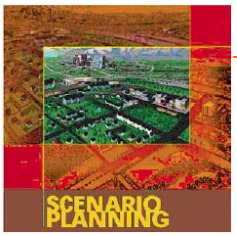

Peer Workshop on Scenario Planning

Sponsored by the Federal Highway Administration

Location: Newport, RI

Date: June 7, 2004

Exchange Host Agency: Rhode Island Statewide Planning Program

Exchange Participants:
Aquidneck Island Planning
Delaware Valley Regional Planning Commission
Federal Highway Administration, Office of Planning
Federal Highway Administration, Rhode Island Division
Federal Transit Administration, Region 1
Rhode Island Department of Transportation
Rhode Island Public Transit Authority
Rhode Island Statewide Planning Program
Sacramento Council of Governments
Southeastern Regional Planning & Economic Dev. District
Rhode Island Statewide Planning Program
The Providence Plan
University of Rhode Island, Transportation Center
US DOT Volpe National Transportation Systems Center
Vanasse Hangen Brustlin, Inc.

Summary

The following report summarizes a Peer Exchange on tools and effective practices for scenario planning. The Exchange was coordinated and supported by FHWA and was hosted by the Rhode Island Statewide Planning Program (Statewide Planning) - Rhode Island's MPO. The Newport Exchange included presentations by peers from the Sacramento Council of Governments (SACOG) and the Delaware Valley Regional Planning Commission (DVRPC).

I. Introduction

A. Scenario Planning Defined
Scenario planning is a process in which transportation professionals and citizens work together to analyze and shape the long-term future of their communities. Using a variety of tools and techniques, participants in scenario planning assess trends in key factors such as transportation, land use, demographics, health, economic development, environment, and more. The participants bring the factors together in alternative future scenarios, each of these reflecting different trend assumptions and tradeoff preferences. In the end, all members of the community-the general public, business leaders, and elected officials-reached agreement on a preferred scenario. This scenario becomes the long-term policy framework for the community's evolution, and is used to guide decision-making.

B. Overview of Scenario Planning
Ms. Young, from the FHWA Office of Planning, welcomed the group and opened the Peer Workshop by presenting an overview of scenario planning and FHWA's role in supporting its use. Discussing the benefits of effective scenario planning, Ms. Young noted that it:

- provides an analytical framework and process for analyzing complex issues and responding to change,
- facilitates consensus building by giving communities the capacity participate actively in planning,
- includes tools to assess transportation's impact on communities,
- improves communication and understanding in a community,
- yields an enhanced decision making framework for a community, and ensures better management of increasingly limited resources.

The FHWA is offering technical support, information, and research to state and local partners as they undertake scenario planning. Recent efforts include:

- FHWA funded scenario planning initiatives in Utah, Virginia, Michigan, Missouri, Wisconsin, Illinois and California.
- A National Peer Roundtable gathering for policymakers, community leaders, and technical experts, that discussed the keys to effective scenario planning and US DOT support recommendations (Washington, D.C. September 25, 2003.
- University of Utah Scenario Planning Research (November 2003)
- Scenario Planning Video Conference with three key FHWA Divisions (January 2004)
- APA Federal Planning Division Workshop (April 2004)
- APA National Conference Workshop (April 2004)
- FHWA coordination and support of Peer Workshops on scenario planning in 2004 (hosted by Binghamton, NY and Honolulu, HI), and four more in 2005.

II. State Planning Efforts

A. Rhode Island Statewide Planning
John O'Brien, Chief
George Johnson, Assistant Chief
Katherine Trapani, Supervising Planner, Transportation
Blanche Higgins, Supervising Planner, Land Use
The speakers familiarized participants with Rhode Island's current planning efforts and challenges.

The State

Rhode Island is a small state. At just 1,050 square miles, it is the size of an average county in the United States. Although the area is small, it is diverse topographically and demographically. It is also very densely populated, with 1,003 people per square mile, the 2nd most densely populated state in the U.S. The state is experiencing an increasing decentralization of its population, an accompanying decentralization of employment and, as a result, an increase in automobile traffic. While population growth is relatively slow (4.5% annually), that growth is projected to consume an additional 24,000 acres of forest and 3,100 acres of farmland.

The Rhode Island Statewide Planning Program is the Metropolitan Planning Organization (MPO) for the entire state. In 2003, Statewide Planning initiated a travel corridor exercise. Seven corridors were identified and Statewide Planning conducted a visioning exercise to connect land use and transportation planning. Corridor profiles were developed and workshops were conducted with local planners. The results of this exercise are being incorporated into the state's transportation plan for 2020, which aims to manage congestion and freight while addressing homeland security issues. The Goals of the plan are to foster intermodalism and sustainability, and to ensure transportation equity throughout the population.

