Central York County Connections Study

Meetings of November 30th, 2010
Advisory Committee Agenda

- Welcome and Introductions: 15 minutes
- Study Overview: 15 minutes
- Where are we now - Current Conditions in Study Area: 60 minutes
- Lunch and Conversation: 30 minutes
- Review Purpose and Need Statement: 30 minutes
- Sample Measures of Effectiveness (MOEs): 20 minutes
- Next Steps/Next Meetings: 10 minutes
Study Basics
STPA Principles

Sensible Transportation Policy Act [STPA] Requires

Transportation dollars invested by MaineDOT & Maine Turnpike Authority be coordinated with local land use management and economic development efforts to assure that every opportunity for extending the life of that investment is taken.
Consistency with STPA

STPA Objectives

1. Minimize the harmful effects of transportation;
2. Coordinate available and potential future modes;
3. Give preference to non-highway new capacity projects before building new highway capacity;
4. Repair, maintain & improve Maine’s transportation system for safety, efficiency, & adequacy;
5. Reduce reliance on foreign oil & promote energy efficient transportation;
6. Meet transportation needs of all Maine people, (incl. rural and urban populations ... elderly & disabled);
7. Be consistent with ... Comprehensive Planning and Land Use Regulation Act;
8. Incorporate public participation process ...
9. Promote investment incentives for communities that act to preserve the system;
10. Be cost effective & operate within fiscal constraints
Study Committees

- **Study Team**
  - Consultants, MaineDOT, MTA, SMRPC
    - *Manage and conduct study*

- **Steering Committee**
  - Ten communities in Study Area, plus agencies
    - *Inform Study process by local understanding and regional perspective*
    - *Update municipal officials*

- **Advisory Committee**
  - Diverse interest groups
    - *Reflect voice of the public*
    - *Update constituents*
Public Communications

• Public Meetings/Workshops
  • Five meetings held throughout Study Area

• Study Website: www.ConnectingYorkCounty.org
  • Meeting minutes, study documents, questions and answers

• WEBOT
  • Provides details about potential costs and tradeoffs of study options being considered
  • Interactive, solicits opinions and attitudes
  • Helps public to understand impacts
Public Communications

- Media
  - Proactive relationship
  - Press releases plus some paid advertising
  - Increase awareness of study goals, meetings, website
- Newsletter and Interested Party emails
  - Four newsletters, printed and electronic
  - IP list is key update tool - need your help to build
- Purpose and Need Statement
  - Developed by committees and public
  - Key guiding document that leads to measures by which to determine study recommendations
Study Overview
Study Focus

- Guided by Purpose and Need Statement
- Considerations may include:
  - Economic development and growth
  - Mobility and access
  - Traffic safety
  - Environmental, livability considerations
Economic Development Considerations

We will look at:

- To which future markets should Central York County relate?
- How can Central York County most effectively and efficiently connect to the larger job and consumer markets along the I-95 axis?
- How will a better jobs-housing balance in Central York County affect traffic?
Transportation Considerations

We will look at:

• What do travel patterns look like today and how might they change in the future?

• How do existing corridors perform today & in the future (mobility, access, safety)?

• How might added capacity or new connections change accessibility and desired development opportunities?

• How can TDM, TSM and transit help?
Land Use Considerations

We will look at:

- Do current plans, zoning and codes support current and future regional travel corridor functions?
- Do current plans, zoning and codes support the corridors’ enhanced economic development potential for the region?
- Are the answers to the above two questions in conflict? How might any such conflicts be resolved?
Study Work Flow

• Study Initiation

• Initial Development and Evaluation of Concepts
  Nov. 2010 – April 2011

• Detailed Screening and Evaluation of Strategies
  March 2011 – Aug. 2011

• Study Finalization
Study Work Flow

- **Study Initiation**
  - Mobilize team and administer the study
  - Collect and assess data and information
  - Build models and tools
  - Develop Purpose and Need statement
  - Initiate public outreach
Study Work Flow

- Initial Development and Evaluation of Concepts
  - Develop evaluation criteria and MOEs
  - Define range of concepts for consideration
    - Work with committees to develop and refine
  - Evaluate concepts (key MOEs)
  - Recommend and select concepts for further refinement and evaluation
Study Work Flow

• Detailed Screening and Evaluation of Strategies
  • Refine evaluation criteria and MOEs
  • Develop packages of complementary strategies for detailed evaluation
  • Detailed evaluation of strategy packages
    • Modeling (travel modeling, econ impacts, WEBOT)
  • Select and prioritize recommendations
Study Work Flow

• Study Finalization
  • Document study process
  • Public review and comment of study report
Baseline Conditions: Where Are We Today?

- Economic context
- Development trends
- Planning, zoning and access management
- Environmental and cultural resources
- Transportation
Economic Context
Commute Patterns
Where do York Co. Workers Live?

