



Transportation Planning Capacity Building Program

Greater Buffalo-Niagara Regional Transportation Council Scenario Planning Workshop

***Sponsored by the
Federal Highway Administration***

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Peer Agencies: Champaign-Urbana Urbanized Transportation Study (Urbana, IL)
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Executive Summary

This report summarizes a 1.5-day scenario planning workshop held April 19-20, 2016, in Buffalo, New York, and hosted by the Greater Buffalo-Niagara Regional Transportation Council (GBNRTC). The Federal Highway Administration (FHWA) sponsored this workshop under its Scenario Planning Program, which is run jointly with the Federal Transit Administration (FTA). The Scenario Planning Program is also part of the FHWA-FTA Transportation Planning Capacity Building Program. Contact information for the FHWA and GBNRTC representatives involved in workshop planning as well as the workshop peers is included in [Appendix B](#) of this report.

The workshop focused on noteworthy practices for scenario planning, particularly developing effective public engagement strategies, integrating scenario planning into performance metrics and the Metropolitan Transportation Plan (MTP), and using scenario planning for Transportation Improvement Program (TIP) project selection and prioritization. The workshop planning team designed the workshop to build awareness of scenario planning and encourage information-sharing among GBNRTC, neighboring metropolitan planning organizations (MPOs) in Upstate New York, and two peer agencies.

GBNRTC is the MPO for Erie and Niagara counties in Upstate New York. As the MPO, GBNRTC develops the region's MTP and maintains the TIP to manage short-range transportation projects to be Federally funded. GBNRTC previously used a scenario planning approach as part of the One Region Forward initiative, in partnership with the University at Buffalo Regional Institute (UBRI) and sponsored through the U.S. Department of Housing and Urban Development Sustainable Communities Regional Planning Grant Program in partnership with the U.S. Department of Transportation and the U.S. Environmental Protection Agency. GBNRTC is now considering ways to integrate scenario planning more substantially into its next MTP update, *Buffalo Niagara 2050*.

During the workshop, GBNRTC and UBRI shared information on their scenario planning efforts and the One Region Forward initiative. Workshop participants also offered insights on their agencies' scenario planning activities and discussed opportunities for using scenario planning in Upstate New York through full-group, break-out, and roundtable discussions.

Two peer experts participated in the workshop to provide presentations and perspectives on their agencies' experiences in using scenario planning:

- Rita Morocoima-Black, Transportation Planning Manager, Champaign-Urbana Urbanized Area Transportation Study, and Planning and Community Development Director, Champaign County Regional Planning Commission; and
- Tom Kloster, Regional Planning Manager, Metro, Portland, Oregon.

Key takeaways shared throughout the workshop included:

- Scenario planning is a process that can be used for all types of areas (e.g., low/no-growth regions), not solely for high-growth regions.
- Public involvement also includes an educational component to help educate the public.
- Using an incremental approach for scenario planning can be useful when beginning your process.
- Clarifying and managing expectations from the beginning of a scenario planning process can help set you up for success. Agencies conducting scenario planning may wish to think about, before beginning their process, the reasons why they are using scenario planning and the performance measures they plan to use.

The workshop allowed GBNRTC, neighboring MPOs, and their partners to discuss noteworthy scenario planning practices and opportunities for applying scenario planning in Upstate New York. Post-workshop evaluations submitted by participants indicated that their knowledge level of scenario planning grew as a result of their participation and that they found value in the presentations, peer agency perspectives, and discussions held during the event.

Overview of the Workshop

Goals of the Workshop

The GBNRTC scenario planning workshop focused on noteworthy practices for scenario planning, particularly developing effective public engagement strategies, integrating scenario planning into performance metrics and the Metropolitan Transportation Plan (MTP), and using scenario planning for Transportation Improvement Program (TIP) project selection and prioritization. The workshop planning team designed the workshop to build awareness of scenario planning and encourage information-sharing among GBNRTC, neighboring metropolitan planning organizations (MPOs), and the peer agencies.

As GBNRTC previously used a scenario planning approach, the workshop also provided an opportunity to share information on GBNRTC's scenario planning efforts, conducted in coordination with UBRI, as well as on scenario planning activities occurring across the Upstate New York region.

Selecting the Peers

In preparing for the event, the workshop planning team identified possible MPOs that could serve as peers during the workshop and share their perspectives on and experiences in applying scenario planning. Peers were selected based on their past use of scenario planning and on their similarities to GBNRTC and the Upstate New York region. Based on these criteria, the workshop planning team extended invitations to three MPO representatives to participate as peers.¹ Two peers ultimately participated in the GBNRTC workshop:

- Rita Morocoima-Black, Transportation Planning Manager, Champaign-Urbana Urbanized Area Transportation Study, and Planning and Community Development Director, Champaign County Regional Planning Commission; and
- Tom Kloster, Regional Planning Manager, Metro.

Format of the Event

GBNRTC hosted the 1.5-day workshop in Buffalo, New York, on April 19-20, 2016. The two peer presenters, GBNRTC and FHWA staff, and representatives from other local MPOs and transportation agencies, including the Ministry of Transportation Ontario, attended the workshop. A full list of attendees is available in [Appendix C](#) of this report.

The workshop featured presentations, full group discussions, and break-out and roundtable discussions. On Day One, FHWA provided a brief overview of scenario planning and examples around the country. GBNRTC and UBRI presented summaries of recent scenario planning efforts in Buffalo, both at the regional and neighborhood levels. The peers participated in two panel sessions, offering perspectives on how their agencies started and further implemented scenario planning activities. Full- and break-out group discussions focused on how participants could apply scenario planning in their agencies, opportunities and challenges in using scenario planning, and how scenario planning could be used in a region like Upstate New York. On Day Two, participants focused discussions on two roundtable topics relating to 1) scenario planning tools and implementation; and 2) scenario planning connections to performance-based planning and programming (PBPP). The agenda for the workshop is provided in [Appendix D](#) of this report.

¹ The three peer agencies invited to participate in the GBNRTC scenario planning workshop were: Champaign-Urbana Urbanized Transportation Study, Metro, and the Sacramento Area Council of Governments (SACOG). Due to unforeseen circumstances, SACOG was not able to participate as a peer during the workshop.

Introduction

GBNRTC Background

GBNRTC is the MPO for Erie and Niagara counties in Upstate New York. As the MPO, GBNRTC develops the region's MTP and maintains the TIP to manage short-range transportation projects to be Federally funded.

GBNRTC recently used scenario planning as part of the One Region Forward initiative, in partnership with UBRI and sponsored through the U.S. Department of Housing and Urban Development (HUD) Sustainable Communities Regional Planning Grant Program in partnership with the U.S. Department of Transportation and the U.S. Environmental Protection Agency. While GBNRTC used scenario planning to a limited degree in its 2035 MTP, the agency further incorporated scenario planning into its 2040 MTP update by adopting the goals and objectives identified under One Region Forward.

GBNRTC is now developing *Buffalo Niagara 2050*, which will be the region's 2050 MTP. As part of this effort, GBNRTC is considering how it can integrate scenario planning more substantially into the plan's design and implementation. GBNRTC anticipates that *Buffalo Niagara 2050* will focus on the connections residents have to the region in their daily lives—in the ways they commute, travel to work and to destinations, and move around the region.

Presentation and Discussion Highlights

Welcome and Introduction

GBNRTC and FHWA representatives welcomed participants to the workshop and provided opening remarks. Brian Betlyon, Metropolitan Planner with the FHWA Resource Center, facilitated the event.

Hal Morse, GBNRTC Executive Director, and Maria Chau, Senior Community Planner at the FHWA New York Division, thanked participants and the peers for attending and supporting the workshop (Figure 1). Both noted that, in an increasingly complex world, scenario planning has become a useful tool for transportation agencies in planning and preparing for a variety of futures. In addition, they emphasized that the presentations and discussions planned as part of the workshop would help promote information-sharing on scenario planning.



Figure 1: Hal Morse, GBNRTC Executive Director, welcomes participants to the workshop.

