § 6-29-710.
347. *Id.*
348. *Id.* “When the local planning commission has prepared and recommended and the governing body has adopted *at least the land use element* of the comprehensive plan as set forth in this chapter, the governing body of a municipality or county may adopt a zoning ordinance to help implement the comprehensive plan.” *Id.* (emphasis supplied).
349. § 6-29-1130.
350. § 6-29-720.
351. § 6-29-950.
352. § 6-29-340.
353. § 6-1-930.
354. *Id.*
355. *Id.*

356. *Id.*
357. Tex. Transp. Code Ann. § 201.103 (2003).
358. Tex. Loc. Gov't Code Ann. § 213.002.
359. *Id.*
360. *Id.*
361. § 213.003.
362. § 371.042.
363. *Id.*
364. § 371.043.
365. *Id.*
366. § 391.003.
367. § 391.002.
368. § 391.003.
369. § 391.006.
370. § 391.003 (emphasis supplied).
371. § 391.004.
372. *Id.*
373. § 391.005.
374. *Id.*
375. 272 U.S. 365 (1926).
376. Susan Obermayer, Vergil Stover, and George Dresser, *Integrating Transportation and Land Use Planning*, Texas Transportation Institute (1994), at 9.
377. Standard Zoning Enabling Act, in *Integrating Transportation and Land Use Planning*, at 9.

378. The Standard City Planning Enabling Act, U.S. Department of Commerce (1928).
379. Va. Code Ann. § 15.2-2210 (2003).
380. § 15.2-2211.
381. *Id.*
382. § 15.2-2218.
383. § 15.2-2219.
384. § 15.2-2212.
385. § 15.2-2214.
386. § 15.2-2223.
387. *Id.*
388. § 15.2-2232.
389. Ed Bolen, Kara Brown, David Kiernan, & Kate Konschnik, *Smart Growth: A Review of Programs State by State*, 8 Hastings W.-Nw. J. Envtl. L. & Pol’y 145, 223 (2002).
390. Va. Code Ann. § 33.1-23.03.
391. *Id.*
392. *Id.*
393. *Id.*
394. *Review of Regional Planning District Commissions in Virginia*, Report of the Joint Legislative Audit and Review Commission. Senate Document No. 15. (1995), at 2.
395. *Id.*
396. *Id.*
397. *Id.* at 3.
398. *Id.* at 4.
399. *Id.*

400. Va. Code Ann. §15.1-1405.
401. *Review of Regional Planning District Commissions in Virginia*, Report of the Joint Legislative Audit and Review Commission. Senate Document No. 15. (1995), at 6.
402. *Id.* at 7.
403. *Id.* at 9.
404. *Id.* at 11.
405. Ed Bolen, Kara Brown, David Kiernan, & Kate Konschnik, *Smart Growth: A Review of Programs State by State*, 8 Hastings W.-Nw. J. Envtl. L. & Pol’y 145, 226 (2002).
406. Daniel Carlson & Stephen King, *Linking Transportation & Land Use by Fostering Inter-jurisdictional Cooperation: Enabling Legislation in Eight States*, Institute for Public Policy and Management, Graduate School of Public Affairs, University of Washington, p.35.
407. 2003 Wis. Laws § 16.965.
408. § 16.965.
409. *See generally* § 66.1001.
410. § 16.965.
411. *Id.*
412. *Id.*
413. *Id.*
414. *Id.*
415. 2003 Wis. Laws § 66.1001.
416. *Id.*
417. *Id.*
418. *Id.*
419. *Id.*

420. *Id.*
421. *Id.*
422. 2003 Wis. Laws. § 66.0301.
423. *Id.*
424. *Id.*
425. *Id.* (emphasis supplied).
426. 2003 Wis. Laws. § 66.0303.
427. *Id.* Exceptions include “[a]n agreement under this section between a municipality of this state and a municipality of another state that relates to the receipt, furnishing, or joint exercise of fire fighting or emergency medical services. . .” *Id.*
428. *Boundary Change by Cooperative Plan or Agreement*, Wisconsin Department of Administration, at [http://www.doa.state.wi.us/pagesubtext\\_detail.asp?linksubcatid=467&linkcatid=215](http://www.doa.state.wi.us/pagesubtext_detail.asp?linksubcatid=467&linkcatid=215) (last visited Aug. 4, 2003).
429. *Id.*
430. *Planning Facts: Portage County Comprehensive Plan*, University of Wisconsin Extension, at <http://www.uwex.edu/ces/cty/portage/compplan/pdf/PlanningFacts4.pdf> (last visited Aug. 4, 2003).
431. *Id.*
432. 2003 Wis. Laws § 66.0307.
433. *Id.*
434. *Id.* (emphasis supplied).
435. *Id.*
436. *Id.* (emphasis supplied).
437. *Id.*

