

Summary of the Federal Highway Administration's Let's Talk Planning Webinar – Scenario Planning

*December 10, 2014
1:00 - 2:00 PM (ET)*

On Wednesday, December 10, 2014, the Federal Highway Administration (FHWA) conducted a *Let's Talk Planning* webinar.

The webinar was divided into two sessions, focused on scenario planning and performance-based planning respectively. Each session was one hour long. These notes provide a summary of the scenario planning portion of the webinar.

Copies of the speakers' presentations are available from the contacts listed below.

Presenters

Name	Organization	Contact Information
Rae Keasler	FHWA Office of Planning	(202) 366-0329 Rae.Keasler@dot.gov
Michael Morris	FHWA California Division	(213) 894-4014 Michael.Morris@dot.gov
Bill Haas	FHWA Colorado Division	(720) 963-3016 William.Haas@dot.gov
Jon Crum	FHWA Pennsylvania Division	(717) 221-3735 Jonathan.Crum@dot.gov

Participants

Approximately 45 participants attended the webinar.

Introduction to Webinar and the FHWA-FTA Scenario Planning Program

*Ken Petty
Director, FHWA Office of Planning*

*Lorrie Lau
Transportation Specialist, FHWA Office of Planning*

*Rae Keasler
Transportation Specialist, FHWA Office of Planning*

Mr. Petty welcomed participants to the webinar and shared information on several Federal notices of proposed rulemaking (NPRMs) and upcoming webinars.

The purpose of the webinar was to spotlight scenario planning and performance-based planning.

NPRMs:

- The Planning NPRM closed in October. Approximately 162 comment letters and more than 1,000 comments were received.
- The Planning and Environmental Linkages (PEL) NPRM closed in November. Approximately 35 comment letters and 100 comments for PEL were received.
- FHWA and the Federal Transit Administration (FTA) are currently drafting the final PEL rule. The final Planning and PEL NPRMs are anticipated to be made available in fall 2015.
- Please direct questions to [Harlan Miller](#) or [Spencer Stevens](#) in the FHWA Office of Planning.

Upcoming Webinars:

- December 11, 2014 (11:00 am - 12:30 pm ET)
 - [Second Strategic Highway Research Program Planning Process Bundle \(C02/C08/C09/C12/C15\)](#)
- December 18, 2014 (2:00 - 4:00 pm ET)
 - [How to Develop Travelshed TAZs like Tennessee](#)
- January 8, 2014 (2:00 - 4:00 pm ET)
 - [TELUS Tools for Performance-based Transportation Planning and Programming](#)

Mr. Petty concluded his remarks by introducing Lorrie Lau. Ms. Lau then provided a brief update on the Super Circular.

Super Circular

Ms. Lau offered an overview of the Super Circular (2 CFR 200), which will:

- Replace the Common Grant Rule (49 CFR Part 18 and 19);
- Replace and consolidate the Cost Principles into one set; and
- Incorporate the A-133 Single Audit Act into regulation.

In December 2013, the Office of Management and Budget (OMB) and the Chief Financial Officers Council issued policy guidance (FR 78590) for all Federal grants (e.g., planning grants, ARRA, TIGER) requiring all Federal agencies to implement this guidance by December 2014.

In the process of developing the guidance, the U.S. Department of Transportation (USDOT) identified some deviations such as the definition of a State and the restriction on income as matching funds. These deviations were approved by OMB (Federal Register 2 CFR 1201).

Ms. Lau discussed several changes relating to the Super Circular:

- 2 CFR 200.100-300: Part A - D replaced 49 CFR Part 18 &19, 2 CFR 215, 220, 225, & 230
- 2 CFR 200.400: Part E replaced A-87, A-110, & A-122
- 2 CFR 200.500: Part F replaced A-133
 - The new threshold is now \$750,000.

Ms. Lau noted that FHWA offered a high-level training seminar on December 4, 2014. FHWA conducted a [webinar](#) on December 17th for grant recipients.

Upcoming activities for early 2015 include updates to 23 CFR 420, to policy memos (e.g., regarding eligible and non-eligible expenses), and to web-based training workshops.

In addition, FHWA Office of Planning and Resource Center staff are available to provide technical support. FHWA Division staff are also encouraged to reach out to their Division's financial managers with any questions.