<table>
<thead>
<tr>
<th>Residential Location</th>
<th>Share of Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>York County</td>
<td>70.4%</td>
</tr>
<tr>
<td>Biddeford</td>
<td>9.0%</td>
</tr>
<tr>
<td>Saco</td>
<td>7.0%</td>
</tr>
<tr>
<td>Sanford/S Sanford/Springvale</td>
<td>9.6%</td>
</tr>
<tr>
<td>Cumberland County</td>
<td>13.1%</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>6.4%</td>
</tr>
<tr>
<td>Elsewhere</td>
<td>10.1%</td>
</tr>
</tbody>
</table>
Patterns of Growth

Source: An Economic Development Strategy for the SMRPC Region, Planning Decisions Inc., 2004

**Rural Areas**
- P.C. Income, 2003 = $28,800
- Income Growth, 1992-2003 = 54%
- Natural Increase, 2000-2004 = -11,400
- Net Migration, 2000-2004 = 8,800

**Suburban Borderline**
- P.C. Income, 2003 = $31,600
- Income Growth, 1992-2003 = 72%
- Natural Increase, 2000-2004 = 19,400
- Net Migration, 2000-2004 = 57,900

**Satellite Centers**
- P.C. Income, 2003 = $35,100
- Income Growth, 1992-2003 = 85%
- Natural Increase, 2000-2004 = 35,200
- Net Migration, 2000-2004 = 41,400

**Regional Center (Greater Boston)**
- P.C. Income, 2003 = $43,800
- Income Growth, 1992-2003 = 73%
- Natural Increase, 2000-2004 = 25,400
- Net Migration, 2000-2004 = -72,500
Development Trends
Projecting Growth: Factors Used to Cluster Communities

- Commuting patterns
- Population growth trends
- Metro area proximity
How does the region cluster?

- Proposed subareas for allocating future growth projections
Planning, Zoning and Access Management
How Do Current Plans and Codes Support the Study’s Purpose and Need?

• Reviewing current Plans and codes shows potential impacts of land use on road network capacity and efficiency

• Understanding where there is consistency or conflict with the P&N will help shape Phase II recommendations for improving land use and access management

• Review therefore focused on how Plans addressed a set of very specific questions.
What We Found: **Key Best Practices In Place or Required** (Not Just “Encouraged”)

- **Orderly Zoning**---minimal scattering of commercial and light industrial
  - Biddeford, Sanford, North Berwick, Ogunquit, Kennebunk, Wells, Arundel
- **Future Land Use Map and Current Zoning Highly Consistent**
  - Biddeford, Kennebunk, Ogunquit, Sanford
- **Limited Access to at least Some Specified Roads**
  - Alfred, Lyman, Biddeford, Kennebunk, North Berwick, Ogunquit, Sanford
- **Open Space Zoning** (in at least some districts)
  - Alfred, Sanford, Wells, Kennebunk, Ogunquit
Best Practices *Sometimes* in Place

- Access location requirements for different uses
- Phasing of development to better manage traffic issues
- Connectivity required between adjacent uses or for access needs of major subdivisions
- Visual character of highway frontages
- Environmental and Cultural Resource Protection Guidelines
  - Environmental generally more specific than cultural
- Thoroughness of development plan review coverage
- Several towns require comparison of conventional and cluster plans as part of approval process
- Sunset provisions for dormant subdivisions
Main Issues Needing More Attention

- **Stripping of Commercial Uses**
  - Policies and zoning to shift traditional pattern to more nodal one for new and redeveloped uses

- **Consistent linking of access management requirements to functional classification map**
  - Apply to both commercial and residential uses
  - More consistent standards and applicability across the study area

*Both these issues have direct impacts on managing traffic volumes and flows*
Environmental and Cultural Resources
Wetland and Floodplain
Data Source: SMRPC
Updated: November 15, 2010

Central York County Connections Study
Environmental resources – regulated
Environmental resources – Other
Transportation
Transportation Infrastructure

Central York County Connections Study

Street Classification and Speed Limit

Data Source: MaineDOT
Updated: November 22, 2010

Street Classification
- Principal Arterial - Interstate
- Other Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local

Posted Speed Limit
- 25 mph and below
- 30 - 35 mph
- 40 - 50 mph
- 55 mph and above

Study Area

1,000 acres
High Crash Locations (2007-2009)

- Data Source: MaineDOT
- Updated: November 22, 2010

Central York County Connections Study
Corridor Crash Rates

![Bar chart showing crash rates for different routes](chart-image)

- **Critical Rate**
- **Crash Rate**

- **Rte 109**
- **Rte 111**
- **US 4**
- **US 202**
Composite Crash Rate – Injury Crashes

![Composite Crash Rate Graph]

