Program Review

Federal Highway Administration

Federal Transit Administration

Quad Cities, Iowa/Illinois Transportation Management Area Certification Review

August 29, 2016

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Executive Summary

Certification Action

As per the language in 23 CFR 450.334(b)(1)(ii), it has been determined that the transportation planning process executed by the Bi-State Regional Commission (BSRC) for the Quad Cities urbanized area substantially meets the requirements of this part and a Transportation Improvement Program (TIP) has been approved by the Metropolitan Planning Organization (MPO)and the Governor and is certified with conditions. The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) jointly certify the transportation planning process through August 29, 2020.

Corrective Action

None

Recommendations

Recommended planning actions discussed in this report would improve the overall transportation planning process that is consistent with the spirit and intent of federal requirements. The following is a summary of the recommendations from this Certification Review. These recommendations are also included in each section of the report.

- **Transit Planning Recommendation**
  - CitiBus has lapsing FTA Section 5339 Bus and Bus Repair funding and it is recommended that a grant application is immediately prepared and submitted to the FTA Region VII office.
- **TIP Recommendation**
  - It is recommended that the regional TIP is updated to include Complete Street project components that are being constructed as part of a road improvement project. This is particularly valuable information for projects that were competitively selected based on a process that places emphasis on the inclusion of these components.
- **Public Participation Plan Recommendations**
  - It is recommended that BSRC update its Public Participation Plan to reference and meet requirements of the FAST Act.
- **Public Participation – Website Recommendation**

- While BSRC stated it will revise its site to have a Transportation home page, we recommend that staff work to ensure that the transportation planning activity is much more visible and accessible to member agencies, regional planning partners, and the public.

- **Congestion Management and Operations**
  - While it was stated that a new Congestion Management Process is currently being drafted, it is recommended that the MPO ensure they finalize the updated Congestion Management Process according to their stated schedule of the fall of 2016.

Commendations

The review team commends BSRC and their planning partners for the following areas of progress and best practice:

Commendations for Quad Cities Public Transit Operators

1) MetroLINK is commended for being very proactive in planning and operating a multimodal transit system which includes transit, ferry, Uber connections, and transit connection for anticipated passenger rail service from Chicago. MetroLINK was recently one of eight successful applicants securing Transit Oriented Development planning assistance from Smart Growth America. Additionally, MetroLINK plans to apply for TIGER funds for the purchase of electric buses emitting zero pollutants.

2) River Bend Transit is commended for operating a transit service to the University of Iowa Regional Hospital in Iowa City for medical trips and connections to CAMBUS and Iowa City Transit bus routes. FHWA-CMAQ funding facilitates the connection service to the University of Iowa hospital.

3) The BSRC is commended for its cooperative planning work with the Quad City transit systems. This cooperative effort is exemplified by BSRC including a staff position, the "Iowa Quad Cities Transit Coordinator," funded by Section 5307 awards dedicated to the Bettendorf and CitiBus transit systems. The Coordinator markets and performs service planning for transit service, including organizing "Train the Trainer" workshops on how to access transit services in the Iowa Quad Cities. The Coordinator has served since 2005 and provides "one stop shop" service marketing assistance. The 2012 Iowa Quad Cities Transit Riders Guide was considered a national best practice and continues to be distributed to transit passengers. The Guide, which is also available online, provides a

comprehensive list of attractions including schools, public facilities, medical and dental facilities, and groceries and supermarkets on each bus route.

4) Under MAP-21, FTA moved the previous stand-alone Job Access Reverse Commute (JARC) program to an eligible activity under Section 5307 – Urbanized Area Formula funding. Many transit operators discontinued JARC service. The City of Davenport is commended for continuing to financially support CitiBus's JARC program, which has seen an increase of program participants since the 2012 Certification Review.

5) CitiBus has a contract, started in 2012, with the Davenport School District to operate school tripper service on CitiBus's fixed routes. CitiBus is commended for providing approximately 20,000 rides per month to school students. The Davenport School District attributes students staying in school and higher graduation rates to CitiBus' tripper service. Students' current "wave down" stops, slows route travel times and will soon be replaced with fixed stops, keeping buses on route schedules.

6) CitiBus will initiate route system changes on July 5. With the use of four new Gillig buses, changes include moving from a "hub and spoke" to a grid system, adding Sunday service, having 30-minute headways, and extending service for an hour on weekdays. CitiBus will also be installing new shelter/stop improvements and an electronic fare box system replacing a punch pass system. CitiBus is commended for instituting these transit system improvements.

- **Metropolitan Transportation Plan Commendation**:
  - BSRC is commended for the inclusion of land use maps of jurisdictions in the MTP work activity.
  - BSRC is commended for their public participation process conducted for the 2045 Quad Cities Long Range Transportation Plan. A variety of techniques were used including workshops, public meetings, surveys, open houses, multi lingual outreach and outreach to media and many stakeholder groups. The use of online engagement tools such as MindMixer and SurveyMonkey are best practices.

- **Transportation Planning Work Program Commendations**:
  - BSRC is commended for having monthly staff meetings to review actual expenditures on work program line items to monitor the annual line item budget spending throughout the year. These meetings keep staff very involved in tracking the TPWP work activities and deliverables.

- The MPO's work program is a best practice for its discussion of transportation issues in the metropolitan area.
- BSRC is commended for its Indirect Cost Allocation Plan. The BSRC's Administrative Services Director is very experienced in preparing indirect cost allocation plans and has been preparing these plans since 1987. The current cognizant agency is the US Department of Commerce, Economic Development Authority (EDA).
- BSRC's ongoing work to maintain and improve air quality in the Quad Cities metropolitan area is a best practice.

- **Travel Demand Model Commendation**:
  - Iowa DOT's modeling section staff is commended for working with BSRC to improve the Travel Demand Model for the MTP. BSRC is commended for contracting the Household Travel Survey, which provided current data for the model.

- **Alternative Trails Transportation – Long Range Transportation Plan Commendation:**
  - BSRC is commended for its work in trail planning, for supporting the "Quad Cities Trails Committee" and administering a trails website, QCTrails.org. Trail planning includes the use of 12 trail user counters, which were first used in 2013. Trail user counts are used to determine trail projects in the Long Range Transportation Plan.

- **Connecting Transportation-Health Commendation:**
  - BSRC is commended for its "Quad Cities Health Initiative" that includes safe routes to school in low-income minority areas, school wellness programs and establishing community gardens. BSRC has received two awards for this work activity, which focuses on reducing obesity and heart disease.

Background

Pursuant to 23 U.S.C. 134(k) and 49 U.S.C. 5303(k), the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) must jointly certify the metropolitan transportation planning in Transportation Management Areas (TMAs) at least every four years. A TMA is an urbanized area, as defined by the U.S. Census Bureau, with a population of over 200,000. In general, the reviews consist of three primary activities: a site visit, a review of planning products (in advance of and during the site visit), and preparation of a report that summarizes the review and offers findings including corrective actions, recommendations, and commendations. The review focuses on compliance with Federal regulations, challenges,

successes, and experiences of the cooperative relationship between the Metropolitan Planning Organization (MPO), the State DOT, and transit operators in the conduct of the metropolitan planning process. Joint FTA/FHWA Certification Review guidelines provide agency field reviewers with latitude and flexibility to tailor the review to reflect local issues and needs. As a consequence, the scope and depth of the Certification Review reports will vary significantly.

Purpose and Objective

The Certification Review process is only one of several methods used to assess the quality of a local metropolitan planning process, compliance with applicable statutes and regulations, and the level and type of technical assistance needed to enhance the effectiveness of the planning process. Other activities provide opportunities for this type of review and comment, including Transportation Planning Work Program (TPWP) approval, the Metropolitan Transportation Plan (MTP), metropolitan and statewide Transportation Improvement Program (TIP/STIP) findings, air-quality conformity determinations (in nonattainment and maintenance areas), as well as a range of other formal and less formal contact provide both FHWA/FTA an opportunity to comment on the planning process. The results of these other processes are considered in the Certification Review process.

While the Planning Certification Review report itself may not fully document those many intermediate and ongoing checkpoints, the "findings" of Certification Review are, in fact, based upon the cumulative findings of the entire review effort.

The review process is individually tailored to focus on topics of significance in each metropolitan planning area. Federal reviewers prepare Certification Reports to document the results of the review process. The reports and final actions are the joint responsibility of the appropriate FHWA and FTA field offices, and their content will vary to reflect the planning process reviewed, whether or not they relate explicitly to formal "findings" of the review.

Scope and Methodology

A Certification Review of the transportation planning process for the Quad Cities metropolitan planning area was performed by FHWA and FTA on April 26 – 27, 2016. The review was conducted at the office of the Bi-State Regional Commission, (Metropolitan Planning Organization (MPO), in Rock Island, Illinois. These guidelines, in the form of a list of questions that reflect current federal regulations, were provided to the MPO, the Illinois and Iowa Department of Transportations, and the MetroLINK, CitiBus, Bettendorf Transit, and River Bend ŧTransit systems on March 24, 2016. The MPO staff provided very detailed and

informative responses to the Federal Team's questionnaire prior to the Certification Review (Appendix C).

BSRC provided an opening presentation (Appendix D) to provide an overview of demographics and transportation issues and priorities in the Quad Cities urbanized area. During the review, BSRC provided documentation via hard copy and web links for discussion for each planning topic agenda item.

As part of the review, a public hearing was held at 12:00 Noon to 1:00 PM on April 26 during the Transportation Policy Committee and a presentation was given to the Bi-State Commission at 4:00 PM on April 27. At both the Policy Committee meeting and public hearing and the Commission meeting, the federal team presented and discussed the purpose and requirements of the certification review. The team then opened the floor for any questions or discussion of the attendees present at the meetings. The committee members had the following comments:

- "[BSRC's planning process] is a complex and comprehensive process [;] however it seems to work well in this region. We remain focused on regional enhancements and improvements that can be made."
- "Bi-State is very fortunate to have a transit and professional staff knowledgeable on transportation planning."
- "[BSRC's planning process is] great [and] allows [the] commissioner to address issues in meetings and elsewhere. [It] also allows for groups such as people with disabilities to participate."
- "Bi-State does an excellent job for the overall region."
- "[BSRC's planning process is] well thought-out [and] allows for a high level of public input."
- "[BSRC's planning process is] very effective, a good mix of people, [and] well informed."
- "The MPO does a great job in transportation planning, particularly, with the lack of federal resources. There is a need for more federal funding for planning."

Team Members

Federal reviewers prepared this Certification Review report to document the results of the review process. The report and final actions are the responsibility of the FHWA Illinois, FHWA Iowa and the FTA Region 7 Office. See Appendix B for the sign-in sheets. The Federal Review Team included:

- Ms. Betsy Tracy, FHWA, Illinois Division
- Mr. Mark Bechtel, FTA, Region 7 Office
- Mr. Sean Litteral, FHWA, Iowa Division
- Ms. Darla Hugaboom, FHWA Iowa Division

Those participating in the Quad Cities Certification Review also included staff from the BSRC (Quad Cities MPO), Iowa DOT, Illinois DOT, City of Moline, and the MetroLINK, Citibus, Bettendorf, and River Bend transit systems.