## **APPENDIX D RESULTS OF TECHNICAL ASSISTANCE INTERVIEWS**

### **Abstract**

Appendix D contains the interview results for technical assistance programs offered by other agencies at the federal and state level. The first two pages highlight a sample introductory cover letter and interview questions, and the remainder of Appendix D provides the narrative of the interviews with representatives of other technical assistance programs.

### **Survey Questions and Resultant Narrative**

Jane Watson  
Bureau of Transportation Statistics  
TranStats Customer Support  
Room 3430, K-20  
400 7th Street, S.W.  
Washington, DC 20590

Dear Ms. Watson,

At a time that is convenient for you, I would like to interview you by telephone regarding your insights into setting up effective technical assistance programs, such as the technical support available through the BTS TranStats Intermodal database.

The reason for my unusual request is that the Virginia General Assembly recently passed Budget Bill 472H, which asks VDOT to provide technical assistance, when requested, to localities who are interested in coordinating transportation and land use. Accordingly, VDOT will need to essentially set up a type of technical assistance program that both satisfies customers and is feasible with limited finances and personnel.

I of course realize that transportation/land use coordination is not the mission of the BTS TranStats Intermodal database. However, we believe that the knowledge you have acquired in setting up and managing your program, which is a form of technical assistance, may be helpful to us in Virginia, even though our program would cover different subject matter. Thus later this month, I would like to ask you by telephone a few questions pertaining to personnel, training, customer expectations, and realistic scope setting for your program. We expect that the interview would last about half an hour.

I have attached a few questions that we can use as a starting point for our discussion if they are productive, but our most important goal is to learn lessons from you in establishing your program that could help us better establish ours. After the interview, I will plan to type up my notes and send them to you, and if you would be interested I'd be glad to share with you the results we obtain from similar interviews we plan to have with other managers of technical assistance programs.

Thank you for your time.

Sincerely,

John Miller  
Virginia Transportation Research Council



## Potential Questions for the Interview with Ms. Watson

These are potential questions for discussion of insights BTS has obtained regarding the management and initiation of help for the BTS TranStats Intermodal database. It may be helpful to use these questions, but it is also fine if VTRC simply listens to the perspective of BTS!

1. *While the website maintained by BTS clearly shows what the BTS TranStats Intermodal database accomplishes, what is the size and scope of your help program accessible through (e.g., [answers@bts.gov](mailto:answers@bts.gov) or (800) 853-1351? We would like to know about*
  - Number of staff members
  - Organizational structure (e.g., do staff members come from different departments?)
  - Average number of inquiries per day, working hours per day or week, or some other measure of demands placed on staff
  - Type of assistance provided, such as engineering, managerial, legal, technical, etc.
  - Format of assistance: telephone, email, other, and breakdowns thereof by workload. For example, Are there programs arranged where the customers could come and have face-to-face discussion about their queries?
  - Is multilingual assistance provided or necessary?
2. *How is the program funded?*
  - What resources in terms of personnel, funds, or other items are required?
  - Are customers ever charged?
  - We would especially be interested in how you manage the scope of the program in order to satisfy customers but operate within funding constraints!
3. *To what extent do you keep records of customer satisfaction (or is that necessary?)*

Various options might include

  - customer satisfaction rate
  - measures of efficiency such as average problem solving duration
4. *How do staff manage their workload?*
  - Training program for the staff members (when they are hired, and also from time-to-time, so as to update them on the new technological advancement)
  - Other tips
5. *What suggestions would you recommend to another agency, such as VDOT, that is interested in establishing a technical assistance program?*

## **Interview Summary: Bureau of Transportation Statistics (BTS)**

**July 10, 2003**

### **Background**

The Bureau of Transportation Statistics (BTS) was formed in the year 1992 as a result of ISTEA. It was established BTS for data collection, analysis, and reporting and to ensure the most cost-effective use of transportation-monitoring resources. BTS focuses on three key areas, which have been mandated by the Legislature.

