

Transportation Collaboration in the States

Report prepared by the
National Policy Consensus Center
for the Federal Highway Administration
Office of Project Development and Environmental Review

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The National Policy Consensus Center assists state leaders with ways to develop integrated strategies and solutions to address 21st century problems. The Center with its sister organization, Policy Consensus Initiative, works to provide states with the capacity to achieve more collaborative forms of governance.

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I. Executive Summary

Initiated in the summer of 2005 under contract to the Federal Highway Administration (FHWA), this project focused on the use of collaborative practices to address a range of transportation planning and development issues.

The project had four primary objectives:

- develop increased awareness among state officials of opportunities for the use of collaborative processes and collaborative governance systems in the transportation arena;
- identify one or more transportation collaboration opportunity in at least two states;
- identify collaborative training opportunities;
- develop and test a detailed assessment tool for use in identifying and designing transportation collaborations.

This project was conducted by the National Policy Consensus Center (NPCC) with oversight from FHWA's Office of Project Development and Environmental Review. The NPCC team developed and tested an **assessment tool/questionnaire** to use in interviewing state officials and other stakeholders during site visits. The assessment questionnaire was designed to collect information in four areas of interest: (1) issues, barriers and obstacles to transportation planning and project development; (2) current communication and coordination methods; (3) use of collaborative approaches; and (4) future opportunities for collaboration and training.

The project team made site visits to four states: **Utah, Massachusetts, North Carolina and Virginia**. Altogether over 60 interviews were conducted. Interview summaries for each of the four states are contained in **Section III** of this report.

A number of **themes emerged from the site visits and interviews** in the four states. For the most part, the following issues and themes were mentioned in all four states or in at least three of the four states:

- **Challenges of transportation-land use coordination**
- **Need for improved coordination and collaboration between MPOs/ local governments and state/federal transportation agencies**
- **Importance of early involvement of environmental /resource agencies in transportation planning**
- **Need for modal coordination and multi-modal planning**
- **Critical role of political leadership in promoting collaboration on transportation issues**
- **Development and institutionalization of collaborative systems**

Section IV elaborates on these themes and provides recommendations for follow up. There are a variety of **FHWA programs and initiatives** that have been undertaken to improve transportation planning and decision making at the state and local level. Many of these initiatives are applicable to the issues and opportunities identified in the interviews in the four states. In addition, as FHWA works with agencies and jurisdictions to implement the provisions of Sections 6001 and 6002 of SAFETEA-LU, it can encourage and promote collaborative practices. Section IV of this report discusses the relevance of many of these federal programs and initiatives to the findings from the National Policy Consensus Center's four-state assessment.

The report makes the following **recommendations for next steps in the four states:**

- Work with the four states to pick one or more specific collaborative opportunity for detailed research and assessment.
- Focus on opportunities to create new, or improve existing collaborative systems for state and local transportation decision making to address recurring issues and conflicts.
- Determine whether some opportunities could be addressed in one of the state workshops sponsored by the FHWA and US Institute for Environmental Conflict Resolution. The workshops could be conducted jointly by NPCC and USIECR with assistance from university programs.
- Explore opportunities for leadership training in the four states specifically related to convening collaborative processes. This training could focus on the critical role that elected and high-level appointed officials can play in encouraging and leading collaborative efforts in the transportation arena.
- Develop additional guidance for states on best management practices for integrating land use and transportation planning. Such guidance should include information on collaborative systems and computer models that can help integrate land use, transportation and economic considerations.

II. Background and Purpose

A. Project Purpose and Objectives

This project was initiated in the summer of 2005 under contract to the Federal Highway Administration (FHWA). Its purpose was to work with governors' offices, state and federal transportation and resource agencies and other relevant stakeholders on the use of collaborative practices to address a range of transportation planning and development issues. The project was an outgrowth of a transportation colloquium held by the National Policy Consensus Center in 2003 which was followed by the publication of a report entitled *Transportation Solutions: Collaborative Problem Solving for States and Communities*.

The project had four primary objectives:

- to develop increased awareness among state officials of opportunities for the use of collaborative processes and collaborative governance systems in the transportation arena;
- to identify one or more transportation collaboration opportunity in at least two states;
- to identify collaborative training opportunities;
- to develop and test a detailed assessment tool for use in identifying and designing transportation collaborations.

B. Project Sponsor and Staff

This project was undertaken by the National Policy Consensus Center (NPCC) under contract to the FHWA's Office of Project Development and Environmental Review, with Ruth Rentch, Project Development Specialist, and Shari Schaflein, Team Leader, providing project oversight.

The National Policy Consensus Center was formed in 2001 to provide consultation, applied research, training and assistance for state leaders in addressing public policy issues through consensus building. The Center is a partnership between the Policy Consensus Initiative and Portland State University's College of Urban and Public Affairs. NPCC oversight for this transportation project was provided by Greg Wolf, NPCC Director. Primary staffing was provided by the following NPCC transportation fellows and associates: Susan Brody, Bill Blosser and Robert Jones.

C. Overview of Transportation Challenges and Opportunities

Addressing difficult transportation issues is one of the most significant challenges facing state and local governments. Conflict about transportation planning and development raise a variety of issues about quality of life, economic development, land use and environmental justice. Government leaders need tools and governing models that can help them work in new and innovative ways to successfully address multiple perspectives and solve transportation problems collaboratively.

Collaboration in transportation can take many forms and be applied at different points. These collaborative approaches can be used throughout the entire sequence of transportation decision making, from transportation planning to project development to NEPA review and impact mitigation.

The 2003 transportation colloquium that culminated in the 2003 report, **Transportation Solutions**, developed a variety of recommendations to states on ways to increase and improve the use of collaboration in transportation. These recommendations were organized under the following headings: Provide Leadership; Build an Infrastructure for Collaboration; Promote Collaborative Decision Making Systems; Foster Education, Outreach and Communication; and Support Research and Evaluation.

As part of the 2003 project, case studies were developed to document the application and lessons learned from collaborative processes in a number of states. This project builds on those recommendations and case studies by researching experience and opportunities in four states and developing tools that can assist future collaborative efforts.

D. Approach and Methodology

The NPCC team used a variety of methods to identify and select states for research and site visits:

1. Development of criteria to use in screening states
2. Identification of potential states through telephone contacts with staff from FHWA, the U.S. Institute for Environmental Conflict Resolution, and AASHTO
3. Consultation with several directors and commissioners from state transportation and environmental agencies, as well as with dispute resolution programs in various states
4. Internet research on transportation issues and opportunities in some states.
5. Review of “Action Plans” produced by eight states in the FHWA sponsored **Planning & NEPA** workshops conducted in 2004 and 2005. (We reviewed plans from Arkansas, Arizona, Georgia, Idaho, Missouri, Minnesota, Wisconsin, and Utah.)

Five **criteria** were developed, in consultation with FHWA, to screen potential states:

- **Feasibility of access to state decision-makers such as governors' offices and state agency directors.** (Factors considered included: size of state, complexity of political system, NPCC Board contacts, etc.)
- **Level of experience with, and interest in, collaboration on transportation or related projects and policy issues.** (Factors considered looking for medium level of experience and/or interest on a scale of high-medium-low.)
- **Extent to which states were currently involved in FHWA initiatives such as Planning & NEPA.** (Factors considered included how involvement in the state could build on work already underway.)
- **Extent to which opportunities existed to move to a higher level of collaboration, including building collaborative governing systems.**
- **Other factors, including: opportunities to enhance collaboration between state DOTs and MPOs; fiscal constraints; geographic diversity.**

We conducted preliminary research on ten potential states: Alaska and Utah in the West; Minnesota and Wisconsin in the Mid West; Georgia, Mississippi, North Carolina and Arkansas in the South; and New Hampshire and Massachusetts in the Northeast. An additional state, Virginia, was also added later. Originally, we intended to select two states for site visits, but determined that it would be feasible and desirable to conduct interviews in more states. In the end, we were able to make site visits to four states: **Utah, Massachusetts, North Carolina and Virginia.**

In selecting these four states, the criterion related to access to decision makers was the most important. Interest in, or experience with, the use of collaborative approaches was also important. In three of the four states we had excellent contacts with state leaders through the board and fellows of the National Policy Consensus Center. In addition, all four states had dispute resolution programs that we could work with to identify contacts and conduct research. Though less critical, we were also able to achieve some geographic diversity with the West, Northeast and South all represented. Two of the four states (Utah and North Carolina) have been involved in workshops and initiatives on linking Planning & NEPA.

The NPCC team developed an **assessment tool/questionnaire** to use in interviewing state officials and other stakeholders during the site visits. The assessment questionnaire was designed to collect information in four areas of interest:

- Issues, barriers and obstacles to transportation planning and project development;
- Current communication and coordination methods;
- Use of collaborative approaches; and
- Future opportunities for collaboration and training

Our experience in making appointments and conducting the interviews was very successful. Using our NPCC network, we were able to schedule appointments with high level staff in state government. Altogether, we interviewed more than 60 people representing local, state, and federal agencies, transportation and planning consulting firms, non governmental organizations, and elected officials, dispute resolution professionals, and other stakeholders.

