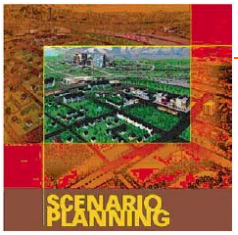

Scenario Planning Peer Workshop

Sponsored by the Federal Highway Administration

Location:	Fargo Moorhead Region (Fargo, ND and Moorhead, MN)
Date:	May 4, 2007
Workshop Host Agencies:	Fargo Moorhead Metropolitan Council of Governments Federal Highway Administration, North Dakota Division

Summary

The following report summarizes a Peer Workshop on tools and effective practices for scenario planning. The Federal Highway Administration (FHWA) coordinated and led the daylong workshop in Moorhead, Minnesota. Presenters from the FHWA provided participants with an overview of the scenario planning process and described available resources and tools to assist with scenario planning analysis. Local planning staffs, elected officials, and consultants joined MetroCOG for a one-day scenario planning workshop. Attendees hailed from across the region and shared their views on introducing scenario planning to their planning processes.

Presenters from the Chittenden County Metropolitan Planning Organization, Community Planning Association of Southwest Idaho (COMPASS), and the Federal Highway Administration provided the group with information on implementing scenario planning in a variety of community contexts.

I. Welcome

Bob Bright, executive director of the Fargo Moorhead Metropolitan Council of Governments (MetroCOG), welcomed the group. Participants were asked to introduce themselves and state what they expected to learn during the day's workshop. Responses ranged from "branching out and thinking about 'what if' to learning "how to plan when money's tight".

Mr. Bright noted that MetroCOG is about to enter long-term transportation planning process for the metro area and scenario planning might be a worthwhile process to use. He expects it to be a community-driven process. One scenario to examine might be what would happen if the highway trust fund, which provides 80% of transportation funding in the region, were to disappear. It is currently expected be depleted in 2009 at present expenditure levels. If Congress does not take action, what would be the consequences for the Fargo Moorhead area?

MetroCOG's role is to tie transportation elements together through the transportation plan. In the Fargo Moorhead area, the goal is to get to level of service (LOS) C. MetroCOG coordinates with local jurisdictions to program Federal funding for transportation projects.

Locally, growth has been healthy over last six years, growing by approximately 2% each annually. Growth is not dispersed throughout the metro area, but rather is concentrated in particular areas. Some intersections have seen traffic volumes double over the period from 2000 to 2006.

Population forecasts suggest population growth of approximately 30% between 2005 and 2025. Construction costs have recently risen by approximately 25% and are expected to do so again by 2010. As project costs increase, however, revenues are not increasing at the same rate. How can the region adapt and plan for radically decreased levels of Federal funding? Will congestion occur? Will the pace of growth be impacted?

II. Introduction

A. Overview of Scenario Planning

Jody McCullough, Community Planner, Federal Highway Administration Office of Planning

Ms. McCullough provided the group with an overview of scenario planning and how it could be used for a more effective transportation planning process.

FHWA defines scenario planning as "*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 assess trends in key factors such as transportation, land use, demographics, health, etc. Participants bring the factors together in alternative future scenarios, each of these reflecting different trend assumptions and tradeoff preferences."*

Scenario planning is not a prediction, but a visioning process that can identify best and worst case scenarios and develop alternatives so that a community is not blindsided by change. Existing conditions, trends, and driving forces are used to create the scenarios. These might include not only demographic or transportation trends, but also the environment, treasured places, or livability. When trying to identify values, goals, and measures, participants are asked questions like, "What do you want your community to look like in 20 years? What are your favorite places? What do you want to create?" Communities use creativity in developing the scenarios, not all of which have to be reasonable. Ultimately, extreme scenarios may not be chosen but initially they are useful for moving the discussion forward. After picking reasonable scenarios, communities come up with goals and policies to implement them.

Scenario planning does not change the planning process, but enhances it. In the past, planners assumed a particular future and developed plans and project in response to it. Now, instead of selecting a single future, planners can use new tools and technologies to understand multiple possible futures. Products of the process include reports, policies, plans, templates, design standards, and more.