1. Compiling, analyzing, and publishing a comprehensive set of transportation statistics
2. Making statistics readily accessible
3. Implementing a long term data collection program

### **Program Overview**

The following is the information provided to us during our telephonic conversation with Ms. Jane Watson and Ms. Nelda Bravo.

The BTS manages the “Virtual Reference Center” where people can call and have their questions answered. The center handles as many as 6,000 questions a month. The center has a crew of eight persons (six contractors and two monitors ). Most of the questions are direct and efforts are made to answer them within 24 hours. Many of the questions are answered by making use of various other resources such as the Transportation Research Information Service (TRIS) online directory, the National Transportation Library (NTL), and also the main USDOT homepage. Most of the assistance is provided through e-mail and telephone, and the customers are never charged. BTS’ basic authorizing legislation is the TEA-21, which provides \$31 million each year for a six-year period in contract authority. This funding comes from the Highway Trust Fund, and is administered within the Research and Development account under the Federal Highway Administration.

The center has a “Customer Relation Software Product” which tracks all the queries that come in via e-mail, telephone, and the toll free number. They also log the questions that are raised by the customers. In doing so, they have developed answers to a set of “Frequently Asked Questions” (FAQ), which people could directly refer to from the website. The Center also keeps track of the responses by the contractors, which helps them to determine the performance of the individual. They are also in the process of securing clearance to begin sending out customer satisfaction surveys.

## Insights from Program

- *It is important to keep control of the program.* This program has been contracted for many years, but now all the activities are being held under one roof, which helps in coordination and supervision, rather than having staff members off site.
- *Because of the nature of the requests for information, it is helpful that most staff members are librarians.* This is very helpful as librarians have the proper training in coordinating and handling huge sets of data. Sometimes the people who can best manage the question and scope well (e.g., answering the question in an efficient manner) are not necessarily the technical experts, thus, having technical experts as a resource, but not as the only people who field the call center, has proven helpful. At this call center, having a mix of librarians and customer service persons gives a good dynamic.
- *Ongoing training has been invaluable.* The staff members receive proper training when they begin work pertaining to mission of the center, the types of queries that are to be handled, and how to provide assistance. (For example, often customers tend to ask an “icebreaker” question initially that simply helps them get to the real question, thus, staff are trained to look for this and thus be ready to help the customer get at their question.) Yet staff also receive periodic feedback on how certain requests are handled by them: for example, staff members may be told (1) how to answer a question more directly, (2) another source to whom they can refer a question, or (3) how to provide a more complete answer.
- *It helpful if the staff are knowledgeable about the agency, the various divisions, and the various people working in the specific areas of expertise.* This enables them to (1) refer the customers to the appropriate technical person, (2) provide a single contact point for a question in most cases, and (3) understand the context of questions. For example, most users do not differentiate between local, state, and federal responsibilities, thus, while one question might pertain to statistics that are part of BTS’s mission, a subsequent question might pertain to how to get a driver’s license. Knowing how to field this latter question is as important as the former.

## **Interview Summary: Delaware Department of Transportation**

**July 22, 2003**

### **Introduction**

The following is the information provided to us during our telephonic conversation with Mr. William Brockenbrough.

The Delaware Department of Transportation (DelDOT) controls all the roads in the state except for the municipal streets. Land use in the state is controlled by the three counties, viz. Newcastle, Kent and Sussex, and by the 52 towns. The state does not have a technical assistance program as such, but does have a technology transfer program, which was initially run through the University of Delaware, but now is run through the Department. The technology transfer program provides technical assistance to municipalities. The program has an engineer as a consultant.

The three main components of the state's land use and transportation coordination are,

- The two Metropolitan Planning Organizations (MPO) in the counties of Newcastle and Kent.
- The Office of the State Planning Coordination, which works independent of the DOT, provides interface between municipalities.
- The Development Coordination office in the DOT. They review subdivision plans, and also conduct traffic impact studies. They have agreements with the counties as to when to perform the traffic impact studies.

### **Insights**

Delaware's program offers two insights into transportation/land use interactions.