BSRC Staff
Denise Bulat, Director
Gena McCullough, Planning Director
Brandon Melton, Planner
Becky Passman, Iowa QC Transit Coordinator
Bryan Schmid, Planner
Donna Moritz, Administrative Services Director

Transit Agencies
Jeff Nelson, MetroLINK Director/General Manager
Randy Zobrist, River Bend Transit Director/GM
Kurt Scheible, CitiBus Director/GM

Iowa DOT
Garrett Pedersen, Office of Systems Planning
Andrea White, Office of Systems Planning
Phil Mescher, Office of Systems Planning
Adam Shell, Office of Systems Planning
Sam Shea, District 6
Nikita Rainey, Civil Rights

Illinois DOT
Dan Long, District 2
Holly Ostdick, Bureau of Planning
Doug DeLille, Bureau of Planning

City of Moline
Mike Kurek

Observations and Findings

Each section under Observations and Findings is outlined in the following format:

- **Regulatory Basis –** The regulatory basis defines where information regarding each planning topic can be found in the Code of Federal Regulations (CFR) and/or the United States Code (USC) – the "Planning Regulations" and background information on the planning topic
- **Observations –** Observations describe the current status for each planning topic
- **Findings –** The findings section summarizes the compliance determination for each planning topic or issue and provides the primary basis for determining the recommendations, commendations, and/or corrective actions.
    - **Corrective Actions (if applicable) –** Corrective Actions are compliance issues and indicate a serious situation that fails to meet one or more requirements of the transportation planning statute and regulations, thus seriously impacting the outcome of the overall process. The expected outcome is a change that brings the metropolitan planning process into compliance with a planning statute or regulation; failure to respond will likely result in a more restrictive certification.
    - **Recommendations (if applicable) –** Recommendations address technical improvements to processes and procedures, that while somewhat less substantial and not regulatory, are still significant enough that FHWA and FTA encourage that State and local officials will take action. The expected outcome is change that would improve the process, though there is no Federal mandate.
    - **Commendations (if applicable) –** Commendations are processes or practices that demonstrate innovative, highly effective, well-thought out procedures for implementing the planning requirements. Elements addressing items that have frequently posed problems nationwide could be cited as commendations. Also, significant improvements and/or resolution of past findings may warrant a commendation.
- **Resolution (if applicable) –** A resolution identifies the actions that will be (or have been) taken in response to a corrective action.

The following sections detail the observations and findings from both the on-site visit and desk review of the BSRC planning process. As discussed above, the observations described what the review team observed as the current status for each of the following topic sections.

Organizational Framework

Regulatory Basis: According to 23 CFR 450.310 a Metropolitan Planning Organization needs to be designated for an urbanized area with a population of more than 50,000 individuals as determined by the US Bureau of the Census. MPO staff is needed to carry out the scope for the metropolitan transportation planning process as presented under 23 CFR 450.306.

In regard to planning agreements, 23 CFR 450.314(a) states: "The MPO, the State(s), and the public transportation operator(s) shall cooperatively determine their mutual responsibilities in carrying out the metropolitan transportation planning process. These responsibilities shall be clearly identified in written agreements among the MPO, the State(s), and the public transportation operator(s) serving the Metropolitan Planning Area (MPA)."

Observations: All jurisdictions in the urban area are represented with a balance between Iowa and Illinois representation. Small communities within the MPO are caucused for an Iowa and Illinois representative. Public transit is represented as a mode, specifically for the Metropolitan Mass Transit District in the Illinois Quad Cities. The Policy Board has an equal balance of Iowa and Illinois representatives representing the MPO member governments, reflecting the demographic population distribution between the two states. The BSRC consists of 35 persons representing counties, cities, and program and designated constituencies throughout the Quad Cities Region. Approximately 71 percent of the members are elected officials, and 29 percent are citizen appointments. Membership is approximately proportional to population with 13 county representatives, 15 city representatives, and seven program and designated constituency representatives. BSRC has a good organizational structure and sufficient professional staff to carry out the work that fulfills Federal planning requirements. The MPO works very well with its member governments and is adequately staffed with several planners, a transportation engineer and a graphic specialist. The MPO also employs a Quad Cities Transit Coordinator, who assists the Iowa Quad Cities transit systems and works to promote transit system interconnectivity with the Illinois Quad Cities MetroLINK transit system. The BSRC has a professional team of staff who work extremely well to address transportation planning in the Quad Cities metropolitan area.

In regard to planning agreements, the most current planning agreement is dated December 20, 2011 between the MPO, the state DOTs, and the transit providers. The MPO also has an annual contract with the Iowa and Illinois DOTs. The review team observed an Iowa DOT modeling presentation (Appendix F), through which the DOT demonstrated providing an ever increasing role and expertise in the development and maintenance of the MPO travel demand model.

MetroLINK represents transit and is a voting member on the Policy Board. This meets the MAP-21 requirements that TMAs include transit agencies as voting members.

Finding: The Bi-State Regional Commission is compliant with the federal planning regulations.

Recommendation: None.

Commendation: BSRC is commended for its cooperative planning work with the Quad City transit systems. This cooperative effort is exemplified by BSRC's position, the "Iowa Quad Cities Transit Coordinator", which is funded by Section 5307 dedicated to the Bettendorf and CitiBus transit systems to market and perform service planning for transit service, including holding "train the trainer" workshops on how to access transit services in the Iowa Quad Cities. The Coordinator has provided this service since 2005 and provides "one stop shop" service marketing assistance. The 2012 Iowa Quad Cities Transit Riders Guide was a national best practice and continues to be distributed to transit passengers. The Guide, which is also available online, provides a comprehensive list of attractions, including schools, public facilities, medical and dental facility location and grocery and supermarkets, on each bus route.

Transportation Planning Work Program

Regulatory Basis: A TPWP covers one to two years and typically contains several elements. According to 23 CFR 450.308 "each MPO, in cooperation with the State(s) and public transportation operator(s), shall develop a Unified Planning Work Program (UPWP) that includes a discussion of the planning priorities facing the MPA. The UPWP shall identify work proposed by major activity and task (including activities that address the planning factors in §450.306(a)), in sufficient detail to indicate who (e.g., MPO, State, public transportation operator, local government, or consultant) will perform the work, the schedule for completing the work, the resulting products, the proposed funding by activity/task, and a summary of the total amounts and sources of Federal and matching funds."

Observations: Within its Transportation Planning Work Program (TPWP), BSRC annually develops a work program, according to the Federal requirements and state guidelines. A draft is submitted to each state DOT by April 1st of the year, and a final work program is submitted by June 1st. The MPO provides adequate opportunities for public input. Based on the staff's assessment of planning needs, BSRC subsequently determines work activities in the TPWP which meets the transportation planning needs of its member governments.

BSRC provided an organization chart in the questionnaire in Appendix C. Federal transportation planning funds represents roughly 44% of BSRC's budget. Assignments are provided to staff on a project or task basis, allowing for staffing flexibility contingent upon timing, workload, staff availability, and skills required for a project. Employees are required to track their time spent per TPWP activity on a timesheet that lists each planning activity, i.e. Administration, General Planning, Short Range Planning, and Long Range Planning. The FY2016 TPWP provides estimated hours by staff title and planning activity.

The TPWP has an excellent discussion of the planning priorities and issues facing the Quad Cities urbanized area and also includes a thorough review of planning studies being undertaken to meet the metropolitan area's transportation issues and needs. The MPO has monthly staff meetings to review actual expenditures on work program line items versus line item budgets. This process keeps staff very cognizant of how their work activities are meeting work program activities' goals and budgets.

The work activity performed by BSRC in regard to maintaining and improving air quality in the Quad Cities metropolitan area is best practice. The Bi-State Air Quality Task Force was established in 1998 and has since met regularly to voluntarily address emissions reductions education and outreach. The Task Force began at the MPO level and has expanded to include the entire Bi-State Region. The Task Force also assisted in the development of a multi-media Clean Air Counts effort under a grant from the Alcoa Foundation (2011-13), "Make Air Quality Visible" strategic plan (2015), to outline efforts to reduce emissions and assisted in the establishment of the Bi-State Region Clean Air Partnership, a voluntary membership of organizations that have pledged to reduce emissions. An Iowa Clean Air Attainment Program (ICAAP) Grant funded the Partnership. Subsequent ICAAP applications for traffic analysis and safety education (2014) and bicycle and pedestrian promotion (2015) were unsuccessful. The Household Travel Survey (2014) funded a portion of the 2011 ICAAP application. The study results were used in the travel demand model and provided information, in the event that the area would be classified as non-attainment for air quality modeling. The MPO continues to maintain the www.qctransit.org website as a continuation of prior efforts to promote single-occupant vehicle alternatives. This website acts as a portal to the various area transit systems as one unique URL.

Finding: The Bi-State MPO work program meets the requirements listed under 23 CFR 450.308.

Recommendation: CitiBus has lapsing FTA Section 5339 Bus and Bus Repair funding and it is recommended that a grant application is immediately prepared and submitted to the FTA Region VII office.

Commendations:

- The MPO's work program is a best practice for its discussion of transportation issues in the metropolitan area.
- BSRC is commended for having monthly staff meetings to review actual expenditures on work program line items versus line item budgets. This keeps staff very involved in tracking the TPWP work activities and deliverables.
- BSRC's work activity to maintain and improve air quality in the Quad Cities metropolitan area is best practice.
- BSRC is commended for its Indirect Cost Allocation Plan. The BSRC's Administrative Services Director is very experienced in preparing indirect cost allocation plans and has been preparing these plans since 1987. The current cognizant agency is the Iowa EDA.

Metropolitan Transportation Plan

Regulatory Basis: In regard to the Metropolitan Transportation Plan, 23 CFR 450.322 states "The metropolitan transportation planning process shall include the development of a transportation plan addressing no less than a 20-year planning horizon… the transportation plan shall include both long-range and short-range strategies/actions that lead to the development of an integrated multimodal transportation system to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand."

Observations: The current MTP was adopted on March 23, 2016. The Horizon Year is 2045 and the next MTP update is due for adoption in March 2021. Future transportation issues identified in the long range transportation planning process included the following list. Issues were derived from kick-off meetings, online engagement, and electronic surveying and included:

- Aging Facilities & Equipment
- Shifts in Where People Live and Work
- Changes in Who Lives and Works in the Quad Cities
- Use of Technology to Solve Problems
- Limited Funding
- Creating More People-Friendly and Healthy Travel Choices
- Corridor and Spot Congestion

- Safety and Security of Users and Assets
- Connecting to Regional and Global Markets
- River Crossing Capacity
- Measuring Performance and Prioritizing Projects

As the Regional Planning Agency in the region, BSRC staff assists with comprehensive land use planning and sustainability plans within the Bi-State Region. A history and status of comprehensive planning can be found in the Appendix of the TPWP. As part of the Long Range Transportation Plan (LRTP) update, a revised future land use map was prepared for the metropolitan area, identifying the types of land use proposed by the individual jurisdictions.

Performance Measures, as determined by the State DOTs of Iowa and Illinois, BSRC and the public transit operators, will need to be included in the next updated MTP.

Finding: BSRC Metropolitan Transportation Plan meets the requirements of 23 CFR 450.322.

Recommendations: None

Commendation: BRSC is commended for the inclusion of land use maps of jurisdictions in the MTP work activity.

Transportation Improvement Program

Regulatory Basis: According to 23 CFR 450.324, the MPO shall cooperatively develop a TIP that is consistent with the MTP and is financially constrained. The TIP must cover at least a four-year horizon and be updated at least every four years. Additionally, the TIP must list all projects in sufficient detail outlined in the regulations, reflect public involvement, and identify the criteria for prioritizing projects.

