

Scenario Planning Peer Workshop

Sponsored by the Federal Highway Administration

- Location:** Champaign, Illinois
- Date:** June 15, 2005
- Workshop Host Agencies:** Federal Highway Administration (FHWA), Illinois Division Office
Illinois Department of Transportation
Champaign-Urbana Urbanized Area Transportation Study
- Workshop Participants:** Champaign County
Champaign-Urbana Mass Transit District
Champaign-Urbana Urbanized Area Transportation Study
Chicago Area Transportation Study
City of Beloit
City of Champaign
City of Danville
City of Decatur
City of Urbana
Federal Highway Administration
Illinois Department of Transportation
Kankakee County Regional Planning Commission
Macon County Planning and Zoning
North Central Florida Regional Planning Commission
Northern Illinois Planning Commission
Puget Sound Regional Planning Commission
Springfield Sangamon County Regional Planning Commission
University of Illinois at Urbana-Champaign
US DOT Volpe National Transportation Systems Center
Village of Savoy

Summary

The following report summarizes a Peer Workshop on tools and effective practices for scenario planning. The Federal Highway Administration (FHWA) coordinated and supported the one day workshop. The FHWA Illinois Division Office and the Champaign-Urbana Urbanized Area Transportation Study hosted the event in Champaign, Illinois. Presenters at the workshop provided participants with an overview of the scenario planning process, shared examples of scenario planning efforts from elsewhere in the country, and described available resources and tools to assist with scenario planning analysis. Participants then brainstormed ideas for scenario planning in Champaign County.



I. Introduction

Jody McCullough of the Federal Highway Administration (FHWA) Office of Planning opened the workshop by presenting an overview of scenario planning and the FHWA's role in supporting its use.

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 and congestion, land use, safety, demographics, health, economic development, and the environment. The participants bring the factors together to develop future scenarios; each of these alternative scenarios reflects different trend assumptions and tradeoff preferences. In the end, all members of the community – the general public, business leaders, and elected officials – work together to gain consensus on a scenario for the future. This scenario becomes the long-term policy framework and is used to guide decision-making in the present since the effect of these decisions today may not be realized for several years to come.

Discussing the benefits of effective scenario planning, McCullough 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 to participate actively in planning;
- includes tools to assess transportation's impact on communities;
- improves communication and understanding in a community; and
- yields an enhanced decision making framework for a community and ensures better management of increasingly limited resources.

FHWA is offering technical support, information, and research to state and local partners as they undertake scenario planning and is also encouraging the use of metropolitan planning (PL) and other transportation funds to implement scenario planning. Efforts in FY 2004 included

- \$560 million in funding for state and metropolitan planning (PL and surface transportation planning [STP] funds);
- a report on a National Peer Roundtable of policymakers, community leaders, and technical experts that discussed the key points of effective scenario planning;
- National Panel Sessions at APA, TRB, National Smart Growth Conference, and other locations; and
- FHWA coordination and support of FHWA/Federal Transit Administration Peer Workshops on scenario planning in New York, Rhode Island, and Hawaii.

Efforts in FY 2005 include

- funding the Coalition for Utah's Future's "2005 Greater Wasatch Land Use and Transportation Vision" and the Sacramento Area Council of Government's "Blueprint Project;"
- a national broadcast on scenario planning that was held on March 3, 2005;
- conducting four new workshops in Florida, Illinois, Iowa, and North Carolina; and
- a new website on scenario planning: www.fhwa.dot.gov/planning/scenplan/index.htm.

II. Local Planning Efforts

Champaign-Urbana Urbanized Area Transportation Study

Rita Black, CUUATS Manager, Transportation Engineer, [Champaign-Urbana Urbanized Area Transportation Study](#)



Rita Black provided background information on the Champaign-Urbana Urbanized Area Transportation Study (CUUATS), the region, and important trends that are currently shaping the region's transportation planning decisions. CUUATS is the transportation entity of the Champaign County Regional Planning

Commission (CCRPC) in central Illinois. CCRPC is Champaign County's metropolitan planning organization (MPO). Located in Champaign is the University of Illinois-Champaign, the state's largest university. CUUATS wanted to host this event to learn about how it could implement scenario planning and garner public involvement generally in the region and specifically to a large corridor – the Staley-Rising Road corridor – on the west side of the city. The breakout groups discussed how scenario planning could be implemented for the Staley-Rising Road corridor during the afternoon brainstorming session.

CUUATS' mission is to coordinate metropolitan transportation planning with the MPO's member agencies and the general public and to coordinate the use of federal transportation funds within the Champaign-Urbana-Savoy-Bondville urbanized area. CUUATS plays a leading role in promoting interagency cooperation and ensuring consistency between planning efforts. It is responsible for the promotion of transportation systems that embrace a variety of modes in a manner that efficiently maximizes the mobility of people and goods with minimal energy consumption, pollution, and social impacts.

The urbanized area within Champaign County has been growing quickly, and this growth is forecasted to continue. Over the past 10 years, the urbanized area has grown by 7.5% to its current population of 120,000, and the urbanized area is expected to have over 165,000 residents by 2025. Every ten years, two to three percent of the county's rural population is expected to shift to the urbanized area. Of the four municipalities, Champaign received nearly 60% of the population growth between 1990 and 2000, followed by Savoy and Urbana.

Continued population and economic growth in the urbanized area will result in increasing demands on the transportation system. The proportion of current trips by mode is displayed in Table 1. Work and shopping are the two most frequent reasons for traveling. The noon peak period is busiest, with evening and then morning rush periods the next most frequent times of travel. The average travel time in the urbanized area has increased by about 40 seconds between 1970 and 2000. Vehicle miles of travel (VMT) per lane mile is an indicator of the intensity of use of the roadway infrastructure. In 2000, the number of VMT per lane mile in the urbanized area was 1,581,000. Due to population growth, the VMT in the urbanized area is expected to grow to 2,080,000 by 2025.