Queensland, Australia, an early proponent of scenario planning for transportation and land use, laid out the following process:

1. **Identify the quality of life issues facing the region**. This information provides the foundation for scenario development. These issues can be expressed as a question about the future that the scenarios might answer.
2. **Research the driving forces** - define the major sources of change that may impact the future. These forces can be either predictable or non-predictable elements. Some predictable elements may be local demographics, trends in local land use consumption for example. Less predictable macro elements are things like the future of the world economy, future availability of infrastructure funding and technological advances. There are many other driving forces, which are uncertain. Narrowing down those driving forces will be helpful in advancing a scenario planning process.
3. **Determine the patterns of interaction** - consider how the driving forces could combine to determine future conditions. On a matrix, these driving forces can be identified as either having a positive or negative outcome and their relationship to a dichotomy of potential future worlds can be further examined. For example, if we use the economy as a driving force, we can label it as having either little or no growth or fast

growth. In determining the interaction of each of the future conditions, scenarios can be created.

4. **Generating scenarios** - there are implications of different strategies in different future environments. The goal here is to bring life to the scenarios in a way that community stakeholders can easily recognize and connect the various components.
5. **Analyze implications** - Scenarios enable planners to explore the shape and nature of transportation within a variety of circumstances using a range of tools.
6. **Evaluate implications** - The devised scenarios are measured against each other by comparing indicators relating to land use and other criteria.
7. **Monitor scenarios** - The process is an ongoing one and as the future unfolds, reality needs to be assessed compared to the selected scenarios.

Benefits of Scenario Planning:

- Enhances ability to respond to change
- Helps to manage and prioritize use of limited resources
- Provides information to avoid potential consequences and to seize opportunities
- Provides tools to assess transportation's impact on communities
- Facilitates consensus building among a wide variety of stakeholders

The process becomes more transparent to the public by including them in it. The public may not make the final decision, but they better understand the tradeoffs and why certain decisions are made . Having the public use planning tools helps them understand planning concepts and how decisions are made. Communities are finding that scenario planning enables a healthy public involvement process, where members of the public feel that their voices are being heard and understand that their input into the transportation planning process is important.

Planning tools allow planners to analyze complex data effectively, looking at natural resources, land cover, and many other types of existing condition information. When planners include the community, they can better clarify the preexisting conceptions of the community before the decision-making occurs. Having a map and pictures of typical development types helps everyone to understand what is being discussed and helps to alleviate the use of technical jargon. The community can provide real-time input and see real-time results. As a result, participation has become much broader than in the past.

Workshops can be high-tech or low-tech, using on-the-fly modeling or stickers and maps to explore the impacts of each scenario. The internet is a great way to reach out to those who do not usually attend public meetings. Visualization is a new requirement in SAFETEA-LU and the tools and technologies to implement are widely available today.

Scenario planning is often used in high-growth communities experiencing new development pressures, but is also helpful in communities that are growing slowly or even losing population. Binghamton, NY is a no-growth area that is losing industries and has an aging population Community resources include a university and good quality of life. Scenario planning was used to as a tool to sustain quality of life, identify new directions, and determine how to allocate resources most efficiently instead of continuing along the current path.

The Federal role in scenario planning is to build capacity and provide technical assistance. The FHWA Scenario Planning website provides information on tools, technologies, and case studies from across the country. There is no additional funding for implementing scenario planning, as it

is a tool to enhance the existing process. While scenario planning requires additional up-front resources, it can reduce the chance of running into unforeseen obstacles further down the road.

III. Peer Presentations

A. Presentation: CCMPO 2025 Metropolitan Transportation Plan (MTP)

Peter Keating, Chittenden County Metropolitan Planning Organization

Mr. Keating introduced the group to Chittenden County and to the process CCMPO used to develop their 2025 Metropolitan Transportation Plan (MTP). Vermont is a small state in area with the same population as North Dakota (600,000 people). There are 18 municipalities in the MPO region, each with land use decision-making authority. The City of Burlington itself is home to about one-third of the county population, about 40,000 people. In Chittenden County, there are concerns about maintenance of arterials, public transportation adequacy, and pedestrian and bicycle infrastructure. Land use decisions are all made at the local government level and there is only now beginning to be awareness of the need for regionalism in land use planning.

Process

In developing the MTP, CCMPO used an alternatives analysis process, which is similar to scenario planning. In alternatives analysis, only the transportation system alternatives vary. Scenario planning is more inclusive and considers political, environmental, and economic forces. For the MTP, land use alternatives were also considered.

A consultant was hired and conducted visioning workshops. The consultant assessed existing transportation conditions in the region and developed five emphasis areas: arterial roadways; public transportation; pedestrian and bike accommodation; land use and transportation; and regionalism.