- **Injury Crash Rate**
- **Overall Crash Rate**

<table>
<thead>
<tr>
<th>Road</th>
<th>Injury Crash Rate</th>
<th>Overall Crash Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rte 109</td>
<td>290</td>
<td>310</td>
</tr>
<tr>
<td>Rte 111</td>
<td>180</td>
<td>200</td>
</tr>
<tr>
<td>US 4</td>
<td>120</td>
<td>140</td>
</tr>
<tr>
<td>US 202</td>
<td>230</td>
<td>250</td>
</tr>
</tbody>
</table>
## Crash Types

<table>
<thead>
<tr>
<th></th>
<th>Rte 109</th>
<th>Rte 111</th>
<th>US 4</th>
<th>US 202</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read End/Sideswipe</td>
<td>56.0%</td>
<td>52.3%</td>
<td>56.0%</td>
<td>29.9%</td>
</tr>
<tr>
<td>Head-on/Sideswipe</td>
<td>3.4%</td>
<td>3.6%</td>
<td>3.4%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Intersection/Turning</td>
<td>22.2%</td>
<td>20.8%</td>
<td>22.2%</td>
<td>28.5%</td>
</tr>
<tr>
<td>Ran off Road</td>
<td>10.1%</td>
<td>13.6%</td>
<td>10.1%</td>
<td>18.8%</td>
</tr>
<tr>
<td>Animal</td>
<td>2.0%</td>
<td>4.2%</td>
<td>3.9%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Bike/Ped</td>
<td>3.6%</td>
<td>0.0%</td>
<td>0.2%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Other</td>
<td>2.7%</td>
<td>5.4%</td>
<td>4.1%</td>
<td>3.5%</td>
</tr>
</tbody>
</table>
## Crash Locations

<table>
<thead>
<tr>
<th>Location</th>
<th>Rte 109</th>
<th>Rte 111</th>
<th>US 4</th>
<th>US 202</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight-away</td>
<td>31.1%</td>
<td>34.4%</td>
<td>37.5%</td>
<td>26.4%</td>
</tr>
<tr>
<td>Curve</td>
<td>3.2%</td>
<td>1.2%</td>
<td>6.5%</td>
<td>13.9%</td>
</tr>
<tr>
<td>Intersection</td>
<td>49.1%</td>
<td>55.0%</td>
<td>47.6%</td>
<td>53.5%</td>
</tr>
<tr>
<td>Driveway</td>
<td>16.0%</td>
<td>8.8%</td>
<td>8.3%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Other</td>
<td>0.5%</td>
<td>0.6%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
## Bus Services

<table>
<thead>
<tr>
<th>Bus Service/Route</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIDDEFORD AREA</strong></td>
<td></td>
</tr>
<tr>
<td>Zoom Turnpike Express</td>
<td>Links Biddeford and Saco P&amp;R locations to Portland</td>
</tr>
<tr>
<td>ShuttleBus Intercity</td>
<td>Biddeford to Portland with intermediate stops</td>
</tr>
<tr>
<td>ShuttleBus Local</td>
<td>Local service within Biddeford, Saco and Old Orchard Beach</td>
</tr>
<tr>
<td><strong>SANFORD AREA</strong></td>
<td></td>
</tr>
<tr>
<td>Sanford Ocean Shuttle</td>
<td>Daily scheduled service between Sanford and Wells</td>
</tr>
<tr>
<td>Sanford Transit “My Bus”</td>
<td>Local daily scheduled service within Sanford and Springvale</td>
</tr>
<tr>
<td>The WAVE</td>
<td>York Co Community Action Corp. reservation service.</td>
</tr>
<tr>
<td></td>
<td>• Service to Biddeford for jobs, medical, school and shopping trips.</td>
</tr>
<tr>
<td></td>
<td>• Service to Wells for jobs, medical, and school trips.</td>
</tr>
<tr>
<td><strong>WELLS/K’BUNK/OGUN.</strong></td>
<td></td>
</tr>
<tr>
<td>Summer Season Shuttles</td>
<td>Shoreline Trolley and Kennebunk Shuttle</td>
</tr>
</tbody>
</table>
Summary Highlights – Our take:

- **Economic Context**: SW vs. NE orientation an open, valid question
- **Development Trends**: the study area divides well into 5 spheres of influence
- **Plans and Codes**: a mixed bag in terms of support for P&N
- **Environmental and Cultural Resources**: these are widely spread throughout the study area
- **Transportation**: most all congestion and half the crashes are limited to key intersections; overall corridor safety ranking - Rtes.109, 111, 202, 4.
Purpose and Need Statement
How Purpose and Need Drive the Process

- Need
- Purpose
- Goals & Objectives
- Alternative Solutions
- Evaluation
- Measures Of Effectiveness (MOEs)
- Rec’s
Purpose and Need Statement