Table 1: Trips by Mode in Champaign County

Mode	Resident Trips
Auto Drivers	68%
Vehicle Passengers	12%
Walking	11%
Transit	6%

The urbanized area roadway system has been growing steadily, but not as fast as population or travel demand, and has stayed at a more or less consistent level of safety. Instead of responding to demand, roadway additions have been governed by funding availability and the required time for securing right-of-way, engineering, and construction. Seventy-one new lane miles of roadway were added in the last 10 years. Urban roads functionally classified as "local" comprised 65% of the county's roadway miles in 2000. Over the past 22 years, Champaign and Urbana both show a very small decrease in the number of crashes, a steady number of fatalities, and a decreasing number of persons injured.

The region's transit agency has been responsive to growth in the area. Though lower densities make transit less competitive in Champaign than in Urbana, transit ridership, service levels, and operating costs have grown steadily over the past 10 years. The Champaign-Urbana Mass Transit District (CUMTD) worked with the university in the mid nineties to provide students with a free pass as part of their annual fees and has continued this program in years since. CUMTD reported over 9 million passengers boarding in 2002 and an average of over a million riders over each of the last six months. In 1965, 1.5% of person trips were by transit; in 2002, this figure rose to 5.7%. In 1965, transit service was provided to 86% of the urbanized area population; in 2000, service was provided to 98% of the population (residents living within a fourth of a mile of transit routes), and CUMTD plans to expand to additional areas as the community grows.

The region's pedestrian and bicycle facilities are growing as well. The 2004 Greenways and Trails Plan proposes initiatives and programs to improve the environment for safe, comfortable, and convenient

walking and bicycling trips. Every CUMTD bus provides bikes-on-bus service. The ability of bicyclists to use transit extends the potential range of travel for this group and increases the service coverage area for transit ridership. Most new residential developments require constructing shared-use paths that, where available, link to existing paths. Champaign has the largest share of paved shared-use trails in the county by length (11 miles), followed by Urbana (8 miles), and Savoy (2 miles).

Transportation planning initiatives in the area include the following:

- Implementation of the Long Range Transportation Plan (LRTP);
- Implementation of Greenways and Trails Plan;
- Development of an Access Management Plan for Major Arterials;
- Creation of Corridor Studies;
- Implementation of ITS Architecture; and
- Commission of the University of Illinois Traffic Study.

CUUATS used a modified scenario planning approach when developing its recently completed version of the LRTP for Champaign-Urbana-Savoy-Bondville. CUUATS would like to take a more formalized and publicly informed scenario planning approach for three of its upcoming corridor studies: US Route 45; IL 130-High Cross Road; and the Staley-Rising Road corridor.

Staley-Rising Road Corridor Study Area

The Staley-Rising Road corridor study area covers approximately 23 square miles on the west side of Champaign (Figure 1). The estimated population of the study area as of the 2000 census was 3,100, but it is estimated that the population has doubled since that time. Most of the land in the corridor is agricultural and rural residential (87%), 7% is low-density residential and 4% is industrial.

Currently, the Kaskaskia River, two working rail freight lines, and three interstates pass through the study area (I-74, I-72, and I-57). The majority of the roads are rural 2-lane roads and the only shared-use paths in the study area are in residential subdivisions. Potential improvements for the area include constructing an interchange with I-72 or I-74, creating numerous shared-use paths, improving rural roads, and building a fringe road system around the community with its western leg in this study area.

The purpose of the Staley-Rising Road corridor study is to determine how major transportation corridors affect development and land use policies on the city's west side, which is one of the fastest growing

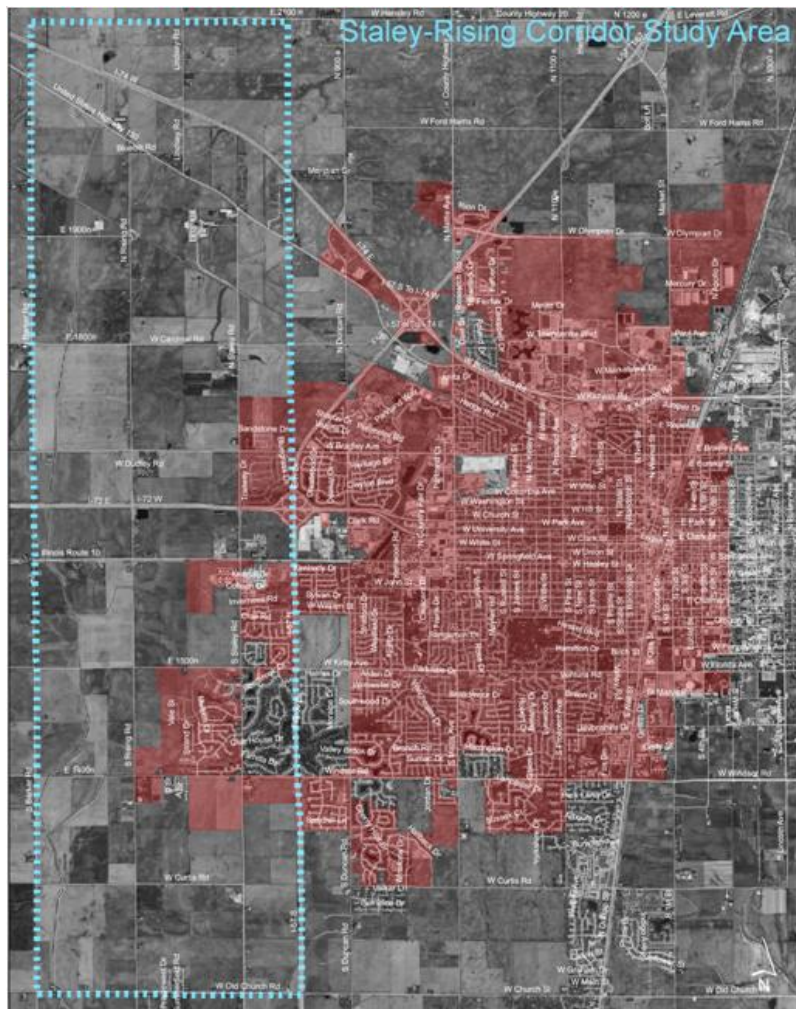


Figure 1: A map of the city of Champaign and the Staley-Rising Road corridor to the west

areas in the county. In addition to determining the potential growth and transportation needs for the next 20 years, important study themes include the following:

- Increasing mobility during peak travel times;
- Optimizing the relationship between land use and transportation;
- Determining the location and feasibility of the west leg of the “beltway” system;
- Evaluating how development will occur around new I-57 interchange at Curtis Road;
- Analyzing the need and location for an interchange in northwest Champaign; and
- Preserving the area around the Kaskaskia River on the western side of study area.