The assessment questionnaire is provided in **Appendix A** of this report. It has been modified from the original version we used in conducting the interviews. The changes reflect our experience in using the questionnaire in the interview process and should improve its usefulness for future assessments. **Appendix B** of this report includes a list, by state, of all the individuals interviewed.

E. FHWA and Other Federal Programs and Initiatives

There are a variety of programs and initiatives that FHWA has undertaken to improve transportation planning and decision making at the state and local level. **Many of these initiatives are applicable to the issues and opportunities identified in our interviews in the four states.** In addition, the implementation of SAFETEA-LU (especially Section 6001 on transportation planning and Section 6002 on environmental reviews) is relevant.

Some of the FHWA programs, workshops and publications that have been developed to assist jurisdictions include: Context–Sensitive Solutions; Scenario Planning; Green Infrastructure Planning; the Tool Kit for Integrating Land Use and Transportation; the Eco-Logical Ecosystem Approach; Linking Conservation and Transportation; and Linking Planning and NEPA. An Interagency Task Force which created an Integrated Planning Work Group, was established by Executive Order 13274 on Environmental Stewardship and Transportation Infrastructure Project Reviews. The Work Group’s 2005 baseline report on integrated planning is an important and useful resource document for all those interested in improved transportation planning.

Over the years, FHWA has also encouraged the use of collaboration and consensus-based approaches to resolve difficult transportation issues. FHWA worked with the Institute of Environmental Conflict Resolution (USIECR) to develop guidance “Collaborative Problem-solving: Better and Streamlined Outcomes for All” in

2002. Procedures were developed for elevating disputes to the Secretary of the U.S. DOT. In addition, regional interagency facilitated workshops were designed and delivered in each of the federal regions. These workshops, in partnership with USIECR, promoted understanding of alternative dispute resolution and the use of collaborative problem solving in the transportation development and environmental review process.

Section IV of this report discusses the relevance of many of these federal programs and initiatives to the findings from the National Policy Consensus Center's four-state assessment.

III. State Findings

In this section of the report, we have summarized the results of our interviews in each state. We have organized our findings using the categories from the assessment questionnaire. There are a few formatting differences in the presentation of the state summaries because of multiple authors. In Section IV, we identify significant themes, opportunities and recommendations based on our analysis of the interviews in each state, and collectively across the four states.

These interview summaries are not intended to provide a comprehensive overview or analysis of transportation issues and collaborative approaches in each state. The project was limited in scope and was part of a preliminary assessment of issues and opportunities. The issues, barriers, and opportunities that are listed were identified by one or more of the individuals interviewed. Many would need to be investigated further and analyzed in greater depth before becoming the basis for future initiatives.

A. Utah

1. Issues and Barriers for Transportation Planning and Project Development

What are the recurring issues and conflicts that you experience in your state related to transportation planning and project development? (*In addition to funding*)

There seem to be two big issues: (1) dealing with the integration of environmental or NEPA considerations into transportation planning; (2) the need for integrated land use-transportation planning that considers the impacts of transportation on land use and vice versa. The Wasatch Front Regional Council has experience in integrating the two successfully.

What are the key barriers/obstacles that get in the way of addressing these issues and conflicts?

In many cases, the Legislature or UDOT makes the decisions about transportation planning with limited engagement from non-government organizations and local government. The Legacy Highway and 114th South, in the Salt Lake area seem to be well on the way toward incorporating much more MPO and NGO participation, but there appears to be much less change in the rest of the state.

There is a major barrier to having any regional or state entity dictate land-use to local governments. Once a highway facility is built, there is no way to prevent local governments from rezoning property and creating significant impacts on the highway facility.

How are these issues/conflicts currently managed?

The biggest change that has occurred recently is the designation of the Executive Committee, composed of the directors of the leading transportation planning entities and resource agencies. They used very good collaborative approaches in the Mountain View corridor study and in the project planning for the Legacy Parkway (once the litigation was settled). The Wasatch Front Regional Council has a good grasp on how to do collaborative planning processes.

Which agencies and organizations are typically involved in planning and project development? Are there agencies or organizations that tend to be absent or that should play a bigger role?

At the planning and project development level, there is high dependence on what the MPOs do in their planning. If that planning is not done collaboratively or does not consider land-use or environmental issues, these issues are generally only considered during the EIS, at which point the project usually has already been decided on. In general, the nongovernmental organizations are not involved extensively at the UDOT transportation planning level. However, in the Salt Lake area, there is clear evidence that they are being involved by the state at the project planning level and by the MPO in the Regional Transportation Plan.

How satisfactory and durable are the results achieved through current methods of managing issues and conflicts?

The recent litigation indicates that the current processes historically have not satisfactorily managed issues and conflicts. However, the state legislature and UDOT have reacted very positively to the litigation and seem to be changing how they are approaching transportation planning.

2. Current Communication/Coordination Methods and Use of Collaborative Approaches

Describe the communication and coordination among the federal, state and local governments in relationship to transportation project development or planning processes.

The new Executive Committee is an excellent high-level interagency team, perhaps the best that has existed in Utah. FHWA helped launch the committee and participates in it. At the MPO level, the Wasatch Front Regional Council has used interagency teams, but we were unable to determine whether the other MPOs do the same.

What is the working relationship between resource and transportation agencies?

At the level of designing projects, there seems to be good involvement of the federal resource agencies. However, UDOT has not completed its work on defining how to involve environmental issues or the resource agencies at the level of master planning the future transportation system. There is an internal committee working on this which will report to the Executive Committee.

How would you characterize the working relationship between the DOT and the MPOs/ other local governments? (*Very Collaborative, Somewhat Collaborative, Conflictive, Lots of Conflict*)

Somewhat collaborative.

What role does the Governor's office play in encouraging or requiring the state agencies to work together?

We got no information about this, which does not mean that it does not happen. The former Governor convened the successful Envision Utah, which continues to play an interagency role in transportation planning in the Salt Lake area.

What role does FHWA play in encouraging/facilitating coordination and collaboration?

FHWA encourages collaboration, but feels its main role is to make sure that the state and MPOs follow the correct processes for making decisions. If asked, it will assist in developing collaborative approaches, but it is reticent to tell the state how to do its work.

How effectively are non-governmental stakeholders (for example, environmental, business and neighborhood groups) integrated into planning and project development processes? What mechanisms are currently used to integrate non-governmental stakeholders?

In general, non-government stakeholders feel they have a difficult time getting involved in transportation planning at the state level. They appear to be fully integrated into planning at the MPO level in Salt Lake, but we did not obtain enough information to be sure what happens in the other MPOs.

Please identify and describe any collaborative approaches that your state has used in the following areas:

- **Policy Development and Rulemaking**

The recent establishment of the Executive Council is the first instance of this in Utah and holds great promise.

- **Transportation Modeling**

Transportation modeling in the Wasatch Front region (WFRC and MAG) has evolved to include a sophisticated modal split process (multimodal) and, with UrbanSim, the ability to iterate a land use distribution model with transportation models to test the interrelationship. UrbanSim (University of Washington model) has been tested and approved by the Council for use in planning level analyses. Elsewhere, Utah still generally only uses the standard traffic/highway models, not those that fully integrate all the modes and land use. In particular, the underlying assumptions used in transportation modeling and planning have not been exposed to wide stakeholder input. Transportation planners have not extensively explored the integrated land use-transportation models used elsewhere, such as the enhanced version of EMME2.

- **Environmental and Land Use Permitting**

UDOT is currently studying how to integrate environmental issues into early planning of transportation projects. They are not actively working on how to integrate land-use issues into transportation planning although they certainly understand the issue.

- **Construction**

We heard one good example of a collaborative process for construction that was done by UTA for construction of the light rail line. We did not obtain information on whether UDOT also does similar things.

Please describe any training that has been done for agencies and stakeholders on collaborative approaches.

A year or so ago FHWA conducted a training on integrating NEPA and transportation planning. This training did not appear to resolve some major questions for UDOT about how to use the NEPA process. There has also been some training done on 404 permitting

3. Future Opportunities

We identified these opportunities:

- The Wasatch Front Regional Council could put on trainings on integrating land use and transportation planning for the state and other MPOs. This training should be designed not only for state and local government, but also for legislators.
- UDOT seems uncertain how to integrate consideration of broad transportation and environmental issues “up front” at the conceptual project planning stage. If the state could “get credit” for early involvement when it gets to the NEPA stage, it would be inclined to do it. They also seem uncertain how to involve broad stakeholder groups at this planning stage. Perhaps a workshop could be conducted on this issue, bringing in people who have resolved the issue in other states.
- To resolve the issue above, it would be useful for UDOT and the MPOs to investigate whether they should adopt a uniform approach to modeling transportation and land use. Perhaps a workshop could be done on just this issue. This workshop could include an examination of the underlying assumptions used in transportation planning in Utah.