- The county of Newcastle has its own Public Facilities Ordinance, which has had a major impact on development, such that development has shifted to the other two counties of Kent and Sussex. (Delaware has also been divided into five strategic areas, so as to differentiate the developed from the rural areas: these areas are (1) community, (2) secondary, (3) developing, (4) environmentally sensitive, and (5) rural.)
- The Office of Statewide Coordination, housed outside of the state DOT, allows the state to speak with one voice on development issues. In this manner the state avoids communications difficulties that might arise if a community thought it heard differing perspectives from different agencies.

## Interview Summary: Federal Highway Administration Eastern Resource Center

August 7, 2003

### Overview

The Federal Highway Administration (FHWA) has until recently maintained four geographically-bound resource centers (Eastern, Southern, West, and Midwest), although because Resource Center staff have found that they often worked on problems that extended beyond those boundaries, the Centers are currently transitioning to a subject area focus. Under the new organization, there will be one center staffed by ten national technical service teams—where each team has a different subject area of expertise. (These ten teams will be physically housed in the four center locations but organizationally the teams are now being organized by discipline rather than by location.)

Brian Bentlyon—who was interviewed on behalf of the Eastern Resource Center—has expertise in planning, which is one of the national technical service teams. The team actually has eight positions total across the U.S. with two in each location, although at three planning positions are vacant. The planning team's primary mission is threefold: training, technical assistance, and technology deployment. Specific topic areas include Geographic Information Systems, travel demand modeling, summarizing best practices, Title VI/Environmental Justice issues (e.g., how MPOs can evaluate and analyze 20 year plan and short range transportation improvement programs), as well as some startup services for MPOs that are just being formed.

An interesting issue in the past has been the discussion of who is the customer; at one point some persons emphasized the FHWA Division offices, for example, as the primary customer. At present, however, customers are generally defined as the planning community and thus may include interested citizens, advocacy groups, MPOs, state DOTs, and FHWA Division offices.

### Insights into Providing Technical Assistance

Several lessons for providing technical assistance were offered:

- *Customized one to two day courses are quite effective.* While FHWA does staff some of the longer, standardized three-to-four National Highway Institute (NHI) courses, it was pointed out that those classes take a long time to create, a long time to update, and are difficult to tailor to the audience. The Resource Centers have had some success with having a base training course that lasts a day or two which can be modified to fit a customer's needs. An additional benefit is that these Resource Center courses are then not competing with the NHI courses.
- *Spending a day or so to work directly with customers is helpful.* Being able to take a day to work with a client, especially as a peer rather than a regulator, is appreciated by the client.

- *Recognize the value of training in instructional development.* Even if staff will not be teaching a workshop per se, a strong mix of technical and interpersonal skills are needed for working with clients in a technical assistance setting. (On a related note, a breadth of experience is needed including, ideally, service outside of the Federal government; for example, the interviewee's 14 years with an MPO has been helpful for working with planners).
- *Prioritization of goals* is necessary simply because not only does one need to develop and deliver training, but one also needs to acquire new skills as the state of the practices moves forward – which also requires time. One way that the Resource Centers accomplish this is to focus firmly on the three technical components of their mission—training, technology implementation, and technical assistance—and to rely on FHWA headquarters or division staff for policy issues.
- Surveys can be helpful in moderation; having repeat customers is an important measure of success. *Certainly surveys are part of several of the Resource Center initiatives, such as the formal training, and customers can access electronic forms through the Resource Center websites. It was noted, however, that surveying too often can take too much of a customer's time; furthermore, a useful indicator as to whether one is providing a valuable service is whether one has repeat customers.*

### **Insight into Transportation/Land Use Coordination**

Because of Mr. Bentlyon's experience with planning, he was asked for suggestions regarding best practices. While agreeing that NCHRP and TRB literature sources are a good starting point, three additional suggestions were given: (1) examine sources from the Urban Land Institute, (2) consider helping localities take advantage of the National Transit Institute (NTI) course on transportation and land use, and (3) provide guidance to localities on the strengths and weaknesses of the newer land use models that have become available. (Examples include, but are not limited to, TRANUS and UrbanSim which are substantially different from some of the older spatial-allocation models such as DRAM/EMPAL or the Lowry model).