The state has studied projections of its development and is reviewing options for modifying land use controls. The state needs more parcel level data on land use. It will encourage local communities to examine regulations and determine what may be needed in their respective areas. The state has developed a generalized land use overview of the entire state, and hopes to have an updated map in 2005. Areas of concern include interchanges, and the character of land use along highways.

III. Panelist Planning Practices and Observations

A. Peer Presentation- Destination 2030

Jienki Synn, Senior Transportation Planner, Delaware Valley Regional Planning Commission

Synn spoke about the DVRPC's Destination 2030 planning process.

Background

The Delaware Valley planning area covers two states (New Jersey and Pennsylvania), nine counties, and 353 municipalities. The land area is 2.4 million acres, 920,200 of which were developed as of 2000. The 2000 census indicated that the area's population was 5,387,407.

The DVRPC area confronts a host of challenges. In the 1990s, it experienced the slowest growth of the country's 10 largest regions, and Philadelphia had the second largest population loss among the 10 largest cities. It has the largest percentage of citizens 65 years or older, and a low college graduate retention rate. With regards to land use, the area is characterized by the DVRPC as "mature and fragmented", i.e. it is thoroughly developed. This is the reality that the DVRPC must address as it develops its long range plan for 2030.

The purpose of Destination 2030 is to bring these scenarios to the public for discussion and analysis. Utilizing the technological tools allows the public to engage with the scenarios to develop a preferred vision for the future. Communities will then turn that vision into the Long-Range Plan and create an implementation strategy.

Planning Process

The DVRPC determined that it would use a scenario planning process, without generating any one preferred scenario. Rather, the process would be used to educate and engage the public, helping citizens recognize the impacts of different trends and, ultimately, to involve the public productively in development of the region's LRP. (See http://www.dvrpc.org/LongRange.htm for more information on Destination 2030.)

The DVRPC set out to examine possible scenarios in two phases, starting in phase one with the following scenarios:

- 2025 Plan Prevails
- Urban Center Repopulates
- Sprawl Accelerates
- Information Technology Expands
- Regional Economy Grows
- Global Trade Intensifies
- Energy Cost Rises
- Infrastructure Investment Expands
- In-Migration Increases
- Out-Migration Increases
- "Green" Region Emphasized
- Homeland Security Tightened

These scenarios were not mutually exclusive. They could be combined into many different possibilities. The Delaware planners examined and noted which scenarios were the most positive, most negative and most likely. They considered the impact from combinations of scenarios on transportation, the regional form, and the environment. In phase two, the original set of scenarios were merged, combined and refined to yield five multifaceted scenarios:

1. 2025 Plan Prevails (baseline)
2. "Green" Urban Center RepopulatesSprawl Accelerates
4. In-Migration Increases (+500,000)
5. Out-Migration Increases (-500,000)

These scenarios were developed using GIS capabilities as well as qualitative and quantitative analysis from several angles. Planners looked at how the scenarios would affect mobility and access, system performance and associated costs, the environment and quality of life, and implications for the long-range plan. Thus, questions for a certain scenario included: what will the future travel demand be? What will be the transit and freight demands? How long will it take to get from one point to another? In terms of the environment, planners looked at where growth should focus, air quality issues and other concerns.

Relative to the 2025 plan, the process found that:

- Recentralization is the most environmentally friendly option, as it concentrates traffic at the core. However, to make this possible, preemptive infrastructure and policy changes are necessary.
- The continuation of sprawl would disperse activity locations, carry a high social cost and was, overall, the most negative.
- Continued out-migration will empty the regional core and weaken the region's overall sustainability.
- In-migration can be accommodated with relative ease, but would require region-wide improvements and coordination of policies on economic development, land use, and transportation.

The DVRPC invested the following resources in the project:

- Two-year Project (Phase I & II)
- $225,000 funded through the Unified Planning Work Program (UPWP)
- One Project Manager – primary contact
- Seven other staff members in supportive roles in various stages of the project
- TDM, DVRPC Land Use Consumption Model, MOBILE6, ArcGIS (Spatial Analyst), JMPIN

Conclusions and Observations

The scenario planning process led to reproducible and defensible findings that considered almost all possible outcomes. Now that the DVRPC has developed its scenarios, it is prepared to develop its 2030 long-range plan. Among the lessons learned:

- Clarify the study's purpose, goals, and objectives up front
- Involve stakeholders early on in the process
- Formalize stakeholder input
- Include safety, security, and emergency management in the scenario definitions