Overview of Scenario Planning and FHWA/FTA Scenario Planning Program

Ms. Keasler began the scenario planning portion of the webinar by requesting webinar participants complete two short poll questions:

1. Have you worked with State departments of transportation (DOTs) and/or metropolitan planning organizations (MPOs) in the last three years on scenario planning efforts?
 - Responses Provided: Yes (13 responses; 81.2 percent)
No (21 responses; 4 percent)

2. Have you worked with any innovative scenario planning efforts recently? If so, please type your name/Division Office into the chat box.
 - Responses Provided: California, Pennsylvania

Ms. Keasler then introduced the topic of scenario planning. Scenario planning is a process that identifies, explores, and assesses future alternatives for transportation, growth, land use, economic development, and other issues. Benefits of scenario planning include:

- Promoting strategic transportation and land use decisionmaking;
- Fostering stakeholder "champions" and involvement; and
- Encouraging dialogue for consensus.

In addition, the Moving Ahead for Progress in the 21st Century Act (MAP-21) references scenario planning as an optional approach for MPOs. When conducting scenario planning under MAP-21, MPOs should consider the following recommended components:

- Regional investment strategies;
- Population and employment;
- Maintained or improved baseline conditions for performance measures;
- Revenue constrained scenarios; and
- Estimated costs and potential revenues available to support each scenario.

FHWA encourages State DOTs, MPOs, and other transportation agencies to consult the [FHWA/FTA Scenario Planning Program](#) when considering scenario planning. The Scenario Planning Program, jointly run by FHWA and FTA, provides a variety of resources for agencies interested in using scenario planning. These resources include peer-to-peer sharing, customized webinars and workshops, technical assistance, and case studies and research. Ms. Keasler encouraged webinar participants to help promote scenario planning among FHWA Divisions and States. FHWA is currently developing a new guidebook that will focus on scenario planning and performance-based planning and is soliciting examples for case studies. In addition, opportunities may be available for future technical assistance and workshops. Please contact Ms. Keasler at rae.keasler@dot.gov or 202-366-0329 with questions or ideas.

Spotlight: Scenario Planning in California

Michael Morris

Mr. Morris provided an overview of the Southern California Association of Governments' (SCAG) UrbanFootprint¹ Scenario Planning Model (SPM). SPM is a comprehensive web-based land use planning, modeling, and data management tool that allows SCAG to share and update data easily and develop scenarios to assess impacts.

Mr. Morris discussed the context in which SCAG developed the SPM. In 2008, California Senate Bill 375 (SB 375) was enacted, which requires each MPO in the State to develop a Sustainable Communities Strategy (SCS) for reducing carbon emissions, along with its Regional Transportation Plan (RTP). MPOs are also required to provide the public with modeling information. To comply with this requirement, in 2011, SCAG developed the Local Sustainability Planning Tool (LSPT), a geographic information systems (GIS)-based tool that allows users to create and compare sketch scenarios and subsequent impacts on greenhouse gas emissions. SCAG built upon the LSPT to develop the SPM, which uses the UrbanFootprint modeling platform.¹ SCAG is currently working with peer MPOs in the State, including the Sacramento Area Council of Governments and the San Diego Association of Governments, and other partners to enhance and customize the SPM so that it can be used by all California MPOs. In addition, SCAG is identifying additional analytical needs to update and customize the SPM to fit the projections of its 2016-2040 RTP/SCS.

Mr. Morris then shared information on the pilot conducted earlier this fall to update the SPM. The pilot focused primarily on data review and editing using three different stages: single user; multi-user logins; and user permission and approval. The goal of the pilot was to test the SPM as a conduit between local jurisdictions and key SCAG models. Sub-regional and local use of the SPM is optional, but SCAG hopes the tool will help build connections between regional and local planning.

Mr. Morris offered a brief demonstration of the SPM pilot website, which showed the different toolbars and resources available. For example, the SPM highlights different layers when selected; provides a query window, map toolbar, and editing functions; and displays that the actual map area with the selected scenario.

Lastly, Mr. Morris shared next steps for the SPM. During winter 2014-2015, SCAG will focus on the SPM's scenario development and analysis capability, focusing specifically on using the SPM for its 2016 RTP. Starting in spring 2015, SCAG will conduct an initial launch of the SPM's data management capability and began offering the SPM to its jurisdictions. By summer 2015, SCAG hopes to have the SPM available to all jurisdictions and to continue making enhancements to the tool.

For more information, please contact Mr. Morris at michael.morris@dot.gov or 213-894-4014 or visit the SCAG SPM website at: <http://sp.scag.ca.gov>.

Spotlight: Scenario Planning in Colorado

Bill Haas

¹ UrbanFootprint is a web-enabled, open source product, developed by Calthorpe Associates. Please note that FHWA does not endorse any specific scenario planning tool but rather provides this information in the spirit of information-sharing and communication among agencies about the wide variety of tools available for use.