Source: USDOT Volpe Center

Scenario Planning Perspectives

Mr. Betlyon, along with Kelly Dixon, Senior Transportation Planner at GBNRTC, and Steven Gayle, Senior Consultant at RSG and Program Manager for the New York State Association of MPOs, first provided overviews of scenario planning both generally and within the Buffalo region and New York State. Mr. Betlyon focused on a general overview of scenario planning, its benefits, and examples of use across the country. Ms. Dixon presented on GBNRTC's scenario planning activities, while Mr. Gayle discussed scenario planning activities conducted at the Binghamton Metropolitan Transportation Study (BMTS) during his tenure as the agency's Executive Director. Ms. Dixon and Mr. Gayle then facilitated a discussion with workshop participants to share information on their agencies' scenario planning efforts.

Overview of Scenario Planning

Scenario planning is a flexible process that helps transportation agencies create multiple plausible stories about what the future could be and prepare for these alternative futures. Through scenario planning, agencies can address uncertainty, evaluate trade-offs, and explore the interaction of transportation and other related factors, such as current and future land use and system improvement assumptions.

Scenario planning brings many benefits, including that it:

- Provides opportunities for active stakeholder involvement;
- Encourages collaboration among partners from various sectors, such as transportation, land use, economic development, and the environment;
- Enhances the decisionmaking process for transportation projects and policies; and
- Supports PBPP.

Mr. Betlyon described the scenario planning process using the framework identified in the FHWA Scenario Planning Guidebook.² The guidebook presents six key phases for scenario planning:

- Phase 1: *How should we get started?*
- Phase 2: *Where are we now?*
- Phase 3: *Who are we, and where do we want to go?*
- Phase 4: *What could the future look like?*
- Phase 5: *What impacts will scenarios have?*
- Phase 6: *How will we reach our desired future?*

Mr. Betlyon further shared examples of how agencies have used scenario planning. Agencies often develop a series of scenarios to demonstrate the differences between a trend scenario and several alternative scenarios. There is no limit to the number of scenarios that may be created; however, Mr. Betlyon noted that oftentimes agencies may wish to “keep it simple” and limit the number of scenarios or performance measures used to assess scenarios. Agencies may also solicit stakeholder feedback throughout the scenario planning process, whether in person at public meetings or online through interactive websites.

Lastly, Mr. Betlyon shared information on the [FHWA scenario planning website](#), which provides additional resources on scenario planning and contact information for FHWA Scenario Planning Program points of contact.

New York State Scenario Planning Perspectives

Ms. Dixon focused her presentation on GBNRTC’s One Region Forward initiative, a scenario planning effort funded under the HUD Sustainable Communities Regional Planning Grant Program.³ GBNRTC started the initiative in 2012, conducted the scenario planning elements from 2013 to 2014, and completed the final plan in 2015.

Ms. Dixon noted that, when GBNRTC first started the One Region Forward effort, it was uncertain on how scenario planning might work in the Buffalo-Niagara region. Unlike Envision Utah—a contracted capacity building organization for HUD Sustainable Communities grantees and leader of scenario planning techniques in the rapidly growing Salt Lake City region in Utah—GBNRTC did not anticipate high levels of growth or development for its region. GBNRTC partnered with UBRI to focus on how scenario planning might support a low-growth region such as Buffalo-Niagara.

GBNRTC learned closely from fellow grantee Northeast Ohio Areawide Coordinating Agency (NOACA), which had organized a consortium of 4 MPOs and 12 counties to explore scenario planning and opportunities for coordinating land use, transportation, economic, and infrastructure investments for its

² The FHWA Scenario Planning Guidebook is available on the FHWA scenario planning website at: http://www.fhwa.dot.gov/planning/scenario_and_visualization/scenario_planning/scenario_planning_guidebook/.

³ For more information about One Region Forward, please visit: <http://www.oneregionforward.org/>.

low-growth region in Northeast Ohio. NOACA identified planning challenges early on, such as the region's high vacancy rates, to bring these challenges into discussions. GBNRTC anticipated similar challenges in its region and addressed these issues in its conversations with stakeholders. GBNRTC recognized that scenario planning would be useful in the Buffalo-Niagara region, particularly as the region's geographic footprint had grown by 67 percent despite a population decline of 16 percent since 1970. This theme—of the value of scenario planning for low-growth regions—would continue to resonate throughout the FHWA-sponsored workshop.

Mr. Gayle next described his experiences with scenario planning while at the BMTS. The agency first used scenario planning in 2004 as part of its LRTP, *Transportation Tomorrow 2030 – Placemaking for Prosperity*. At the time, the Binghamton, New York, region had a population of approximately 160,000 residents and was starting to show population decline. Mr. Gayle noted that the *Placemaking for Prosperity* plan was the first application of scenario planning in a declining region and to focus explicitly on this “hollowing of the region’s core.”

Mr. Gayle discussed several components of the plan that helped lead to its successful implementation:

- *Involve local decisionmakers.* One of the key success factors for the plan was engaging decisionmakers in the region. At the beginning of the effort, BMTS organized a scenario planning workshop and invited its policy committee members to participate. By the end of the workshop, the members were fully engaged and interested in using scenario planning for the next LRTP update.
- *Engage the public.* In addition to coordinating with local decisionmakers, BMTS conducted a visioning exercise, asking the public what they envisioned for the region's future in 25 years. Through stakeholder involvement, BMTS identified the phrase, “*This place has good bones,*” to describe the region. Over 100 participants attended a series of visioning sessions, at which they were asked to identify their “treasured places” on maps.
- *Identify a manageable number of scenarios.* BMTS created four scenarios using the feedback from decisionmakers and stakeholders, who all agreed on the need for reinvestment in core communities. This focus on the core stemmed from one of the scenarios that looked at a future in which people moved inward and back into the core.
- *Allow opportunities for investment that support the preferred scenario.* With the preferred “moving inward” scenario in place, BMTS focused on how to invest in transportation improvements that would help achieve the scenario's goals. While the challenge of a hollow-core community remained, new development decisions by private developers started to occur. For example, private developers and the local university began building housing downtown, which led to an influx of college students living in the downtown area and created new opportunities for transportation investments.

At the conclusion of their presentations, Ms. Dixon and Mr. Gayle transitioned to facilitate a group discussion among workshop participants, who asked questions about the GBNRTC and BMTS scenario planning processes as well as shared perspectives on their own agencies' scenario planning experiences. Feedback and ideas offered during this discussion included:

- *Opportunities for using scenario planning in future LRTP updates.* Several of the MPOs in attendance noted that they are relatively new to scenario planning but interested in the opportunities it can provide for future LRTP updates. One of the challenges raised is New York's status as a home rule State, which limits MPOs' control over local land uses.
- *Scenario planning as “growing up.”* Mr. Gayle shared the concept that “scenario planning is growing up.” He emphasized that scenario planning can help encourage discussions and curiosity. For example, there is a large focus today on the role autonomous vehicles will play in the future. Mr. Gayle noted that having technology-based scenarios can be an interesting way to engage people in the community. In addition, scenario planning's applications for extreme weather events and resiliency are growing. While scenario planning previously focused primarily on land use and where to put new growth, it has evolved into more of a thought process on how agencies address risk and uncertainty.

Peer Approaches to Scenario Planning

Following Ms. Dixon's presentation, UBRI representatives provided additional information on the One Region Forward initiative, its scenario planning connections, and its applications at a neighborhood scale. The peer agencies—CUUATS and Metro—shared their scenario planning experiences as part of two peer sessions focused on: 1) creating a scenario planning process that fits your needs; and 2) integrating scenario planning into the MTP (Figure 2). The summary below compiles information shared during the UBRI presentations and the peer sessions.

One Region Forward – Scenario Planning Exercise

Bart Roberts

Associate Director of Research and Faculty Engagement, University at Buffalo Regional Institute

Mr. Roberts focused his presentation on the scenario planning exercises used for One Region Forward. The initiative started by asking the question: “*What do we want for our region in 40 years?*” A goal of One Region Forward was to create citizen-driven maps and a series of scenarios for the Buffalo-Niagara region to further identify a vision, values, and tools that would help the region and decisionmakers make informed decisions.

The UBRI created a game for the scenario planning exercise that used assumptions based on current trends. For example, the game assumed that the Buffalo-Niagara population would be 1.4 million by 2050, which would translate into 265,000 more residents, 110,000 new households, and 130,000 new jobs. Using these assumptions as context, stakeholders were then asked two guiding questions:

1. *What will you keep?*
 - a. What will you protect and maintain?
 - b. Which communities will we keep as they are today?
2. *What will you change?*
 - a. Where will you locate homes, jobs, and attractions?
 - b. How will we get around?