## **Interview Summary: Technical Assistance Offered to Localities by the Maryland Department of Planning**

**August 6, 2003**

### **Overview**

The Maryland Department of Planning is headquartered in Baltimore and have five regional offices: Baltimore, the Upper Eastern Shore region, the Lower Shore region, Western Maryland, and the Chesapeake Bay. Mr. Mark Gradecak, a Senior Regional Planner with the Upper Eastern Shore regional office, summarized some of technical assistance efforts offered by the state of Maryland to jurisdictions and MPOs. (Mr. Gradecack pointed out that each regional office has some unique features owing to the differences in local issues that may arise; for example, the Western office addresses funding opportunities available because of its proximity to the Appalachian region whereas the eastern offices spend more effort on Chesapeake Bay-related issues. Although each of these offices works a bit differently from each other, according to the needs of the region and the people living there, the insights at the Upper Eastern Shore office show how technical assistance can be delivered throughout the state.)

The Upper Eastern Shore regional office is the least staffed among all the regional offices, and has one senior planner and one part time secretary. That office relies on the Baltimore office to provide some staff support when needed. Both the Maryland Department of Transportation (Maryland DOT) and the Delaware DOT have their representatives in the regional offices, and thus care is taken not to duplicate any of their work.

### **Types of Technical Assistance Offered**

The Upper Eastern Shore regional office provides a wide range of technical assistance to five counties, 33 municipalities, and WILMAPCO (the Wilmington Area Planning Council, which is the MPO for New Castle County, Delaware and Cecil County, Maryland). Assistance includes (1) developing comprehensive plans, zoning ordinances, and subdivision ordinances (2) reviewing site plans and annexation documents, (3) interpreting legal aspects, such as state laws (4) looking at larger trends that are happening nationally or subnationally and showing how they apply at the county level and (5) helping counties to acquire funding from various sources such as the federal grants, rural development grants, etc. (One example of grant writing was for a water tank in a town of 200 people.) A key feature of this assistance is that it is quite diverse in nature—some requests are interpretative whereas others require the Office to deliver tangible products to the localities.

### **Insights into Providing Technical Assistance**

Several suggestions were given for providing this kind of assistance to the counties and municipalities:

- *Emphasize making the client a better planner*, rather than “spoon feeding” a particular solution for a particular problem. In this sense, the state was providing grant

opportunities, interpretation of state and federal laws, or other information that might help a decision maker with no formal technical training in the planning field become an effective planner, however, the state was not making the decision for that individual. For example, given that counties are now looking more closely at how they want their land to develop, one type of assistance that has been requested was for the state to provide, within the context of an adequate public facilities ordinance for a particular county, some draft developer responsibility agreements. In this instance, the state did provide technical input – but only after the county had decided to place responsibility on developers for sharing some development costs.

- *Deliver what is promised.* Certainly the duration of providing assistance to a locality on a particular problem might vary, depending on situations where there may be a lot of political interference (and the process could endure for several weeks) and others where the solution to the problem is needed as quickly as possible, which sometimes could warrant a 60-hour week. It might be permissible for a project to take longer than what was expected, but it was absolutely critical for the planner to provide information originally promised.
- *Establish good connections.* It has been observed that it is always helpful to have a good working and personal relationship with the county authorities. Most of the planners in all the regional offices have more than 20 years of experience with their respective counties. During this period they have developed an informal network with the local administration, which is always very helpful in understanding the local needs.
- *Build on experience.* For example, the Upper Eastern Shore regional office took some time to fully establish their program, but now with a full network of informal contacts, as well as ten years of data archived on their computers, they have their own GIS and graphics creating capabilities, which allows them to be quite efficient and not reliant on other offices to provide graphical and publishing support.



## **Interview Summary: FHWA Peer-to-Peer (P2P) Program**

**July, 9 2003**

### **Background**

FHWA's Office of Traffic Management and Intelligent Transportation Systems Applications created the Intelligent Transportation Peer-to-Peer (P2P) Program to help State and local officials understand ITS approaches. In order to consider ITS as part of the transportation development process, State and local transportation professionals need information and assistance in assessing how ITS approaches can help solve their transportation problems. The P2P program provides assistance to a variety of public-sector agencies such as, DOTs, turnpike and tollway authorities, and regional and local transportation officials such as MPOs, transit agencies, and public works departments. The Program provides assistance to all modes of transportation and works closely with the Federal Highway Administration, Federal Transit Administration, and Federal Motor Carrier Safety Administration throughout the request process.