- There seems to be an assumption in UDOT that the NEPA process does not permit very broad public involvement or consideration of alternative projects. A workshop on this issue might be useful.
- UDOT is establishing a mediation program for resolving environmental and transportation disputes. This creates an opportunity to establish an entity in the state that would oversee this and provide facilitators for resolving issues. In the Salt Lake area, the Wasatch Front Regional Council indicated an interest in playing this role. Ideally, however, this program would be administered on a statewide basis.
- UDOT has invited NPCC to attend the Executive Committee meetings to observe and identify whether the mechanisms being utilized might be useful to other states.

B. Massachusetts

1. Issues and Barriers for Transportation Planning and Development

What are the recurring issues and conflicts that you experience in your state?

A variety of issues and conflicts were identified, some are process related and others are more substantive. Those related to process included: how decisions are made and who has control; perceived deficiencies in public participation; the need for improvement and streamlining in the EA and EIS processes; the need to change business practices in the State Transportation Improvement Program process so that more of the projects identified in the first year of the STIP actually move forward as scheduled.

Other issues and conflicts that were mentioned in the interviews were focused on specific concerns, such as:

- prioritizing projects and funding, including the allocation of funds between eastern and western parts of the state
- traffic congestion and conflicts among transportation system users (cars, trucks, pedestrians, bikes, transit)
- various environmental issues, including air quality
- land use impacts of transportation projects and the need to change some land use practices to support and prolong the benefits of transit and highway projects
- Environmental justice
- Project design and rights-of-way, including disagreements between local communities and the Massachusetts Highway Department (MassHighway)
- Integrating transportation and air quality planning including the need for early consideration of air quality in the planning process
- The allocation and use of CMAQ (Congestion Mitigation Air Quality) funds

What are the key barriers/obstacles that get in the way of addressing the issues and conflicts?

A number of the barriers were related to communication and coordination. These included lack of understanding and communication across various transportation and environmental disciplines and not enough real collaboration. Several sources acknowledged that divided governance was an issue, with silos in state and federal government and insufficient integration among agencies. Rigid approaches or attitudes and the need for 'culture' change in some agencies was also mentioned. Related to these issues was the need for training and institutional structures and systems that support collaborations among state agencies and among state and local government interests.

The lack of coordination among local governments was also highlighted. There are 351 different cities and towns in Massachusetts and lack of coordination can make it difficult to address regional transportation and land use problems.

In the Boston Region MPO, membership on the Transportation Planning and Programming Committee (TPPC) creates some barriers for municipalities (101 municipalities, but only a few seats for three-year terms--3 seats for cities and 3 seats for towns). TPPC membership also was identified as a barrier for environmental agencies. For example, the Executive Office of Environmental Affairs (EOEA) doesn't have a seat at the MPO table whereas transportation agencies do.

Other barriers to addressing transportation issues and conflicts included:

- cutbacks in staffing and staff turnover
- lawsuits
- lack of understanding by stakeholders about how decisions get made
- insufficient understanding of critical nature of air quality and other environmental issues
- non-governmental entities not being included on a regular basis in task forces/advisory boards

How are issues and conflicts currently managed?

The recently produced Highway Design Guidebook has helped reduce and manage disputes, while improving relationships. The guidebook has more flexible new design standards, is strongly multi-modal, and incorporates the community setting as a design factor. It will assist in making Mass Highway projects more compatible with the state's historic, environmental, community and cultural resources. It also supports early planning and coordination to create safe, attractive roads.

Early consultation and coordination among agencies is happening more frequently than in the past and helps address issues more effectively. Also, categorical exclusions and programmatic agreements have been developed to simplify and streamline the EA and other processes.

The current governor of Massachusetts created the Office of Commonwealth Development (see more information below), providing a mechanism for bringing certain key state agencies together to improve coordination and focus on mutual priorities. In addition, changes in State law—Chapter 196 (2004)--brought together the various state transportation authorities.

Task Forces and Advisory Boards are formed, as are inter-agency teams, but several of the people interviewed felt that they are not always effective and productive. Sometimes, professional facilitators have been hired to assist groups in reaching consensus. A good example was the process to restructure the MPOs for greater local government representation.

Development of the new State Transportation Plan, using a 'systems approach' to issues and problems, efforts to develop more objective criteria for project selection, and improved asset management were also identified as contributing to improved management of issues and conflicts.

Increased outreach to low-income communities and other underrepresented groups also helps to manage conflicts. For example, the EOEA has appointed an Environmental Justice group

In general, MPOs provide a mechanism for managing conflicts; increased representation from local government officials has made this easier.

Which agencies and organizations are typically involved?

- Federal: FHWA, FTA, EPA, sometimes Corps and Coast Guard
- State: EOT, MassHighway; MBTA; MassPort; MassPike; MAPC; EOEA; DEP; OCD
- Local: MPOs, local governments; Regional Transportation Advisory Council representing 60 different interest groups (has one seat on TPPC)

How satisfactory and durable are the results from current methods of managing issues and conflicts?

Of those interviewed, there was general agreement that relationships among agencies and between state and local government are improving, but that they were still on a 'learning curve'. The collaborative effort championed by FHWA that resulted in greater local government involvement in MPO decision making has resulted in very successful and lasting change.

2. Current Communication/Coordination Methods and Use of Collaborative Approaches

Current Communication & Coordination

Generally, state-federal relationships are working well. The relationship between MassHighway and FHWA was described as excellent. The FHWA Administrator, Commissioner of MassHighway, and EOT Secretary meet once or twice monthly. They generally reach agreement at the top about what issues need to be addressed and how to approach/implement a solution.

FHWA has been trying to put more emphasis on environmental-transportation agency integration. Cooperation between transportation and resource agencies is mixed—sometimes it works well, other times is problematic. MassHighway, DEP and the state historic agency have developed programmatic agreements.

Based on our interviews, it appears that the relationship between MassHighway and the MPOs/local governments is generally good and has improved significantly, but there are still some communication and coordination issues. The expansion of MPO membership to include local government official representation has helped coordination and communication with local governments.

The creation of the state Office of Commonwealth Development (OCD) has helped in bringing key agencies together and coordinating agency agendas. The OCD oversees and coordinates the policies and programs of the following agencies and secretariats: Executive Office of Environmental Affairs, Department of Housing and Community Development, Executive Office of Transportation, and the climate and efficiency programs of the Division of Energy Resources. OCD focuses on Smart Growth and Sustainable Development and has adopted ten 'Sustainable Development Principles'. These agencies meet frequently (monthly) to focus on mutual priorities and coordination.

Several of those we interviewed indicated that, generally, there has been some improvement in consultation and coordination with non-governmental stakeholders.

Examples of Collaborative Approaches

- The Massachusetts Highway Department created a 28-member Task Force to examine and overhaul its Highway Design Manual. This was a 2 ½ year collaborative process with the Task Force including representatives of interest groups, advocacy organizations, regional and professional organizations. The result was the Massachusetts Project development and Design Guidebook. The Task Force had a well-respected outside chair which helped lend credibility to the effort.
- MPO Restructuring: FHWA Massachusetts office played a leadership role in sponsoring a process to increase local government representation in MPO decision making. A professional facilitator was used to help the various government entities work through the issues for the Boston MPO. Federal aid

funding paid for these services. FHWA, State and local officials found that they did not need to use facilitators for the MPO restructuring in other parts of the state. Instead, they used restructuring committees that had broad representation.

- Some MPOs have used simulation models at Advisory Committee meetings to help committee members understand the impact on traffic congestion of various scenarios—this use of modeling has been very effective and helps take communication to a new level.
- MassHighway has discontinued its Construction Partnering program which helped deal with conflicts and disputes that arise during construction. (It was considered by some of the people we interviewed to be an excellent program and we are unclear why the program was eliminated.)
- Urban Ring CAC-- recently reconstituted with 25-30 stakeholders, including agencies, major institutions, businesses, interests groups, etc.; now starting work on EIS.

3. Future Opportunities

Collaborative Processes and Governing Systems

We identified the following opportunities related to application of collaborative processes and governance systems:

- Continued work on collaborative approaches for early consultation with local governments and communities on planning and project development
- Continued work on collaborative approaches to early consultation with environmental agencies on planning and project development
- Urban Ring Advisory Committee process and Urban Ring Project as a whole, including facilitation, collaborative problem solving and consensus building with affected communities
- Design and development of processes to support Smart Growth initiatives (helping to support the Office of Commonwealth Development and others)
- Design and development of collaborative processes to assist Model Plan development
- Design and development of collaborative processes to facilitate corridor land use planning and improve land use-transportation coordination
- Creating/negotiating a more transparent process for allocation of CMAQ funds, including clearer criteria and guidelines (beginning with an education component to build a shared base of understanding at the MPO/TPCC level about air quality).
- Negotiations to address the role that EOEa plays at the MPO level.
- Diesel emissions strategy development / Electrification of truck stops, etc. (Although it may work best for them to work through NESCO, an NGO, which works across all eight NE states on air quality issues.)