III. Panelist Planning Practices and Observations

The FHWA arranged for three regional planning peers from across the country to attend the workshop in Champaign and present their experiences with scenario planning in their regions. Each peer gave some background about their regional planning agency, described their scenario planning approaches, and discussed what they have learned and would like to pass on from their experiences. At the end of the third presentation, the peers fielded questions from the workshop participants.

A. Peer Presentation – Tri-County Regional Planning Commission

Norm Abbott, Director of Growth Management Planning, [Puget Sound Regional Council](#), Seattle, WA



Background

The Puget Sound Regional Council (PSRC) is the MPO for the four-county region surrounding Seattle, Washington. Its membership is composed of 70 cities, three ports, two tribes, two state agencies, seven transit agencies, and other associate members. PSRC's annual general assembly meeting of MPO members provides the direction for the MPO's next year of activity. PSRC's major responsibilities include long range growth, economic, and transportation planning; transportation funding; economic development coordination; and regional data collection.

The state of Washington, like nine other states across the country, has strong statewide planning and enabling legislation. This legislation, passed in 1990 and known as the Washington State Growth Management Act, protects resource lands and critical areas, establishes urban growth areas to curb sprawl, and requires coordinated planning between local and regional jurisdictions. In essence, this legislation strengthens the role of MPOs in regional planning and ensures consistency within and among regions by providing a bottom-up style of regional planning with standard requirements for local comprehensive plans and development regulations.

The Puget Sound region has been, and will continue to be, faced with high population growth. The region's population grew from 1.2 million in 1950 to 3.4 million in 2004. Over the next 40 years, 1.6 million more people are expected in the region. PSRC's challenge is to preserve the region's attractive and high quality of life while accommodating this growth.

Planning Process

PSRC used scenario planning during the second update of its long range growth management, transportation, and economic plan, termed Vision 2020. Vision 2020 was developed in 1990 and was the first growth management strategy for the Puget Sound region. This plan outlined the creation of a system of urban centers that were linked by a multimodal transportation system and framed by rural land and open space. This plan also succeeded in bringing the various agencies and jurisdictions in the region together. The first update in 1995 continued the focus of the original plan, but also designated urban growth areas, adopted local growth management area comprehensive plans and development regulations, adopted growth targets, and strengthened regional relationships. Partly as a result of this regional planning, the urban centers grew in population, employment, and density and the transportation

system expanded as well. Today, Vision 2020 is an overarching plan that guides and is integrated with all of the major plans in the area.

At the turn of the century, PSRC recognized that Vision 2020 should again be updated. The region had changed, the timeframes of local comprehensive plans did not map with the 2020 timeline, and the region wanted to remain visionary and to build on lessons learned from the previous updates. A scoping process began in late 2003 with a public opinion survey, public scoping workshops, the screening of an outreach video, and then additional public meetings and workshops as well as a general assembly event in early 2004. PSRC then drafted a scoping report that was based on nearly 1,200 comments and contacts with over 2,000 people. This report had the following message:

- Conduct an aggressive and thorough update;
- Build on the current Vision;
- Think long range;
- Be bold and provide leadership;
- Broaden the vision to cover other important regional issues; and
- Be specific.

This report was adopted by the Executive Board and initiated the development of ten issue papers. These papers covered: growth targets, growth trends, active living, urban geographies, rural lands, environment, transportation, economy, social issues, and demographics.

In response to these issue papers, PSRC would like to focus more on subregional centers, which include town centers, locally designated secondary centers, activity nodes, and redevelopment corridors, in addition to regional centers. PSRC would also like to reflect the public's desire to preserve the strong boundaries between rural and urban areas, which in turn help to continue to preserve rural land (Figure 2). Finally, PSRC will strengthen the environmental base of the region by inventorying and analyzing existing environmental information, looking beyond the boundaries of the region, identifying broad-scale areas of concern, identifying broad environmental strategies to address these concerns, and providing examples of state-of-the-art mitigation.

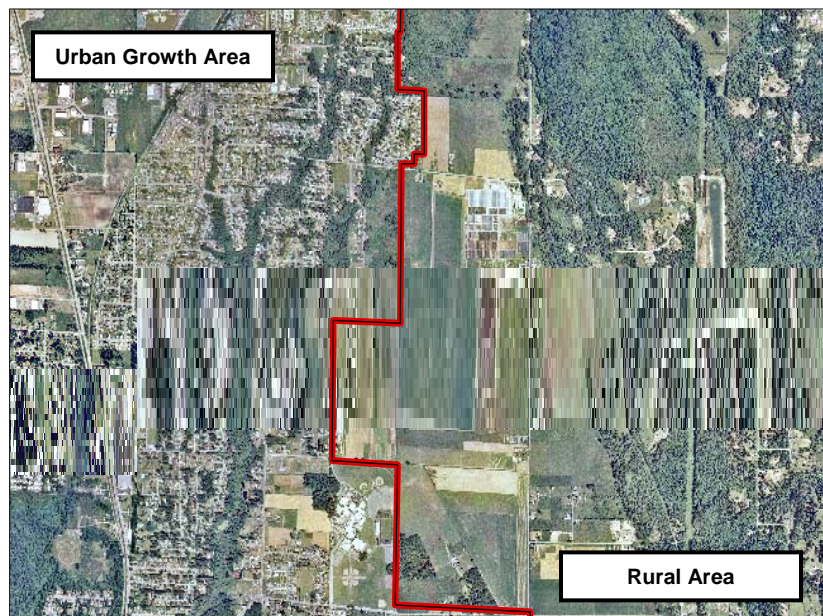


Figure 2: An example of the strong boundary between the urban growth areas and rural areas in the Puget Sound region.