Planning and Environment Team Lead, FHWA Colorado Division

Mr. Haas focused on the scenario planning exercise recently completed by the Pikes Peak Area Council of Governments (PPACG) as part of its 2035 RTP, *Moving Forward 2035*, and anticipated for its *Moving Forward 2040* update.

The Colorado Springs region is the transportation management area for greater Colorado Springs. It has a population of approximately 700,000 and a robust growth rate (5 percent growth from 2010 to 2013). Colorado Springs is the second largest city in Colorado, with a large military base presence and a significant amount of undeveloped land.

Moving Forward 2035, approved in 2012, first used scenario planning analysis. As part of the *Moving Forward 2040* effort, PPACG will continue and refine the scenario planning exercises developed under *Moving Forward 2035*. PPACG is currently finalizing the *Moving Forward 2040* plan, which will be proposed for adoption in 2015.

Mr. Haas further explained a few of PPACG's reasons for using scenario planning. Scenario planning has allowed PPACG to stimulate new ways of thinking about uncertain and complex futures. PPACG can also establish boundaries of likely futures (e.g., 20, 30 years in the future) and better understand how transportation impacts resources (e.g., housing, the local economy, natural resources) and vice versa. Lastly, scenario planning serves as a "check point" for PPACG to assess the range of its transportation project types and determine if the appropriate priorities are present.

As part of its scenario planning exercise, PPACG developed four scenarios (trend, conservation, infill/cluster, and preferred). The preferred scenario incorporated elements of the other three scenarios. PPACG held total population and employment constant for all four scenarios.

PPACG then refined these scenarios by using an extensive stakeholder process. PPACG held facilitated sessions and used other outreach methods such as visual displays to collect input about the scenarios. Mr. Haas noted that the conservation and infill/cluster scenarios were primarily developed as educational resources and intended to exaggerate the impacts of different land uses to demonstrate the differences among the scenarios more clearly.

The final preferred scenario includes the most desired parts of the other three scenarios, as directed by stakeholders. Key aspects of the preferred scenario include:

- Maintain all approved developments;
- Minimize infrastructure cost of development;
- Preserve land for open space, habitats, and agriculture;
- Acknowledge hazards and risks;
- Focus on existing corridors for mobility and accessibility; and
- Encourage efficient resource management.

Lastly, PPACG conducted several different analyses using the preferred scenario. These analyses focused on performance and impacts, including transportation and economic performance and impacts on cultural and historical resources, environmental justice, air quality and GHG emissions, and noise. PPACG included information on its scenario planning analysis in its RTP.

For more information, please contact Mr. Haas at william.haas@dot.gov or 720-963-3016 or visit the PPACG website at: <http://www.ppacg.org>.

Spotlight: Scenario Planning in Pennsylvania

Jon Crum

Environmental Protection Specialist, FHWA Pennsylvania Division

Mr. Crum discussed the Delaware Valley Regional Planning Commission (DVRPC) scenario planning efforts. He focused his presentation on DVRPC's *Choices and Voices* tool, which the agency developed as part of its *Connections 2040* long-range transportation plan (LRTP) update.

DVRPC is the officially-designated MPO for the Philadelphia-Camden-Trenton region, covering two (2) States, nine (9) counties, and 352 municipalities. DVRPC's 2040 growth forecast for the region estimates the total population to grow to 6.26 million (11 percent increase) and for total employment to climb to 3.27 million (11 percent increase).

Mr. Crum placed DVRPC's scenario planning effort in the larger context of the LRTP process. He noted that the LRTP process often involves identifying trends, defining a vision and goals, developing strategies, and facilitating decisionmaking and implementation. Scenario planning can help agencies throughout this process, particularly in demonstrating the impacts of trends and related factors and in engaging the public.

DVRPC has an extensive history using scenario planning. In 2008, DVRPC used the scenario planning model UPlan² to analyze land use connections. DVRPC then leveraged this work to develop scenarios that addressed funding needs and projections related to transportation investments. Most recently, DVRPC led its [Choices and Voices](#) initiative, a user-based, crowd-sourced vision for the region guided by information about development patterns, funding levels, and transportation projects. DVRPC has been recognized for its *Choices and Voices* effort and was named a recipient of the U.S. Department of Transportation's [2014 Data Innovation Challenge](#).

Mr. Crum demonstrated how the *Choices and Voices* tool works. Users are presented with a map of the region and are asked to select preferences relating to a variety of factors, including development patterns and transportation investments. As users identify their preferences, the map updates accordingly to demonstrate how the preferences will affect the region. Once a user has identified a preferred development pattern (e.g., multimodal, auto-centric), he or she is asked more specific questions about the features of this pattern (e.g., conventional subdivisions, mixed-use suburban centers).

² UPLAN is a computer-based GIS tool, open source product, developed by the University of California-Davis.