B. Peer Presentation- Sacramento Region Blueprint Transportation Land Use Study, Sacramento Council of Governments

Gordon Garry, Manager of Research and Analysis
David Shabazian, Senior Planner

Background

The Sacramento Council of Governments (SACOG) is the metropolitan planning organization for the Sacramento area. The six-county region has a population of 2 million and is expected to nearly double by 2050. In order to plan for this growth, SACOG undertook the Blueprint Transportation Land Use Study (Blueprint), with the following goals (Go to http://www.sacregionblueprint.org/sacregionblueprint/ for more details on Blueprint):

1. Link transportation and land use to reduce congestion. These concepts should be incorporated into the next transportation plan.
2. Reach out to the public on a large scale.
3. Introduce new technology to improve decision-making.

Planning Process

The planning process began by creating the "base case". This scenario describes how the region would change if current trends continued. SACOG focused on data collection for this phase, and gathered nearly 100 local plans as wells as numerous GIS data layers. They incorporated the GIS data into the PLACE^{3}S software. This tool allowed the planners to visualize the base case scenario, which involved low housing densities, sprawling development, a jobs-housing imbalance and a shortage of rental housing.

SACOG then sought public input on the base case. They conducted 30 neighborhood workshops and seven county workshops over a period of 18 months. Workshop participants were placed in groups with a laptop and supporting materials on transportation, land use and smart growth and were simply asked to show what they wanted their community to look like. Materials included a printed menu of land use choices. These included various types of residential, retail, industrial, open space and mixed use. The menu included pictures and descriptions of each type of land use. The workshops used laptops with wireless Internet access so that participants could evaluate varying scenarios in real time using the web-based PLACE^{3}S software. The software allowed workshop participants to compare alternative scenarios based on vehicle miles traveled, transportation modes, energy use and emissions, housing density, jobs/housing balance, mix of uses and economic feasibility.

Based on the input from these workshops, SACOG narrowed the infinite number of scenarios down to four main scenarios, which they labeled A, B, C and D:

- Scenario A is the Base Case
- Relative to the Base, scenarios B, C, and D all have higher housing densities, balanced jobs and housing growth, and some reinvestment in existing developed areas.
- In B, growth is highest at the region's outer edges
- In C, growth is highest in inner ring suburban areas

- In D, growth is highest in the geographic center.

Two regional forums were then conducted to gather input on the four scenarios. Breakout groups selected a preferred scenario, and results were displayed to the entire forum. No group selected the Base Case. A majority (56%) selected C, 34% D, and 10% B.

Support for Blueprint, with expenditures to date of $3.5 million, has been provided primarily via public planning funds or private funds. But support has come from a number of sources, including a grant from the California HCD, federal planning funds, a Congressional earmark, Valley Vision (through private foundations), the California State Treasurer, and Caltrans. SACOG increased its GIS staff from two to six in order to staff the Blueprint effort.

Conclusion and Observations

SACOG's Blueprint was nationally recognized for its innovation and achievement and received several awards, including from the FHWA/FTA Transportation Planning Excellence Awards Program in 2004. Some of the lessons learned by SACOG while doing the Blueprint Transportation and Land Use Study include:

- Scenario planning allows the study to take many variables and alternatives into account
- Public input is improved through scenario planning:
    - The public can understand and comment on specific scenarios.
    - Advanced technology at workshops enhances audience enjoyment.
    - The public can be educated about Smart Growth principles.
- Having images or pictures to communicate the scenarios is essential; facts alone are insufficient
- Change-imaging technology is invaluable to the process
- Having parcel level data is critical; it allowed SACOG to construct scenarios that were most relevant to the public.
- SACOG recognizes the importance of building a network of support. One method they employ refines data to remove gaps and inconsistencies.

IV. Opportunities for Action

Effective scenario planning requires high quality data, especially on land use--ideally at a parcel level. It also requires human resources, including technical expertise in modeling. These needs in turn point to a third underlying requirement—funding. Peer exchange participants discussed what Rhode Island might learn from the experiences of SACOG and DVRPC that would help it meet these three basic needs, and articulated the following recommendations:

1. Identify strategies for developing parcel level data throughout the state.
2. Assess and adjust local land use controls. Perform outreach to encourage communities to become engaged and reassess their zoning, etc.
3. Look for opportunities to generate near-term successes as a way to generate attention, interest, participation, and support.
4. Build a coalition of those who can benefit from access to parcel level GIS data (e.g. public safety) and will therefore help support and maintain necessary data. Think outside of transportation and land use to show multiple benefits of GIS data (e.g. SACOG worked with County tax assessor, arguing that GIS tools could increase efficiency of tax collection). Candidates include public safety, security, health, energy, and others. Also

consider looking to the private sector; real estate developers, in particular, could be stakeholders for GIS-based data.