Box 1: Action Strategies

- Information Technology
- Aerospace
- Logistics and International Trade
- Life Sciences
- Clean Technology

Box 2: Six Foundation Initiatives

- **Technology Transfer:** Strengthen technology commercialization and region's innovative systems
- **Entrepreneurship:** Improve our region's ability to nurture entrepreneurs and small businesses
- **Education:** Ensure skilled and adaptable workforce
- **Tax Structure:** Implement balanced, pro-competitive economy
- **Transportation:** Build transportation systems to support competitive economy
- **Social Capital:** Support prosperity of our region through robust civic community

PSRC's work is guided by the work of the Prosperity Partnership, which the Regional Council staffs. The partnership includes 120 local organization and corporate partners, five action strategies (Box 1), and six foundation initiatives (Box 2).

To develop alternatives, PSRC followed the guidance from the scoping process described above, assessed redevelopment and increased densities to accommodate growth in existing urban areas, developed and tested growth scenarios, and will narrow the scenarios down to a refined group of alternatives for environmental analysis. The three initial scenarios that PSRC developed and has begun analyzing are: 1) an extension of current trends to 2040, 2) an extension of 2022 comprehensive plans to 2040, and 3) more focused growth to 2040. This last scenario will be refined as PSRC tests several similar sub-scenarios that distribute the focused growth to various regional geographies.

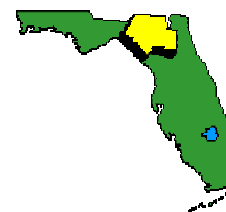
PSRC used INDEX to test these initial scenarios. These tools will be able to show the results for 26 indicators that span land use, the environment, housing, travel, and employment, and will be able to present the results in region-wide and sub-area comparison tables with sub-area indicators and land use maps. For its first set of analyses, PSRC looked at how the various scenarios would impact growth in the following regional geographies: large regional growth center (RGC) cities, small RGC cities, large suburban cities, small cities and towns, unincorporated urbanized growth areas, and rural residential areas.

Conclusions

As next steps, PSRC will be soliciting comments on its current eight scenarios to try to narrow them down to four and will then perform an analysis of alternatives in an environmental review. Following an extensive public outreach period, PSRC will develop a preferred growth alternative, perform an analysis of impacts, and will respond to comments and draft a new Vision and environmental justice analyses. The final steps will be to conduct outreach once again with the public, draft the final Vision and environmental impact statement, and put it to a vote at the MPO's general assembly in March 2007. The final product – the Vision 2020 Plus 20 – will be more complete, more measurable, and will have clearer implementation actions for each of the region's agencies compared to the original Vision 2020.

B. Peer Presentation – North Central Florida Regional Planning Council

Marlie Sanderson, Director of Transportation Planning, [North Central Florida Regional Planning Council](#), Gainesville, FL



Background

Gainesville is similar to Champaign in a couple of important ways: both cities are about the same size and both cities are home to large universities. The lessons that Gainesville learned over the course of its scenario planning efforts may be particularly helpful for Champaign. The Gainesville MPO, however, has a different composition than that of Champaign in that it is composed of seven City Commissioners and five County Commissioners. To move forward on an action, there must be a majority of votes in each group of commissioners. Additionally, there are three non-voting members: the University of Florida, Florida Department of Transportation (FDOT), and a rural advisor.

Planning Process

One of the most recent major products from the MPO was the Livable Community Re-investment Plan, which is the region's 20-year long range transportation plan. The MPO used scenario planning to develop this plan, but had to get special approval to do so. As usual, the MPO had the budget to spend about two years to update the plan with one year (and half the budget) set aside to prepare, run, and interpret the model. To use scenario planning, the MPO needed more than the one remaining year to engage and work with the public. The MPO asked FHWA and FDOT to grant them an exemption and not validate their model, so that time and money could be used on visioning and outreach. FHWA and FDOT granted this exemption.

With the approval to proceed, the MPO worked with the public to create four possible futures instead of creating and planning for one future based on current trends, as had usually been the approach. Because transportation and land use are so interconnected, the MPO wanted to consider both in its scenario planning activities. To get the public to think about how they wanted the future to be, the MPO asked public workshop participants to take "the Rip Van Winkle approach," which is to ask yourself what would you want to see if you fell asleep and woke up 20 years later?

The MPO worked with the public to define various visions and came up with four scenarios. The first scenario – the Westward Growth Concept – matched current city and county plans, which allowed for sprawl-type growth on the west side of town toward the interstate. The second scenario – the Compact Area Concept – considered building up instead of out, but was thought to be the least feasible. The third scenario – the Town/Village Centers Concept – is in line with some of the policies put forth in the city's comprehensive plan with growth concentrated in nodes along transit routes. The fourth scenario – the Radial Development Concept (Figure 3) – designated one corridor, which connects the interstate, university, and airport, to be the primary corridor for growth, including numerous apartment buildings for university students. Though some members of the public wanted to see a light rail system built along this corridor, the MPO determined that the area was not dense enough and would not be for several decades. A bus rapid transit system may, however, be more likely, especially since it would be a major route for students to get to the university.¹

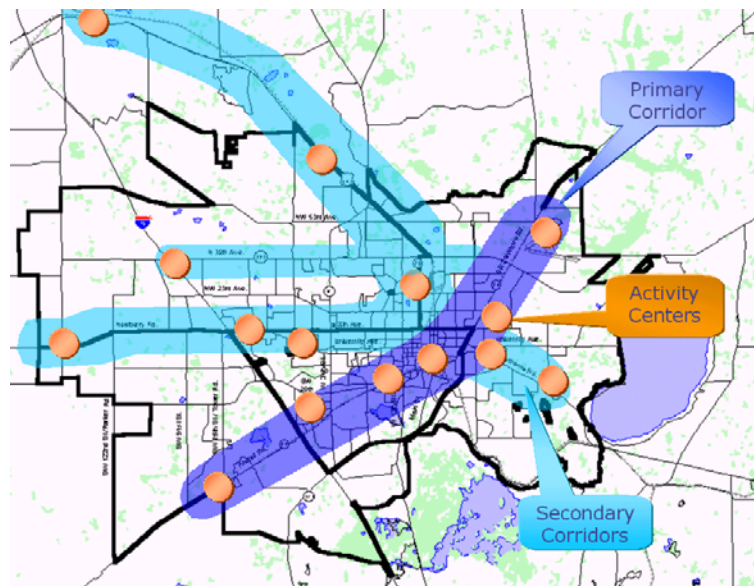


Figure 3: Scenario four – the Gainesville MPO's Radial Development Concept.