With the preferred development pattern in place, users are then asked to identify their preferred funding sources (e.g., mileage tax, gas tax, congestion pricing) and to identify preferred projects (e.g., system preservation, transit infrastructure, operational improvements, system expansion).

At the end of the exercise, users can view their responses as well as the responses provided by others. The *Choices and Voices* tool displays a summary of the results to help users better understand what their responses might indicate for the region as a whole.

In addition, DVRPC recently published a white paper in March 2014, [The Future of Scenario Planning](#). The paper reviews current scenario planning practices and offers key recommendations for new directions as DVRPC continues to pursue scenario planning in its LRTP activities. One recommendation, for example, is to establish a diverse group of regional experts that can identify “global drivers of change” and how these drivers might impact the region and inform the next iteration of *Choices and Voices*. This is anticipated for release in June, 2015.

For more information, please contact Mr. Crum directly at jonathon.crum@dot.gov or 717-221-3735 or visit DVRPC’s website at: <http://www.dvrpc.org/asp/ChoicesAndVoices/>.

Summary of Questions and Discussion

Following Mr. Crum’s presentation, Ms. Keasler moderated a question-and-answer period to address concerns received during the presentations. Key questions and insights from the presenters are outlined below. To facilitate readability, the answers presented here are summaries and are not direct transcriptions of what occurred during the actual webinar proceedings.

- **Could you elaborate on the DVRPC white paper?**

Jon Crum: DVRPC developed the white paper to evaluate its scenario planning process overall. One recommendation from the paper was to further their public involvement efforts. In addition to *Choices and Voices*, DVRPC has used travel surveys and trip journals to collect information. The FHWA Pennsylvania Division recently conducted a certification review with DVRPC and received updates on its scenario planning efforts. DVRPC is currently identifying where investments need to be made and preferences in the region.

- **How often should scenario planning be employed? Can choices be tailored for short or long-term futures?**

Jon Crum: I do not have a recommendation on this. DVRPC typically uses scenario planning when there is an update to the LRTP or overall regional growth. The next true use of scenario planning will be part of the next update of their LRTP.

Michael Morris: Scenario planning is often a revolving process. In most instances, agencies may use scenario planning during development of the RTP. In the SCAG region, this process happens every four years, but it is a long process. SCAG is always developing its RTPs; the next begins when the last one ends. SCAG is in the process of preparing for the next iteration of its RTP in 2016, since the most recent one was completed in 2012. SCAG is always engaged in scenario planning. Regarding tailoring choices for short or long-term futures, this is also possible. You are able to pick and choose your preferences.

Bill Haas: I agree with Jon and Michael. In Colorado, PPACG approached scenario planning as part of its LRTP update. It is a constant effort. As far as the short/long-term question, certain resources are often analyzed differently. For example, PPACG analyzed air quality using the U.S. Environmental Protection Agency's [MOVES](#) model; as part of this activity, PPACG evaluated short and mid-term impacts as well as long-term impacts. Scenario planning may often have less of a focus on the short-term and instead look further into the future with a 10 to 20-year planning horizon.

- **Could any of the speakers comment on the role of data and tools (specifically GIS) used for the scenario planning analyses? How was the data collected? Were outside sources used?**

Bill Haas: PPACG uses several tools, including TELUM, EMPAL, HERS-ST, MOVES, CommunityViz, N-Spect, Vista, Google Earth, and data from many sources, including Nature Source, Colorado Natural Heritage and INRIX.

Michael Morris: SCAG's LSPT was GIS-based. The current SPM tool is built on an UrbanFootprint modeling platform that is similar to GIS. Data was collected by a consultant, so yes, outside sources were used for the collection of data.

Mark Sarmiento, FHWA Office of Planning: PLACE3S, Paint the Town/Paint the Region, CorPlan, UrbanFootprint, and CommunityViz are often mentioned as GIS-based analytical tools and models that have been used in scenario planning analysis. All require data to "run" them, and therefore, the success of these tools is highly dependent on the data used.

Closing Information

Ms. Keasler thanked webinar participants, presenters, and hosts for participating in the scenario planning portion of the webinar.

Ms. Keasler also provided information for the [FHWA-FTA Scenario Planning Program website](#) and contacts.

- FHWA/FTA Scenario Planning Program contacts:
 - *FHWA Headquarters*
 - Rae Keasler: 202-366-0329 or Rae.Keasler@dot.gov
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 - *FTA Headquarters*
 - Jeff Price: 202-366-0843 or Jeff.Price@dot.gov
 - *FHWA Resource Center*
 - Brian Betlyon: 410-962-0086 or Brian.Betlyon@dot.gov
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