Steering Committee Input: Round 1

- Plan for regional needs/support visual/cultural character
- Fix what we have
- Promote economic growth
- Address traffic safety issues
- Development of state/local networks - address local concerns
- Move goods/services/people efficiently
- Provide relief for Rte. 1 through-traffic
- Destination-ease
- Promote increased development & trucking on Rte. 202
- Include discussion of funding feasibility
Purpose and Need Statement: Steering Committee Input: Round 2

- Review multi-modal options to reduce traffic
- No negative impact on municipal budgets
- Fix intersections
- Do not sacrifice visual/cultural characteristics
- Address vehicle/bicycle/pedestrian safety issues
- Correlate buildout potential with access management
- Respect environmental systems/water supply/land use
- Coordinate with other planning processes
- Assure connectivity of Rtes. 109, 111, 95 with Rtes. 16 and 125 corridor
- Increase proportion of transit funding in region
Draft Purpose and Need: Advisory Committee Input
Measures of Effectiveness – An Example

(Also called Indicators, Criteria, Performance Measures....)
How do the Various Development Patterns Stack up?
(Comparative Rank of the MOEs in the Gateway 1 Plan)

<table>
<thead>
<tr>
<th></th>
<th>Mobility</th>
<th>Accessibility</th>
<th>Town Core</th>
<th>Environment/Scenic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VMT</td>
<td>Transit</td>
<td>Housing</td>
<td>Bike</td>
</tr>
<tr>
<td>Local roads</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000 VPD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Local roads which exceed 2000 VPD

![Table showing comparative ranking of MOEs in the Gateway 1 Plan]
Corridor wide Findings

**Commercial Strip Development**

- **Downtown Area (4%)**
- **Existing Commercial Strip Development (12%)**
- **Controlled Access (24%)**

**Additional Commercial Strip Development - 2030 (5%)**
Percent of Developable Land within a Wildlife Habitat

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5%</td>
<td></td>
</tr>
<tr>
<td>6% - 35%</td>
<td></td>
</tr>
<tr>
<td>36% - 70%</td>
<td></td>
</tr>
<tr>
<td>71% - 100%</td>
<td>Habitat Area</td>
</tr>
</tbody>
</table>

Acres of Development within TAZ that have Wildlife Habitat

- Low Density: 4,729
- Micropolitan: 4,550
- TOC: 2,228
Applying MOEs to this Study

An Example
### Example of How P&N Ripples through the Study

<table>
<thead>
<tr>
<th>Purpose &amp; Need Element</th>
<th>Goals related</th>
<th>Objectives</th>
<th>MOEs</th>
<th>Source</th>
</tr>
</thead>
</table>
| Economic Development   | Increase job base in Central York Co. | Target the most likely kinds of job growth to Towns seeking such growth | • # jobs by type/location  
• $ impacts of jobs by type/location  
• # and $ of spinoff secondary jobs by type/location | • PRISM  
• PRISM  
• PRISM |
|                        |               | Manage associated pop. growth | • # pop and homes generated by new jobs | • PRISM |
Candidate MOEs-Stage One

• Travel times and delay – changes in accessibility estimated from travel forecasting model outputs summarized for key origin-destination pairs; system-wide Vehicle Hours of Delay.

• Travel patterns and capacity – Changes in traffic volumes on other routes. Segment volume-to-capacity comparisons.

• Travel efficiency – Vehicle Miles of Travel (VMT) and Vehicle Hours of Travel (VHT).

• Improved transit access – Corridor improvements which support enhanced transit potential.

• Costs – gross approximation of capital costs including ROW sufficient to identify major cost differences among the concepts evaluated.

• Economic Impact – changes in economic output and activity ($) estimated from the PRISM model.
Candidate MOEs-Stage One (Cont.)

- **Structures impacted** – residential and non-residential structures affected; generalized assessment (High/Medium/Low).
- **Environmental impacts** – Composite assessment of proximity to floodplains, wetlands, steep slopes, rare/threatened/endangered species (RTE).
- **Rural and urban character impacts** – composite of cultural resources, rural areas opened up and current centers reinforced, consistent with the policies & future land use maps of local comp. plans and with the goals of the Growth Management Act.
- **Safety** – Do improvements address known High Crash Locations?
- **Consistency with STPA** - *(i.e. capacity expansion as last resort)*
- **Implementability** – Likelihood of community acceptance and support (consistency with plans, zoning and public response).
Next Steps

- Make economic forecasts
- Develop initial range of corridor concepts
- Review these with AC and SC and refine concepts
- Set up travel and economic impact models
- Determine impacts (Stage One MOEs)
- Next SC and AC Meeting: Wednesday, January 19th
- First Public Meeting: Thursday January 20th