Observations: The review team observed that BSRC has a well-established system for project selection. The MPO annually solicits STPG and TAP/TA Set-Aside project applications from member governments and participating agencies and conducts technical scoring, with assistance of MPO subcommittees, to determine project eligibility. The following scoring matrix is used for the selection of FHWA STPG projects.

Category	Criteria	Maximum Points
1. Level of Service	Existing Volume/Capacity Ratio 10-Year Projected Traffic Volume Traffic Congestion Reduction	50 50 50
2. Safety	Total Number of Accidents Accident Severity Accident Rate	50 50 50
3. Physical Condition	Surface Type, Facility Condition, Existing Volume, 10-Year Projected Volume, Number of Lanes	150
4. Special Consideration	Air Quality Truck/Business Route Connectivity Employment Center	0-2% 1% 1% 1%

The special considerations also align with the national measures related to freight, system reliability, and environmental sustainability. The STPB and TAP evaluation manuals were updated with the completion of the MTP update. Factors outside of the scoring process that affect the selection are geographic distribution of the projects and ability to match the federal share, which can affect timing. Information is also provided related to environmental justice to supplement the decision-making. BRSC will need to work with the Iowa and Illinois DOTs to retain a TIP process that is in compliance with FHWA/FTA's new planning and performance measure requirements. Compliance with the performance measure requirements is to be completed by the State DOTs and MPOs in a timely fashion as required by federal regulations.

The review discussion indicated potential difficulties in identifying and tracking Complete Streets project components for road projects. The possibility was discussed of having the option of adding the detailed bicycle and pedestrian details to road improvement projects descriptions included in the web-based tracking system and in the regional TIP document. Currently, such details are not included to the extent that would allow tracking to ensure that the components are included in completed projects.

Finding: BSRC's TIP meets the requirements of 23 CFR 450.322.

Recommendation: It is recommended that the regional TIP is updated to include Complete Street project components that are being constructed as part of a road improvement project. This is particularly valuable information for projects that were competitively selected based on a process that places emphasis on the inclusion of these components.

Public Involvement

Regulatory Basis: 23 CFR 450.316 sets forth the primary requirements for public involvement, including the development of a Public Participation Plan. Public involvement in connection with the MTP is specifically addressed in 23 CFR 450.322 (g) (1) (2), (i), and (j) and specifically for the TIP in 23 CFR 450.324 (b).

Observations: The Public Participation Plan was updated in 2015 and is currently under amendment, which will be adopted in June 2016. FTA and FHWA issued FAST Act Performance Measure final regulations in May 2016. The review team noted that, since the previous review, the MPO's public outreach efforts have increased and new, alternative outreach methods have been implemented. In addition to libraries and transit centers, BSRC also includes soccer tournaments and ice rinks as locations of outreach to inform the public of planning processes. BSRC's website technique also serves as a forum for public involvement. An example of online public involvement included using the "MindMixer" engagement platform for the MTP update which attracted 800 visitors from the public who viewed or contributed their comments on the MTP draft.

BSRC has plans to create additional webpages within the BRSC site (bistateonline.org) to separate its current Transportation Planning resources and make them more easily identified. Additionally, BSRC will work to ensure that transportation planning information will be more visible and accessible for member agencies and the public on its website. Also, there is also a need for updating the website and Public Involvement Plan to include FAST Act requirements.

Finding: BSRC's public involvement efforts and public participation plan are compliant with the federal planning regulations.

Recommendations:

- Although the Public Participation Plan is currently undergoing an amendment, it is recommended that Bi-State also update its Public Participation Plan to reference and meet requirements of the FAST Act.
- Public Participation – Bi-State Website Recommendation: While Bi-State stated it will revise its site to have a Transportation home page, we recommend that Bi-State staff work to ensure that Bi-State's transportation planning activity is much more visible and accessible to member agencies, Bi-State's planning partners, and the public.

Commendation: BRSC is commended for public involvement that includes reaching out to the community in both traditional and unique spaces.

Title VI, Environmental Justice, Limited English Proficiency

Regulatory Basis: Title VI of the Civil Rights Act of 1964 states that "no person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or subjected to discrimination under any program or activity receiving Federal financial assistance." Title VI bars intentional discrimination as well as disparate impact on protected groups.

The federal transportation planning regulations, noted under 23 CFR 450.316(a)(1)(vii), requires that the MPO seek out and consider the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services. Furthermore, 23 CFR 450.334(a) (1)-(10) outline applicable nondiscrimination requirements to which an MPO must self-certify.

The Executive Order 12898, issued in 1994, amplifies the Title VI provisions. It states that each federal agency shall make achieving environmental justice (EJ) part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

Executive Order 13166, Improving Access for Persons with Limited English Proficiency, was executed in 2000 to improve access to federally-conducted and federally assisted programs and activities for persons who, as a result of national origin, are limited in their English proficiency (LEP). It requires Federal agencies to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

Finally, 23 CFR 200.9(b)(3) directs State Transportation Agencies (STAs) to develop a prompt complaint disposition process while 23 CFR 200.9(b)(7) directs the STAs to conduct Title VI/Nondiscrimination reviews of sub-recipients, which include Metropolitan Planning Organizations.

Observations: During the project selection process for the MTP and TIP, the MPO ranks the projects and then provides maps of areas that may need to be addressed for environmental justice needs. With the current MTP, they determined that projects were evenly distributed in the region and that transit provided adequate coverage. The full process is detailed in Appendix C of the MTP. The MPO developed and distributed Spanish language flyers for their most recent MTP. They also did specific outreach to a Hispanic neighborhood. The MPO also maintains a

committee, the Regional Transportation Advisory Group (RTAG), which represents a variety of interests and includes potential representatives of the EJ community

At the review, Bi-State requested that FHWA and FTA provide better coordination amongst the two agencies for civil rights submittals and clearinghouses. Currently, state and local planning agencies become confused with the subtle differences between FTA and FHWA civil rights guidance and statutory requirements.

Finding: BSRC meets the requirements of Title VI, Environmental Justice, Limited English Proficiency.

Recommendations: None

Commendation: Transportation-Health Commendation: Bi-State is commended for its involvement in the "Quad Cities Health Initiative" under a cooperative community effort through a grant from the Centers for Disease Control (CDC) which includes safe routes to school in low income minority areas, development of an interactive trails website, school wellness programs and establishing community gardens. Bi-State has received a NADO Regional Transportation Excellence award for this work activity which focuses on reducing obesity and heart disease.

Travel Forecasting

Regulatory Basis: Federal transportation planning legislation requires each metropolitan planning organization (MPO) to develop a transportation plan as part of its planning process [23 U.S.C. 134 (g) and 49 U.S.C. 5303 (f)]. This transportation plan must cover at least a 20-year planning horizon, and "shall include both long-range and short-range strategies/actions that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods" [23 CFR 450.322]. Additionally, 23 CFR 450.322(f)(1) states that the metropolitan transportation plan shall include the projected transportation demand of persons and goods in the metropolitan planning area over period of the transportation plan.

Observations: The review team observed that BSRC used data generated from its contracted Household Travel Survey. The survey was conducted between July 2013 and January 2014, and the majority was completed between October and January. BSRC targeted a sample size of 1,500 households, and nearly 1,800 household surveys were completed. For households

filling out travel diaries and those with GPS tracking, their efforts represented 2,800 hours of volunteered time towards the survey. The survey results included 4,100 persons, 3,523 vehicles, and 13,803 trips. A trip was defined as travel between an origin and a destination.

To help predict future travel negotiating the Mississippi River in the Quad Cities, participants were asked about their bridge crossing travel patterns. Of the households surveyed, 58% reported bridge crossing travel at least once per week, and 28% reported at least one bridge crossing daily. Nationally, the average is 8-10 trips per person per household per day. The average trip rate for the Quad Cities on the entire data set was 7.8 trips. The survey data was stratified by household size, income, and presence of workers in the household. Consistent with other national trends, larger households make more trips in the Quad Cities. Households with more vehicles make more trips, and households with greater income also make more trips. The data was also shown by trip purpose, such as work trips or shopping trips, and vehicle occupancy by trip purpose.

The software used for the Travel Demand Model is TransCAD. The model is validated and calibrated within Federal Highway Administration standards. It is based on Quad Cities Household Travel Survey data and also uses a variety of data other sources for model input, including Census, Reference USA InfoGroup employment data, school district, Departments of Transportation centerline and Annual Average Daily traffic data, and other local sources for network confirmations. Through the use of Iowa DOT modelers and consultant assistance, network improvements, socio-economic data, scripting, time-of-day/peak hour, and trip generation within the TransCAD software were improved/added and a fully calibrated and validated model was achieved. Through this process, the MPO has received additional recommendations for model improvement, including the following baseline improvements or advancements to the modeling efforts:

- Concentration on employment data accuracy
- More detail on trip generation procedures
- Better representation of travel time and capacity effects at signalized intersections
- Enhanced trip distribution procedures
- Improved mode share estimates
- Better highway assignment algorithms
- Improved reporting and mapping functionality

The Iowa DOT made a presentation on the Quad Cities Travel Demand Model and stated that the modeling for BSRC's MTP has been much improved since the previous 2012 Certification Review. See Appendix F for the presentation slides.

Finding: BSRC accomplishes the requirements of 23 CFR 450.322(f)(1), thereby estimating future travel demand and analyzing the impacts of alternative transportation investment scenarios, utilizing a computerized travel demand forecasting model.

Recommendation: None

Commendation: The modeling section with the Iowa DOT is commended for working with BSRC to improve the Travel Demand Model for the MTP. BSRC is commended for contracting for the Household Travel Survey, which provided current data for use in the model.

Congestion Management and Operations

Regulatory Basis: A Congestion Management Process (CMP) is a requirement for transportation management areas (TMAs) and is a systematic approach for managing congestion through a process that "provides for safe and effective integrated management and operation of the multimodal transportation system, based on a cooperatively developed and implemented metropolitan-wide strategy, of new and existing transportation facilities eligible for funding under title 23 U.S.C., and title 49 U.S.C. Chapter 53 through the use of travel demand reduction and operational management strategies." (23 CFR 450.320(a)).

The FHWA Final Rule and FTA Policy on Intelligent Transportation Systems (ITS) Architecture and Standards was issued on January 8, 2001 and codified under 23 CFR Part 940 ITS Architecture and Standards, implements Section 5206(e) of the Transportation Equity Act for the 21st Century (TEA-21). This Final Rule/Policy requires that all ITS projects funded by the Highway Trust Fund and the Mass Transit Account conform to the national ITS architecture, whether they are stand-alone projects or combined with non-ITS projects, as well as to U.S. DOT-adopted ITS standards.

Observations: The Congestion Management Process for the Quad Cities region is currently being drafted. Data collected for the process include travel time surveys, volume/capacity (V/C) ratios, level of service information, vehicle miles traveled, non-recurring delay due to crashes and accidents, and transit service data. V/C and crash data were used to guide the decision making process in prioritizing expansion projects in the MTP. The region's Surface Transportation Program project selection process prioritizes submissions based on V/C, traffic volume, crash data, and physical condition; and gives special consideration to air quality, designated truck/bus routes, connectivity, and proximity to employment centers, all of which tie back to the CMP.

The MPO is heavily involved in the development of several local evacuations plans and work specifically on the diversion route for I-80. BSRC has staff also involved in operational planning meetings for the I-74 bridge construction.

Finding: BSRC complies with the requirements of 23 CFR 450.320.