Conclusions and Observations

Once the public and the MPO decided upon these scenarios, the MPO analyzed the scenarios using their model. While many of the results were logically interpretable, several of the results were inexplicable. As a lesson learned, the MPO believes the model they used was good for evaluating auto trips, but could not connect land use changes and the ensuing changes in walking and bicycling trips. The model could not calculate these trips and could not pull these trips off the road. The MPO has since switched its model from TransPlan to Cube because of this issue. Additionally, the model could not distribute the relatively small projected population growth adequately among the 400 traffic analysis zones (TAZs), so it

¹ Students ride free on the bus. This policy was implemented when the university wanted to build more parking garages, but the city said that the roads would not be able to handle the additional traffic.

was difficult to see changes at this level over a 20-year timeline. A longer timeline of 30-50 years or a grouping of TAZs may help address this problem in the future.

The MPO came out of the experience with a number of additional lessons learned. First, it was important for the MPO to make it clear that land use planning is the responsibility of local governments and not that of the MPO. Some local jurisdictions felt threatened that transportation planners were entering into their domain and created a conflict between MPO, city, and county planners, so the MPO had to temper and present their findings accordingly. Second, scenario planning was a great visioning tool to consider how transportation investments affect, and are affected by, land use decisions. Citizens could actually see how changes and effects on land use impacted the transportation system and vice versa. Third, scenario planning generated considerable interest and curiosity in elected officials and citizens, which in turn got more and more people involved in the process. Finally, the MPO found that commissioners are more likely to approve projects that move in this direction and support transit instead of just adding lanes. Funds can then be flexed to spend money on transit and buses instead of new roads.

As the MPO finished its scenario planning effort, the county was finishing up its comprehensive plan. As a result of the scenario planning process, the county's comprehensive plan now reflects a blend of the three alternatives to the Westward Growth Concept. The county also made the downtown more walkable by changing the four-lane road to a two-lane road with parking. Lastly, the county adopted a vision statement to describe what the plan was trying to accomplish.

 northeastern illinois planning commission

Common Ground

A Blueprint for Regional Action



C. Peer Presentation – Northeastern Illinois Planning Commission

Hubert Morgan, Director of Research and Community Assistance, [Northeastern Illinois Planning Commission](#), Chicago, IL

Background

Chicago is the core of a three state area where transportation, water, and housing are regional issues. NIPC is the comprehensive land use planning agency for the six-county Chicago metropolitan area. This region contains 272 municipalities, over 8 million residents, 768,000 acres of agricultural land, and 200,000 acres of protected open space and forest preserves. NIPC was created by the Illinois General Assembly in 1957 and was assigned three broad responsibilities: conduct research required for planning, assist local governments on planning issues, and develop advisory plans for the six-county region. Its mission is to promote the sound and orderly development of the northeastern Illinois area and to strive for consensus on policies and plans for action.

Planning Process

NIPC undertook the Common Ground initiative over four years ago. This initiative's goal was to develop a common vision for the future of the region. The objectives of this initiative were for NIPC to prepare and adopt a 2040 Regional Framework Plan based on a comprehensive vision created by the public; to assist local planning efforts by providing best practices, utilizing new technology, and facilitating intergovernmental cooperation; and to strengthen the link between land use planning and infrastructure investment across the region. To guide this process, NIPC will use its 2030 Population and Employment Forecast to inform the regional transportation planning process, to incorporate current trends and future plans, and to establish a closer link between the regional vision and forecasting processes.

The Common Ground initiative is composed of three phases:

Phase I: Visioning and goal setting

Phase II: Translating goals into land use concepts

Phase III: Synthesizing multiple concepts into a unified vision

The unified vision for the region's future then becomes an important input in the population and employment forecasts, which in turn influence the Regional Transportation Planning process.

To engage the public, NIPC undertook a tremendous outreach effort, especially in engaging minority communities. The result was that residents of the region including elected officials, youth, under-represented groups, committed civic leaders and activists, and planners and professionals became involved in the process and took ownership of the vision.

NIPC used several tools and techniques to prepare for and hold its public workshops. First, NIPC bolstered its data by gathering primary data through field work, including the public use of PDAs to collect data and capture neighborhood features, and compiled data through secondary sources, such as the U.S. Census.

At the Regional Forum (there were 850 participants to publicly launch Common Ground), NIPC employed workshop facilitators, wireless key pad polling, and the GIS-based planning tools Paint the Town and Paint the Region. NIPC used the facilitators to create central coordination, to tease out intense thinking in smaller workgroups, to record the discussion and outcomes, and to generate and manage vigorous discussions. The facilitators worked at four levels at the workshops: there was a main coordinator, quad facilitators who oversaw four tables, table facilitators, and roaming emergency help. The facilitators proved to be very engaging and were able to build trust with the participants. The key pads and remote networked computer system used in the workshops allowed for an instant analysis of feedback, a quick video projection of analysis, anonymous and candid response, and quantifiable measures. Throughout the process, NIPC used web-based survey and response tools to provide wide access; online visualization of proposals, alternative scenarios, and strategies; live survey analysis; and live graphic visualization and mapping of responses.

At the cluster workshops, facilitators operated laptops loaded with Paint the Region at each table of about 10 people (Figure 4). Images from these laptops could be projected onto screens and a central database stored the information generated at each table. In addition to providing professional facilitators to run each of the meetings and to sit at each of the tables, NIPC also provided IT support at each meeting. NIPC's use of Paint the Region allowed the public to have information and to make changes happen at their fingertips. Paint the Region allowed participants to identify and designate areas for future development or redevelopment, visualize future land uses, and then see the impact of their decision on transportation, housing, economic development, and the environment.



Figure 4: The use of laptops, projectors, and facilitators at a NIPC public workshop.

Participants were asked to focus the new growth that NIPC predicted as part of their 2030 Population and Employment Forecast. From a predefined palette, participants could assign center types, corridor types, and green area types to any given area. While participants were able to take what they wanted to see and put it on a map, they had to be able to justify and support what they wanted by abiding by a number of ground rules. For example, there could not be an urban center without transit access.