### **Overview of Program**

We interviewed two gentlemen, Mr. James Pol of the FHWA, who sent us back the filled out questionnaire; and Mr. Ali Abdelfattah of Michael Baker Inc., who in addition to sending in the filled out questionnaire, also had a telephone conversation with us. (Information was also acquired from FHWA's website at <http://www.nawgits.com/fhwa/peer/factsheet.html>.) FHWA has outsourced its P2P program to Michael Baker Jr., Inc. Thus the program in all has 5 full-time staff, Mr. Pol from FHWA and 4 people from Michael Baker. The Program essentially has two basic features, (1) information/resources provided to Requestors by Program staff, (2) assistance provided by one or more Program Peers. Peer assistance may be provided on-site or via phone, email, teleconference, etc. Requests are only accepted from local public sector agencies as stated above and public sector Peers are utilized as much as possible to provide assistance in an attempt to conserve resources. A complete log containing the customer's information and the request that was made is maintained. In a regular week 3-4 new customer requests may be received. This varies from season to season i.e. during the spring/summer when many conferences and workshops take place the new request volume may be up to 7-8 per week as opposed to the winter when weather may hinder travel or people have taken time off from the office during the holidays seasons, etc.

A "short" request could be tackled within a day, whereas "detailed" requests that would require the peer to travel out to the customer could take a few weeks to resolve. An example of a detailed request for assistance was given has Hillsboro County near Tampa, Florida, where the community had been awarded a \$21 million grant for the design, system integration, and implementation of an ITS System. Local engineers wanted to ensure that the funds were spent effectively, but it was not clear at the outset how to begin this process, thus they contacted the Peer-to-Peer program and asked for assistance. This assistance was presented in three phases: first, two staff members from Hillsboro County were sent to existing ITS deployments in three locations in Texas and California; prior to the visit, the Peer to Peer program briefed the staff members on what things they should look for when visiting the ITS deployments. Second,

details on how to write a request for proposals (RFP) were given, where the Peer to Peer program covered aspects such as system design, system specifications, and reporting requirements. Third, the program visited the staff in Florida and worked with the local engineers regarding what to expect in terms of responses to the RFP. In contrast to this detailed request for help, however, an example of a quick request -- Dallas Texas asking for specifications on 27T controllers -- was given, where the request could be handled within a couple of business days.

As and when such a request comes in, an ideal candidate, with the required skills to answer the query posed by the customer, is selected from a pool of candidates, and sent out to the field. This program has an annual budget of about \$350,000. It is completely funded by the FHWA. If money is left over from a particular year's budget, the money is transferred over to the next year. The customer is never charged for the services rendered. There is no such metric to measure the customer satisfaction, but the peer who was sent to provide assistance is required to present a detailed report about the entire assistance period, the activities performed, and also whether he met all the needs of the customer. A follow-up call to the customer is also made to determine his appreciation of the help and to ensure that the customer's initial query has been satisfied and also to determine the need for future assistance.

Another facet of the Peer-to-Peer Program is a separate and distinct entity called the "ITS Help Line" which was originally intended to provide documents, information and resources in the area of Intelligent Transportation Systems to any caller regardless of public/private sector status or call origin. The Help Line has broadened to provide callers with information relating to the FHWA's Office of Operations, commercial vehicle operations and many other transportation related topics. The Help Line has a separate toll free phone number and email address and is only related to the Peer-to-Peer Program in the fact that it appears on the same contract and is administered by Michael Baker Jr., Inc.

### **Insights from P2P Program**

- Sub-contract the work, by doing so VDOT could save a large amount of money, as the sub-contractors like Michael Baker Jr., Inc., would have an already existing infrastructure, into which they could fit in the program. The logistics of travel vouchers and travel reimbursements could be addressed by the contractors, which would simplify the process for the person traveling.
- Initially do not promote aggressively, as this might cause a flooding of inquires, which would make it difficult to handle, especially in the early stages of the development of the program. In fact, implementation of a marketing plan has been stopped because of concerns that the resultant growth in the demand for the Peer-to-Peer program could be on the order of \$2 million, which is far more than the current budget.
- Identify specific customers and specific types of help that can be provided. For example, if one were providing traffic engineering assistance, one might focus on persons from states, Division offices, or MPOs who needed assistance with the MUTCD [*Manual of Uniform Traffic Control Devices*]. The lesson is that a successful help program needs to know (i) what can be provided and (ii) who are the customers.