Recommendation: FHWA and FTA note that the current CMP from the 2040 MTP is out of date and needs to be updated. It is recommended that the MPO finalize their updated Congestion Management Process according to their stated schedule of the fall of 2016.

Commendation: The MPO is commended for keeping their ITS architecture up to date by addressing it yearly in the planning process. The database has been updated with changes as part of the I-74 Mississippi River Corridor. The document provides an overall framework and is revisited annually with a joint Iowa-Illinois traffic safety group meeting.

Disposition of Action Items from the 2012 Certification Review

Observations: All categories of recommendations from the 2012 Certification review have been adequately addressed and closed for all categories that were identified during the last review. The following list was provided by BRSC:

1. **Agency Cooperation** – MPO has striven to work cooperatively with coordinating agencies toward collaborative goals. Examples: I-74 reconstruction implementation, regional freight plan, travel demand model development
2. **Travel Demand Model** – Completed *Quad Cities Household Travel Survey* (2014) and utilized consultant expertise to develop trip rates and provide model enhancements, including providing full migration of model to TransCAD, time-of-day & peak-hour capabilities, and assistance on model calibration/validation on 2040 model (2013-14). Hired consultant to finish calibration of 2045 travel demand model to meet LRTP deadline (2015). Held 2013 DOT & FHWA meeting on LRTP and model timelines. Regular attendance at MTMUG and IL Modelers Users Group. Attended Household Travel Survey (2013) and TRB conferences 2014 & 2015.
3. **Long Range Plan** – Held plan development meetings with DOTs and FHWA 4/2013, 12/2013and 1/2015. Shared plan and model development timelines throughout process. Plan adopted March 23, 2016 on time.

4. **Metro Area Boundary** – Resolved mapping issues.
5. **Interested Parties, Participation and Consultation** – Restructured website 9/2013 to separate MPA from RPA and added page for public participation information 11/2015. Added reference to "data" and LEP information to public participation plan 5/2013. Incorporated EJ outreach utilizing consultant assistance to reach minority/ethnic groups, focus on Latino/Hispanic populations for LRTP (12/2015). Developed/utilized voluntary outreach survey (2014, 2015) for LRTP public meetings to collect information on income, minority status and ethnicity. Utilized online public engagement tool – MindMixer – for transportation and economic development public input (4/2014-6/2014).
6. **Transportation Improvement Program** – Incorporated EJ analysis in STP programming processes as part of decision-making process 2014. Noted in TIP tables when project programming is anticipated, as early announcement. Continued practice of including RTAG on call for projects solicitation to local jurisdictions.
7. **Certification Review Public Involvement Meeting** – Coordinated with FHWA on hold public hearing as part of the Certification Review 4/2016.
8. **Interagency Planning (Transit Facilities)** – Initiated MPO transit manager's quarterly meetings 2014.
9. **Quad Cities Transit Advisory Working Groups** – Held regional transit summits in lieu of formalized committee 12/2013 Centre Station, Moline; 3/2014 Library, Muscatine, 4/2015Library Muscatine, 12/2015 Library, Bettendorf. Attended on-going meetings for Muscatine Human Services group and RIM Transit (Rock Island-Mercer County Transit), and MetroLINK board. Hold MPO transit manager quarterly meetings, initiated 2014.
10. **Environmental Justice Analysis** – Implemented in TIP and in STP programming process6/2014. Included EJ analysis in *Bi-State Region Transit Development Plan* (2015), *Title VI Program and Non-Discrimination Policy for Bi-State Regional Commission* (2015), *2045 Quad Cities Long Range Transportation Plan* (2016).

Conclusion

Certification Action

As per the language in 23 CFR 450.334(b)(1)(ii), it has been determined that the transportation planning process in the Quad Cities metropolitan area substantially meets the requirements of this part and a TIP has been approved by the MPO and the Governors and is certified with conditions. The FHWA and FTA jointly certify the transportation planning process through August 29, 2020.

Appendix A: 2016 Bi-State Regional Commission Certification Review

Tuesday, April 26

10:30 a.m.	Kick-Off – Introductions and Overview
10:45 a.m.	MPO Transportation Overview Power Point
11:15 a.m.	MPO Organization/Membership Agreements and Coordination/Bylaws Metropolitan Urbanized & Planning Boundaries Roadway Functional Classification
12:00 p.m.	Certification Review Public Hearing during Transportation Policy Committee at Bi-State Office
1:00 p.m.	Lunch (order-in)
1:00 p.m.	Travel Demand Modeling Overview Iowa DOT Live Demo Household Travel Surveys
2:00 p.m.	Metropolitan Transportation Plan (MTP) Fiscal Constraint/Year of Expenditure/Illustrative Projects Transportation Improvement Program Amendments/ Modifications/Advanced Construction Self-Certification Assurances Unified Work Planning Program (UPWP) Indirect Cost Allocation Plan status (Illinois)
5:30 p.m.	Adjourn

Wednesday, April 27

8:30 a.m.	Transit & Coordinated Human Services Plan. Agreements and Coordination/Designated Recipient
10:00 a.m.	Break
10:15 a.m.	Title VI, Environmental Justice, LEP and ADA Public Participation Plan/Public Involvement Congestion Management Process Intelligent Transportation System/Architecture Safety and Security Planning
11:30 a.m.	Lunch/Federal Partners Working Session
12:30 p.m.	Freight Planning/Regional Study Overview Passenger Rail and River Ports Non-motorized Transportation/Bike & Pedestrian Air Quality, Climate Change & Greenhouse Gas
2:45 p.m.	Break

3:00 p.m.	Depart for Commission Meeting in Scott County
3:30 p.m.	Bi-State Commission Meeting /Brief Presentation
4:30 p.m.	Depart for Bi-State MPO Office
5:00 p.m.	Closeout meeting with MPO staff at MPO Office
6:00 p.m.	Adjourn/Timeline for Certification Review report

Appendix B: Sign-In Sheets

MEETING ATTENDANCE RECORD
MEMBERS, GUESTS & STAFF
(Please Print Legibly)

Meeting of: Quad Cities MPO Federal Certification Review

Date: April 26-27, 2016 Time: 10:30 To _____ Report: Yes X No __

Place of Meeting: Bi-State Regional Commission, Room 302

Name:	Title/Representing:	Contact # or Email:
1.Gena McCullough	Planning Director/BSRC	793-6302, Ext. 146
2.Brandon Melton	Planner/BSRC	793-6302, Ext. 122
3. Garrett Pedersen	Planner, Iowa DOT	515-239-1520
4. Dan Long	IL. DOT	Dan.Long@Illinois.gov
5. Andrea White	Planner, Iowa DOT	515-239-1210
6. Adam Shell	Planner, Iowa DOT	515-239-1221
7. Phil Mescher	Planner, Iowa DOT	515-239-1629
8. Mark Bechtel	FTA Region VII Team Leader	816-329-3937
9. Mike Kurek	ENGINEER MOLINE	309-524-2354
10. Bryan Schmid	BSRC	
11. Holly Ostdick	Illinois DoT	217-785-2994
12. Sean Litteral	FHWA	sean.litteral@dot.gov
13. Darla Hugaboom	FHWA	darla.hugaboom@dot.gov
14. Sam Shea	Iowa DOT Dist 6	
15. Doug DeLille	IL DOT - Springfield	815-284-5445
16. Brandon Melton	BSRC	
17. Denise Bulat	Bi-State Regional Comm	dbulat@bistateonline.org
18. Betsy Tracy	FHWA - IL Division	217/492-4642
19. Nikita Rainey	IOWA DOT	nikita.rainey@dot.iowa.gov
20. Donna Moritz	Bi-State Admin. Services	Dir. dmoritz@bistateonline.org
21. Randy Zobrist	River Bend Transit	563-386-7484
22. Jeff Nelson	MetroLINK	309-786-2705
23. Kurt Schuble	CitiBus	563-888-2150
24. Becky Passman	BSRC	
25. Jeff Nelson	MetroLINK	

DDlsg
forms\Meeting Sign-In Form
11/7/06

(over)

Name:	Title/Representing:	Contact # or Email:
1. Kurt	Citibus	
2. Randy Tolbirst	River Bend	
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Appendix C: Responses to the Certification Review Team Guidelines (Questionnaire)

Convenience, Investment, Affordability, Land Use, Geographic Coverage, and Safety. The projects are collected into the TDP and flow into the Transportation Improvement Plan.

Additionally, BSRC typically hosts a number of public input meetings and seeks upcoming program of projects listings from the transit systems. The TIP/STIP offers more flexibility in terms of fiscal constraints than the annual TIP/STIP, but is more refined than the Long Range Transportation Plan (LRTP).

RBT works closely with all of the transit service and human service agencies to provide access to low cost transportation to their clients, both urban and rural.

17. To what extent does BSRC coordinate land use or other infrastructure plans, policies, and strategies throughout the region?

As the Regional Planning Agency in the region, BSRC staff assist with comprehensive land use planning and sustainability plans within the Bi-State Region. A history and status of comprehensive planning can be found in the Appendix of the TPWP. As part of the Long Range Transportation Plan (LRTP) update, a revised future land use map was prepared for the metropolitan area, identifying the types of land use proposed by the individual jurisdictions. BSRC staff annually prepare the Comprehensive Economic Development Strategy (CEDS) five-year document and subsequent progress reports under funding from the Economic Development Administration (EDA). This document includes transportation and non-transportation infrastructure needs of the Bi-State Region, including the MPO area. The Cities of Davenport, Moline, and Rock Island periodically prepare and update their Fair Housing Analysis and Plan. BSRC staff participates in providing data and mapping information and provide input into the planning analysis process. BSRC staff also participate with the Scott County Housing Cluster. Related to education, area school districts are included in transportation notices through the Regional Transportation Advisory Group (RTAG). BSRC staff have provided technical assistance for future school planning on a request basis.

BSRC coordinates the LRTP and evaluation process for the Surface Transportation Plan. MetroLINK's primary efforts for land use occur directly with the communities BSRC serves and/or developers to promote transit-oriented development.

(Reference: Transportation Planning Work Program FY2016 (TPWP), Appendix pages 19-21, http://bistatesonline.org/transportation/quad-cities-metro-planning/2012-11-15-20-10-34/quad-cities-metro-area-transportation-planning-work-program; *2045 Quad Cities Long Range Transportation Plan*, Chapter 7, Map 1.6, http://bistatesonline.org/transportation/quad-cities-metro-area-transportation-plan/2012-11-15-20-19-45/quad-cities-metro-long-range-transportation-plan; and *Bi-State Region Comprehensive Economic Development Strategy (CEDS)* http://bistatesonline.org/2012-11-14-09-17-31/ceds)

18. Discuss any initiatives to reach beyond the usual stakeholders and interest groups that are concerned with such issues as housing, public health and fitness, water resources, or other "non-traditional" transportation issues, programs, or activities.

As the Regional Planning Agency, BSRC staff has provided technical assistance related to public health and fitness, regional food systems, floodplain management, water resources, public safety communications, hazard mitigation, and sustainability planning.

BSRC staff have assisted in planning and have engaged in Be Healthy QC, a multi-organizational partnership facilitated by the Quad City Health Initiative under a Centers for Disease Control and Prevention (CDC) Partnerships to Improve Community Health (PICH) grant. Partners include local communities, school districts, medical centers, YMCAs, state extensions, church and social services, county health departments, and large employers. The three-year grant initiated in 2014 targets four areas – school wellness, community gardens, safe routes to schools, and trails. BSRC received funds to complete safe routes to schools (SRTS) plans and to develop a web-based, interactive, mobile-friendly trails map (http://www.qctrails.org/). The QCTrails website focuses on non-motorized transportation but linkages to transit will be structured in Year 3. Three SRTS plans were completed in Year 1, and three are underway in Year 2. The trails website launched in early 2016. Year 3 funds are anticipated to complete an additional three SRTS plans and further development the trails website.