Over the course of several workshops, the public created dozens of data-laden scenarios that somehow had to be reconciled with each other. To accomplish this, NIPC worked with the University of Illinois and the Chicago Area Transportation Study to synthesize these futures based on the desires of the public. They analyzed and modeled the participant's scenarios to look at potential impacts that they would have on the region's future, to compare them with NIPC's 2030 forecast, and to provide direction for implementation.

NIPC then created a regional map that illustrated the desire of the public: growth should be directed towards the metropolitan, community, and town centers while green areas are preserved and conserved. Also, a variety of corridors (bus rapid transit, car, bicycling, walking, etc.) should be available to travel from center to center. Regional experts then synthesized what the public wanted and looked at the map to determine what had to happen to make the public's desire become a reality. For example, by creating more and larger centers, there would be more congestion. This congestion was then addressed by providing even more transportation options to and from the centers.

Finally, regional experts devised a Common Ground Scenario that reflected the Common Ground Vision. This scenario was then modeled against the baseline scenario, which projected current trends into the future without any policy impacts. The Common Ground Scenario resulted in less consumption of land in nearly every county in the region compared to the baseline scenario. Accordingly, the Common Ground Scenario preserved more open space and farmland than the baseline while accommodating the same amount of growth.

Conclusions and Observations

NIPC learned several lessons through this four-year process:

- Funding – it is critical to have dedicated funding sources. NIPC's effort was funded by the Illinois Department of Transportation as well as through private foundations.
- Data – the data set used in this effort must be robust. NIPC supplemented their data with information obtained from other regional agencies and county and local governments before they got underway.
- Public Participation – technology and training enables meaningful public participation with large and diverse groups. People need to see their choices to determine what they want; technology allows this to happen. Agencies interested in scenario planning have to build trust with the public and treat them well. This trust should not be toyed with because credibility can be easily lost. Get the youth involved as much as possible because it is their future this process plans.
- Technical Resources – have the personnel on hand to develop, install, maintain, and operate the tools. Also, have the equipment (laptops, servers, internet access, etc.) available to aide in immediately capturing ideas and displaying results quickly.

D. Peer Panel Discussion

After each of the peers discussed the scenario planning efforts in which they were involved, participants had a chance to ask questions. The first question was about effective public outreach methods. The panel (Figure 5) responded that it was important to have smaller and more numerous meetings in geographically disbursed places and to go to various organization's meetings (such as Chambers of Commerce, City Council, and the Sierra Club) if you expect them to come to yours. Statistically valid random phone surveys helped one peer's MPO get a pulse on the thoughts of the public. Direct mailing to the public worked well as did mailing brochures to all neighborhood organizations in the community and putting meeting notices on the lunchboxes of school children.



Figure 5: Members of the peer panel. From left: Norm Abbott, Marlie Sanderson, and Hubert Morgan.

One peer targeted cultural group leaders and organizers who then got their constituents involved. People are more likely to become involved when the invitation comes from a group in which they belong. Members of the panel noticed that there was a pyramid of involvement. This pyramid includes the staff from agencies across the region, locally elected officials, and the public. To get regional staff involved,

one peer created a Regional Staff Committee to work on issues related to the scenario planning effort. To get citizens involved, the peer created citizen focus groups from various communities to determine how best to get residents of these communities involved.

The second question was about how to get federal officials engaged in the process. One peer identified the public relations people from these agencies and invited them to the meetings. Another sent summaries of every meeting to the local federal offices. One peer said that their MPO has one person who is dedicated to working with federal agencies and continually updates them on the status of the MPO's major projects.

E. Scenario Planning Tools

Jim Thorne, Metropolitan Planning Specialist, [FHWA Resource Center](#); Olympia Fields, IL

Jim Thorne discussed the role of tools in scenario planning and described the various tools and approaches that could be used by CUUATS and other planning organizations that are interested in scenario planning. According to Thorne, the premise of scenario planning is that it is better to “get the future imprecisely right” than to “get the future precisely wrong” when developing transportation plans. Tools can help people involved in scenario planning get the future as “imprecisely right” as possible. These scenario planning tools can provide decision-makers and the public with the information they need to make educated decisions. Scenario planning tools can help communities plan by design instead of by default, meaning that they can make informed decisions on how the actions (or inaction) that they take today will affect the future.

A variety of technology tools can help communities consider scenarios and make better decisions. These tools can be divided into the following categories:

- *information resources*, including websites such as <http://www.placematters.com>, <http://www.smartgrowthamerica.com>, <http://www.sustainable.doe.gov>, <http://www.fgdc.gov>, <http://www.fhwa.dot.gov/planning/landuse/>, <http://www.natureserve.org/>, and <http://hud.esri.com/egis/>;
- *visualization tools and techniques*, such as photo montage, architectural drawings, visual preference surveys, visual kiosks, and [Box City](#);
- *impact analysis and GIS models* using software such as [INDEX and Paint the Town](#), [What If?](#), [MetroQUEST](#), [UrbanSim](#), and [CommunityViz](#); and
- *process tools and techniques* such as civic participation, the [PLACE³S](#) process developed in California, and methods for finding common ground. For example, establish a neutral community meeting place, conduct large-scale town meetings, or establish a civic learning center.

Instead of concentrating on one aspect of planning for the future, many impact analysis and GIS models used in scenario planning estimate the impacts of people's decisions today on the land use, transportation system, and environment of tomorrow. Additionally, these tools take into account the interconnections between these three aspects of planning. For example, if a change to the transportation system is proposed for an area, the model will estimate the change's impact on the land use and environment. Additional changes in these areas may then need to be made to accommodate the initial change. Through this process, these tools help people plan for the future in as real of a way as possible.

Several regions have used scenario planning as part of their land use and transportation planning efforts. The [Delaware Valley Regional Planning Commission](#) is using scenario planning to assist in the development of a new long-range plan for the Philadelphia area. In Charlottesville, Virginia the [Jefferson Area Eastern Planning Initiative](#) created a modeling tool capable of concurrently evaluating transportation and land use options, known as CorPlan. Using CorPlan-generated scenarios, they developed a 50-year transportation and land use vision for the five-county region surrounding Charlottesville. Finally, [Envision Utah](#), a public-private partnership “working to keep Utah beautiful, prosperous and neighborly for future generations,” involved over 100 partners and the general public in a statewide scenario planning effort.