The public involvement was extensive. The project steering committee included approximately 20 members, representing local governments, environmental groups, pedestrian and bicycle groups, and others. There were also many meetings with the local governments.

Seven transportation scenarios, including the trend and committed projects scenarios, and two land use scenarios were developed. Each transportation scenario focused on a specific type of improvement and was considered exclusively of the others. For example, the TSM /TDM projects include things like signal optimization, ITS, minor intersection improvements, ridesharing, park and ride, etc.

The land use trend scenario assumes that the trend of the last 30 years continues. The concentrated development scenario assumed development concentrated in areas zoned for higher densities in existing zoning. Each transportation scenario was evaluated under the two land use scenarios.

While the transportation demand model is critical to the process, other data needs include existing household, employment and transportation system information; growth forecasts; and land use scenarios.

Performance measures are key to alternatives analysis. The demand model includes many different measures. CCMPO also wrote a paper correlating the measures to goals adopted earlier in the process. Performance measure categories included multi-modal support, system efficiency,

costs, highway performance, air quality, and safety. Each category included multiple performance measures.

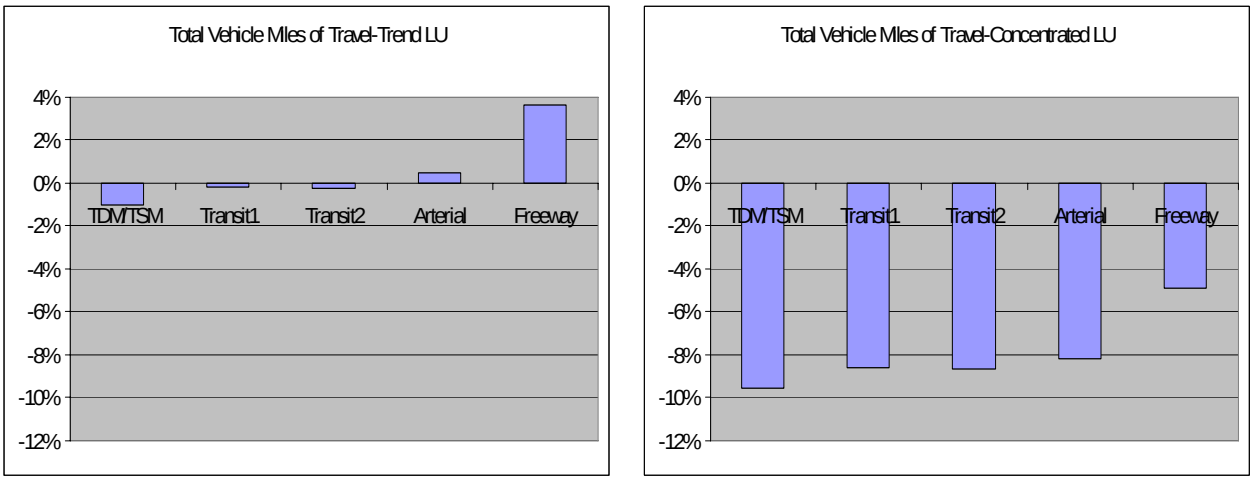

Figure 1: Estimated Vehicle Miles Traveled Under Two Land Use and Five Transportation Scenarios.

The key finding was that the concentrated land use development patterns consistently produced benefits under every transportation scenario, as seen in Figure 1. Subsequently, they went through an iterative process to develop first five hybrid scenarios and then two refined alternatives. From the refined alternatives, a preferred alternative was selected. The preferred alternative was the basis for the 2025 long-range plan. The plan is gradually being implemented through the Transportation Improvement Program (TIP).

CCMPO has started working on the next long-range plan. The planning process will include more traditional scenario planning techniques and examine a broader range of issues. The State of Vermont is also using scenario planning in producing its next update of the long-range statewide transportation plan.

Lessons Learned

- **Truth in labeling -** When the MPO board adopted decisions which were not recommended by the steering committee, some committee members were alienated and a few resigned. It may have been more accurate to refer to them as an "advisory committee" and better managed expectations.
- **Don't exhaust your volunteers –** due to the length of the process, there was considerable turnover in volunteers.
- **Simplify, if possible, the analytical results -** The permutations of the seven transportation scenarios and the two land use scenarios produced a significant amount of performance data and overwhelmed the volunteer participants.
- **Sound analyses may not trump politics**
- **Worth doing again?**
  - Qualified yes (Qualifications?)
- **The value of project leadership** - Consistency of personnel may affect length of process. The process began in 2000 with a projected completion date of 2002. However, due largely to personnel changes, the plan was adopted in 2005.
- **Learning from others –** Knowing more about the experiences of other communities with scenario planning would have been helpful.

