Have any organizations in Washington used scenario planning?

Listed below are just a few of the organizations that have used or are exploring the use of scenario planning:

- Spokane Regional Transportation Council—Transportation Vision Project—For More Information Contact Staci Lehman, Public Information/Education Coordinator, 509.343.6387
- Southwest Washington Regional Transportation Council—Metropolitan Transportation Plan Update—For More Information Contact Dean Lookibbii, Transportation Director, 360.897.6097 ext. 5208
- The City of Olympia, the Washington State Department of Transportation, and the Thurston Regional Planning Council (TRPC)—West Olympia Access Study—For More Information Contact TRPC, 360.956.7575

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Community Connections: Scenario Planning

Increasingly challenged, transportation planners across Washington need to address policy objectives they may never have considered in the past. These challenges include developing effective strategies in a climate of economic and environmental uncertainty, as well as finding new ways to collaborate across different disciplines. Scenario planning is a tool that communities, state departments of transportation, and metropolitan planning organizations across the country have used to address these very circumstances.

Who are potential scenario planning partners?

The process of scenario planning can bring the following organizations together to work on long-term issues that shape communities:

- Federal, state and local transportation agency members;
- Metropolitan planning organization members and regional transportation planning organization members;
- Transit agency members; and
- Community citizens.

Using a variety of tools, participants assess trends in key factors such as transportation, land use, demographics, and health. They look at these factors in alternative future scenarios, each reflecting different trend assumptions and trade-offs. Then, an agreed upon preferred scenario is chosen by the group.

What is scenario planning?

Scenario planning is a group strategy of identifying and projecting a sequence of events that could occur from a particular decision or a specific process. The basis of scenario planning is the premise that every choice has several possible outcomes. It’s not about predicting the future—it’s about determining what’s possible and how to prepare for those possibilities.

Scenario planning provides a framework for analyzing various future forces (e.g., environment, land use, transportation, consumer attitudes, demographic mix, economic cycles, energy costs, etc.) so organizations and stakeholders may make decisions for present and future needs. The scenario planning framework not only takes future forces into consideration, but it also identifies the underlying core values of a community or organization, thereby better aligning scenario outcomes with future possibilities.

“Scenario planning is one of the most powerful tools available for understanding how we will get to the future,” said Randy Currey, Transportation Vision Project co-manager. “But the process also serves as a powerful tool for bringing together people and organizations that have never worked together before.”

Some of the benefits of these planning scenarios are:

- Improved communication with the community and stakeholders;
- An up-front assessment of the community values, existing quality of life issues, and trends;
- GIS-based tools that help the community’s participants picture a future based on existing conditions and possible future changes in transportation, housing, and land use;
- Planners who have built relationships, credibility, and trust with stakeholders and the public;
- A planning process for analyzing complex issues through an analytical framework, good data, and system oriented tools;
- Transparent decisionmaking efforts and built in feedback loops; and
- Cost savings due to informed consent of the community, decisionmakers, and stakeholders.

What is the history of scenario planning?

The use of scenario planning began with the military, was picked up by business, and finally became a useful tool for transportation and land use planning.

Military uses for scenario planning allow for alternative possible threats and reactions in order to lower the risk of vulnerability. This use of flexible resource allocation is especially useful when applying a structured process to assessing potential nuclear conflict situations and then constructing a series of possible actions and responses.

Scenario planning for business use received it’s recognition in 1960, when scenario planning was developed management of Royal Dutch/Shell Oil the possibility of the oil crisis of 1973, thereby allowing Shell Oil to halt investments in unnecessary capacity. Shell’s rapid decision and strategic course change saved the company billions of dollars. Shell’s competitors were not as fortunate. They wasted billions of dollars due to heavily over-investing in capacity.

Shell Oil’s shrewd decision to halt investments in capacity credited scenario planning for its major direction change and savings of billions of dollars.

Land use planning scenarios began with the Federal-Aid Highway Act of 1962 as well as the National Environmental Policy Act of 1969.

With the requirement to adopt long-range transportation plans as well as the mandate to have a detailed statement of alternatives to a proposed action, scenario planning filled those requirements by identifying a series of possible actions and measures as well as their likely consequences.

Scenario planning continues to be a useful tool by looking at a multitude of possible activities for today’s issues, such as climate change, congestion, and funding needs, and determining a variety of possible outcomes for those activities, thereby giving leadership the information they need to make knowledgeable choices of action.