- Exploring the 'Oregon Solutions' model for convening community collaborative problem-solving across the public, private and non-profit sectors (working with the MA Office of Dispute Resolution and University of Massachusetts, Boston)
- Exploring opportunities for state and federal agencies to use the Oregon Collaborative Environmental and Transportation Agreement for Streamlining (CETAS) model
- Collaboration/Coordination among adjacent local jurisdictions for land disposition, land use-transportation coordination, or developing regional approaches.
- Hanscom Airport planning/development
- Renewal of the Boston MPO Memorandum of Understanding in 2007

Possible Training Opportunities

- Outreach and training of local governments related to the Design Guidelines.
- Cross training at MassHighway (and within EOT) to help break down barriers across disciplines within transportation planning and development.
- Planning and NEPA workshop may be useful for some issues
- Training on building more collaborative relationships across state and federal agencies.
- Training leaders to be supportive of collaborative efforts (Leadership at the top sets the tone and makes a big difference in being able to get things accomplished.)
- Training to improve relationships within MPO TPCC (including transportation planning staff).
- Collaborative skill building training for a variety of audiences: within state agencies, for interagency teams, for local governments and MPOs. Opportunities might exist to cosponsor trainings with the state chapter of the American Planning Association and with the Women's Transportation Seminar (WTS)
- Workshops/trainings on collaborative approaches to foster smart growth and sustainable development

C. North Carolina

1. Issues and Barriers for Transportation Planning and Project Development

- **Linkage of land use and transportation planning.** The state does not have a comprehensive planning mandate for local governments but local governments must have at least a five year comprehensive plan to receive funding assistance from NCDOT. Every interview touched in some way on the challenge of linking land use and transportation planning and decision-making where there is not a statewide framework for managing growth. Federal, state and local agency partners agree that the role of local government in the transportation planning and project process in both metropolitan and rural areas is evolving and will present governance and strategic challenges.
- **Secondary and cumulative impacts and mitigation of transportation projects and programs,** including local government participation in transportation compensatory mitigation and watershed-planning based mitigation in light of property tax implications of mitigation preservation strategies and desired location of the mitigation within the watershed.
- **Air quality and transportation issues** in the state's regional metropolitan areas present both intergovernmental and cross- public/private sector challenges.
- **Long-range corridor planning** for transportation and the integration with state and regional strategic economic development plans is a recurring issue.
- **Overlapping responsibilities of State boards-** State transportation, economic development and science and technology boards have sometimes overlapping roles and responsibilities in relation to the state's economic strategic planning, and transportation system planning and production.
- **Lack of a comprehensive and practical GIS tool** for those planning for the state's transportation system, economic development initiatives and preservation of North Carolina's natural systems.
- **Project timeline and implications for political support for major transportation projects in fast growing areas.** The project development timeline is very long for larger and more complex projects, often forcing project redesign in fast growing areas. These areas have typically experienced rapidly evolving urban forms over the past 10-20 years. E.g. the big urban loops, such as the Charlotte outer loop, and freeways require more than 20 years for project planning, development and finance to completion.

2. Current Communication and Coordination Methods/Use of Collaborative Approaches

- **North Carolina Interagency Leadership Team (ILT).** Created in 2004, the ILT represents 10 state and federal agencies involved in the planning, development and implementation of North Carolina's highway and transportation system. Its members include NC Department of Transportation, NC Department of Environmental and Natural Resources, NC Department of Commerce, NC Department of Cultural Resources, NC Wildlife Commission, the U.S. Army Corps of Engineers, Federal Highway Administration, U.S. Fish and Wildlife Service, Environmental Protection Agency and National Marine Fisheries Service. During its first year it developed consensus on its mission to "develop an interagency leadership plan for North Carolina to balance successfully mobility, natural and cultural resource protection, community values, and economic vitality at the confluence of our mission." The ILT came together because its members "believe it is essential, and possible, to develop future transportation projects in a collaborative, interdisciplinary approach that involves all stakeholders and preserves the scenic, historic, natural environment and community values while efficiently meeting the mobility, economic and safety needs of our citizens." The ILT has worked for a couple of years and has used facilitators from North Carolina State University and within the ILT's agencies in a series of work

sessions to develop consensus on a strategic plan that sets forth three focused goals. The ILT agrees on several top concerns and issues facing transportation, the environment and the economy in North Carolina. These goals are: (1) to develop a shared, comprehensive Geographic Information System (GIS)(2) to ensure that local land use and long-range transportation planning result in projects that meet mobility, economic and environmental goals; (3) and to improve the Merger '01 Process.

- **North Carolina Ecosystem Enhancement Program (EEP)** In the 1990's in the midst of one of the most aggressive new road construction programs in the nation, a crisis emerged brought on by significant project construction delays in part attributed to problems with wetland mitigation required for clean-water permitting as compensation for transportation project environmental impacts. This prompted the leadership of three agencies, NCDOT, NCDENR and USACE, critical to the success of a compensatory mitigation process, to establish a collaborative team initiative to address and find solutions to the problems presented. The solution proposed by a multi-agency team and adopted by the leadership of the three agencies was to create an entirely new mitigation-delivery protocol that provided funding for a new program (the Ecosystem Enhancement Program housed at NCDENR) that would be independent of the transportation production program. The leadership cemented the program through two memoranda of understanding that built a collaborative governance structure and provided for direct involvement of a coalition of agency partners, including FHWA, NOAA, USEPA, USFWS, National Marine Fisheries Service, the NC Wildlife Resources Commission, the NC Department of Cultural Resources and the state Soil and Water Management Districts. It also works with and relies upon private and public-private partnerships to implement the program including the non-profit Conservation Trust of North Carolina that represents the 23 land trusts in the state. Finally it involves stakeholders through a Liaison Council that provides a forum for exchange on objectives and implementation issues for the EEP and includes representatives of local governments, the state's land trusts and the banking, legal, construction and development communities. The program has had remarkable success. In its first two years of operation, EEP spent \$36 million on mitigation and help advance over \$1.5 billion in road projects, none of which experienced mitigation related delays. The program collaborated with private-sector partners in nearly 400 wetland-and stream-restoration projects statewide, preserving more than 30,000 acres of high quality natural areas with another 11,000 acres either being purchased or are under option for preservation purchase.
- **NCDOT, NCDENR, USACE and other state and federal agencies** have jointly developed, instituted, evaluated and improved a formal **dispute resolution and elevation procedure** to ensure that difficult issues during the project development process are resolved at the lowest level possible within each agency while allowing elevation of the issue in a timely manner, as needed, for resolution by senior management.
- **The FHWA and NCDOT's Office of Environmental Quality** facilitated a series of workshops to review with stakeholders and seek process improvements of Section 106 historic preservation compliance process. FHWA, NCDOT and the NC Department of Cultural Resources continue to work on implementing the workshop recommendations to improve the efficiency and effectiveness of the Section 106 compliance process.
- **NCDOT and FHWA are working together to with MPOs and RPOs to redesign the long-range planning process.** The new process, called the Comprehensive Transportation Planning Process (CTP), encourages the integration of land use, transportation and environmental planning, in a manner that

meets the needs of the communities. The CTP process also includes multi-modal planning, modeling, and stakeholder involvement.