Bi-State Regional Commission (BSRC) has assumed the role as convener/champion of a variety of security/safety related efforts that have a relation to the transportation system response as well as disaster response/recovery. These efforts are seen to ensure area resilience in the face of climate adaptation and long-term sustainability. The safety and security related efforts include:

- *Scott County, Iowa Multi-Jurisdictional Hazard Mitigation Plan* (2012) and update slated 2016/17
- *Muscatine County, Iowa Multi-Jurisdictional Hazard Mitigation Plan* (2015)
- *Rock Island County Multi-Jurisdictional Hazard Mitigation Plan* (2016)
- *Bi-State Regional Intelligent Transportation System (ITS) Architecture Plan* (2013)
- DOI Interoperability Fiber Communications Project (redundant fiber loop in 2-state area)–ongoing
- *Evacuation Plan for the Illinois Bi-State Region: A Preparedness Resource Guide for Evacuation Events* (2014)
- *Quad City Area Incident Response Manual*
- Community Awareness of Roadway Safety & IL Interdisciplinary Traffic Safety Team
- I-74 Mississippi River Corridor Bridge Design (Underway) – includes disaster scenarios in bridge design.
- Flood Prediction, pandemic readiness, Red Cross programs, and airport security measures presentations to BSRC Board meetings (when appropriate)
- NIMS training of planning staff (100)- Initial training level

Bike and pedestrian facilities have been used as evacuation routes during disaster events where the roadway system has been compromised. Planning for these facilities is a component of security and hazards planning. BSRC managed consolidated dispatch studies for the Illinois Quad Cities. BSRC received the 2014 NADO Excellence in Regional Transportation Award for

the Evacuation Plan for the Illinois Bi-State Region: A Preparedness Resource Guide for Evacuation Events.

Annually, BSRC staff participate in the planning of a regional Mississippi River conference sponsored by River Action that addresses bicycle and water trails, as well as habitat, wildlife, and water quality issues. Staff also participate on the River Action Steering Committee and in meeting on a lake-shore feasibility study facilitated by River Action. Staff have also participated in Blue Zone initiatives related to wellness and longevity. BSRC coordinates bridge restrictions with the local Convention and Visitors Bureau and participates in tourism meetings, as well as hosts annual updates at BSRC board meetings.

BSRC staff host American Planning Association (APA) and Association of Pedestrian and Bicycle Professionals (APBP) webinar series annually, inviting planners, planning commissioners, and technical staff to presentations on a variety of planning and non-motorized transportation issues – including reinventing communities through parks, big data, health equity, disaster recovery, land regulation tools, among a number of other seminars.

Staff also provide research and information on wind, solar, and geothermal power. Through air quality efforts, staff continue to promote alternative fuels and vehicles in relation to energy and air quality.

19. Discuss the Metropolitan Transportation Plan and any evaluation of bikeway system policy and infrastructure.

There are over 100 miles of bikeways in the Quad Cities with plans for an additional 280 miles as part of the Long Range Transportation Plan (LRTP). The LRTP addresses both bicycle and pedestrian networks looking at local impact, Complete Streets, and mobility alternatives today and in the future. Additionally, the STP evaluation process encourages projects that support Complete Streets for bikeway and pedestrian infrastructure.

(Reference: 2045 Quad Cities Long Range Transportation Plan, Chapter 5, http://bistatesonline.org/transportation/quad-cities-metro-planning/2012-11-15-20-19-45/quad-cities-metro-long-range-transportation-plan)

20. How do local bicycle and pedestrian plans and advocacy groups influence the non-motorized component of the transportation planning process?

BSRC staff's a Bi-State Regional Trails Committee, open to jurisdictions located in the Bi-State Region and including participation from local trails advocates. The purpose of the committee, outlined in the TPWP, is to coordinate planning and development activities associated with multi-purpose trails in the Bi-State Region. This group, along with meetings with the local communities, provided feedback and input into the LRTP. Local community plans form the foundation of the LRTP. With the importance of the Mississippi River Trail and American Discovery Trail along the river, input on the LRTP was also solicited from the greater Quad Cities Riverfront Council. Local bicycle advocates regularly attend both Policy and Technical Committees' meetings.

21. Discuss how public health is being considered in any regional planning for walking, biking, or other forms of active transportation? Briefly explain the QC Trails project and website.

The *Be Healthy QC* partnership noted in Question 10 showcases public health efforts involving BSRC staff. In 2016, three Safe Routes to Schools (SRTS) plans covered 3,394 students, staff, and community members, equivalent to filling 53 school buses. The Quad City Health Initiative conducts ongoing community health assessments. For example, of the number of kids in the Quad Cities ages 5-17, 57% are at a healthy weight, 29.4% are overweight, and 19% are obese. The health assessment also indicated that the Quad Cities is under than the national average for healthy food choices, physical activity, and healthy weight. The SRTS plans look at what might be barriers and solutions to increasing the number of kids walking and biking to school. Similarly, the interactive web-based trails mapping tool provides the user with an ability to find trails, use trail information, and track physical activity as part of the Quad Cities' trails system. Creating a user account, participants can log miles, determine distances, earn badges as incentives, and track their achievements. Trails users can save favorite trails, make a wish list of features, add photos, and make comments and notes about the trails.

Additionally, the Bi-State Region Air Quality Task Force promotes voluntary efforts to reduce vehicle emissions.

LONG RANGE TRANSPORTATION PLAN/METROPOLIAN TRANSPORTATION PLAN

22. Discuss the goals of your recently adopted MTP.

The *2045 Quad Cities Long Range Transportation Plan* development goals are as follows and support the regional vision noted under Question 2:

- **Residential Development** – Produce vibrant residential areas to be designed and quality-based for people-friendly, healthful, satisfying living.
- **Commercial and Industrial Development** – Foster talent and innovation to retain employers/employers and attract new businesses that generate economic vitality.
- **Transportation** – Develop a transportation system to provide for the sustainable movement of people and goods.
- **Cultural Attractions, Recreation, and Open Space** – Connect people to cultural attractions, recreational facilities, and open space to fulfill needs for community wellness.
- **Government and Public Facilities and Installations** – Advance governmental and public facilities/installations, programs/services, and products that will provide sufficient capacity for the present and future needs of the nation, Bi-State Region, and Quad Cities community.
- **Urban Design** – Create safe, secure, attractive, convenient, community-based living and working conditions that maximize effects and provide quality of life benefits for Quad Cities' residents.

2016 U.S. DOT Planning Certification Review
Bi-State Regional Commission (BSRC) - Quad Cities MPO, IA/IL
Transportation Management Area

Advanced Review Questionnaire and Response

Please respond to the following questions that are intended to document processes and/or focus discussion as part of the on-site review on April 26-27, 2016. Please contact Betsy Tracy, FHWA, at 217/492-4642 (betsy.tracy@dot.gov) or Mark Bechtel , FTA, at 816/329-3937 (mark.bechtel@dot.gov) with any questions or concerns.

REGIONAL PERSPECTIVE

1. **Briefly discuss demographic and socio-economic conditions and trends in the region**

The Quad Cities is geographically located along Interstate 80, nearly equidistance between Chicago and Des Moines at the Mississippi River. Bordering eastern Iowa and western Illinois, the Quad Cities is a two-state urbanized area with 17 contiguous communities.

Between 1950 and 2010, there has been a 29.4% population increase in the Quad Cities metropolitan area. A dip in population and employment occurred in the late-1980s when the bottom dropped out from under the farm implement industry, and the Quad Cities lost nearly 10,000 jobs. However, the area is back to its population height in 1980.

The 2010 Census population for the Metropolitan Planning Area (MPA) is 298,005. The median age of residents is 38.4 years, higher than the Illinois, Iowa, and national averages. There are 122,360 households with an average household size of 2.37, which is lower than the national average of 2.59. Minorities represent 17% of the MPA population, and Hispanic or Latino ethnicity is 8.8% of the MPA population. The median household income is $49,785 compared to the U.S. median income of $53,046. The largest employer is the Rock Island Arsenal with 8,200 jobs, followed by Deere & Company, and the two medical centers, Genesis and Unity Point-Trinity. Nearly 90% of the MPA population 25 years and older have a high school diploma or higher.

When comparing statistics for the Davenport Iowa-Illinois Urbanized Area with similar peer communities such as Des Moines, Rockford, Peoria, Fort Wayne, and Huntsville, the Quad Cities was on the higher range of the following criteria: median age (37.5 years), percentage who drive alone (85%), and percentage of owner occupied housing units (69%). The Quad Cities was mid-range compared to peer urbanized areas for percentage of minorities, percentage of workers with no vehicle, and percentage in poverty. On the comparison of percentage of population 65 & older, mean travel time to work, percent vacant housing units, and percentage unemployment, the urbanized area was in the lower range of these characteristics. These comparable statistics tend to show positive trends for the Quad Cities economy considering the peer areas.

In the metropolitan area, 73% commute within their respective county. In Rock Island and Scott Counties, 29% commute between the two counties, based on the 2009-2013, 5-year estimates

from the American Community Survey. In the 2013/14 Quad Cities Household Survey, bridge crossing households made 11.24 trips per day while the average trips per household for the Quad Cities was 7.74 trips. These statistics point to the desire and need for sufficient river crossing capacity at the Mississippi River.

(Reference: *2045 Quad Cities Long Range Transportation Plan* (LRTP), Executive Summary and Chapter 1, http://bistatecnline.org/transportation/quad-cities-metro-planning/2012-11-13-20-19-45/quad-cities-metro-lrtp-long-range-transportation-plan)

2. **Briefly discuss regional development trends and challenges**

From a broader perspective, the Quad Cities Chambers' Regional Opportunities Council, a group of 100 businesses and community leaders, came together in 2013 to develop a regional vision – "*The Quad Cities is recognized globally in 2030 for growing and attracting talent and businesses, is energized by a culturally rich community, inspires innovation and embraces lifelong learning.*" The vision strives for the Quad Cities to be a "Cool, Creative and Prosperous" place to live and work. Based on the statistics noted in Question 1, the Quad Cities population today can be characterized as older than average, drives alone to work, works in manufacturing or health care, white and non-Hispanic, English language proficient, and has a high school diploma or higher. The community is engaged in changing its character to reflect the regional vision of the future.

The Quad Cities MPA population is expected to grow moderately from 298,005 (2010) to 328,544 people by 2045, based on land use forecasts for housing and employment. Employment is expected to grow from 161,998 (2010) to 188,859 (2045) jobs, or roughly 830 new jobs per year. The Rock Island Arsenal, as the largest employer, is a critical employer, and the Quad Cities as a whole is working to support its viability, as Department of Defense priorities change over time. The area also depends on employers such as Deere & Company, headquartered in Moline and two medical centers.