- **Scenario planning is only a part of a larger process**

Discussion

Q: Did you buy employment data? A: We have in the past.

Q: What was the total cost of plan? A: The consultant contract was for $175,000 for a period of three years in addition to in-house work. The transportation demand model is also sophisticated and expensive.

Q: Did you use scenario planning to create a "plan in waiting" if future trends should be different than the adopted plan assumes? A: That would be a good direction to go in, but we didn't do it.

Q: How much reliance is there on pedestrian and bicycle transportation in your region? A: Bicycling has a seasonal component, but there is significant pedestrian traffic year round, capturing about 17% of the work trip in Burlington. There is a strong pedestrian and bicycle constituency. CCMPO did not quantify changes in walking and biking based on investment.

Q: Did the scope of work change over the five years of the project? A: Yes. It had a life of its own and changed remarkably, especially after firing the consultant.

Q: What is the transit frequency in Burlington? A: It is currently at 30 minute headways on major routes and one hour headways on the periphery. The transit frequency improvement scenario proposed 15 minute headways on the half-hour routes and adding on-demand rural service.

Q: Were all of the performance measures based on the model? A: Yes, the model is based on ground counts. We may use real counts in the next plan.

Q: If we already know that density is the solution, did you show public benefits and tradeoffs to implement it? A: We do not have the authority to do that, but we strongly suggested that those that have authority do so. People accept that we need density, but it is difficult to make it happen.

Q: Did you treat freight separately? A: No, our model did not have that capability. We are working to enhance that now.

Q: How did you engage local technical staff and politicians? Were you able to maintain buy-in over the five years? A: They were engaged through the steering committee and making presentations at critical times to local jurisdictions. We also made briefings to the MPO Board, who are elected officials.

B. Presentation: CCMPO 2025 Metropolitan Transportation Plan (MTP)

Charles Trainor, Community Planning Association of Southwest Idaho (COMPASS)

COMPASS represents two counties, Ada and Canyon, but received Idaho Transportation Department funding to expand the scenario planning process to a 6-county region.

Geographic features define the region, which is bordered by mountains, a river canyon, and a desert. Water supply also constrains development. It is a diverse region with cities ranging in size from less than 100 residents to more than 200,000. There has been fairly rapid growth since approximately 1990 and the cities are expanding into the fertile and the irrigated agricultural land at a rapid pace. Boise is the major employment center. A rail spur line connects the three largest

cities and is an asset that the MPO is trying to plan for. Additionally, within Ada County, the highway district owns, maintains, and has responsibility for all the public roads outside of the state highway system.

Historically, COMPASS has planned for only one future. That has not worked satisfactorily. COMPASS wanted to use scenario planning for several reasons: to tie transportation decisions to broader policies; to improve consideration of alternative modes; to reduce subjectivity in project funding priorities; to increase understanding of issues and tradeoffs; to create a vision of how to address rapid growth; and, to develop better connectivity between land use and transportation decisions. A scenario is a plausible future, not a prediction. It is a method to evaluate strategies.

Process

COMPASS began in 2004 by developing the underlying growth forecasts. Land use scenarios were developed in November 2005 in four 3-hour workshops. All four workshops used the same process but with different participants and were conducted at different locations and times. The consultant used graphics extensively in the public workshops to ensure that everyone had a shared understanding of the issues and possibilities. They used a mapping game with chip sets in the workshops to gather public input in determining where and how to grow. There was considerable participation, with 40 maps created by 500 participants. Participants were surveyed to determine how well they correlated to the community as a whole. Generally, they were fairly consistent demographically.

There was a facilitator for each group to keep participants on track. The game began by asking the participants where growth should not occur. They indicated those areas on large maps, about six feet by eight feet in size. Growth was represented by chips scaled to match the map. For example, a “rural residential” chip would contain 340 homes on 1,200 acres, while a residential subdivision chip would contain 990 homes on 300 acres. Each chip set contained chips representing the same amount of new residential growth and jobs in different densities. The chips were then placed on the map to indicate where and how the anticipated growth should occur. Participants could trade types of chips in order to change densities even more. Participants then drew in transportation improvements. COMPASS was surprised to find that participants used very few of the lowest density chips, preferring the medium density scenarios.