IV. Opportunities for Action

In the afternoon session, the participants broke out into three groups. A facilitator worked with each group as they brainstormed responses to a set of pre-defined questions. While the focus for the breakout groups was to be on the Staley-Rising Road corridor, groups also considered scenario planning in a more broad, region-wide setting.

1. What are the factors in the region that can influence different scenarios?

Land use and demographic considerations
<ul style="list-style-type: none"> • Population growth and shifts • Location of employment centers • Location of platted land • County and city land use policies, including zoning, that can influence growth • The university's development status, including their research park
Jurisdictional considerations
<ul style="list-style-type: none"> • County, municipal, and school district boundaries • Boundary agreements
Environmental factors
<ul style="list-style-type: none"> • The preservation of farmland, natural areas, and streams • Water and soil quality • River and floodplain may be a natural way to limit growth to the west of the city
The degree of outreach to, and involvement of, impacted groups
Policy considerations
<ul style="list-style-type: none"> • The need to balance scenarios with economic development and growth • The demand for fringe development • Local ordinances on allowable minimum and maximum densities • The need to provide adequate infrastructure and sewer capacity driving development
Infrastructure considerations
<ul style="list-style-type: none"> • The transportation system • Sewer and water capacity • Establishing an urban service area – the city decides where sewer capacity is extended to promote/limit development; developer could bear infrastructure costs past a certain point • Establishing growth edge
Economic considerations
<ul style="list-style-type: none"> • Fuel prices • Interest rates • Economic disincentives, including impact fees, as a way to prevent economics from driving growth locations • Economic incentives, such as tax credits, as a way to encourage growth in certain areas, such as in urban/core areas • How plans will impact subsequent development

2. How can CUUATS integrate scenario planning techniques?

In addition to potentially applying it in the Staley-Rising Rd. corridor (see table below), breakout groups discussed potentially applying scenario planning in the transit element and updates of the long range transportation plan, for the Transportation Improvement Program's feasibility studies and alternatives analysis and criteria, for downtown planning, for the redevelopment of industrial areas, in the Mahomet-Champaign boundary agreement, in annexation agreements, and in other corridor studies. However, some participants noted that there might be a potential timing conflict in plans that should be investigated and addressed. For example, it is unclear when the County's visioning plan is going to be implemented.

Some breakout groups also looked broadly at how scenario planning could be used outside of the Champaign-Urbana-Savoy region. In addition to discussing states using scenario planning in their statewide plans, groups discussed scenario planning being used by the federal government. At the federal level, scenario planning could be used as a vision for the Interstate System with respect to integrating land use and to evaluating corridor accessibility. Also, the planning for large transportation projects, which are sometimes included in federal transportation reauthorization bills, could be more bottom-up than top-down with use of scenario planning.

In the Staley-Rising Rd. corridor, scenario planning can be used to
• Evaluate how the corridor relates to the larger region and how infill opportunities within downtown areas may affect the demand for development in this corridor
• Consider stakeholders' needs and the extent to which they differ (rural/agricultural and urban needs)
• Determine if a non-arterial alternative to Staley-Rising Road, such as a radial growth street pattern, may present a land use pattern that would have different impacts on development and sprawl
• Investigate where sewer capacity is extended and how that affects growth
• Determine if the river and floodplain can be a natural way to limit growth to the west of the corridor
• Gauge the impact of school districts and overlapping jurisdictions (drainage districts, sewage, etc.)
• Evaluate how a mix of uses can add pedestrian accessibility and sustainability
• Include parks and open space
• Analyze different road types with different carrying capacities and access
• Gauge the impact of additional interchanges on land use
• Plan for industrial growth's impact on land use
• Explore railroad's impact on land use

Before undertaking a scenario planning effort for the Staley-Rising Road corridor, the group suggested that planners consider the Champaign County Board's Blue Ribbon Environmental Panel's report "[Champaign County Environmental Concerns](#)" and identify what has already been determined in existing plans. Regarding this second point, a scenario planning effort for this corridor can be viewed as an opportunity to recognize that current plans may not agree. Scenario planning may be able to reconcile differences among these plans. Scenario planning can then be used to test different scenarios to study travel times, congestion, and impact on growth based on the type of land use/development and transportation solutions.

3. What process should CUUATS follow to yield a successful scenario planning effort?

Breakout groups suggested the following process for conducting scenario planning.

Scoping
• Determine what we want to achieve and the time frame for achieving this
• Consider the outcome – desire to have concrete and abstract goals, measurable objectives, and clearly defined policies
• Set a precedent; build a scenario planning foundation for future work
• Establish the context of the study area within the region with respect to existing regional and local plans, policies, and market forces
• Redefine the study as a sub-area study, not a corridor study
• Craft a vision statement to identify where and how Champaign wants to grow
• Create quality of life goals and describe the reasons behind the goals; identify what is important and what should be preserved. These goals may include managing land availability and owner interests or preserving agriculture and/or natural areas

Public Involvement
<ul style="list-style-type: none"> • Dedicate staff time and money to conducting public outreach and running public meetings • Identify the target audience; survey the public to understand their vision going into the process • Determine how to reach and engage the public in a proactive way; include advertising • Educate the public – scenario planning is a tool to be proactive instead of reactive • Emphasize the cooperation of citizens and serving people and communities • Explain trade-offs and flexibility to address citizen concerns • Make it easy for the public to participate • Discuss, debate, and decide; involve different views to get balanced agreement, shared compromise, and consent if not consensus • Get elected officials and potential future officials together to help supply continuous political support – elected officials can be champions and this is a good way to get local political buy-in
Coordination and Communication
<ul style="list-style-type: none"> • Coordinate between and among agencies and jurisdictions; develop cooperative agreements • Develop unified development policies across agencies and jurisdictions to create a uniform development approach (example: Kankakee County); state law encourages consistency across communities • Coordinate land use, transportation, and natural resource planning; these should be integrated because they are connected • Develop land use and transportation plans together • Promote open communication to achieve a fair solution • The MPO is a good forum for bringing jurisdictions together since transportation is a regional issue
Implementation and Monitoring
<ul style="list-style-type: none"> • Investigate and utilize resources available for natural resources initiatives and other funding sources, such as IDOT's Illinois Tomorrow Program • Advocate for the creation and use of special zoning districts/overlays for the study area • Craft development criteria to be endorsed by the County • Create a monitoring program with evaluation criteria to keep track of progress on goals
Tools
<ul style="list-style-type: none"> • Incorporate visualization techniques • Use a GIS-based modeling tool, such as What If?, Index, or CommunityViz • Account for a number of factors and contain data on the demographics of the study area, fiscal impacts and development costs, travel costs, impacts on emergency service response times, and soils and elevations • Reconcile the model with the travel demand forecasting model