- **Multi-Agency Memoranda of Agreement and Understanding.** The state has supported the use of MOAs and MOUs as tools for collaboration on topics such as permit process improvement streamlining initiative (Merger '01), compensatory mitigation (EPP), and hurricane repair efforts.
- **Joint Interagency Collaboration Training.** NCDOT Collaborated with FHWA, DENR and other agencies to develop different types of collaborative decision making training for North Carolina. NCDOT and NCDENR have jointly sponsored training on topics such as indirect and cumulative impact assessment, collaborative decision making, and context sensitive design solutions.
- **Engaging Stakeholders in Updating the State Transportation Plan.** The NCDOT and the state Board of Transportation organized a broad-based process for public engagement and consensus building working with 43 stakeholder groups over 2 ½ years with two rounds of facilitated regional forums in 14 locations across the state. The effort culminated in a Transportation Summit in May 2002 to consider the emerging plan and was attended by 17 MPO's and 20 RPO's, civic and environmental groups and businesses through the umbrella organization, the North Carolina Citizens for Business and Industry.
- **The Regional Transportation Alliance** represents an example of regional collaboration, education and leadership on transportation issues. Activities include: convening quarterly Regional business-transportation academies where public and private leaders receive and discuss briefings on key transportation, land use and economic issues from local, state and national experts; sponsoring a Triangle Mobility Forum Action Partnership ("Tri-MAP"), a public/private discussion and consensus building forum for regional leaders from MPOs, counties, cities, legislators on transportation committees, representative of the regional business community, area chambers of commerce, non-profit organizations, etc.; and hosting Leadership Triangle, a regional leadership development group that draws participation from public, private and non-profit sectors.
- **The Southern Growth Policies Board** (<http://www.southern.org/> "*Charting Southern prosperity with innovative ideas and collaborative action*"). The Southern Growth Policies Board (SGPB) is a non-partisan public policy "think tank" based in Research Triangle Park, North Carolina. Formed by the region's governors in 1971, SGPB develops and advances visionary economic development policies by providing a forum for partnership and dialog among a diverse cross-section of the region's governors, legislators, business and academic leaders and the economic- and community-development sectors. This unique public-private partnership is devoted to strengthening the South's economy and creating the highest possible quality of life. SGPB has documented successes and developed tools such as their recent report on regional collaboration on economic development planning in the rural South, "The New Architecture of Rural Prosperity" (2005), and previous studies such as "Results-Oriented Government: A Guide to Strategic Planning and Performance Measurement in the Public Sector."

3. Future Opportunities

- **Engage and clarify opportunities for collaboration on the links between land use and transportation.** This could include expanding the Interagency Leadership Team's efforts on linking land use and transportation by finding ways to include local government leadership perspectives and support for implementation strategies.

- **Support the Implementation of the Merger 01.** This will continue to require commitment to effective collaboration among the varied interests and agencies.
- **Support greater multi-modal planning** among partners and stakeholders integrated with land use and environmental concerns and needs.
- **Encourage and integrate multi-sector regional transportation and economic development planning.** Develop other regional initiatives based on the Regional Transportation Alliance Forum’s efforts in the Triangle Region to identify challenges and build consensus among the public and private sector members on transportation solutions.
- **Build on and expand collaboration around modeling and GIS tools.** One interviewee suggested a good example might be facilitate efforts with MPOs, RPOs DOT, NC Department of Commerce, DENR and others on integrating land use and transportation.
- **Draw on the university system education and training assets.** The university system has programs directed towards documenting collaboration initiatives and building greater leadership capacity for collaboration. NCSU’s **Institute for Transportation, Research and Education** has helped with provide training in an interagency setting, as well as conducted applied research for process improvement initiatives. The UNC Institute of Government’s **Public Dispute Resolution Program** helps local governments build collaborative capacity through dispute resolution and collaboration training and service. <http://sog.unc.edu/programs/dispute/ncdrr.html>.
- **The North Carolina Natural Resource Leadership (NRLI) Development Program,** <http://www.ces.ncsu.edu/depts/agecon/nrli/>, sponsored by NCSU, UNC and other campuses, provides an in-depth approach to developing collaborative leaders in the state. NRLI brings together people from government agencies, private industry, community and environmental organizations, and educational institutions in an atmosphere conducive to the exploration of controversial issues and the learning of leadership collaboration competencies. NCDOT and other transportation partner agencies should consider greater utilization of these leadership and collaboration training resources in the future as a way of enhancing staff capacity for effective collaboration among diverse interests. The NRLI leadership training program has a 10-year track record and is especially well suited to enhancing collaboration competencies for leaders and managers. A high level NCDOT official who did participate in the program noted that, “It gave me a deep appreciation for how different interest groups get involved in collaboration efforts and how regulators, business and environmental groups struggle to meet their missions while seeking consensus solutions.”

D. Virginia

1. Issues and Barriers for Transportation Planning and Project Development

- **Transportation Funding**, according to virtually all those interviewed, is the overwhelming dominant recurring institutional issue. Most agreed that: 1) it represents a growing “crisis” that needs to be addressed since it saps public confidence and makes more difficult consensus on solutions; and 2) it is currently difficult to discuss improvements in Virginia’s transportation policies, planning and projects without addressing short and long term transportation funding issues.
- **Linking Land Use and Transportation Planning**. Many interviewed identified the critical need for more effective linking, by both VDOT and local governments, of local and regional land uses with transportation planning and projects. 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. 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. 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. The interviews suggested a need to address the changing roles and perception about how VDOT interacts with local government on land use decision-making that impacts the transportation system that is largely owned and controlled by the state, as well as the impacts the transportation system projects have on resulting land uses. For example, local government often make land use decisions and rezoning decisions based on promises that the state highway improvement will be funded and in place when the development is completed. Conversely, the state may provide a transportation improvement to address one set of land use conditions, which the local governing body can change at any time. This approval of incompatible land uses often renders transportation improvements obsolete. Some suggested in the state’s more urbanized regions a need to provide more support and planning for transit oriented development.
- **Multi-modal Planning and Governance**. The current *ad hoc* approach to modal planning lacks a governance mechanism that can facilitate needed collaboration, planning and investments. The interviews identified a need to cross transportation modes at the state and regional levels and connect local jurisdictions into this modal planning and project development process as well as consider alternative modes and evaluate approaches such as improving local road networks. To address this, the Commonwealth's Multimodal Transportation Planning Office was created in 2005 to facilitate implementation of VTrans2025. The creation of this office is the result of recommendations put forth in the final VTrans2025 report, which recommended the need to review organizational alignment and staffing to institutionalize multimodal planning in Virginia. Among the tasks identified in the Office’s charter are to, “Develop, in cooperation with the Commonwealth’s transportation agencies, updates of the VTRANS2025 report as required by Virginia law; Facilitate the development of a statewide freight plan; Develop performance measures to assess implementation of multimodal planning in the Commonwealth; and Develop policy and legislative recommendations that would facilitate multimodal planning in the Commonwealth.” Some noted the office is relatively new and progress in addressing this charge is both a challenge and opportunity that will require commitment from VDOT.

- **Public Private Partnerships.** Some pointed to the positive role of the private sector in providing transportation project funding when the state is under-investing in the system at the local and regional levels. However, others noted that the current transportation financial capability of the state means there is often no public component to a potential partnership. For example in the Hampton Roads many of the major unfunded projects are over \$1 billion and there are no state funds capable in partnering in projects of that magnitude. Some noted the challenge of how these public-private partnership initiatives are incorporated into and fit within the transportation planning and funding at state, regional and local levels.
- **Engaging in Effective Long Range Planning.** Some noted the problem with earmarks and other funding decisions made outside and consequently undermining the effectiveness of, and confidence in, the state's transportation long range planning process. Others noted the need for agreed upon criteria for how projects are incorporated into the Virginia Six Year Improvement Program as well as the need to more clearly link the local TIP and long range planning process. An example suggested by some was the need for more effective regional corridor planning.
- **Engaging Historical Resource Stakeholders in Transportation Planning and Project Development.** This has proven for certain transportation projects to have presented a challenging issue as stakeholder advocates present concerns with potential transportation impacts on battlefields, historical sites, etc.
- **Public Participation and Stakeholder Collaboration on Transportation Projects and Planning.** A couple of those interviewed suggested there is a need to review and seek improvements and adopt and utilize public participation procedures, including basic notice and involvement and opportunities for input and collaboration. New procedures on public involvement were being developed by VDOT and the CTB in 2005 and a *Public Involvement Guide for Planning*, is under review by FHWA.
- **Reducing Adverse Impacts to Communities and the Environment.** While the interviews suggested the relationship between the state Department of Environmental Quality and VDOT was good, there remains a challenge of reducing adverse impacts to the environment and communities through mitigation and alternatives such as context sensitive design.
- **Private Property Rights, land use, transportation** and role of the courts presents ongoing challenges in Virginia's transportation and land use planning.

2. Current Communication/Coordination Methods and Use of Collaborative Approaches

- **Use of Facilitation on Transportation Projects-** The VDOT District Director in the Richmond Region utilized the Harrisonburg Mediation Center to provide facilitators for a smaller transportation project in an urbanizing community. The VDOT initiated Bryan Park Interchange Advisory Committee (BPIAC) was a facilitated two-year process from 1997-1999 to develop new ideas and options to address congestions and traffic safety issues where three interstates, I64, I95, I195, converge while protecting the park and preserving neighborhoods. (See the case study at <http://www.policyconsensus.org/casestudies/docs/VAbryanpark.pdf> or at <http://www.virginia.edu/ien/vnrli/docs/Bryan%20Park.pdf>. VDOT has also used consensus-building facilitated processes like BPIAC in several other projects, including River Road in Goochland County and Peters Creek Road in Roanoke.