With these guiding questions in mind, stakeholders drew on maps of the region, using different colored markers to indicate their preferences (Figure 3). For example, black markers were used to identify areas that people wanted to keep open, while orange markers represented areas where people wanted to keep them the same as today. Blue, green, and red markers indicated preferences for transportation options (e.g., blue for pedestrian/transit corridors, green for trails and bikeways, and red for highways).



Figure 2: Peers Rita Morocoima-Black of CUUATS (above) and Tom Kloster of Metro (below) present during the workshop, sharing information on their agencies' scenario planning experiences and initiatives.

Source: USDOT Volpe Center



Figure 3: The One Region Forward initiative provided guiding questions for stakeholders to map what they valued in the Buffalo-Niagara region.

Source: University at Buffalo Regional Institute

In addition to drawing on the maps, stakeholders also placed chips on the maps to identify the potential location of future homes, jobs, and attractions. The chips represented “place types,” such as urban centers, single-family residential, and office/industrial, and included embedded assumptions about growth. During the exercise, One Region Forward facilitators encouraged stakeholders to think about how they would use the chips, as how and where they placed the chips would express what they wanted their visions for the region to be. Stakeholders started with a “standard” packet of 73 chips, based on recommendations provided by the Erie-Niagara Framework for Regional Growth for the locations of new housing.⁴ Trades of chips were permissible, but all trades needed to be between roughly equivalent amounts of housing and jobs. Trading chips allowed stakeholders to further express their visions for the region, whether it was making the region more urban or allowing development to spread out.

The One Region Forward team started presenting the chips game through a set of 5 two-hour workshops that engaged 350 stakeholders and created 57 citizen-driven maps. Mr. Roberts noted that, at this point, the workshops started to take off, and soon, the University had requests to hold additional workshops in church basements, bars, board rooms, movie theaters, upscale downtown lofts, suburban dining rooms, high schools and universities, rural communities, urban block clubs, industrial development agencies, non-profit organizations, and the environmental community. The effort resulted in 22 workshops and 115 maps.

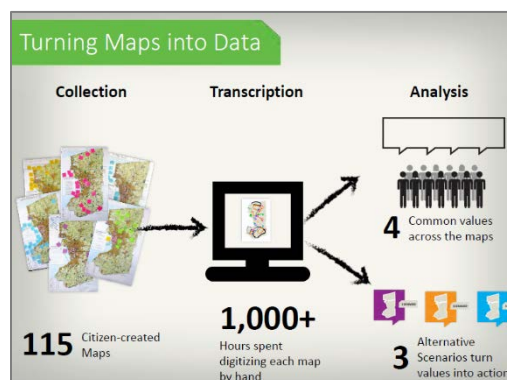


Figure 4: One Region Forward led to the creation of 115 citizen-created maps, which were later digitized by UBRI to arrive at 4 common values and 3 alternative scenarios.
 Source: University at Buffalo Regional Institute

The UBRI then digitized all 115 maps to convert them into usable Geographic Information Systems (GIS) data and analyzed them to identify common values that were expressed across the maps (Figure 4). The four major values discovered through this analysis were:

- *Grow Where We’ve Already Grown*
 - Focus development and reinvestment where infrastructure exists
 - Revitalize neighborhoods in decline
 - Bring jobs back to large former industrial sites
- *Build Walkable, Livable Communities*
 - Preserve the character of villages with strong Main Streets
 - Invest to make strong village centers throughout the region
 - Promote a transportation system sensitive to pedestrians
- *Connect Our Region by Expanding Transportation Options*
 - Make and improve transit connections across the region
 - Focus highway investment on alleviating major bottlenecks
 - Leverage trails to connect parks, waterfront areas, rural communities, and natural assets
- *Protect Farmland, Parks, and Natural Areas*
 - Conserve open space and land
 - Preserve and protect farmland
 - Make waterfront access and development a priority

The values led to the creation of three alternative scenarios for the future: 1) Sprawling Smarter; 2) A Region of Villages; and 3) Back to the City. Each of these citizen-created scenarios were different from the “business-as-usual” trend scenario in that they all focused housing and jobs in the existing urbanized area, protected farmland, and encouraged more investment in transit. The University presented the scenarios not as “either-or” choices but as potential ways to help imagine the future.

⁴ The original packet of 73 chips started with chips representing new housing in: 1) mostly urbanized areas (70 percent); 2) “developing” areas (15 percent); and 3) rural areas (15 percent). For more information on the Erie-Niagara Framework for Regional Growth, please visit: <http://www2.erie.gov/regionalframework/>.

With the scenarios in place, the team then measured and analyzed the impacts of each scenario using various indicators and compared the trade-offs across scenarios.⁵ The One Region Forward group again engaged the community through open houses to get a sense of how the community should set targets, asking the question, “*Where do you fall?*”

Lastly, Mr. Roberts discussed challenges and lessons learned through the One Region Forward effort. With so many workshops and outreach opportunities, planning fatigue can be significant. In addition, addressing topics such as population and vacancy needed to be done with sensitivity. However, through One Region Forward, UBRI found success in leading meaningful and effective engagement and emphasized “community learning” over “public participation.” The University also established a Citizen Planning School to provide additional learning opportunities for the public about the planning process. Overall, understanding the community was crucial when designing and engaging “community learning processes” such as those used in One Region Forward.

One Region Forward - Imagining the Future of Niagara Street

Brian Conley

GIS-Research Analyst, University at Buffalo Regional Institute

“Imagining the Future of Niagara Street” was a smaller-scale extension of One Region Forward. Under the HUD grant, UBRI, through One Region Forward, contracted with two different neighborhood-based organizations to apply scenario planning at the neighborhood/corridor level. Mr. Conley’s presentation focused the University’s partnership with one of these groups—Vision Niagara—to envision different futures for Niagara Street and the Upper Rock neighborhood in Buffalo.⁶

The effort targeted about six blocks along the Niagara Street corridor and started with a series of guiding questions at the neighborhood scale (e.g., “*What if Niagara Street became a Complete Street?*” “*What if old, industrial buildings were renovated as mixed-use complexes?*”) One Region Forward worked with Vision Niagara and local stakeholders to determine a list of potential indicators to be included in the scenarios and to discuss parcel-by-parcel what they would want to see in the future for each particular block.

The UBRI then used scenario planning software Envision Tomorrow to generate spreadsheets for possible building types in the corridor that would be financially feasible at the local level.⁷ While the software also allows users to focus on development types, this step was bypassed since the effort focused on a small-scale neighborhood level and instead moved to develop a base case scenario and preferred “vision” scenario for Niagara Street and calculate the scenarios’ impacts. The goal of the scenario development was to develop a preferred scenario that was still true-to-life and modeled realistic implications. With help from students in its Department of Urban and Regional Planning, the University further developed 3D models to demonstrate what the future land uses depicted in the “vision” scenario could look like. Using the scenarios and 3D models, UBRI, through One Region Forward, also evaluated the scenarios’ impacts, considering land use, fiscal, environmental, and transportation impacts.

Mr. Conley concluded his presentation by offering key findings from the Niagara Street effort, which demonstrated that there are many opportunities within the community’s vision to transform the corridor. Many activities will likely need public sector funding, but small improvements such as green infrastructure can make great gains while keeping costs low. The Niagara Street initiative helped show how scenario planning can be used at the local level to guide discussions about the community’s future.

⁵ Examples of indicators used include: development outside urbanized area, impervious surfaces, jobs on former industrial sites, number of abandoned homes, jobs accessible via transit, types of homes built, miles of new roads built, local government debt to income ratio, new connections via transit, number of miles driven per day, homes built on sensitive areas, acres of farmland protected, and acres of open space protected.

⁶ Additional information on Vision Niagara is available at: <http://visionniagara.org/>.

⁷ Reference to this scenario planning tool is noted, as it was discussed during Mr. Conley’s presentation; this reference does not represent an endorsement. FHWA recognizes that many tools are available and encourages agencies to use the tools that work best for them.