- Manage workload within budget limits, so that no customer is turned away due to lack of funds.

The official Peer-to-Peer Program web site is located at <http://www.its.dot.gov/peer/peer.htm>. This web site contains out of date information such as the address, fax number, and email address – an update is in progress. Please see the correct contact information below.

ITS Peer to Peer Program  
C/o Michael Baker Jr., Inc.  
801 Cromwell Park Drive, Suite 110  
Glen Burnie, MD 21061  
Phone: 888-700-7337  
Fax: 410-424-2300  
Official email: [P2P@fhwa.dot.gov](mailto:P2P@fhwa.dot.gov)

## **Interview Summary: National Household Travel Survey (NHTS)**

**July 8, 2003**

### **Background**

The National Household Travel Survey (NHTS) is a program funded primarily by the Bureau of Transportation Statistics (BTS) and the Federal Highway Administration (FHWA) and includes “demographic characteristics of households, people, vehicles, and detailed information on daily and longer-distance travel for all purposes by all modes.”<sup>438</sup> Data from the survey are available to the public, and in order to make these data more accessible, FHWA and BTS maintain a technical assistance program that provides on-line and telephone support to NHTS users. This NHTS help program, therefore is the subject of the interview with FHWA staff who support the program, and the interviewees were Susan Liss, Bryant Gross, and Felicia Young of FHWA.

### **Overview of Program**

The NHTS help program has four staff members dedicated to providing assistance to their customers. The Oak Ridge National Laboratory, which is under contract to NHTS, has helped develop the website, from where most of the data is accessible. The NHTS receives on an average about 3-4 telephone enquiries per day, and these calls last from between 5 and 20 minutes, depending on the amount/type of assistance requested. This assistance might take the form of (1) helping the user determine where to get a particular data element from NHTS, such as the number of vehicles in the U.S., (2) running the query for the user, or (3) referring the user to another source of data for questions that are beyond the scope of the NHTS. All assistance is free of charge. Although NHTS does not measure customer satisfaction per se, questionnaires are distributed internally asking staff members about the working of the website as a whole. Also, NHTS users are required to register on the website, which enables the NHTS to identify them uniquely, and the NHTS records how often the website is visited.

### **Insights From NHTS That May Be of Interest to VDOT**

NHTS staff noted several suggestions that have proven useful in establishing and maintaining their help program. While the type of help offered by NHTS may be more focused than the consultative arrangement envisioned between VDOT and localities, these lessons may prove quite relevant for certain types of requests that VDOT is likely to receive.

- *Experience proved valuable for managing the scope of the program.* Although the website was developed for the 2001 survey, the NHTS has actually been conducted (albeit under different names such as the National Public Transportation Survey) six times: 1969, 1977, 1983, 1990, 1995, and 2001. (See U.S. Department of Transportation. 2001 National Household Travel Survey: Introduction, Washington, D.C., 2003, Accessed <http://nhts.ornl.gov/2001/index.shtml> July 9, 2003.) The interviewers had initially asked how NHTS could ensure that they would have adequate staff to handle all the queries that would result, and NHTS noted that part of

why they were able to accurately gauge user needs was because of their experiences with the 1995 survey (as well as the experiences of one staff member who had been involved with NHTS since the 1977 survey). Being involved in the 1995 survey, therefore, provided the staff members with good experience and helped them answer the queries of the people in a better manner.

- *An independent assessment helped set the direction of the help program.* Following the 1995 survey, NHTS staff commissioned a user satisfaction report on the NHTS, and the main recommendation that resulted was not to improve the quality of data or the nature of the survey but instead to improve the accessibility of the data. To implement this recommendation, NHTS developed a website and provided live humans who are accessible for help. (The report also suggested marketing the proposed technical assistance program, letting customers know where and whom to contact.)
- *Archival data are available,* including relevant presentations, published papers, and reports that relate to NHTS data. Thus when users request help, it may be that their question can be answered with already existing publications rather than a brand new query, and users can obtain this information from the website.
- *The website does not completely replace human contact.* The NHTS also found that people are happy when they find a live person to talk to about their enquiries, rather than always use the Internet.
- *Funding for the help program was in part justified by its low cost relative to that of the survey.* NHTS points out that with the 2001 survey costing approximately \$10.3 million, it makes sense to spend a tiny bit more money to make this large data set accessible. In other words, a small additional investment in a help program leverages a large investment in collecting the survey data.