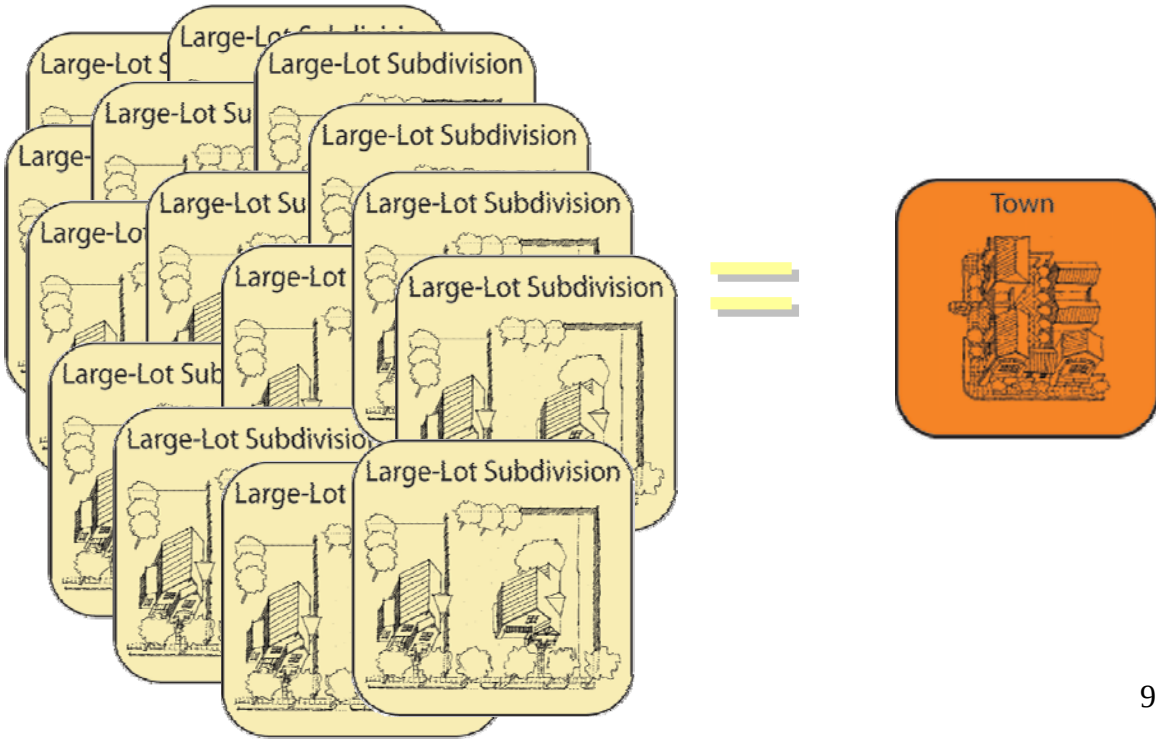

Figure 2: Chips representing different densities for use in the mapping game.

In February of 2005, a second set of workshops, focusing on transportation improvements, was held. This time, participants were given transportation "strip" types, which represented 3 miles of different roadway or transit improvements with a dollar value assigned. Of the eight land use scenarios created from the November 2004 workshops, four were continued for use in the transportation workshops: trend, workshop average, concentrated mixed-use corridors, and satellite cities. Participants picked a map representing a specific land use scenario, determined the destinations to connect, then placed their strips and discussed the placements prior to finally affixing the strips. They could trade their strips for different types. Groups could also create new funding strategies to add additional improvements. Including the cost information shaped participants' choices. For example, bus rapid transit got a lot of support when participants understood the costs vis-à-vis rail and support for adding new freeways dropped when participants realized that this could financially eliminate other types of projects. There was also considerable participation in February, with 450 participants.