Peer Panel 1: Creating a Scenario Planning Process That Fits Your Needs

Rita Morocoima-Black

Transportation Planning Manager, CUUATS; Planning and Community Development Director, Champaign County Regional Planning Commission

CUUATS is the transportation branch of the Champaign County Regional Planning Commission, the MPO for the Champaign-Urbana Urbanized Area located approximately 135 miles south of Chicago. The region has approximately 145,000 residents, with about one-third being students at the University of Illinois Urbana-Champaign. As a result, the population of the region is constantly shifting each year, as the student population changes. Overall, the region is growing, urbanizing, and diversifying.

CUUATS first started using scenario planning in 2004 as part of its 2025 LRTP. At that time, the agency was in need of a process to help allocate funds available to the MPO. CUUATS decided to embark on developing its own travel demand model (TDM), which it built in-house, to assist with the allocation question. CUUATS then reviewed past plans as reference, held public meetings, and prepared a household travel survey to develop the TDM; at the same time, the public provided feedback about what they envisioned for the community. Six hundred people participated in the workshops and survey and shared their ideas. With the TDM in place, CUUATS developed scenarios and quickly received input on various ideas to test. As a result, CUUATS ended up with 16 different scenarios but recognized that compromise was needed in order to refine and narrow down the scenarios.

At the end, CUUATS established a baseline scenario and three alternative scenarios, all of which presented different opportunities for roadway improvements. The final preferred scenario was a hybrid, integrating elements of the original scenarios and focused primarily on improving arterial systems. CUUATS also build performance measures into its scenario planning effort, identifying 17 measures to track the effectiveness of the LRTP and scenario planning process.

Starting in 2005, CUUATS used scenario planning to complete five corridor studies. While CUUATS did not have a land use model, it decided to focus more closely on land use during this iteration of scenario planning. Public engagement and outreach were priorities, as CUUATS held visioning exercises and conducted public meetings, workshops, and open houses. In 2009, CUUATS released three scenarios (baseline, no improvements, and full improvements) based on the corridor studies and 2035 LRTP. To track the implementation of scenarios in the LRTP, CUUATS formulated goals, objectives, and performance measures using the SMART approach (“Specific, Measurable, Accountable, Results-oriented, Time-bound”). For the next five years, CUUATS issued an annual report card to show the progress made following the adoption of the LRTP.

By 2014, CUUATS determined that it was lacking more technical tools to assess its performance objectively. In addition, CUUATS recognized that previous public involvement activities had been completed but were not necessarily connected. CUUATS strove to design a public involvement process that helped confirm that it was moving in the right direction. As part of the effort tied to the 2040 LRTP, CUUATS held 35 outreach events, meetings, and visioning sessions; engaged 1,500 stakeholders, including new local health providers and neighborhood advocates; and provided 23 agency presentations. One of the most successful components of CUUATS’s public involvement effort was a bus that the agency transformed into a mobile “community conversations” forum and used to engage the community at local destinations, such as churches, parks, supermarkets, and restaurants (Figure 5). The information collected through the public engagement effort created the “planning pillars” for the 2040 LRTP to come.



Figure 5: To encourage public input on the 2040 LRTP, CUUATS transformed a bus into a mobile forum to travel around the community.

Source: CUUATS

Tom Kloster

Regional Planning Manager, Metro

Metro is the elected regional government for the Portland, Oregon, region. It serves as the MPO for Greater Portland and provides Federal transportation funds and regional planning grants to 25 cities and 3 counties. In addition to transportation, Metro is responsible for managing the region's growth, parks, convention center, entertainment venues, and garbage services.

Scenario planning and land use considerations have long been a part of Portland's history. By the 1940s, Portland had become a major West Coast port city, with a strong downtown and streetcar communities. Development of an extensive freeway system boomed. By the 1960s, backlash against the highway construction began to form, and a movement started to revitalize the city's downtown core, resulting in a new downtown plan in 1972.⁸ At the same time, in Salem, Oregon, the State legislature adopted a statewide plan to manage sprawl and protect farmland and forests. Local plans now needed to meet statewide goals, and new urban growth boundaries (UGBs) directed growth. In 1979, Metro became responsible for managing the Portland-area UGB.

Growth management continued to be a major consideration in the 1980s. The cancellation of the Portland Western Bypass—a proposed freeway extending from Portland to Vancouver, Washington—resulted from efforts led by the 1000 Friends of Oregon, which proposed an alternative known as “LUTRAQ” (“Land Use, Transportation, Air Quality”). The LUTRAQ alternative offered a “smart growth” approach that addressed the region's transportation and development needs outside of relying on highways as the “status quo.” As part of this effort, Metro embarked on its first scenario planning activity, using GIS-based scenario planning tools to evaluate LUTRAQ.

By 1991, growth reached the UGB for the first time since its adoption. Officials in the Portland region established Regional Urban Growth Goals and Objectives (RUGGOs) to manage the UGB expansion. Regional stakeholders began to realize the importance of planning inside the region and used the RUGGOs to lead discussions about sustainable land management practices within the UGB. GIS applications increased in use, and this effort—known as Region 2040—was the first to integrate TDMs with land use data to develop scenarios (Figure 6). The framework established under Region 2040 continues today, with all cities in Oregon having adopted this framework.⁹ Scenario planning further played a role in the implementation of policies connected to Region 2040. For example, Region 2040 emphasized street connectivity. Metro consolidated data across 15 connectivity scenarios to assess the impacts of local street connectivity on the Greater Portland system. The development and evaluation of these scenarios led to new connectivity policies for the region, such as one-mile spacing between collector and arterial streets.

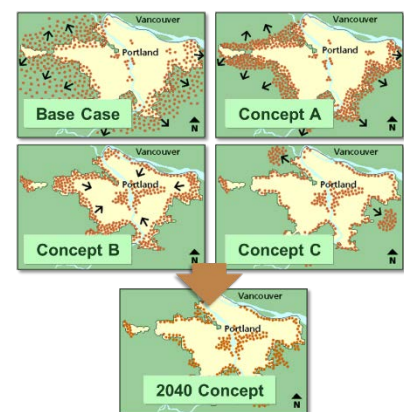


Figure 6: In the early 1990s, Metro developed 2040 concepts for growth in the Portland region.

Source: Metro

Tracking and managing outcomes continue to be strong emphasis areas. Metro produces an urban growth report every five years that monitors changes in land supply and development. In addition, Metro coordinates an annual compliance report that records local implementation of Region 2040 policies. Since 2010, Metro has also prepared an outcomes-based RTP that further tracks regional outcomes.

⁸ The 1972 Downtown Plan is a landmark in Portland's history. The Plan emphasized transit-oriented development, housing and ground-floor retail on city blocks, and a long-term vision for a regional rail system. For more information on Oregon's land use planning history, please visit the Oregon Department of Land Conservation and Development website: <https://www.oregon.gov/LCD/pages/history.aspx>.

⁹ The desired outcomes under Region 2040 included: 1) Protect farms and farmland; 2) Focus growth in centers; 3) Protect fragile industries; 4) Preserve nature in the city; 5) Provide real travel options; 6) Set non-single occupancy vehicle targets; 7) Build Complete Streets; 8) Create a Livable Streets Program; 9) Set limits for major streets; and 10) Promote street connectivity. Metro later consolidated these desired outcomes into six (as part of the Climate Smart Strategy): 1) Vibrant communities; 2) Equity; 3) Economic prosperity; 4) Transportation choices; 5) Clean air and water; and 6) Climate leadership.

Peer Panel 2: Integrating Scenario Planning into the Metropolitan Transportation Plan

Rita Morocoima-Black, CUUATS

Ms. Morocoima-Black continued the themes discussed in her first presentation, building on how CUUATS used the stakeholder input obtained to implement the scenarios and integrate scenario planning into its LRTP activities.

CUUATS's 2040 LRTP public engagement process led to the creation of six "planning pillars":

- Safety and Security
- Balanced Development
- Multimodal Connectivity
- Accessibility and Affordability
- Healthy Neighborhoods
- Resilient Economy

CUUATS tied each of the pillars to national, State, and local goals as well as to objectives and performance measures identified in the LRTP. CUUATS developed a spreadsheet that documented how to achieve the pillars, noting the goals, objectives, performance measures, data sources, related strategies, and responsible implementing parties for each.