## **Interview Summary: North Carolina Department of Transportation**

**July 22, 2003**

An interview with Mr. Mike Bruff, Branch Manager, NCDOT Statewide Planning, provided information regarding North Carolina's program. North Carolina has a fairly robust technical assistance program for transportation planning. It was established by the General Assembly in the 1960's. They mainly provide transportation modeling, planning and air quality conformity assistance. The assistance is provided all 17 MPOs, 100 counties and small urban areas throughout the state. Rural Planning Organizations (20 in number) have been developed, which act as counterparts to the MPOs. They have four core duties as designated in GS 136-211, including developing rural transportation priorities. The RPOs are directly supported by the State funds. They receive \$80,000-\$103,000 annually, according to an 80-20 split (80% state and 20% local funding). The Branch includes approximately 65 engineers and planners. This includes a separate Model Research and Development Team that supports large model development. In addition, each engineer, or planner, is proficient in travel demand modeling. The staff breakdown is as follows:

- 10 of the staff members are dedicated to the RPOs
- 17 support the MPOs,
- 17 provide long range planning assistance, and
- 8 are involved in the model research and development unit.
- 8 provide traffic forecasts for project level studies.

The complete technical assistance program is an in-house establishment, and sub-contractors are only used in rare occasions. NCDOT typically provides model development assistance only to areas with population above 5,000. The Branch is divided in regional units, with each unit being responsible for all planning activities for 1/6 of the state. In addition to the planning section, GIS and Traffic Survey units support the transportation planning process and other core NCDOT business processes.

These divisions are being supported by the SPR funds, except for portions of the RPO program, where state funds provide \$1.8 million in grants to RPOs and about \$500,000 for NCDOT staff positions that support the RPOs. Each of these three sections has a budget of \$5 million a year. The traffic survey section carries out about 30,000 traffic counts a year, which is helpful for many of the planning efforts. Project level traffic forecasts are completed within the planning section. These activities are supported by project funds. Approximately 80% (\$300-500k/year) of these are contracted out.

When asked about suggestions for setting up a technical assistance program, Mr. Bruff notes that one key lesson NCDOT has learned has been to carefully scope out well the area of technical assistance that will be provided. For example, in the past, NCDOT was in the position of being asked to perform purely administrative tasks for the MPOs. NCDOT is now trying to redirect staff to perform core planning functions, notably air quality planning, conformity analysis, and transportation planning. NCDOT is also trying to give MPOs the tools they need to accomplish their missions, so that MPOs can take on more of these planning responsibilities.

## **Interview Summary: Virginia Cooperative Extension**

**July 8, 2003**

### **Background**

Virginia Cooperative Extension is an educational outreach program of Virginia's land grant universities: Virginia Tech and Virginia State University, and a part of the national Cooperative State Research, Education, and Extension Service, an agency of the United States Department of Agriculture. It enables people to improve their lives through an educational process that uses scientific knowledge focused on issues and needs. Extension programs are delivered through a system incorporating the expertise of faculty in the College of Agriculture and Life Sciences, the College of Natural Resources, and the Virginia Agricultural Experiment Station, all at Virginia Tech; and the School of Agriculture, Science and Technology at Virginia State University.

### **Overview of Program**

The interview was with Mr. Dave Starner, Research Superintendent, Northern Piedmont Agricultural Research Station and Extension Center, Orange.

The research and extension center has 3 full-time and 1 part-time staff member, and is funded by a combination of federal and state money, as well as various grants. The organizational structure consists of the agricultural research and extension centers at various locations in Virginia, as well as the main facility at Virginia Tech, Blacksburg, VA. The center is directly responsible to the faculty at VA Tech. They have a relatively low inquiry rate, about 2-3 per day. Staff members work 8 hours/day, 40 hours/week. All of the assistance is given in English, and customers are not charged. There is no quantitative measure for a customer satisfaction rate, but the faculty submits annual evaluations of individual personnel and the center. The creation of a website has significantly decreased the phone calls, as most of the information-seeking customers refer to the website. While the center would previously receive approximately 1,200 telephone inquiries annually on a single subject, they are now down to less than 100.