5. Leverage Rhode Island's mandatory water supply system management by relating scenario planning to watershed maps.
6. Seek interstate cooperation and coordination. Initiate planning efforts that cross state boundaries such as the Blackstone Valley.
7. Increase university partnerships to develop visualization tools.
8. Create partnerships with Non-Governmental Organizations (NGOs).
9. Take advantage of federal funding incentives and research mandates.
10. Build one comprehensive model for one area where the parcel data are available, to show what can be achieved. For instance, apply PLACE^{3}S (or an analogue) to Providence, and then build out from there. (In Rhode Island, 14 communities have GIS data).

Participants also identified a handful of recommendations for action by the FHWA in its continuing effort to support the use of scenario planning:

1. Supply training regarding scenario planning tools.
2. Create methodology or a model for employment projections.
3. Provide a new model for population projections down to the local level.
4. Provide technical assistance to local agencies to include these concepts in updating local comprehensive plans.
5. Develop and share an assessment of software packages.
6. Promote scenario planning with National Governors' Association and National Association of Regional Councils.

V. For More Information

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VI. Attachments

A. Agenda

Agenda
Rhode Island
Scenario Planning Peer Workshop

Newport Harbor Hotel and Marina
49 America's Cup Avenue
Newport, Rhode Island

Monday, June 7, 2004

Welcome (8:30 – 8:40 am)	**Lucy Garliauskas** FHWA Rhode Island Division Administrator
Introductions (8:40 am- 9:00 am)	**Self Introductions**

PART I: AN OVERVIEW OF SCENARIO PLANNING

Overview of Scenario Planning (9:00 am- 9:15 am)	**Felicia Young**, FHWA Office of Planning • FHWA definition • History and overview of Scenario Planning • Why it is important to FHWA and for good planning • Scenario Planning Tools
Overview of Rhode Island & Transportation Planning Initiatives (9:15 am – 10:00 am)	**John O'Brien,** Chief Rhode Island Statewide Planning Program **George Johnson** Assistant Chief, Land Use & Transportation **Katherine Trapani,** AICP Supervising Planner, Transportation **Blanche Higgins,** AICP Supervising Planner, Land Use Transportation representatives from Rhode Island will provide an overview of long range and corridor planning efforts currently taking place. Obstacles and issues, current population, economic, demographic, etc., trends facing Rhode Island will be discussed to provide an overview of future trends.
	Break- (10:00 am –10:15 am)
Peer Presentations (10:15 am – 12:00 noon)	**Jienki Synn** **Delaware Valley Regional Planning Commission** **Philadelphia, PA** Presentation: What If Scenarios For the Delaware Valley Region **Gordon Garry & David Shabazian** **Sacramento Council of Governments** **Sacramento, CA** Presentation: Sacramento Region Blueprint Transportation/Land Use Study & PLACE3S Software Demonstration

LUNCH (12:00 noon- 1:00 pm)

PART II: DEVELOPING A SCENARIO PLANNING AGENDA

Brainstorming and Facilitated Discussion
(1:00 pm –3:00 pm)

Ralph Rizzo, FHWA
Rhode Island Division

Felicia Young, FHWA
Office of Planning

This section is intended for participants to begin thinking about how to apply scenario-planning concepts. Participants will brainstorm and discuss what is needed to develop a scenario planning effort based upon local conditions.

Participants will attempt to answer the following questions:

- How can we integrate scenario planning in our region/state?
- Is there a particular corridor project, long-range plan update etc. could be used as a starting point for scenario planning? If we have already started, what can we do to integrate scenario-planning techniques?
- What are the specific factors that could influence different scenarios?
- What tools are necessary for us to accomplish this?
- Who should be involved? How do we involve them?
- Are there any real or perceived obstacles?
- What are our next steps?
- What technical assistance can FHWA help us with?

Break-(3:00 pm – 3:15 pm)

Conclusions, Recommendations, and Next Steps
(3:15 pm – 4:00 pm)

Ralph Rizzo, FHWA Facilitator
One of the concluding sessions will be devoted to thoughts regarding how the group will move forward. This process will stimulate thinking and discussion on next steps. The meeting will end with concluding remarks and commitment to future activities.

Adjourn

B. List of Participants

Peer Presenters

Deleware Valley Regional Planning Commission Philadelphia, PA	Jienki Synn	jsynn@dvrpc.org
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Exchange Attendees

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