CUUATS then turned to testing what it had proposed under the pillars. The agency looked at growth areas, areas to be developed based on input from past plans, and major roadway projects, and organized its modeling approach. CUUATS modeled transportation projects in the TIP as well as those listed in corridor studies and State legislation. In its model runs, the agency included current conditions for 2010 (baseline), current trends for 2040 (traditional development), and the 2040 LRTP vision.

With the modeling complete, CUUATS began developing its scenarios, starting first with population and employment projections. The two resulting scenarios were:

- "Traditional Development," which directed growth mostly towards the fringe, allowed for low-density development and development on agricultural land, and made limited improvements in the transportation network; and
- "Sustainable Choices 2040" (the 2040 LRTP vision), which focused on higher-density infill development, supported a multimodal network, and preserved agricultural land.

Ms. Morocoima-Black noted that, at the beginning of its scenario planning process, CUUATS had recognized the need to show the impacts of scenarios. Between 2009 and 2014, CUUATS focused on how to create scenario modeling tools. CUUATS regularly used its TDM from the initial scenario planning effort and continued to identify ways to make it more robust. As the University of Illinois is a major trip generator (special generator) at the center of the CUUATS planning area and its own Traffic Analysis Zones (TAZs), CUUATS developed a special survey to create a mode choice component of the TDM specifically designed to capture trips within the different TAZs encompassing the university district. In addition, CUUATS relied upon a range of other tools and data sources for its scenario planning efforts, including:

- *LEAM (Land-use Evaluation and Assessment Model)*, which includes land use and density maps. The tool allocates the different inputs and provides land use change maps that include the distribution of population and employment. CUUATS runs LEAM every five years to capture up-to-date population and employment projections.
- *SCALDS (Social Cost of Alternative Land Development Scenarios)*, a free spreadsheet-based model that CUUATS updated with localized data for its community. Partnering with electrical and utilities companies, CUUATS developed localized factors to determine energy, infrastructure, water, and sewer costs.
- *MOVES (Motor Vehicle Emission Simulator)*, free software offered by the U.S. Environmental Protection Agency, which CUUATS localized to assess GHG, urban/rural, and other emissions in the region.

- *LAMA (Local Accessibility and Mobility Analysis)*, which CUUATS used to track all of the public comments received throughout its scenario planning process. CUUATS geocoded all of the public input received and conducted analyses at the neighborhood level to determine mobility and accessibility factors as well as travel behavior impacts for each neighborhood.
- *HIA (Health Impact Assessment)*, for which CUUATS used elements of LAMA but also introduced a new variable—safety. One of the underlying assumptions of the HIA was that residents would likely not walk or bicycle at night, particularly in a high-crime area. CUUATS looked at the socioeconomic status of each neighborhood in the planning region and evaluated health impacts using data from a local health provider. CUUATS geocoded this data to compare the obesity rate across the neighborhoods.

The above tools supported CUUATS in its scenario planning effort (Figure 7). LAMA and the HIA, which were built in-house, allowed CUUATS to move forward in doing better analyses of the community at the neighborhood level. CUUATS used these analyses to inform its TIP and to create guidelines for project prioritization. The neighborhood-level information also factored into a successful Federal Transportation Investment Generating Economic Recovery (TIGER) grant application, which resulted in the \$42 million Multimodal Corridor Enhancement Project (MCORE).¹⁰ MCORE, funded through a \$15.7 million TIGER grant and \$26 million from local match, will focus on five separate road corridors in the downtown centers of Champaign and Urbana to improve pavement conditions and redesign the streets into multimodal “complete streets” to accommodate all users.

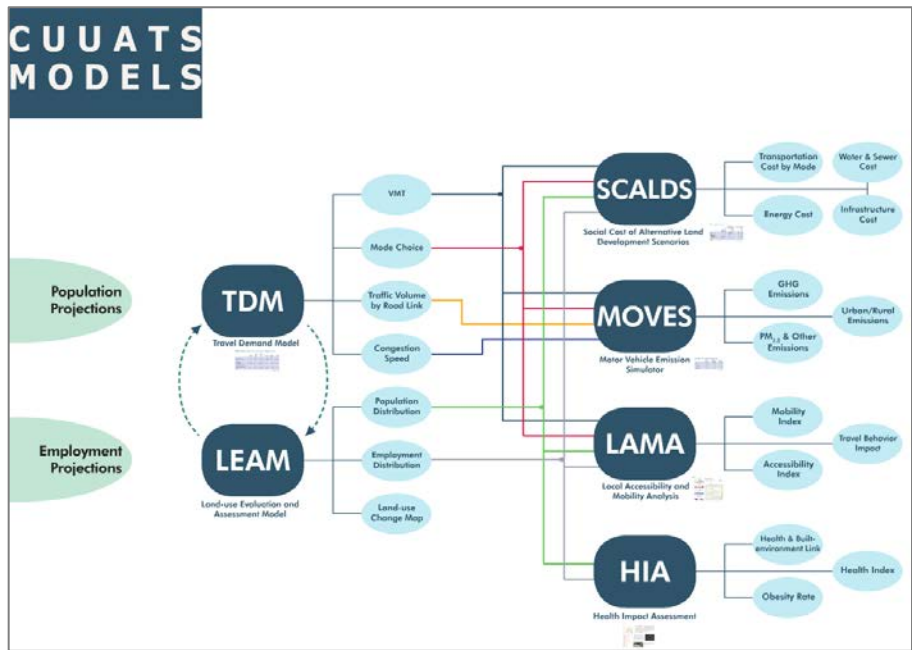


Figure 7: CUUATS used a variety of models and tools throughout its scenario planning efforts.
Source: CUUATS

Tom Kloster, Metro

For his second presentation, Mr. Kloster focused on Metro’s Climate Smart Strategy and related scenario planning activities.

In the mid-2000s, the Oregon Legislature adopted a series of climate change bills, including one that required MPOs in the State to meet greenhouse gas (GHG) emission targets for 2035.¹¹ Under the legislation, the Metro region was required to apply scenario planning and adopt a preferred scenario. Given its long history with scenario planning, Metro decided to build upon its past experiences to integrate scenario planning fully into its Climate Smart Strategy.

¹⁰ For more information on MCORE, please visit: <https://www.cumtd.com/about-us/getfile?fileid=6800>

¹¹ The Metro region’s target is to reduce per capita GHG emissions by 20 percent by 2035, after taking into consideration reductions anticipated from fleet and technology advancements. The legislation pertains to passenger vehicles and small trucks.

Metro's Climate Smart Strategy had several phases:

- Phase 1 (2011 – 2012): *Understanding the choices* – In this phase, Metro tested 144 possible ways to meet the GHG target and evaluated the policy levers that affected vehicle emissions. In 93 of the cases, Metro was able to meet GHG emission targets using its Region 2040 plan. Through the testing, Metro recognized that a combination of strategies as well as additional investment in communities would be needed.
- Phase 2 (Jan. – Oct. 2013): *Shape the choices* – Phase 2 focused on further investigation of three of the potential strategies identified under Phase 1.¹² Metro's analysis found that the GHG target could be met by using adopted plans and investing in communities to support implementation of the plans. Phase 2 involved the use of sketch scenario planning tools, including GreenSTEP¹³ developed by the Oregon Department of Transportation, as well as regional travel and economic models, culminating in the adoption of a hybrid scenario.
- Phase 3 (Nov. 2013 – Dec. 2014): *Shape and adopt the strategy* – Phase 3 addressed the finalization of the preferred option, which became the Climate Smart Strategy. The final strategy prioritized identifying specific outcomes, establishing processes that would have multiple benefits, and maintaining flexibility for local partners.

Mr. Kloster shared key findings from each of the phases, including:

- Phase 1
 - GHG targets are achievable but will take effort.
 - The best approach is a mix of policies and strategies.
 - Partnerships and collaboration are key; it is not possible to turn all of the policy levers at one level of government.
- Phase 2
 - Using GreenSTEP allowed Metro to evaluate emissions at a regional level and further coordinate with the regional forum—the Metro council and its advisory bodies—to obtain input.
 - Evaluation measures identified in Phase 2 provided Metro with a reporting mechanism for tracking how the scenarios worked. The measures helped Metro demonstrate return on investment for the scenarios and assess the environmental cost of pollution as a cost to the public.
 - Metro found that adopted plans can help meet the GHG emission target and that investment in transit was key. Metro's analyses showed that transit was underfunded, and the scenarios helped demonstrate the investments needed.