Future transportation issues identified in the long range transportation planning process included the following list. These were derived from kick-off meetings, online engagement, and electronic surveying. Issues included:

- Aging Facilities & Equipment
- Shifts in Where People Live and Work
- Changes in Who Lives and Works in the Quad Cities
- Use of Technology to Solve Problems
- Limited Funding
- Creating More People-Friendly and Healthy Travel Choices
- Corridor and Spot Congestion
- Safety and Security of Users and Assets
- Connecting to Regional and Global Markets

- River Crossing Capacity
- Measuring Performance and Prioritizing Projects

(References: http://www.acnation.org/, and *2045 Quad Cities Long Range Transportation Plan*, Executive Summary and Chapters 1 and 3, http://bistatecnline.org/transportation/quad-cities-metro-planning/2012-11-13-20-19-45/quad-cities-metro-lrtp-long-range-transportation-plan)

3. **Briefly discuss travel trends (VMT, transit usage, bike-ped, etc.) and transportation funding conditions (state and local) in the region**

There are 2,067 miles of roadway with one-third being Federally Functionally Classified at collector or higher. Interstates represent 124.8 miles of the system. The highest traffic count location in the Quad Cities is located on I-74 at the Mississippi River with 70,500 (2013) vehicles per day and projected to be 97,600 (2045) with the completion of the I-74 Mississippi River corridor reconstruction project. With 25% working in one state and living in another, there is a strong need to cross the Mississippi River at one of the five bridge crossings.

In the 2013/14 Quad Cities Household Survey, auto trips represented 93% of the trips by mode. Transit trips were 0.88%, bikes were 0.09%, and walking was 2.8%. The census statistics mirror the mode choices. Annual unlinked transit rides in 2010 were 4.5 million and projected to reach 13.2 million by 2045. Forty-eight percent of the urban population lives within ¼-mile or five-minute walking distance from a bus route and an estimated 103,722 employees are located within a similar distance. The Quad Cities is served by three fixed-route public transit systems and two regional transit systems. Sidewalks are available on one or both sides of 30% of roads classified as collector or higher. There are 100 miles of bikeways in the metro area, including two national trails – Mississippi River Trail (MRT) and American Discovery Trail (ADT). The Quad Cities has a Complete Streets Policy, and the City of Bettendorf was the first community to earn Bronze Level recognition as a Bicycle Friendly Community by the League of American Bicyclists.

Transportation funding conditions since SAFETEA-LU have been relatively flat or static at the federal level. Similarly, economic issues have posed some limitations on providing matching dollars for projects. Projects have moved more slowly from programming to implementation as a result.

4. **Highlight the results of your recent Household Travel Survey in your region**

The survey was conducted between July 2013 and January 2014 with the majority being completed between October and January. A sample size of 1,500 households was targeted with nearly 1,800 household surveys being completed. For households filling out travel diaries and those with GPS tracking, their efforts represented 2,800 hours of volunteered time towards the survey. The survey results included 4,100 persons, 3,523 vehicles, and 13,803 trips. A trip was defined as travel between an origin and a destination. So, one trip would be from home to school to drop off kids, and another trip would be from school to work.

To help predict Mississippi River travel in the Quad Cities, participants were asked about their bridge crossing travel. Of the household surveyed, 58% reported bridge crossing travel at least once per week, and 28% reported at least one bridge crossing daily. Nationally, the average

household person trip is 8-10 trips per person per household per day. The average trip rate for the Quad Cities on the entire data set was 7.8 trips. The survey data was stratified by household size, income, and presence of workers in the household. Consistently with other national trends, larger households make more trips in the Quad Cities. Households with more vehicles make more trips, and those households with greater income also make more trips. The data was also shown by trip purpose, such as work trips or shopping trips, and vehicle occupancy by trip purpose.

(Reference: *Final Report Bi-State Regional Commission Household Travel Survey Documentation*, 2013-2014, travel diary packet, survey questionnaire, and media release, http://bistatecnline.org/transportation/quad-cities-metro-planning/2013-quad-cities-household-travel-survey)

ADMINISTRATION OF THE METROPOLITAN PLANNING ORGANIZATION

5. **Please provide an overview of the Bi-State Regional Commission and where the metropolitan Planning Organization fits in to the commission structure**

The Bi-State Regional Commission (BSRC) consists of 35 persons representing counties, cities, and program and designated constituencies throughout the Bi-State Region. Approximately 71 percent of the members are elected officials, and 29 percent are citizen appointments. Membership is approximately proportional to population with 13 county representatives, 15 city representatives, and seven program and designated constituency representatives. In the interest of effective and efficient functioning of the Commission, delegated authority groups have been established by the Commission to expedite specific business and planning activities. The Commission has established specific guidelines or limits within the delegated authority groups. Two such groups are the Transportation Policy Committee and Bi-State Drug and Alcohol Testing Consortium. The Transportation Policy Committee oversees the transportation planning and programming for the Davenport, IA/IL Urbanized Area.

(Reference: *Transportation Planning Work Program FY2016* (TPWP), page II-2, http://bistatecnline.org/transportation/quad-cities-metro-planning/2012-11-13-20-10-34/quad-cities-metro-tpwp-transportation-planning-work-program)

6. **Who are the members of the BSRC MPO Policy and Technical Committees and what jurisdictions or agencies do they represent? What Cooperative Agreements are in place to guide the planning process?**

Details of MPO Policy and Technical Committee membership are outlined annually in the TPWP. Refer to http://bistatecnline.org/transportation/quad-cities-metro-planning/2012-11-13-20-10-34/quad-cities-metro-tpwp-transportation-planning-work-program. All jurisdictions in the urban area are represented with a balance between Iowa and Illinois representation. Small communities within the MPO are caucused for an Iowa and Illinois representative. Only public transit is represented as a mode, specifically for the Metropolitan Mass Transit District in the Illinois Quad Cities. Public transit in the Iowa Quad Cities is represented by the local jurisdiction. The other modes of transportation are invited through the Regional Transportation Advisory Group or participation on subcommittees, such as the Bi-State Regional Trail Committee or Bi-State Region Air Quality Task Force, and as participants in the development of

the *Bi-State Region Freight Plan* (2015). The Policy Committee is represented by elected officials or representative of the transit board. The Technical Committee is represented by public works, planning, and transit managers. Both committees include representation from Iowa and Illinois Departments of Transportation and non-voting representation from FHWA and FTA. These groups and their roles/responsibilities are detailed annually in the TPWP.

The Cooperative Transportation Planning and Programming Agreement is included in the appendix of the TPWP. It was last updated in December 2011. There were no changes to the voting membership. A copy of the agreement is placed annually in the Appendix, pages 8-11, of the TPWP.

7. **How the BSRC staff organized and what are their responsibilities? Please provide a copy of your organization chart.**

A Bi-State Regional Commission (BSRC) organization chart is attached. Federal transportation planning funds represents roughly 44% of BSRC's budget. Assignments are provided to staff on a project or task basis. This allows for staffing flexibility depending on timing, workload, staff availability, and skills required for a project. Employees are required to track their time spent per TPWP activity on a timesheet that lists each planning activity i.e. Administration, General Planning, Short Range Planning, and Long Range Planning. The FY2016 TPWP provides a table, Page V-6, with estimated hours by staff title and by planning activity.

(Reference: *Transportation Planning Work Program FY2016* (TPWP), page V-6, http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-10-34/quad-cities-metro-tpwp-transportation-planning-work-program)

8. **How are the Transportation Planning Work Program (TPWP) activities developed, selected, and prioritized? Are you on the same funding schedule for Iowa and Illinois?**

As a comprehensive, continuing, and coordinated transportation process, transportation planning work program activities are reviewed on an on-going basis. BSRC management staff meet monthly to review actual versus budgeted costs. Work program implementation falls under the four categories noted in Question 7. There are required documents updated cyclically whether annually (TPWP or Transportation Improvement Program) or from three (Transit Development Plan) to five (Long Range Transportation Plan or ITS Architecture) years. Priority areas are based on annual discussions of the local priorities identified through the long range transportation planning process and changes in federal emphasis areas, and are tied to the federal authorization and its priorities. Short-range technical assistance is based on grant cycles, on-demand requests, and availability of staffing at that time.

Both states use a July 1-June 30 fiscal year, which is consistent with the MPO fiscal year.

9. **What sources of funding provide the local match for Federal PL and FTA 5303 Planning funds?**

Matching funds for federal transportation dollars are from local membership dues, Illinois motor fuel tax and Illinois State Metropolitan Planning Funds. Membership dues are from county and city governments that are members of Bi-State Regional Commission (BSRC). Counties and cities in the urbanized area pay 10 cents per capita greater than those not in the urbanized area to

support the transportation planning program. Governments over 5,000 in population pay per capita and those below are on a flat rate.

(Reference: *Bi-State Regional Commission Budget Plan*, FY2016, http://bistateonline.org/about-us/who-we-are)

10. **Given the current budget impasse in the State of Illinois, how has it affected how the MPO work is performed or reimbursed?**

With the reimbursement of the Illinois FHWA federal share and ability to cash flow the Illinois matching portion, transportation planning work program activities in the four categories have had little impact. However, requested reimbursements for consultant work from FY2015 received by the State of Illinois after July 1 and through FY2016 to-date have not been reimbursed for Special Planning and Research (SPR) funds, as well as state matching funds. Cambridge Systematics is yet to be reimbursed for the *Bi-State Region Freight Plan* (2015) work since end of FY2015. BSRC's special project related to travel model enhancements has not been reimbursed, and the special project Freight Commodity Planning and Data Enhancements have been put on hold. These are outlined in the FY2017 TPWP, and the funds amount to $136,646.

11. **Do you have an approved Indirect Cost Allocation Plan? If so, what is the cognizant federal agency?**

Yes, the Economic Development Administration under the Department of Commerce. The Certificate of Indirect Costs in included in the appendix of the TPWP annually.

12. **Discuss the contents of the MPO self-certification. How does BSRC track these requirements and the MPO's ability to meet them?**

The MPO self-certification is reviewed annually to coincide with the Transportation Improvement Program update. The certification, certificate of compliance, along with the statement of financial capacity analysis and process are located in Appendix C, pages 15-19 of the *FY2016-2019 Transportation Improvement Program*.

(Reference: *FY2016-2019 Transportation Improvement Program*, Appendix C, pages 15-19, http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-10-34/quad-cities-metro-tip-transportation-improvement-program)

TRANSIT AND HUMAN ENVIRONMENT

13. **Please discuss the services provided by the Metro Link Mass Transit District, CitiBus, Bettendorf Transit, and River Bend Transit and any other public/private transit operators in the region. Please discuss what coordination exists between the transit operators.**

Services provided by the five transit systems serving the greater metropolitan area are identified in the *Bi-State Region Transit Development Plan* (2015) and the *2045 Quad Cities Long Range Transportation Plan* (2016). In addition to the three fixed-route public transit systems and River Bend Transit, the regional transit system serving the Iowa Quad Cities, Rock Island-Mercer County Public Transit (RIM) serves the greater Illinois Quad Cities through Project Now. Since

2014, the metro area transit managers have been meeting quarterly to discuss coordination issues and activities.

The City of Bettendorf operates a municipal fixed-route transit system that consists of five (5) routes and six (6) buses during peak service. The system connects with Davenport CitiBus at two (2) locations and MetroLINK in one (1) location. In 2013, Bettendorf entered into an Intergovernmental Agreement (IGA) with MetroLINK to provide dispatching services, customer call center support, and back-office administrative activities. In 2015, a secondary IGA was executed to provide an additional "bridgeline" bus to enhance connections between the Illinois Quad Cities to Bettendorf. Bettendorf has an existing contract with River Bend Transit to operate its ADA paratransit service and fixed-route service on *Saturdays*.