- **Use of Communication/Coordination on Transportation Projects.** Projects such as the Route 288, the I-95 James River Bridge, and the Atlee/Elmont projects, have dedicated websites and periodic newsletters to keep the public informed of opportunities for input.
- **The Virginia Interagency Advisory Council on Administrative Dispute Resolution** was established pursuant to Virginia’s Administrative Dispute Resolution Act (VADRA or the Act) which requires each agency head to appoint an employee to serve as the agency's Dispute Resolution Coordinator (DRC). Agency DRCs should be mid-to-high level leaders familiar with the agency's overall operations and potential uses of ADR and collaborative practices. DRCs are responsible for leading the implementation of the Act at the agency level. The Interagency ADR Advisory Council is composed of: two DRCs from each Secretariat, appointed by each Cabinet Secretary from the pool of DRCs in his or her reporting agencies; three private sector members appointed by the Governor; the Director of the Department of Employment Dispute Resolution; and as Chair, the Secretary of Administration. The Council provides guidance and training to agencies in the use of collaborative practices and ADR; supports the use of pilot DR projects; and reports to the Governor and the General Assembly on the use of dispute resolution in state agencies; and is charged with recommending changes in the law where warranted. As is pointed out in the “Future Opportunities” section below, the VDOT has not proposed a transportation dispute resolution pilot to date.
- **DEQ Facilitated Water Planning Regulation.** While this example did not directly involve VDOT, it might serve as a model for stakeholder engagement. Governor Warner instructed DEQ to use a facilitated stakeholder Technical Advisory Committee to reach consensus in drafting a water planning regulation. The consensus reached was incorporated into legislation. DEQ is currently considering the use of a stakeholder technical advisory committee for drafting of water protection permit regulation.
- **The Virginia Natural Resources Leadership Institute (VNRLI)** concept was established in 2000 by the University of Virginia, Institute of Environmental Negotiation Virginia Tech, and the Department of Forestry. (http://www.virginia.edu/ien/VNRLI_home.html) The principal goal of the VNRLI is to develop leaders who can help groups involved in contentious natural resource, transportation, land use and economic development issues move beyond conflict toward consensus building and problem solving. It aims to develop a network of public, private and non-profit managers across sectors who will have the skills needed to solve problems and build consensus on creative solutions to public policy issues. It seeks to achieve this by bringing together a cross-section of state leaders from the public, private and community/non-profit sectors who meet consistently for a year-long series of workshops and training seminars. There has been active participation in the past by VDOT and VDEQ managers.

3. Future Opportunities

Overall, these interviews suggested that providing mobility options throughout a diverse state to support a growing economy and population while preserving the quality of life in its communities and regions will increasingly require concerted and sophisticated collaborative efforts.

- **Build Consensus with Stakeholders on Traffic Impact Analysis Regulation.** Several suggested utilizing a consensus approach with stakeholders to develop the regulation to implement 2006 legislation that directs VDOT to review traffic impact analyses that are required by local ordinance before local governments can issue development permits. Over the past decade Commonwealth

agencies have convened several facilitated consensus efforts drawing on the University of Virginia's Institute for Environmental Negotiation, resulting in new regulations and/or legislation. The state has had experience with this facilitated approach in the water resource area to develop regulations responding to drought conditions. Indeed, Mark Rubin, now Senior Advisor to Governor Kaine, served as a private mediator for a technical advisory committee convened by DEQ. (www.coopercenter.org/publications/sitefiles/vanl/vanl0505.pdf) For more information on tools for linking land use and transportation, see, <http://www.fhwa.dot.gov/planning/ppasg.htm>)

- **Facilitate Collaboration and Consensus Building on Large Transportation Projects.** Assess the feasibility of utilizing collaborative approaches on some of the state's larger more complex transportation projects (e.g. the Dulles extension project). Pulling together collaborative multi-perspective stakeholder groups proven helpful and sometimes critical in moving large projects forward in other states. For example, the Governor might consider charging the Dulles Corridor Advisory Committee he appointed in March 2006 to coordinate with the MWAA to conduct a formal process assessment of whether convening an advisory stakeholder consensus building process could help to inform the Authority and Committee's efforts.
- **Engage in Multi-Modal Planning with Transportation Partners and Stakeholders.** Several of those interviewed suggested the possibility of VDOT convening an effort to build on the recent creation of the Commonwealth's Multimodal Transportation Planning Office by engaging in consensus building with stakeholders on improving the planning to connect modes and to enable multimodal planning to be done on a regional level. For example, Florida established a multi-modal goal in its statewide 2020 Transportation Plan in 2000 and convened stakeholders and partners in a year long facilitated process to build consensus and adopt through the state legislature a new Strategic Intermodal System. (<http://www.dot.state.fl.us/planning/sis/>. For case study process examples, see, the Florida SIS as a statewide application http://www.policyconsensus.org/casestudies/docs/FL_intermodal.pdf)
- **Utilize innovative transportation planning tools** such as Context Sensitive Design which is a collaborative, interdisciplinary approach and planning tool that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. (see, <http://www.fhwa.dot.gov/csd/>)
- **Consider "Pilot" projects through the Virginia Interagency Advisory Council on Administrative Dispute Resolution.** The State Legislature provided a critical piece of the infrastructure with the recognition of the value of collaboration and dispute resolution as embodied in the Virginia Dispute Resolution Act (2002) which authorized state and local government use of dispute resolution. Under the Act, Virginia's Secretary of Administration chairs the Council. Sandra Bowen, Secretary of Administration during Governor Warner's administration led the initial Council, which has offered training, developed strategies for assisting agencies through the development of pilot projects and documented the use of various forms of ADR among its member agencies. The VDOT and VDEQ might consider the use of this pilot approach to advance collaboration capacity of staff and managers responsible for programs and projects that present both transportation and environmental challenges. The Secretary of Administration under Governor Kaine and current Council Chair, Viola O. Baskerville, is a trained mediator. (for more information, see <http://www.vadra.virginia.gov>)
- **Build the capacity of Virginia Solutions.** This recently created program provides a possible mechanism for dealing with certain types of local and regional transportation issues. The University

of Virginia's Institute for Environmental Negotiation and the Virginia Association of Community Conflict Resolution have partnered to create Virginia Solutions, a new statewide initiative that promotes problem solving of complex issues at a local level through a collaborative approach. It aims to establish an easy-to-use, cost-effective statewide mechanism for triggering and convening a Virginia Solutions process in a locality. To address the community issues, the facilitation team and convener assemble a Solutions Team comprised of key community and agency stakeholders. This Solutions Team works to develop an action plan to resolve the issues and documents this plan in a *Declaration of Cooperation*.

- **Take greater advantage of the Virginia Natural Resources Leadership Institute.** There should be consideration given to continuing and even expanding participation by VDOT and other agency transportation partner managers in this leadership training program in order to build capacity and competencies for collaboration. Since 2001 VNRLI has graduated 137 fellows including: 11 VDOT staff, 5 DEQ staff, 1 Office of the Governor-DNR staff, 3 Department of Conservation and Recreation staff, 9 Department of Forestry staff, as well as 2 FHWA staff, 4 USDA Soil conservation service staff and 2 National Park Service Staff. In addition the program has graduated fellows from local government and the private and non- profit sectors involved in natural resource dispute resolution. This multi-sector leadership collaboration training is available each year. See, http://www.virginia.edu/ien/VNRLI_home.html

IV. Themes and Recommendations

A. Common Themes

A number of key themes emerged from the site visits and interviews in the four states. For the most part, the following themes were mentioned in all four states or in at least three of the four states.

1. Transportation-Land Use Coordination

This is a growing concern in the four states we visited and in many states across the country. Very few states have a comprehensive approach to integrating transportation and land use. Increasingly, agency officials, elected officials, and a variety of other stakeholders are aware that coordinated land use-transportation planning is the only way to ensure that investments in transportation facilities (such as highways, transit, ports, pedestrian and bike) are not undermined or wasted by land development practices that compromise the viability of those facilities. In addition, the effectiveness of land use planning depends on the development of transportation facilities that are consistent with the plans.

Dialogue and education about the relationship and how to achieve coordination is an important first step, followed by regional and statewide incentives and regulations that guide the land use-transportation interface. **A key finding is that local governments acting on their own without regional coordination mechanisms contribute to the problem. Consensus-building and collaborative processes are key tools for making progress in this area.** There is a need to apply these approaches and demonstrate how they can help at the state and regional level.

Improving land use-transportation coordination can also be assisted by **integrated modeling of land use, transportation, and the economy.** Sophisticated computer models now exist and are in use in some regions (The enhanced EMME2 model is an example.) However, the introduction of a modeling tool is not sufficient in its self, but needs to be accompanied by collaborative processes that encourage dialogue and problem solving among a variety of stakeholders both to shape the modeling parameters and then use the modeling results to develop appropriate policies and approaches for improved transportation-land use coordination.