4. Are there any real or perceived obstacles to scenario planning?

Obstacles to scenario planning include:

- Public support and money is necessary to finance change; the public may be apathetic and scenario planning may be too innovative for people to support
- Scenario planning does not always have an “optimum” solution – compromise is often necessary
- Implementing the vision may be difficult due to a lack of staff, time, and money
- There is no county comprehensive plan
- The planning efforts of many agencies and jurisdictions with potentially competing agendas are difficult to coordinate
- Some of the major stakeholders do not consistently present their position
- Some stakeholders do not work together to collaborate in the interest of the entire community
- Landowners and developers are sometimes only interested in the “bottom line” – money
- In the study area, there are some environmental and geographic obstacles

- The timing may not be ideal
- Uninformed citizens

5. Who should be involved? How do we involve them?

The break-out groups thought that CUUATS should pursue a broad approach to outreach with the goal of getting a balanced sample of opinions. A lack of participation should not be interpreted as a lack of interest.

The break-out groups listed the following stakeholders as needing to be involved in a scenario planning effort:

- The general public, especially people in the study area
- Planners and municipal staffs from all of the jurisdictions
- Landowners and developers
- County, city, and town (locally-elected) officials
- Churches and civic groups, such as neighborhood associations
- University professors, students, and resources, such as the university water and geological surveys
- Water conservation and drainage districts
- School districts
- Environmental groups
- Farm bureau
- Illinois DOT
- Transit agencies
- Public safety agencies (EMS, Fire, Police, etc.)
- Railroads
- Standing environmental panel for annual assessment
- Economic development commission
- Utilities and sanitary departments

Each break-out group thought that the university should play a role in a scenario planning, but some felt that that role is currently undefined. Before outreach begins, CUUATS should work with the university to try to define their role in community planning vis-à-vis the region and other local planning organizations. Once this is agreed upon, CUUATS should invite university officials to be a part of the scenario planning process and should try to partner with the university to update and reconcile each organization's plans and models. University students can also be involved as interns to collect data and create databases for models and mailings.

The breakout groups thought that CUUATS could get the stakeholders listed above involved by pursuing the following approaches:

- Become involved in local meetings (such as neighborhood association meetings)
- Tailor outreach for different groups – schools, healthcare providers, minorities, youth, etc.
- Utilize different means to reach different people (Sunday paper inserts, sign posting, radio/TV notices, etc.)
- Survey the public and stakeholders
- Create interactive opinion kiosks
- Select a variety of places for meetings
- Schedule meetings when people can attend them (weekends, 4-6pm weekdays, etc.)
- Intersperse public meetings with smaller scale outreach, such as focus groups
- Employ unbiased facilitators at the meetings
- Create a website and newsletter to update people on the effort's progress
- Form a Steering Committee composed of representatives from different agencies to guide the scenario planning process along the way.

V. For More Information

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VI. Attachments

A. Agenda

Scenario Planning Peer Workshop May 13, 2005

8:30 am - 8:45 am	Welcome Jon-Paul Kohler, FHWA – Illinois Division, Springfield, IL Jody McCullough, FHWA Office of Planning, Washington DC Randy Blankenhorn, Illinois DOT, Springfield, IL John Dimit, Champaign County Regional Planning Commission
8:45 am – 9:00 am	Introductions Self-Introductions
9:00 am - 9:30 am	Overview of Scenario Planning Jody McCullough, FHWA – Office of Planning
9:30 am - 10:00 am	Overview of Champaign-Urbana-Savoy: Transportation Planning Trends and Current Efforts Rita Morocoima-Black, Champaign County Regional Planning Commission
10:00 am - 10:15 am	How Do We Implement Scenario Planning? Group Discussion
10:15 am - 10:30 am	Break/Transition Period
10:30 am - 11:10 am	Peer Presentation: Response from the Puget Sound Regional Council Norman Abbott, Puget Sound Regional Council, Seattle, WA
11:10 am - 11:50 am	Peer Presentation: Response from the North Central Florida Regional Planning Council Marlie Sanderson, North Central Florida Regional Planning Council, Gainesville, FL
11:50 am - 1:10 pm	Working Lunch
12:00 pm - 12:40 pm	Presentation: Northeastern Illinois Planning Commission – Common Ground Hubert Morgan, Northeastern Illinois Planning Commission, Chicago, IL
12:40 pm - 1:00 pm	Peer Panel Discussion
1:00 pm - 1:40 pm	Scenario Planning Tools Presentation Jim Thorne, FHWA – Resource Center, Olympia Fields, IL
1:40 pm - 1:50 pm	Break/Transition Period
1:50 pm – 3:30 pm	Brainstorming – Breakout Sessions: How Do We Implement Scenario Planning?

Facilitators: Jody McCullough, FHWA – Office of Planning
 Jim Thorne, FHWA – Resource Center
 Ben Rasmussen, US DOT Volpe Center

- 3:30 pm - 3:45 pm **Break**
- 3:45 pm - 4:15 pm **Reports from Breakout Sessions**
- 4:15 pm - 4:30 pm **Next Steps and Concluding Remarks**
 Kevin Ward, FHWA – Illinois Division
 Jody McCullough, FHWA – Office of Planning
 Rita Morocoima-Black, Champaign County Regional Planning Commission
- 4:30 pm **Adjournment**

B. List of Participants

Presenters

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