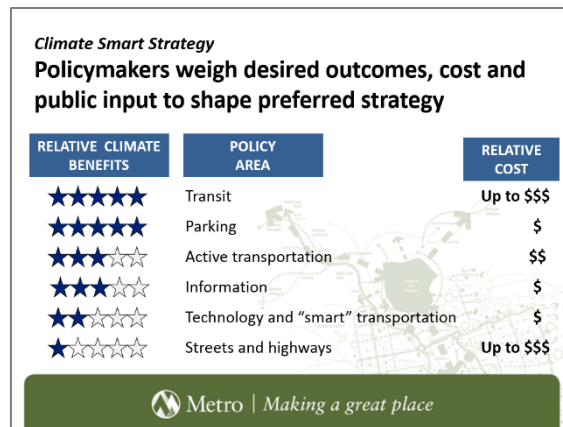


Figure 8: Metro used a star ranking system to collect input on relative climate benefits and costs for the Climate Smart Strategy policy areas.

Source: Metro

¹² The three Phase 2 investment scenarios were: 1) Recent Trends, which demonstrated the results of implementing adopted plans with existing revenue; 2) Adopted Plans, which presented an outcome in which increased revenues assisted the implementation of adopted plans; and 3) New Plans and Policies, which focused on the opportunities created from establishing new policies and revenue sources.

¹³ For information on GreenSTEP, please visit the Oregon Department of Transportation website at: <https://www.oregon.gov/ODOT/TD/TP/Pages/greenstep.aspx>.

- Phase 3
 - Metro used a simple star ranking system when obtaining feedback on the policy areas of the scenarios (Figure 8). Policymakers provided input using the system to weigh relative climate benefits and costs, which fed into the final preferred scenario.
 - The final Climate Smart Strategy includes nine key elements that complement each other to reduce GHG emissions, deliberately created to provide clear direction for easier implementation.¹⁴

The results of the Climate Smart Strategy stand to have significant impact for future Metro transportation planning activities. Metro adopted the Climate Smart Strategy in 2014, which then became the work plan for its RTP. In addition, Metro is beginning to use the Strategy to demonstrate the need for transit funding and to leverage opportunities for performance monitoring. The preferred scenario identified under the Climate Smart Strategy connects on a community level, as Metro estimates that, by 2035, the societal value of lives saved will be more than \$1 billion per year by implementing the Strategy.¹⁵

Interactive Group Exercises

Throughout the workshop, participants engaged in discussions to share questions and ideas on scenario planning. Full- and break-out group discussions on Day One focused on opportunities for using scenario planning in the Upstate New York region. Roundtable discussions on Day Two specifically addressed: 1) scenario planning tools and implementation; and 2) scenario planning connections to PBPP. The following reflects the themes heard during the group and roundtable discussions.

Full Group Discussion: Applying Scenario Planning to the Upstate New York Context – Themes and Challenges

During the full group discussion on the morning of Day One, participants discussed opportunities and challenges in using scenario planning for the Upstate New York region (Figure 9). Ideas shared included:

Opportunities

- **Scenario planning for low-growth.** Participants noted that scenario planning can work in low-growth areas like the Buffalo-Niagara region; a region does not necessarily need to be experiencing rapid growth.
- **Demographic and economic shifts.** Demographics are changing, which can bring in opportunities for identifying the values and vision for a region. Foundational economic changes, from old manufacturing to activities occurring now in the region, can also create opportunities.
- **Broad-reaching public involvement benefits.** There are clear public involvement benefits when engaging the public to think about the future of a community. The UBRI's Citizen Planning School goes one step further to help the community learn about planning terms and build political will through a new source of educated stakeholders. The development of a hybrid scenario can provide a lateral educational opportunity to encourage awareness about the nexus of transportation and scenario planning. Social media can also be a tool for stakeholder engagement; however, participants noted that the availability of or attention on social media can sometimes be a challenge.



Figure 9: The workshop used flipcharts to document participants' ideas on scenario planning opportunities and challenges.

Source: USDOT Volpe Center

¹⁴ The nine key policies under the Climate Smart Strategy are: 1) Implement adopted plans; 2) Make transit convenient, frequent, accessible, and affordable; 3) Make biking and walking safe and convenient; 4) Make streets and highway safe, reliable, and connected; 5) Use technology to actively manage the transportation system; 6) Provide information and incentives to expand use of travel options; 7) Make efficient use of parking and land dedicated to parking; 8) Support Oregon's transition to cleaner fuels and more fuel-efficient vehicles; and 9) Secure adequate funding for transportation investments.

¹⁵ As cited during the peer presentation. Sources identified on the presentation slide are GreenSTEP and the Integrated Transport and Health Impacts Model.

- **Cross-jurisdictional partnerships.** Scenario planning allows for jurisdictional collaboration to identify opportunities, particularly for a region. Agencies can work across jurisdictions rather than conducting an effort on their own without taking into consideration larger impacts on the region.

Challenges

- **Sustaining momentum.** Continuing partnerships and the motivation to keep a scenario planning effort going through implementation and into the future can be difficult if champions of the effort change or move on. Building and keeping momentum using a variety of approaches aimed at a diverse set of stakeholders can help sustain the effort long after the initial scenario planning activities have ended.
- **Managing expectations.** Planners may often face situations where they need to manage the community’s expectations about a particular planning activity or process. Being clear about the goals of a scenario planning process as well as the policy and feedback benefits and performance measures can help explain and articulate the process and provide further accountability about desired outcomes.
- **Conflicting regional goals and terminology.** Stakeholders or agencies may sometimes have conflicting goals about what they envision for a region’s future, and the terminology used may also led to different perceptions about what is meant. For example, some may view the term “growth” in the context of sprawl or a turn away from stability and resiliency; for others, “growth” may mean a more hopeful future with new development and investment opportunities for a community.

Break-out Group Discussion: Applying Scenario Planning to the Upstate New York Context – Moving Towards Implementation

During the break-out group discussion, participants divided into three groups, assigned at random to allow for a diversity of agencies in each group (Figure 10). Each group was tasked with identifying takeaways from the peer presentations that resonated with its members and discussing one of the following questions:



Figure 10: Participants engage in break-out group discussions and report out on the group’s ideas.

Source: USDOT Volpe Center

1. Who are the core stakeholders that would need to be involved in scenario planning, and who might be the champions?
2. How might a scenario planning approach work within your existing planning processes and timeframes?
3. Based on what you know about scenario planning so far, what resources do you already have for scenario planning and what resources would you need?

Ideas from the break-out group discussions included:

- Education and engagement go hand-in-hand.
- Education should include both information on planning terms as well as the overall process.
- There are emerging opportunities for measuring health impacts as part of scenarios.
- Core stakeholders include the public, local decisionmakers, and industry stakeholders from land use, transportation, economic development, and public health.
- Scenario planning works best with an incremental approach; do not overcomplicate it initially.
- Establish a framework at the beginning of a scenario planning process but leave room for flexibility.

- Be sure to choose performance measures and indicators carefully and communicate these effectively.
- Agencies often have resources in-house tied to existing partnerships and staff with GIS experience, but additional resources are still needed, such as software tools, staff with in-depth scenario modeling knowledge, and data.

For a full list of the break-out discussion responses, please see [Appendix E](#).

Roundtable Discussions

On the second day of the workshop, attendees participated in two roundtable discussions on the topics of scenario planning tools and implementation and scenario planning connections to PBPP. The following summarizes key takeaways from the discussions.

Scenario Planning Tools and Implementation

Mr. Betlyon opened the first roundtable discussion by providing a short presentation on the various scenario planning tools available today to transportation agencies. These tools include CommunityViz, Envision Tomorrow, INDEX, IPLACE3S, MetroQuest, RapidFire, and UrbanFootprint, among others.¹⁶

Ms. Dixon also provided a presentation based on findings from a study performed by Joseph Minicozzi, AICP, Principal of Urban3, in connection with One Region Forward, which measured economic opportunities as well as tax production and land value in the Buffalo-Niagara region. The study aimed to show the various forms of development in the region in regards to tax development and demonstrate what sustainable forms of development might look like.