Lessons Learned

- **Stratify interest groups** – if particular interests, such as real estate or developers, are too widely dispersed, their opinions may not be heard.
- **Ensure timeliness of data** – participants wanted as up-to-date information as possible.
- **Retain control of allocation** – The consultants used a "black box" process to determine the growth impacts, which was ultimately frustrating for the MPO, when unexpected allocations were made and the reasons were unknown.
- **Realize that scenario maps reflect a general pattern-not a detailed land use map.** In addition, avoid using terms like sprawl and smart growth, as these are poorly defined and used as pejoratives.
- **Accept the need to cut off the fine-tuning OR spend many more months –** this process could continue ad infinitum.
- **Be sure that critical areas are demarcated – airport influence areas, floodways**
- **Make sure that the LULUs (locally unwanted land uses) get attention**

Outcomes

Community Choices, the preferred land use alternative in the draft plan, was based on a number of scenarios developed out of the workshops. Participants voiced support for a growth alternative that consumed less land, left more open space, offered housing choices and fostered use of alternative transportation. Community Choices, titled to reflect that it is a choice that can be made in land use and transportation, meets these desires. It clusters growth inside the areas of impact, and emphasizes higher densities, mixed-uses with jobs, shopping and services closer to homes. COMPASS does not have the authority to prohibit growth in particular areas, but is using the plan to focus public dollars. The plan was only recently adopted, so it is still too early to say what the ultimate outcome will be. The scenario process was resource-intensive, with a total cost exceeding $300 thousand, including consultants and staff time. However, Mr. Trainor felt that it was successful and scenario planning will likely be used in the future.

Discussion

Q: Is there software that works like SimCity and displays costs and impacts for different types of growth? A: While they aren't exactly like SimCity, there are a lot of tools that can give you indicators. Portland, Oregon has done a lot of this. A group from Oregon does template maps

that include some of the costs. Most are GIS-based and you can weight the formulas. Some programs are very technology-intensive, others are not. Citizens want to see quick results. Real-time analysis is great.

Q: The cities in our region are competing with each other for growth. Did you see that in the Boise region? A: Yes. We created one scenario called “suburban explosion” that put all the residential growth in one county and jobs in the other. This helped the cities understand the need for jobs-housing balance.

Q: How did you get buy-in from local jurisdictions? A: Some jurisdictions felt the scenarios did not reflect their comprehensive plans and are thus not valid. We are still struggling with that. There is suspicion about regional planning.

Q: How will you implement the plan? A: We will ask local governments to adopt the transportation components, but not necessarily the land use portion.

Q: Why did you go with the lower growth rate than that indicated by short and long term trends? A: Maybe we should have used a higher one. We worked with a local economist who has been doing these forecasts for some time and used job-based population increases. He saw fundamental weaknesses in the job market. We might look at global and regional trends, or use multiple forecasts, when we do this again.

Q: When dealing with the public, translating system performance is very difficult. Perception may be very different from reality. A: Acceptable LOS varies regionally as well. We’re trying to move away from LOS into travel time.

Q: How is scenario planning distinct from the standard transportation planning process? A: The scenario process is different in that you try to move away from a specific solution or set of assumptions.

Q: What kind of follow-through has there been with implementation in the local communities? A: There is a companion project called Blueprint for Good Growth that was to do that, but that process has been more difficult. There is a perception that “sprawl is something that somebody else is doing”.

IV. Implementation

A. Presentation: Scenario Planning Tools

Jim Thorne, Metropolitan Planning Specialist, FHWA Resource Center

Mr. Thorne presented a range of scenario planning tools and resources. He recommended that participants begin by figuring out what they are trying to accomplish and then select the tools best suited to get the job done. Scenario Planning tools are a means to an end, which is to say that they exist to accomplish some other activity and are not the answer in and of themselves. There have been innovations over the years that have enhanced the planning tools that are available, but lower technology, simpler methods also have their place in this process.

Land Use Models in U.S. Practice

Model	Regional Applications	State Applications
DRAM/EMPAL, ITLUP, PLUM, METROPILUS	Numerous	
TELUS/TELUM	Various	New Jersey, others
TRANUS	Baltimore	Oregon
MEPLAN	Sacramento	
UrbanSim	Honolulu, Houston, Salt Lake City, Seattle	
MetroSim	New York City, Chicago	
MetroScope	Portland	
PECAS	Sacramento	Ohio, Oregon

Basic steps in the scenario planning process were reviewed and tools that could help in each step were identified. For example, tools to engage the community could include public meetings, participation in other community events, group facilitation skills, visualization, the chip game, web sites, Geographic Information Systems and other software such as Corplan or CommunityViz. FHWA does not recommend one software package over another; the choice of software will depend on the user's resources and goals. Many websites have resources to help identify the appropriate tools for various planning activities. The Public Participation Spectrum developed by the International Association of Public Participation was cited as an example of a tool that could be used to identify approaches.