2. Improved Coordination and Collaboration between Local Governments/MPOs and State/Federal Transportation Agencies

The need for better collaboration between local governments and agencies at the state and federal level was identified in all four of the states. This issue was sometimes related to the lack of coordination between land use and transportation and the difficulty of having state agencies dictate how land use is planned and managed at the local level. Sometimes coordination is difficult because there are not enough opportunities for local governments to engage in real dialogue with the state and federal agencies at an early point in the planning process.

Conflicts between local governments and state/federal transportation agencies can be the outgrowth of disagreements about design standards and compatibility with local community preferences.

Building more flexibility into project design standards, as well as **early coordination**, can help to ease these tensions. The development of a Highway Design Guidebook in Massachusetts through a broad-based collaborative effort is an example of this approach.

The ability of local governments and federal/state agencies to collaborate is also influenced by the skill levels of the players. Discussion can degenerate into conflict if staff does not have the skills to engage in constructive dialogue. Forums are sometimes needed where the various levels of government take the time to educate each other about their issues and concerns. Building mechanisms into government systems that provide ongoing support for collaboration is important for success.

3. Early Involvement of Environmental /Resource Agencies in Transportation Planning

In some of the interviews we heard that lack of adequate coordination with environmental/resource agencies can result because these agencies are not provided a “seat at the table” in negotiations and thus are not given an opportunity to raise issues at the transportation planning stage. We also learned about collaborative efforts, such as the North Carolina Leadership Team, where a concerted effort has been made to bring all the critical state and federal agencies together to develop a strategic, interdisciplinary approach that addresses the needs of the transportation and environmental agencies in the early stages of transportation system planning.

As FHWA recognizes in its ‘Linking Planning and NEPA’ initiative, upfront coordination at the planning stage can result in greater integration and efficiencies at the project permitting stage. However, **early consultation among agencies may not make a significant difference unless it also involves institutionalized mechanisms for ongoing coordination and dispute resolution.**

4. Modal Coordination/Multi-Modal Planning

The development of multi-modal approaches that increase transportation system efficiencies was highlighted in many of our interviews in the four states. Increasingly there is an expectation that statewide transportation infrastructure planning will result in a safe, efficient and reliable system that is supportive of economic development initiatives, environmental stewardship and a high quality of life.

Highway, rail, transit, aviation and seaports are typically planned for and governed by different public and private institutions. In recent years regional and statewide economic development interests have focused on the need for improving multi-modal planning and project prioritization across various transportation agencies. Planning is needed to provide solutions that link existing systems, reduce congestion, improve their mobility and provide for greater travel options.

Collaborative processes are needed to help transportation partners along with other stakeholders plan and work across modes, disciplines and traditional 'silos' to build effective multi-modal transportation solutions.

5. The Critical Role of Political Leadership in Promoting Collaboration on Transportation Issues

In the four states, we found some excellent examples of how elected officials have provided leadership for collaboration in transportation. In Utah, the legislature played a key role by voting to establish a mediation program for resolving environmental and transportation disputes. In Massachusetts, the governor created the state Office of Commonwealth Development to better coordinate the policies and programs of the executive offices of Transportation, Environmental Affairs, Housing and Community Development. In North Carolina, the North Carolina DOT Secretary, with the blessing of the governor, created the Interagency Leadership Team. In Virginia, the new governor made transportation a key priority by supporting increased tax revenues for transportation projects around the state. He is promoting the use of collaboration, in part by hiring a policy advisor for transportation who comes with a background in mediation.

It is important to point out that leadership for transportation coordination and collaboration can also be found in the private sector. Well-respected business leaders can be a catalyst for improving coordination among government and economic development interests, as well as looking at creative public-private partnerships for funding transportation facilities. For example, ‘Envision Utah’ was the result of a partnership between the private sector and the governor’s office to convene a visioning process that included both land use and transportation.

6. Developing and Institutionalizing Collaborative Systems

The interviews in the four states highlighted the benefits of developing on-going mechanisms and systems to foster transportation collaboration and coordination. For example, Utah created a new Executive Committee—a high-level interagency team composed of the directors of the leading transportation planning entities and resource agencies. This team has been instrumental in developing collaborative approaches in project planning for the Legacy Parkway. In Virginia, the Interagency Dispute Resolution Council provides an infrastructure for collaboration that can be used to advance the use of ADR in addressing transportation and environmental challenges. The North Carolina Interagency Team and the Massachusetts Office of Commonwealth Development are also examples of how collaboration and coordination can be institutionalized in state government. These are newer initiatives that should be continued and enhanced in order to realize their full potential.

FHWA division administrators and key staff can provide leadership and support for coordination and collaboration systems. For example, in Utah, FHWA helped launch and actively participates in the executive committee interagency team. In Massachusetts, FHWA played a leadership role in sponsoring a process to increase local government representation in MPO decision making. In North Carolina, the FHWA is a critical participant in the interagency leadership team.

New innovative approaches to community problem-solving are also worth mentioning. In Virginia, a recently created program called ‘Virginia Solutions’ is a statewide initiative for dealing with complex issues at a local level. The Massachusetts Office of Dispute Resolution (MODR) is also in the process of creating a similar program. In both cases, these programs have the potential for bringing public, private and non profit stakeholders together at the community level to develop and implement improvements in the transportation system.

B. Federal Programs and Initiatives

As referenced in the background section of this report, FHWA has been working for some time to develop programs, tools and initiatives to improve transportation planning and project development. The themes that we identified through our interviews in the four states support the need for these FHWA efforts. Linking Conservation and Transportation, Linking Planning and NEPA, Context-Sensitive Solutions, Scenario Planning, and the Eco-Logical Ecosystem Approach are all helpful tools.

The **Integrated Planning Work Group** created under Executive Order 13274 produced a baseline report and gap analysis in 2005. The report presents a conceptual framework for integrated transportation planning, identifies opportunities for better linking land and resource planning processes with transportation systems planning, describes the challenges that inhibit an integrated approach, and makes recommendations to the Interagency Task Force.

One of the key challenges to integrated planning cited in the report relates to a key theme identified in our interviews in the four states: **transportation-land use coordination**. The report notes that: *“Growth pressures inextricably link transportation with land use, but planning for each occurs separately from the other. The same disconnect also occurs with respect to the development of resource conservation plans.”*

The work group report also emphasizes the challenges of **interagency coordination**. Among the agency barriers to integrated planning cited in the report are: agency structures and cultures that do not actively support involvement; agencies being unaware of the planning outputs of other agencies; and the lack of mechanisms and legal frameworks to engage resource agencies early in transportation systems planning. These barriers were also identified in our interviews in the four states. And, we found several examples where the creation of interagency teams and other **on-going structures for coordination** was helping to improve transportation decision making.

The Safe, Accountable, Flexible and Efficient Transportation Efficiency Act: A Legacy for Users (SAFETEA-LU). Passage of SAFETEA-LU by Congress, and the current work on the part of FHWA to implement the new provisions of the law, provides additional opportunities to assist state and local governments and promote collaborative practices.

Section 6001 of SAFETEA-LU retains and revises the metropolitan and statewide transportation planning requirements. Projects contained in TIPs and STIPs approved after July 1, 2007 must be consistent with transportation plans based on SAFETEA-LU requirements. FHWA Division Offices will be working with the States and MPOs over the next year to cooperatively assess their existing transportation planning processes and define key gaps that need to be addressed in light of SAFETEA-LU.

Section 6001 includes new agency consultation requirements—MPOs and States must consult “as appropriate” with State and local agencies responsible for land use management, natural resources, environmental protection, conservation and historic preservation in developing long-range transportation plans. As FHWA works with jurisdictions to implement this provision, it has an opportunity to encourage and promote practices that will help to make these consultations truly

collaborative and effective. Neutral forums can help develop intergovernmental agreements to accomplish this.

The implementation of **Section 6002** also provides opportunities for the development of more effective agency coordination and collaboration. This section prescribes a new environmental review process for highway, public transportation capital, and NEPA procedures, including new obligations for public comment for project purpose and multimodal projects. It is mandatory for EISs and optional for EAs. It requires the development of a coordination plan and schedule that must be provided to all participating agencies and made available to the public.

C. Recommendations for Next Steps

- Work with the four states to pick one or two specific collaborative opportunities for detailed research and assessment. This could be funded by FHWA, or jointly funded by FHWA and state agency partners. NPCC could work with state and university dispute resolution and leadership programs in the four states to conduct the research and assessment work and design collaborative processes or approaches.
- Focus on opportunities to create new or improve existing collaborative systems for state and local transportation decision making to address recurring issues and conflicts. Collaborative systems that can be used on an ongoing basis to improve decision making and agency coordination are more effective than responding ‘ad hoc’ to conflict and controversy. The Integrated Planning Work Group Report identifies the development of “innovative institutional mechanisms” as a key strategy for overcoming the barriers to integrated transportation planning. The report also suggests funding pilot projects on “innovative decision-making processes that push the envelope and can serve as applied laboratories.”
- Share the information from the four states with the U.S. Institute for Environmental Conflict Resolution (USIECR) and determine whether some opportunities could be the subject of one of the state workshops in the FHWA-USIECR State Transportation Workshop Program. If yes, the workshops could be conducted jointly by NPCC and USIECR with assistance from university programs.
- Explore opportunities for leadership training in the four states specifically related to convening of collaborative processes. This training could focus on the critical role that elected and high-level appointed officials can play in encouraging and leading collaborative efforts in the transportation arena. This would also support the recommendations in the Integrated Planning Work Group Report to develop and deliver capacity-building programs and provide executive-level direction on inter-agency collaboration.
- Develop additional guidance for states on best management practices for integrating land use and transportation planning. Such guidance should include information on collaborative systems and computer models that can help integrate land use, transportation and economic considerations.