Themes from the first roundtable discussion on scenario planning tools and implementation included:

- *Selecting the “right” tool.*
 - Topics to consider when selecting a tool can include the number of users, interactivity level desired, data needs, maintenance requirements, and visualization capabilities.
 - Think carefully about how the tool can help best achieve outcomes. Identifying how the tool will be used (e.g., at a regional or corridor level, the number or type of indicators desired) can help determine which one might work best. Many tools already have indicators and performance measures embedded in their software, which agencies can later customize to fit their needs.
 - There is a continuing need for new or updated tools; however, participants recognized challenges in having regional models cover a broader array of indicators versus combining many different tools that each have a primary purpose.
- *Developing a scenario planning approach that works for your agency.*
 - It may be better to start small and first become familiar with scenario planning tools. Little by little, you will realize the other needs you have and the tools you need to address these needs. An incremental approach also allows you the opportunity to work with the community and elected officials to demonstrate the benefits of a scenario planning approach from the beginning of the process.
 - Many of the tools are spreadsheet-based and require ongoing maintenance. They pivot from population and employment data and trip generation characteristics prepared by agency staff. Tools can help identify trade-offs, but building staff capacity further helps bring a scenario planning effort in-house and sustain it through implementation.
- *Leveraging scenario planning resources.*
 - There are many online resources for scenario planning, including the [FHWA scenario planning website](#) and the [Lincoln Institute of Land Policy website](#).

¹⁶ Reference to these scenario planning tools does not represent endorsement. FHWA recognizes that many tools are available and encourages agencies to use the tools that work best for them.

Scenario Planning Connections to PBPP

During the second roundtable discussion, participants focused on PBPP and its relationship to scenario planning. Mr. Betlyon first referenced the Moving Ahead for Progress in the 21st Century Act (MAP-21), which emphasizes PBPP and performance management approaches as part of the transportation planning process. Themes from this roundtable discussion are highlighted below.

- *Recognizing PBPP connections to performance management.*
 - Performance management is the umbrella topic that includes PBPP. State DOTs and MPOs are transitioning to PBPP approaches to increase accountability and transparency in the transportation planning process.
- *Recognizing PBPP connections to the transportation planning process.*
 - PBPP relates to what State DOTs and MPOs do in creating statewide transportation plans and LRTPs and in developing TIPs and State Transportation Improvement Programs, particularly in reporting and implementation timelines.
- *Recognizing PBPP connections to scenario planning.*
 - Many of the key elements of PBPP are similar to those of scenario planning, such as goals, objectives, and performance measures. Scenario planning ties to PBPP in that it can help when identifying and evaluating strategies, programs, and products and in setting and analyzing targets and alternatives.

Conclusion and Next Steps

The FHWA scenario planning workshop, hosted by GBNRTC, brought together six MPOs in the Upstate New York region and other local transportation agencies and partners to discuss opportunities for using scenario planning.

Presentations by GBNRTC, UBRI, and the CUUATS and Metro peers provided various perspectives on how scenario planning can help engage stakeholders in discussions about what they envision for their community's future and help inform MTP updates and the transportation planning process.

Throughout the workshop, participants engaged in discussions to share their ideas, agencies' practices, and questions on scenario planning and how scenario planning might work in the Upstate New York region.

Feedback provided by participants through evaluation forms submitted at the end of the workshop indicated that their level of scenario planning knowledge grew as a result of their participation and that they found value in the presentations, peer agency perspectives, and discussions held during the event. Overall, the workshop met its original goal in encouraging information-sharing and noteworthy practices on scenario planning for transportation agencies and partners in the Upstate New York region.

Appendices

A. About the FHWA-FTA Scenario Planning Program

The [Transportation Planning Capacity Building \(TPCB\) Program](#) is a joint venture of FHWA and FTA that delivers products and services to provide information, training, and technical assistance to the transportation professionals responsible for planning for the capital, operating, and maintenance needs of our nation's surface transportation system. The TPCB Program website (www.planning.dot.gov) serves as a one-stop clearinghouse for state-of-the-practice transportation planning information and resources. This includes over 70 peer exchange reports covering a wide range of transportation planning topics.

The TPCB Scenario Planning Program, jointly offered by FHWA and FTA, advances the state of the practice in scenario planning by encouraging agencies to learn more about or apply scenario planning as part of their transportation planning activities. The program offers a range of resources for agencies interested in scenario planning or in need of scenario planning technical assistance, including on-call technical assistance, peer-to-peer sharing, and customized webinars and workshops.

B. Key Contacts

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Benjamin	Biddell	Niagara County Department of Economic Development
Jody	Binnix	Genesee Transportation Council
James	Bragg	City of Niagara Falls
Maria	Chau	FHWA New York Division
Brian	Conley	University at Buffalo Regional Institute
Dana	Crisino	Herkimer-Oneida Counties Transportation Study
Kelly	Dixon	Greater Buffalo-Niagara Regional Transportation Council
Scott	Docteur	New York State Department of Transportation
Eric	Flora	Peel Region
Steven	Gayle	RSG Inc.
Rick	Gillert	Town of Amherst
Matt	Grabau	Greater Buffalo-Niagara Regional Transportation Council
Barb	Hauck	Herkimer-Oneida Counties Transportation Study
Daniel	Howard	Town of Amherst
James	Jones	Town of Tonawanda
Darren	Kempner	Niagara Frontier Transportation Authority
Tom	Kloster	Metro
Catherine	Kuzsman	New York State Department of Transportation
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Dennis	Tessarolo	Ministry of Transportation Ontario
Daniel	Ulatowski	Town of Cheektowaga
Gary	Witulski	Buffalo Urban Renewal Agency

D. Workshop Agenda

Greater Buffalo-Niagara Regional Transportation Council
 Scenario Planning Workshop
 Sponsored by the Federal Highway Administration (FHWA)
 Buffalo, New York

Dates: April 19-20, 2016

Host Agency: GBNRTC

Facilitator: Brian Betlyon, FHWA Resource Center

Peers:

- Champaign-Urbana Urbanized Transportation Study (CUUATS)
- Portland Metro

Workshop Overview:

This 1.5-day workshop, hosted by GBNRTC, focuses on noteworthy practices for scenario planning, particularly developing effective public engagement strategies, integrating scenario planning into performance metrics and the Metropolitan Transportation Plan, and using scenario planning for Transportation Improvement Program project selection and prioritization. The workshop is designed to build awareness of scenario planning and encourage information-sharing among GBNRTC, neighboring metropolitan planning organizations, and three peer agencies.

Workshop Goal:

Facilitate information-sharing among workshop participants on noteworthy scenario planning practices for the Upstate New York region.

DAY ONE

Time	Session	Speaker(s)	Objective(s)
8:30 - 8:45 am	Registration and Check-in		
8:45 - 9:00	Welcome and Introduction	<ul style="list-style-type: none"> • Hal Morse Executive Director, GBNRTC • Maria Chau Senior Community Planner, FHWA New York Division • Brian Betlyon FHWA Resource Center; Workshop Facilitator 	
9:00 - 9:15	Overview of Scenario Planning	<ul style="list-style-type: none"> • Brian Betlyon FHWA Resource Center; Workshop Facilitator 	
9:15 - 10:00	New York State Scenario Planning Perspectives	<ul style="list-style-type: none"> • Kelly Dixon Senior Transportation Planner, GBNRTC • Steven Gayle Senior Consultant, RSG; Program Manager, New York State Association of MPOs 	
10:00 - 10:15	BREAK		