Scenario Planning tools are used to engage the community. Scenarios can be developed by using a wide range of tools; including traffic forecast models, chip games, GIS, or one of the specialized software packages. Resources include census data, historical records, geographic

information systems and the public itself. Information and examples were provided in the following categories:

- *Information resources*, including websites such as
  - www.placematters.com
  - www.smartgrowthamerica.com
  - www.smartcommunities.ncat.org/
  - www.fgdc.gov
  - FHWA Land Use Toolkit
  - FHWA Scenario Planning Website
  - NASA Worldwind
  - www.natureserve.org/ and
  - http://hud.esri.com/egis/ ;
- *Visualization tools and techniques*, such as photo montage, architectural drawings, visual preference surveys, including the Local Government Commission's Community Image Survey, Sketchup, and Box City;
- *Impact analysis and GIS models* using software such as INDEX and Paint the Town, What If?, MetroQUEST, UrbanSim, Place3s, CommunityViz; and others. The North Dakota GIS Clearinghouse can be found at www.nd.gov/gis/mapsdata.

Tips:

- Know the task, then select the tool
- Match the tool to the users
- Working with trained facilitators ensures that the public's time involved in the process is well-spent.
- Use value-neutral names for scenarios.
- Pick indicators and present them so that they are meaningful to the public.

B: Breakout Session Results

During the first breakout session, participants discussed what they had heard from the presenters and developed questions and discussion topics for consideration later in the workshop. All groups raised implementation as a critical issue for undertaking scenario planning in the region.

Discussion topics

- What's the value of planning if there's no implementation? We

need to get policymaker and developer buy-in early on.

- Getting everyone involved and achieving consensus.
- Possible scenarios beyond land use – demographics, aging population and population growth, fuel costs, available funding and drinking water.
- How much growth is enough? Do we have to have growth?
- Where do we start making wiser investments? – limited resources but unlimited desires
- Engaging the public through visual tools
- Engaging nontraditional stakeholders, like school districts
- Engaging local technical staff and policymakers
- Incorporating visioning and planning work that's already been done.
- Staff time constraints and consultant costs
- Different sections of towns
- How worthwhile is the process?
- Ownership of the good and the bad
- Budget constraints
- Exposure of values tradeoffs in the region
- Education component – legislators and citizens on-board
- Timing – is this the right time?

C: Peer Panel

Participants were given the opportunity to ask the peers and Federal Highway staff questions about scenario planning. Questions focused on process and implementation.

Process

- Q: Is it worth it?
    - A: You do the kind of scenario planning that you want to do. First, decide which kinds of scenarios you want to include: financial, transportation, land use, fuel costs? You're giving your citizens and your elected officials an informed choice.
    - A: Yes. Our board saw value in scenario planning we're about to do it again.
    - A: There is a high upfront cost, but as you move forward there is a lot of value in the background work in subsequent plan adoption cycles.
- Q: What would be the ideal amount of time to spend on this process?
    - A: Two years is reasonable. However, there are always unknowns.
    - A: It is difficult to do in a year or less. It's hard to hold attention of the citizens over a much longer period of time.
- Q: How much of your time was spent on scenario planning?
    - A: With a staff of six, one person had this as a main but not the only project. Other staff were only occasionally involved.

    - A: We had approximately three full-time employees out of a staff of 19 working on the project.
- Q: How much flexibility do we have in using PL funds to fund comprehensive plans?
    - A: If you have the money, can fund nearly any planning activity with PL funds (as long you have your UPWP, MTP, and TIP).
    - A: Albany, NY decided that they needed to have more local capacity and funds linkage studies for locals to make transportation and land use studies at the same time.