What are the benefits of scenario planning?

Scenario planning provides the opportunities for transportation professionals and citizens to work together in order to make good decisions across a range of possible futures.

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How do you use scenario planning?

Choosing a scenario tool, is like choosing any tool. You need to know what you're going to be doing since each scenario planning analysis tool is designed to address specific questions, using a specific set of assumptions. You should begin choosing the tool by choosing the questions:

- What questions does the community need to address in the plan?
- What is the tool designed to address?
- What sorts of characteristics or conditions are assumed as part of the analysis? Do these assumptions conflict with the community's vision for the future? Can the model be modified to reflect different assumptions?
- What kind of data does the tool require? At what scale? Does the community have the resources available to generate the necessary data? Are there other models already in use within the region from which the community could draw?
- Are the results of the analysis reasonably present to a meaningful way to the public and elected officials? Does the planning team understand the "inner workings" of the tools well enough to answer questions about how information was derived?

Once these questions are answered, the best scenario tool to meet the community's needs should be easily identified.

What are the Federal Highway Administration's key elements of scenario planning?

Scenario planning is fluid in its methods and techniques. However, to aid organizations in their scenario planning processes, the Federal Highway Administration has recently published the "Scenario Planning Guidebook." This new tool is separated into the following four scenario planning phases:

1. How should we get started?
   - Stakeholder Involvement
   - Identify, Prepare, and Refine Analysis Tools
   - Establish baseline analysis, identify factors and trends that affect the state, region, community, or study area
   - Establish future goals and aspirations based on values of the state, region, community, or study area
   - Considerations:
     - Identify strategic actions and indicators to help evaluate and compare scenario outcomes, based on values of the state, community, region or study area
     - Considerations:

2. Where are we now?
   - Identify, Prepare, and Refine Analysis Tools
   - Establish baseline analysis, identify factors and trends that affect the state, region, community, or study area
   - Establish future goals and aspirations based on values of the state, region, community, or study area
   - Consideration:

3. What do we want to go?
   - Stakeholder Involvement
   - Identify, Prepare, and Refine Analysis Tools
   - Establish baseline analysis, identify factors and trends that affect the state, region, community, or study area
   - Establish future goals and aspirations based on values of the state, region, community, or study area
   - Considerations:

4. What could the future look like?
   - Stakeholder Involvement
   - Identify, Prepare, and Refine Analysis Tools
   - Establish baseline analysis, identify factors and trends that affect the state, region, community, or study area
   - Establish future goals and aspirations based on values of the state, region, community, or study area
   - Considerations:

How do you chose the right scenario planning tool?

A variety of scenario planning software tools are available to assess transportation, land use, and economic development. Some of the most common tools are Geographic Information Systems (GIS) computer simulations that address land, consumption, travel demand, water and sewer, and expenditures.

Some of these tools and their capabilities are:

- CommunityViz—Create and manipulate a virtual representation of a town and explore different land use scenarios.
- Spatial Growth Model (SGM)—A computer simulation model that digitally allocates growth for a community and visually portrays the results in three-dimensional imaging.
- CorPlan—A GIS- and spreadsheet-based model for creating alternative development scenarios that can be tested with traditional four-step travel demand models.
- Metrotrend—This regional scenario planning/analysis tool allows agency staffs and workshop participants to create and compare regional transportation and land use scenarios.
- Paint the Town/Paint the Region—A GIS-based tool to develop demographic forecasts at a municipal and regional level.
- PLACES Model (P)LANning for Community Energy, Environmental, and Economic Sustainability—A GIS-based analytical tool for calculating a range of community indicators. I-PLACES is a variation of PLACES that can be run over the internet.
- Smart Growth Index—This is a sketch-planning transportation, land use, and community impact model that allows users to select indicators to be measured then prepare, evaluate, and compare alternative scenarios. A forecasting module allows future land use patterns to be forecast based on transportation network accessibility measures.
- UPlan—A simple rule based urban growth model intended for regional or county level modeling. Based on user input it identifies unsuitable locations for any development and a general plan where specific types of development are permitted.
- Rapid Fire—This is a modeling tool that can inform state and regional agencies in evaluating climate, land use, and infrastructure investment policies. Results are calculated using empirical data and the latest research on the role of land use and transportation systems on automobile travel emissions; and land, energy, and water consumption. The model constitutes a single framework into which these research-based assumptions can be loaded to test the impacts of varying land use patterns.