The City of Davenport operates a fixed-route system of 17 routes known as CitiBus. Public transit in Davenport began in 1969 with the creation of the City Transit Authority, which subsidized the privately-held Davenport City Lines Bus Company. The city purchased Davenport City Lines and placed the operation of the transit service under the jurisdiction of the city's Department of Municipal Transportation. The 17 CitiBus routes are oriented in both radial and grid patterns emanating from the Ground Transportation Center (GTC) located in the heart of downtown Davenport on River Drive between Ripley and Harrison Streets. With all buses equipped with bike racks, CitiBus provides easy access to the nationally-designated Mississippi River Trail by taking a bus to the downtown station, which runs one block south of the facility. Headways vary by route and time of day but are generally 30 or 60 minutes. CitiBus Route 17 provides service to the River Cities Business Park during peak hours for the businesses located in this area. The City of Davenport contracts this service, along with their complimentary Americans with Disabilities Act (ADA) paratransit service and other demand-response services, to the regional transit provider River Bend Transit.

MetroLINK is a transit district serving seven (7) communities in the Illinois Quad Cities. The system currently operates thirteen (13) fixed routes via approximately sixty (60) buses, ADA-paratransit service, Special Transportation Services for individuals with disabilities and dialysis trips, and a seasonal Channel Cat passenger ferryboat. MetroLINK's fixed-route system, known as the Metro, connects with Davenport and Bettendorf fixed-route systems, as well as the River Bend Transit paratransit service provided on behalf of the two (2) Iowa systems. Additional coordination has occurred between MetroLINK and RIM Rural Transit (IL-based 5311 provider) and Arc of the Quad Cities (sheltered work environment and residential facilities for individuals with developmental disabilities).

River Bend Transit (RBT) provides direct ADA-paratransit service for Davenport and Bettendorf and coordinates connections with Illinois ADA riders through the ADA-paratransit provider for MetroLink. RBT often refers potential riders to local for-profit transportation providers for trips RBT cannot do, i.e. charters.

(Reference: *2045 Quad Cities Long Range Transportation Plan*, Executive Summary and Chapters 1 and 3, http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-19-45/quad-cities-metro-lrtp-long-range-transportation-plan, and *Bi-State Region Transit Development Plan* (2015), http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-46-57/tdp)

14. **Discuss the status of passenger rail service in the Bi-State Region.**

The Quad Cities is currently monitoring the status of the rail improvements from Chicago to Quad Cities. Due to the State of Illinois budget impasse, the project has been on hold since summer 2015. It was hoped that the rail improvements would have been completed and rail service initiated by the end of 2016. Director Trombino, IADOT, sent a letter to ILDOT Secretary Blankenhorn in March noting that Iowa was actively developing the necessary engineering and environmental plans for the extension of service from Quad Cities to Iowa City. However, the remaining funds in the FFY2010 High-Speed Intercity Passenger Rail (HSIPR) award isn't adequate to extend service, and Director Trombino offered to transfer to ILDOT to address the Quad Cities to Chicago shortfall. IADOT also suggested an interim provision of thru-bus service to connect to the Quad Cities from Iowa City until a time when service was initiated for that segment. The feasibility of this offer is under discussion by the DOTs and FRA.

The City of Moline is working on a $16.6-million rail station in anticipation of passenger rail service, including $10 million in TIGER II funds (2011). MetroLINK is currently the grantee for the TIGER II funds. The funds are being used to convert the historic six-story O'Rourke Building into the transit-oriented "Q" Multimodal Station that will serve as a transportation hub for Amtrak service and public transit.

BSRC staff and an MPO-elected official participate on Iowa Passenger Rail Advisory Committee.

(Reference: Illinois Passenger Rail website, http://www.illinoisrail.org/amtrak_illinois/chicago_to_quad_cities/about_the_project/; City of Moline Quad Cities Multimodal Station, http://www.moline.il.us/index.aspx?NID=710); and MetroLink http://www.qcmetrolink.com/191/Projects-Planning)

15. **Discuss strategies in the region designed to improve accessibility for mobility impaired populations through paratransit or other services.**

Both Bettendorf and Davenport contract with River Bend Transit to provide its ADA-paratransit service. In addition for Bettendorf, River Bend Transit offers a Dial-A-Bus service, which provides door-to-door service without eligibility requirements for an increased fare. Citibus' Sunday ADA service (10:00 a.m. -5:00 p.m.) will begin on July 10 with longer evening hours Monday-Saturday starting on July 5. RBT provides Monday-Friday service between Davenport and Iowa City.

MetroLINK currently works with area residential facilities that serve senior and disabled populations to promote its services and improve accessibility. MetroLINK staff members also regularly attend community events, fairs, etc. relative to accessibility and mobility.

16. **Discuss the implementation of the Coordinated Human Services Transportation Plan (HSTP) and how it is coordinated with the overall transportation planning process?**

The 2015 *Bi-State Region Transit Development Plan* (TDP) is the recognized HSTP document for the MPO and the areas known as Region 9 (Muscatine and rural Scott Counties, Iowa) and Region 2 (Henry, Mercer, Rock Island, and Whiteside Counties, Illinois). The document identifies funding sources and proposed programming of these funds to implement the policy direction and strategies outlined in the plan. Strategies focus on the following themes:

The metropolitan development goals are further supported by transportation performance objectives and strategies. The objectives are as follows and parallel themes originally identified in SAFETEA-LU and furthered in MAP-21 and FAST.

- Support Economic Vitality
- Increase Safety
- Increase Security
- Increase Accessibility and Mobility Options
- Protect and Enhance the Environment
- Enhance Connectivity and Integration between Modes
- Promote Efficient System Management and Operation
- Emphasize System Preservation

As an update, the objectives were reviewed and refined, as well as the strategies to support them. The strategies can be found in Chapter 1 of the LRTP under each objective.

(Reference: *2045 Quad Cities Long Range Transportation Plan*, Chapter 1, http://bistatecoline.org/transportation/quad-cities-metro-planning/2012-11-13-20-19-45/quad-cities-metro-lrtp-long-range-transportation-plan)

23. How were the categories of performance measurement selected, and what role will these measures have on the implementation and evaluation of the MTP goals?

The LRTP performance measures coincide with those federally developed. In the *2040 Quad Cities Long Range Transportation Plan*, performance indicators were suggested in advance of MAP-21 as possible measures of relative conditions related to transportation. These indicators were reviewed in Chapter 2 of the *2045 Quad Cities Long Range Transportation Plan*. Indicators were reviewed for the feasibility of data collection and trending. Some variables were found to be difficult to track while others were practical for trend analysis. An addendum to the 2045 LRTP is anticipated to address performance measures and targets for the MPO in consultation and cooperation with the states. BSRC staff are waiting for federal guidance on the measures and have discussed the status with the Technical and Policy Committees as items are released. BSRC staff, MetroLINK, and a Rock Island city engineer are participating in the ILDOT Performance Measures Advisory Group.

24. While your region is currently in attainment for all criteria pollutants, describe your efforts to reduce air pollution in reference to reducing air pollutions. Discuss the role of the Air Quality.

The Bi-State Air Quality Task Force was established in 1998 and has since been meeting regularly to voluntarily address emissions reductions education and outreach. The task force began at the MPO level and has expanded to include the entire Bi-State Region. The Task Force assisted in the development of a multi-media Clean Air Counts effort under a grant from the Alcoa Foundation (2011-13) "Make Air Quality Visible" strategic plan (2015) to outline efforts to reduce emissions, and assisted in the establishment of the Bi-State Region Clean Air

Partnership, a voluntary membership of organizations that have pledged to reduce emissions. The later was funded by an Iowa Clean Air Attainment Program (ICAAP) Grant. Subsequent ICAAP applications for traffic analysis and safety education (2014) and bicycle and pedestrian promotion (2015) were unsuccessful. The 2011 ICAAP application and award funded in part the Household Travel Survey (2014). The study results were used in the travel demand model and provided information in the event the area would be classified as non-attainment for air quality modeling. The MPO continues to maintain the www.qctransit.org website as part of prior efforts to promote single-occupant vehicle alternatives. This website acts as a portal to the various area transit systems as one unique URL.

(Reference: Bi-State Clean Air Partnership, http://bistatecoline.org/2012-11-14-00-30-56/2013-04-11-14-50-40/bi-state-region-clean-air-partnership)

25. Describe your projected travel demand determined for the draft Metropolitan Transportation Plan. Discuss the demographic, socio-economic, land use, and/or travel demand forecasting that were utilized for development of the future scenario?

Travel demand is expected to increase. A map will be provided as part of the meeting, and it is being finalized as part of the LRTP development.

Chapter 1 of the LRTP describes the population projection methodology briefly under "Where We are Going in 2045." It is projected that the MPA population will grow from 298,005 to approximately 328,544 or 10.2% by 2045. Similarly, the employment is projected to grow from 161,988 to 188,358 or 16.3% by 2045. See Figures 1.19 and 1.20 for more details. Projections were developed to frame the local community land development projections. The "Mid" projection is based on estimated land-based development in the MPA between 2010 and 2045. The "Mid" projections were used as part of the travel demand modeling process to predict future trips in the MPA. The lower threshold population figure was based on a historical change in growth of the three-county area (0.2%) between the years 1970-2010 and applied to the base year population to determine the 2045 population. The highest threshold population was based on historical change in growth from 1990-2010 on the fastest growing county within the MPA of 17.8%. The low and high employment projections were based on a population to employment ratio representing 0.18% change between 2010 and 2045. The highest employment projection was derived from a third-party provider of projections, Woods & Poole, and represented a 29.02% change between 2010 and 2045.

LRTP Appendix B (final document, attached at the end of this questionnaire) summarizes the population and employment caps used to constrain the local land-based development projections that were used in the travel demand model. The land-based projections were derived from local community staff input on future development of housing areas and business development in their respective communities or in the unincorporated areas. Full details are part of a separate technical report documenting the travel demand model development.

The following Table 3.11 from the LRTP illustrates the high and low benchmarks and the projection used in the model based on community land use input for growth of residential and commercial development.

Planning Area Demographic Data	Projection	Base Year 2010 Total	Horizon Year 2025 Total	Horizon Year 2045 Total
Population	High	298,005	319,720	351,154
	Model	298,005	313,438	328,544
	Low	298,005	298,229	298,527
Occupied Housing Units	High	122,360		
	Model	122,360	130,981	136,863
	Low	122,360		
Employment	High	161,988	182,925	206,947
	Model	161,988	175,688	188,358
	Low	161,988	162,110	162,272

(Reference: *2045 Quad Cities Long Range Transportation Plan*, http://bistatecoline.org/transportation/quad-cities-metro-planning/2012-11-13-20-19-45/quad-cities-metro-lrtp-long-range-transportation-plan)

26. Discuss how proposed capacity expansion investments listed in the long range plan were selected and prioritized for inclusion in the plan.

Question 28 below outlines the initial request for projects. As part of the fiscal constraint process, projects were examined for their current Federal Functional Classification (FFC) eligibility, and projects with a higher classification were recommended over others. Projects came up through the local jurisdictions and information was provided on pavement conditions, crashes, and traffic as part of the discussion of priorities. Projects were classified as short-term, long-term, unmet needs, or requires additional study.