Implementation

- Q: Would having a regional planning agency make implementation easier?
    - A: Yes. We're hoping to discuss that after the next Census.
    - A: Regional land use decisionmaking would be very helpful.
    - A: One scenario for next time is to take each community's existing vision and add them all up. The results may be eye-opening. Comprehensive plans today are often loosely written, so that it's difficult to use them to project the future.
- Q: What are your next steps?
    - A: Using the preferred vision in programming decisions. We are also using it to compare and contrast with on-going development decisions. How does the pattern of actual development approvals contrast with the preferred vision? What are we gaining or losing?
    - A: We have been using the plan to feed the TIP. There is a direct correlation, although it will take time for these projects to come online. CCMPO's executive director is speaking to a wide variety of groups about the need to consider the future holistically.
    - A: This has been very effective in combination with financially constrained planning. The private sector may have to fund their own infrastructure if they choose to develop differently from the plan.
- Q: Has the end result from scenario planning been different that with previous planning efforts?
    - A: Yes, it is directly feeding the TIP and is creating a slightly different future than otherwise in Chittenden County.
    - A: COMPASS adopted the plan only in late 2006. There is a lot of inertia in the system. It has given us the ability to compare the preferred future to what is happening.
    - A: It's an educational process and results may not be seen overnight.
    - A: We're seeing citizen groups referring to our plan when they're commenting on development.
- Q: Is the public holding you accountable for your plan?
    - A: CCMPO has been extremely careful to follow adopted plan in moving projects into the TIP. Land development proposals have been more or less in line with the plan. Local governments are aware of the transportation plan and factor that into their planning.

- Q: Have any MPOs come up with guiding principles for how to program funding based on their scenario planning?
    - A: Scenario planning is a visioning process. Denver went through scenario planning and developed policies based on it. They also developed agreements that the local communities signed onto. When they are programming projects, they consider these priorities and policies. Other examples include Sacramento. Regional policies are one of the successes of scenario planning.
- Q: Does this rely on the decision to constrain growth or grow compactly?
    - A: We do not want to go into the process with a set idea of the outcome. The goal is to increase the predictability of the future, not prescribe a particular future.
    - A: Local officials try to encourage compact development as much as possible. However, that is not all of what comes before them. They do understand the tradeoffs that they are making.
    - A: The MPO has some power; it does control transportation funding.
    - A: The regional plan is advisory. We rely on influence of member agencies. We have discussed an interagency agreement to implement the plan.

D: Local Perspective
Brian Gibson, Fargo Moorhead Metropolitan Council of Governments (MetroCOG)

Mr. Gibson presented MetroCOG's understanding of what scenario planning is and what the process might be like for the Fargo – Moorhead area.

The last metropolitan transportation plan (MTP) was approved in October 2004 and the next plan will be due in October 2009. MetroCOG is now beginning the process of updating the plan by building the new transportation demand model. Scenario planning fits into the MTP process because it will allow the Council of Governments to think through land use, funding, and demographic changes and what they mean for transportation.

Scenario planning arose from the military and the private sector. Scenarios hinge forces that are often beyond our control. A famous example was Shell Oil's use of scenario planning in the early 1970s, which enabled them to weather the oil shocks and come out doing well.

Scenario building process:
Generally, a "Reasonableness" criterion is applied because planning for scenarios that are very unlikely can be a waste of resources

- Question basic assumptions
- Create holistic, integrated images of how the future might evolve
- Force fresh considerations to the surface
- Reframe existing decisions by providing a new context
- Identify contingent decisions

- Anticipate future threats and opportunities

E: Breakout discussion groups

Participants returned to their breakout groups to discuss three questions posed by Mr. Gibson:

- What ideas have you seen today that you feel could be or should be applied to the FM region?
- What have you seen today that strikes you as a process or technique that would not work well in the FM area?
- Overall, does scenario planning seem to be a worthwhile practice and one that Metro COG should pursue?

Each group then reported out on primary topics of discussion. While all groups agreed that scenario planning should be pursued in the region, concerns about implementation and not repeating or losing earlier planning work were voiced.

Comments

- Public workshops and interactive games are a fun way to model the future and keep people engaged in the process.
- Showing the costs may help people open up their thinking.
- Thinking outside the box may be difficult for the region.
- Scenario planning will work at least to educate the community and engage them and public officials.
- This might be a good time for scenario planning, with the price of gas and the potential Federal funding crisis.
- We have to educate the policymakers, not just the citizens.
- How do we involve the public meaningfully? We need to go to them.
- Commitment is key to success.
- Ensuring that a well-rounded group of people is involved may be a challenge.
- Using workshops and maps – chips might or might not (planning in other communities). How specific should the land use visioning be?
- Consider having the communities all develop their own scenarios and understand the regional impacts.
- Scenario planning could be applied to key infrastructure decisions or evaluation of farmland loss.
- Scenario planning would work, but might need to be so general regarding land use as to be useless.
- Start with the local plans – there are plans and visions out there.
- Make sure the local officials are on board.
- Participatory events would keep people involved and coming back.
- The COG should grapple with the issue of assigning growth to communities (by the state demographer's office) – historical trends may not be a realistic way of assigning growth.