V. Appendices

- A. Transportation Assessment Tool**
- B. List of Interviews Conducted by State**

Appendix A: TRANSPORTATION SOLUTIONS ASSESSMENT TOOL

Issues/Barriers/Obstacles to Transportation Planning and Project Development

1. What are the recurring issues and conflicts that you experience in your state related to transportation planning and project development? (*In addition to funding*)
2. What are the key barriers/obstacles that get in the way of addressing these issues and conflicts?

Current Communication/Coordination Methods and Use of Collaborative Approaches

1. Describe the communication and coordination among the federal, state and local governments in relationship to transportation project development or planning processes.
 - Are interagency project teams formed?
 - Which agencies and organizations are typically involved in planning and project development?
 - Do the resource and transportation agencies meet regularly? What is the working relationship between them?
 - Are there agencies or organizations that tend to be absent or that should play a bigger role?
 - How would you characterize the working relationship between the DOT and the MPOs/ other local governments? (*Very Collaborative, Somewhat Collaborative, Conflictive, Lots of Conflict*)
 - What role does the Governor's office play in encouraging or requiring the state agencies to work together?
 - What role does FHWA play in encouraging/facilitating coordination and collaboration?
2. How effectively are non-governmental stakeholders (for example, environmental, business and neighborhood groups) integrated into planning and project development processes? What mechanisms are currently used to integrate them?
3. How satisfactory and durable are the results achieved through current methods of managing issues and conflicts?
4. Please identify and describe any collaborative approaches that your state has used in the following areas:
 - Policy Development and Rulemaking
 - Transportation Planning
 - Transportation Modeling
 - Data base and Information Sharing
 - Environmental and Land Use Permitting
 - Project Planning and Design
 - Access Management
 - Maintenance
 - Construction

5. Please describe any training that has been done for agencies and stakeholders on collaborative approaches.

Future Opportunities

1. Are there specific transportation projects or planning efforts that are coming up in the next year that could benefit from a collaborative approach?
2. Are you interested in building new collaborative governing systems within state government that would help in managing future conflict and create efficiencies? (CETAs example)
3. If you have held a 'Planning and NEPA' workshop in your state, were there items in the resulting 'Action Plan' that identified opportunities for collaboration or improved coordination?
4. Would you like assistance in conducting a more detailed assessment of any of these opportunities? (Training or workshop opportunities -- i.e., Planning and NEPA Workshops; USIECR State Workshops, etc.?)

Appendix B: LIST OF INTERVIEWS

Utah

- Greg Punske, Environmental Program Manager, FHWA
- Ted Knowlton, Asst. Executive Director; Planning Director, Envision Utah
- Roger Borgenicht, Director, Future Moves Coalition
- Chuck Chappell, Executive Director, Wasatch Front Regional Council
- Doug Hattery, Transportation Planning Manager, Wasatch Front Regional Council
- Angelo Papastamos, Manager CSS, UDOT
- John Thomas, Legacy Parkway Manager, UDOT
- Amad Jaber, Program Development Director, UDOT
- Jim McMinimee, Project Development Director, UDOT
- Shane Marshall, Environmental Program Manager, UDOT
- Jerry Chaney, Environmental Engineer, UDOT
- Mathew Swapp, Planning Manager, Office of Program Development, UDOT
- Ralph Becker, State Representative, Utah State Legislature

Massachusetts

- Michael Chong, Planning and Environmental Program Manager, FHWA Massachusetts Division
- Ed Silva, Technical Services Team Leader, FHWA Massachusetts Division
- Kenneth Miller, Deputy Secretary for Transportation Planning, Executive Office of Transportation
- Astrid Glynn, Office of Commonwealth Development (OCD)
- Jason Roeder, Deputy Chief of Staff, OCD
- Luisa Paiewonsky, Commissioner, MassHighway
- Pam Wolfe, Manager, Certification Activities, Boston MPO
- Jim Gallagher, Transportation Planner, Metropolitan Area Planning Council
- David Cash, Director of Air, Energy and Waste Policy, Exec. Office of Environmental Affairs
- Nancy Seidman, Reg. Strategies, Air Quality, Mass Department of Environmental Protection
- Christine Kirby, Department of Environmental Protection
- Margaret O'Meara, New England Business Development Manager, Parsons Brinkerhoff; Women's Transportation Seminar Board Member
- Chris Eaton, Principal, Eaton Planning; Mass Chapter APA Board Member
- Susan Jeghelian, Executive Director, Mass Office of Dispute Resolution (MODR)
- Jim Keil, Dispute Resolution Practitioner, Mediator/Facilitator, Adaptive Consulting; and MODR Board Member and Affiliate Practitioner

North Carolina

- Dempsey Benton, Deputy Secretary, DENR April 27, 2006
- Julie Hunkins, Director, NCDOT Environment April 27, 2006
- Donna Dancausse, Quality Coordinator, North Carolina Division, FHWA, April 27, 2006
- Marcus Welner, Long Range Planning, North Carolina Division, FHWA May 4, 2006

- Chris Beacham, Department of Commerce, Dept Secretary, Policy Research and Strategic Planning April 28, 2006
- David King, Director NCDOT Transit, April 27, 2006
- Alpesh Patel, NCDOT Long Range Planning, May 4, 2006
- Janet D'Ignazio, Senior Research Associate, NCSU Center for Transportation and the Environment, formerly with NCDOT Office of Environmental Quality
- Joe Milazzo, Executive Director Regional Transportation Alliance, April 28, 2006
- Jim Clinton, Executive Director, Southern Growth Strategies Institute
- John Stephens, Institute of Government, University of North Carolina
- Steven Smutko, Director, Natural Resource Leadership Institute, North Carolina State University, April 28, 2006

Source Material:

Janet D'Ignazio, Kathryn McDermott, Bill Gilmore & Chris Russo, "North Carolina's Ecosystem Enhancement Program: mitigation for the Future (2004), submitted to TRB Task Force on Ecology and Transportation for presentation at the TRB 2005 Annual meeting.

William Gilmore, "North Carolina's Ecosystem-Impact Innovation," **National Wetlands Newsletter**, vol 27, No. 5, 2005, Environmental Law Institute

Virginia

- Frank Dukes, Director, Institute for Environmental Negotiation, University of Virginia
- Dwight Farmer Hampton Roads Planning District Commission (May 1, 2006)
- Claudia Farr, Director, Department of Employment Dispute Resolution Program, Lead Staff, Interagency Advisory Council on Administrative Dispute Resolution.
- Marsh Fiol, Division Administrator, VDOT Transportation and Mobility Planning Division
- Roberto Fonseca, FHWA Division Administrator
- Corey Hill, Acting Director, Department of Rail and Public Transit
- Pierce Homer, Secretary of Transportation
- Gerald McCarthy, VA Environmental Endowment, Member, Virginia Transportation Board
- John Milliken, Venable and Tysons Corner, former VDOT Secretary (90-93)
- Michael Murphy, Director, Division of Environmental Enhancement, Department of Environmental Quality
- Kenneth Myers, FHWA Lead Community Planner
- David Paylor, Director, Department of Environmental Quality
- Trip Pollard, Senior Attorney, Southern Environmental Law Center
- William Potapchuk, President, Community Building Institute, Annandale Virginia
- Irene Rico, FHWA Assistant Division Administrator
- Mark E Rubin, Senior Advisor to the Governor, formerly a mediator in private practice
- Robert T. Skunda, President/CEO of Virginia Bio-Technology Research Park, Richmond, former Secretary of Commerce (93-96).
- Constance Sorrell, Chief of System Operations, VDOT
- Kimberly Spence, Multimodal Team Leader, VDOT Transportation and Mobility Planning Division

- Vivian Watts, Member, Virginia House of Delegates, Annandale Virginia, former Secretary of Transportation 86-90
- Richard Weeks, Deputy Director for Operations, Department of Environmental Quality

Other people interviewed for the project

- USIECR (Dale Keyes and Gail Brooks)
- Oregon Department of Transportation (Susan Haupt, Manager, CETAS Program)
- AASHTO (Shannon Eggleston, Program Director for Environment)