10:15 - 11:45	Peer Presentation 1: Creating a Scenario Planning Process that Fits Your Needs	<ul style="list-style-type: none"> • Bart Roberts Associate Director of Research and Faculty Engagement, University at Buffalo Regional Institute • Rita Morocoima-Black Transportation Planning Manager, CUUATS; Planning and Community Development Director, Champaign County Regional Planning Commission • Tom Kloster Regional Planning Manager, Metro
11:45 am - 12:15 pm	Full Group Discussion / Morning Recap: Applying Scenario Planning to the Upstate New York Context – Themes and Challenges	Workshop Facilitator, Participants
12:15 - 1:15	LUNCH	
1:15 - 2:30	Peer Presentation 2: Integrating Scenario Planning into the Metropolitan Transportation Plan	<ul style="list-style-type: none"> • Rita Morocoima-Black Transportation Planning Manager, CUUATS; Planning and Community Development Director, Champaign County Regional Planning Commission • Tom Kloster Regional Planning Manager, Metro
2:30 – 2:45	BREAK	
2:45 - 3:30	Imagining the Future of Niagara Street, Buffalo, NY	<ul style="list-style-type: none"> • Brian Conley GIS-Research Analyst, University at Buffalo Regional Institute
3:30 - 4:30	Break-out Group Discussion: Applying Scenario Planning to the Upstate New York Context – Moving Towards Implementation	Workshop Facilitator, Participants
4:30 - 5:00	Summary of Day / Next Steps	Workshop Facilitator, GBNRTC Staff
5:00 pm	Adjourn	

DAY TWO

Time	Topic	Speaker
8:15 - 8:30 am	Registration and Check-in	N/A
8:30 - 9:00	Review of Day One	Workshop Facilitator, Peers, GBNRTC Staff
9:00 - 10:15	Round Table Discussion #1: Scenario Planning Tools and Implementation	Workshop Facilitator, Participants
10:15 - 10:30	BREAK	
10:30 - 11:45	Round Table Discussion #2: Connections to Performance-Based Planning and Programming	Workshop Facilitator, Participants
11:45 am - 12:00 pm	Wrap-up and Conclusions	GBNRTC Staff

E. Break-out Group Responses

The following lists the responses shared by the break-out groups during the Day One break-out group discussion focused on applying scenario planning to the Upstate New York context and opportunities for next steps. Each group answered Question #1 and then chose to discuss one of the remaining three questions. Content shared below may not reflect the opinions or policies of FHWA or FTA.

Break-out Group Discussion: Applying Scenario Planning to the Upstate New York Context – Moving Towards Implementation

1. *Identify takeaways from the peer presentations that resonate with your respective group.*
 - Effective community engagement / public involvement
 - Varying approaches, differing scales / contexts (adaptable)
 - Transportation investments versus wider vision
 - Collaboration
 - Willingness
 - Performance measures
 - Administrators should set aside time to keep up-to-date with technology
 - Keeping community engaged and getting excited about planning
 - Educating public about terms as well as process
 - Education and engagement go hand-in-hand
 - Took collective values and applied them to the scenario planning process
 - Scenario planning is not impossible with home rule in New York State.
 - Start measuring health impacts of scenarios
 - May open up more funding opportunities
 - How to access health records?
2. *Who are the core stakeholders that would need to be involved in scenario planning, and who might be the champions?*
 - Public
 - Decisionmakers
 - Land use
 - Other departments
 - Transit operator
 - Police
 - Ports
 - Economic development
 - Public health
 - Non-profits
3. *How might a scenario planning approach work within your existing planning processes and timeframes?*
 - Overlay template
 - Build relationships with community; an incremental approach
 - Plan to do it from the start.
 - Balance desires of different groups.
 - Outline from the start
 - Establishing framework at beginning
 - But leave room for flexibility
 - Don't overcomplicate it initially
 - Flexible in choice of performance measures
 - Be sure to communicate indicators effectively – can be tricky
4. *Based on what you know about scenario planning so far, what resources do you already have for scenario planning and what resources would you need?*
 - HAVE:

- GIS analysts
- Data (and assumptions)
- Ability to collaborate
- Visualization skills for public buy-in
- *NEED:*
 - Technical capacity / staff or consultants / software tools (time, labor, and funding)
 - Scenario modeling experts
 - Data (and assumptions)
 - Confidence in the process but also flexibility
 - Education / anticipated outcomes (facets of the approach)
 - Champions and an involved public

F. Additional Resources

FHWA Scenario Planning Website

http://www.fhwa.dot.gov/planning/scenario_and_visualization/scenario_planning/

FHWA-FTA TPCB Website

<https://www.planning.dot.gov/>

FHWA Scenario Planning Guidebook

http://www.fhwa.dot.gov/planning/scenario_and_visualization/scenario_planning/scenario_planning_guidebook/

One Region Forward – Buffalo Niagara Scenario Planning Game Resources

<http://www.oneregionforward.org/the-plan/workshop-documents-and-overview/>

- Rules of the Game
<http://uploads.oneregionforward.org/content/uploads/2013/11/Community-Congress-Rules-of-the-game.pdf>
- Tabletop Map Annotated Legend
<http://uploads.oneregionforward.org/content/uploads/2013/11/Community-Congress-Tabletop-Map-Annotated-Legend.pdf>
- Participant Guidebook
http://uploads.oneregionforward.org/content/uploads/2013/11/CommunityCongressGuidebook_handout.pdf
- Place Type Chip Chart and Guide
<http://uploads.oneregionforward.org/content/uploads/2013/11/Community-Congress-ChipChartandGuide.pdf>
- A Guide to Different Approaches
http://uploads.oneregionforward.org/content/uploads/2013/11/CommunityCongressDifferentApproaches_handout.pdf
- Place Type Chips
<http://uploads.oneregionforward.org/content/uploads/2013/11/CommunityCongressChips.pdf>
- Buffalo Niagara Regional Map for Activity
<http://uploads.oneregionforward.org/content/uploads/2013/11/CommunityCongressActivityMap.pdf>

Ways to Think about Planning in Buffalo Niagara

http://uploads.oneregionforward.org/content/uploads/2015/02/Ways-to-Think-About-Planning-in-Buffalo-Niagara-Guidebook_FINAL2015.pdf

Per GBNRTC: “This brief guidebook summarizes some of what was learned through the three years of planning, research, and engagement for One Region Forward and suggests ways to think about planning at various geographic scales (our region, municipality, block, parcel, etc.). As a tool, this resource can be used by citizens, local planners, community leaders, nonprofit staff, and others who are looking to leverage planning to create change in a community.

Within this guidebook, users will find some key concepts to consider in community-level planning. Those concepts are supported with information on resources gathered, created or launched through One Region Forward.”

Imagining the Future of Niagara Street – Buffalo, NY

Scenario Planning Pilot Project at the Neighborhood Level

http://uploads.oneregionforward.org/content/uploads/2015/02/1RF_ScenarioPlanningPilot_NiagaraStreet_FINAL_Sm.pdf

Per GBNRTC: “Vision Niagara—a group of local stakeholders who share the common goal of revitalizing Niagara Street in Buffalo—came together with One Region Forward to create a vision for the future of a stretch of Niagara Street in the city’s “Upper Rock” neighborhood. This effort advocates for the revitalization of a long-overlooked corridor with vast, unique potential for reinvestment by showing the benefits of transforming a neighborhood from a neglected commuter’s corridor to an innovatively restored, distinct urban waterfront community.

G. Acronyms

BMTS	Binghamton Metropolitan Transportation Study
DOT	Department of Transportation
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GIS	Geographic Information Systems
HIA	Health Impact Assessment
LAMA	Local Accessibility and Mobility Analysis
LEAM	Land-use Evaluation and Assessment Model
LRTP	Long-Range Transportation Plan
LUTRAQ	Land Use, Transportation, Air Quality
MAP-21	Moving Ahead for Progress in the 21 st Century
MCORE	Multimodal Corridor Enhancement Project
MOVES	Motor Vehicle Emission Simulator
MPO	Metropolitan Planning Organization
MTP	Metropolitan Transportation Plan
NOACA	Northeast Ohio Areawide Coordinating Agency
PBPP	Performance-Based Planning and Programming
RTP	Regional Transportation Plan
RUGGOs	Regional Urban Growth Goals and Objectives
SCALDS	Social Cost of Alternative Land Development Scenarios
SMART	Specific, Measurable, Accountable, Results-oriented, Time-bound
TAZ	Traffic Analysis Zone
TDM	Travel Demand Model
TIGER	Transportation Investment Generating Economic Recovery
TIP	Transportation Improvement Program
TPCB	Transportation Planning Capacity Building
UBRI	University at Buffalo Regional Institute
UGB	Urban Growth Boundary
USDOT	U.S. Department of Transportation