27. Describe how the revenue forecast for roadway capital projects was developed.

Chapter 7 of the *2045 Quad Cities Long Range Transportation Plan* outlines the revenue forecasts used for road, transit, and trails. A ten-year history of revenue was reviewed by category including roadway-operations and maintenance, roadway-capacity expansion, transit-operations and maintenance, transit-capital, and transportation enhancements. These justification categories were determined for each project as they were entered into the TIP to track how funding is historically allocated in the region. The trendline projections provided an annual average for the FY 2015 funding forecasting base year. An annual growth rate of 2% compounded annually was applied for the first 10 years (2016-2025) of the plan. An annual growth rate of 4% compounded annually was applied for the outer years (2026-2045) of the plan. The growth rate for the outer years is consistent with historical trends, using locally-programmed Surface Transportation Program (STP) funds.

In keeping with the revenue projections, the period of programmed STP funds from 2006-2015 was examined for historical trends. During this period, the average annual growth in Iowa Quad Cities STP funds was 3.98%, and STP funds were 7.16% in Illinois Quad Cities. Figure 7.1 of the LRTP demonstrates these trends. In addition to STP trends, rates from peer MPOs were reviewed, as well as historical GDP rates over the past 5 years as indicators of reasonableness.

In recognition of the current economic climate, a growth rate of 2% for 2016-2025 was used to reflect a conservative approach to revenue in the short term and 4% in the long term to reflect

historical trends and economic recovery. Considering the current and future states of the economy, the Transportation Policy Committee and both the Illinois and Iowa Departments of Transportation agreed with the revenue forecasting methodologies and projections.

(Reference: *2045 Quad Cities Long Range Transportation Plan*, Chapter 7, http://bistatecoline.org/transportation/quad-cities-metro-planning/2012-11-13-20-19-45/quad-cities-metro-lrtp-long-range-transportation-plan)

The financial summary from the LRTP, Table 7.2 is provided below.

Transportation Revenue Resources		Federal, State, and Local ($1,000)		
		2016-2025	2026-2045	2016-2045
Roadway	Operations & Maintenance	$443,309	$1,498,424	$1,941,733
	Expansion	$78,180	$258,045	$336,225
Subtotal Roadway		$521,489	$1,756,469	$2,277,958
Transit	Operations & Maintenance	$274,717	$928,568	$1,203,285
	Capital	$119,046	$400,030	$519,076
Subtotal Transit		$393,763	$1,328,598	$1,722,361
Enhancements	Enhancements	$27,922	$94,378	$122,300
Subtotal Enhancements		$27,922	$94,378	$122,300
Total Forecasted Transportation Revenue Resources		$943,174	$3,179,446	$4,122,619
Transportation Expenses		**Federal, State, and Local ($1,000)**		
		2016-2025	2026-2045	2016-2045
Roadway	Operations & Maintenance	$443,309	$1,498,424	$1,941,733
	Expansion	$96,106	$191,227	$275,333
Subtotal Roadway		$525,586	$1,752,477	$2,277,983
Transit	Operations & Maintenance	$274,717	$928,568	$1,203,285
	Capital	$119,046	$400,030	$519,076
Subtotal Transit		$393,763	$1,328,598	$1,722,361
Enhancements	Enhancements	$28,422	$36,427	$64,849
Subtotal Enhancements		$28,422	$36,427	$64,849
Total Forecasted Transportation Expenses		$947,691	$3,117,502	$4,065,193
Financial Differences		**Federal, State, and Local ($1,000)**		
		2016-2025	2026-2045	2016-2045
Roadways		-$5,926	$66,818	$60,892
Transit		$0	$0	$0
Enhancements		-$500	$57,951	$57,451

28. **Explain how the implementing agencies provide estimates for roadway capital projects identified in in the long range plan? Is it done in a consistent manner? How are the unit costs derived for maintenance projects? How are the inflation factors considered for both capital and maintenance projects?**

To initiate potential roadway capital projects, a request was sent to local and state jurisdictions asking them to review projects in the prior plan for their status and to review project costs and update them using year of expenditure (YOE) estimates, choosing mid-point either between 2016-2025 or 2026-2045, and provide the rate of inflation used to determine YOE. For new projects, jurisdictions were asked for projects that will add capacity, remove capacity or direction change the traffic patterns on the transportation network (e.g. paving gravel roads, widening or adding lanes), and to provide the project with its location and termini, brief description, cost in year of expenditure dollars, and timeframe for construction (2015-2025 or 2026-2045). A spreadsheet with the existing projects was distributed to provide a consistent format and collect the information.

Based on historic trends determined through review of Transportation Improvement Programs, the percentage of funding spent on maintenance activities for roadways and transit activities was determined. In regard to roadways, approximately 63% of revenues were spent on maintenance activities over the past 10 fiscal years for projects listed in the Transportation Improvement Program. This 10-year period saw a number of expansion projects (e.g. new construction on Tanglefoot Lane in Bettendorf and the widening of Eastern Avenue in Davenport). In keeping with the trend toward system preservation, it was determined that 63% of the future revenues should be allocated to maintenance. (Note: This percentage was a compilation of **all** entities listed in the Transportation Improvement Program.)

Individual entities may spend a higher or lower percentage on their maintenance. Examples of major maintenance projects that are projected to be completed within the timeframe of the plan include the three Mississippi River interstate (74, 80, and 280) bridge painting projects, several bridge replacements area wide, interstate patching and resurfacing in the Iowa and Illinois Quad Cities, and bridge deck rehabilitation on I-280.

(Reference: *2045 Quad Cities Long Range Transportation Plan*, Chapter 7, http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-19-45/quad-cities-metro-lrtp-long-range-transportation-plan)

29. **Discuss the financial plan for public transportation including the development of revenue projections and estimates of operations, maintenance, and capital costs**

This is noted in Question 27.

30. **What consideration was given to identifying illustrative projects that could not be fiscally constrained?**

The *2045 Quad Cities Long Range Transportation Plan* referenced these types of projects in Chapter 7. There were two levels of projects that did not achieve status in the fiscally-constrained portion of the plan. There were a number of projects that were desired for capacity expansions or enhancements and were deemed "unmet needs," as costs and project concepts were known or further study was unnecessary. These projects were vetted in the LRTP planning

process, and if funds were to become available, they would be more easily amended into the LRTP. The second level of projects were categorized as "requiring additional study." These projects are considered conceptual in nature and would require detailed analysis for feasibility, alignment, and cost estimates. If they are more fully studied and determined to be feasible, they may be considered in a subsequent plan update.

31. **How are the state DOT projects identified in the MTP?**

State roadway network priorities were provided in Table 7.4, Chapter 7 of the *2045 Quad Cities Long Range Transportation Plan*. They were modeled and shown as part of the capacity analysis in Chapter 3 "Driving Roads," in Maps 3.18–3.23. Projects were either provided by the respective Department of Transportation or desired by a local jurisdiction and received concurrence from the respective department to be shown in the plan.

32. **Does the MTP address new technologies that may have direct impacts on the transportation sector (EVs, V2V, etc.)?**

New technologies were touched on in discussions of the Intelligent Transportation System (ITS) deployment, but no specific technologies were called out. There are a few electric vehicle charging stations deployed in the Quad Cities. For example, there are two located at the Quad Cities International Airport. These technologies and alternative fuels have been part of discussions with the Quad Cities Air Quality Task Force. Similarly, a local riverfront advocacy group is looking for partners to deploy a bike-sharing system within the Quad Cities. In anticipation of the I-74 Mississippi River Corridor reconstruction project, there have been early discussions on options to deploy smart technologies to reduce and manage congestion.

FREIGHT

33. **Briefly discuss the freight assets and capabilities of the Bi-State Region.**

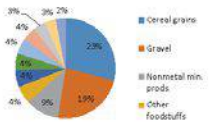
The MPO completed the *Bi-State Region Freight Plan* (2015) and had a freight commodity tool developed as part of the consultant work. The Quad Cities is served by all modes of freight transportation – five Mississippi River and five Rock River roadway bridges, two railroad Mississippi River crossings, four interstates, four U.S. and 10 state highways, three railroads (Class I & II), two locks and dams, and two airports (commercial and general aviation), along with a number of pipelines. The City of Davenport completed a rail extension to the Eastern Iowa Industrial Center for the operation of a trans-load facility and within the region. The City of Muscatine plans to study the feasibility of a containerized intermodal facility along its riverfront with rail, river, and highway access.

The *Bi-State Region Freight Plan* (2015) provided data on commodity flow profiles for the region by mode and direction. While the Quad Cities represents all modes of freight transportation, trucking is the dominant mode and represents 75% inbound and 77% outboard share by tonnage and the majority by value based on 2007 Freight Analysis Framework (FAF) data. Predictions for 2040 indicate trucking will continue to dominate the mode share, unless improvements can be made to other modes or if conditions, such as higher fuel prices drive shipments to more fuel efficient modes, such as rail and water transportation. As noted in the Section 3.3 Waterway Infrastructure of the *Bi-State Region Freight Plan* (2015), international

improvements in Central America are expected to have effects on global traffic that may produce modal shifts in the region. The unreliability of the Upper Mississippi River System may hamper efforts to shift freight to water, unless investments occur to improve the lock system to reduce river congestion.

On the commodities side, cereal grains, and gravel were identified as the largest share by tonnage of inbound and outboard materials being shipped from the Bi-State Region. The 2007 FAF data indicated that cereal grains amounted to 28% of the total major freight commodities and gravel represented 14%. These two commodities are predicted to remain the top two commodities by weight through 2040, as shown in Figure 6.5. This points to the strength of the Bi-State Region's agricultural and natural resource base. The Quad Cities and surrounding area supports food production and construction with these materials.

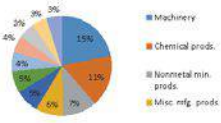
2045 LRTP Figure 6.5 – Major Freight Commodities by Total Tonnage, 2040



Source: Bi-State Region Freight Plan (2015), Parsons Brinkerhoff analysis of disaggregated FAF2.2 2007

Looking at the value of commodities shipped in the Bi-State Region, fertilizers and machinery represent 12% and 8% of the total shipments by value in 2007, based on the FAF data from the *Bi-State Region Freight Plan* (2015). In 2040, machinery represents 15%, and chemical products represent 11% of the total shipments by value. Figure 6.6. shows major freight commodities by value for 2040.

2045 LRTP Figure 6.6 – Major Freight Commodities by Value, 2040



Source: Bi-State Region Freight Plan (2015), Parsons Brinkerhoff analysis of disaggregated FAF2.2 2007

34. **Discuss the major findings of the recent Regional Freight Study completed in 2015 and what influence it may have on the direction of your transportation planning process.**

The *Bi-State Region Freight Plan* (2015) identified capacity projects, operational-technology applications, policy changes, partnerships, and funding recommendations. A short-term initiative was to develop a freight forum or partnership. Mid- and long-term efforts were the feasibility studies and project design/construction. A number of road projects contained in the TIP or LRTP will address bottlenecks and incidents on highways. The Iowa Department of Transportation is studying the capacity needs along I-80. Both states are discussing the replacement of the I-80 bridge over the Mississippi River, which appears in the *2045 Quad Cities Long Range Transportation Plan*. Rail improvements called for studying the feasibility improvements to rail crossing capacity over the Mississippi River to bring rail lines into 286-K compliance. As part of the LRTP development, local officials expressed interest in a major investment study of highway and rail crossing capacity at the Mississippi River from I-280 to I-80. The Quad Cities has been working toward a three-phased implementation of the 1998 Mississippi River Crossing Plan, including improvements and removal of tolls on U.S. 67 Centennial Bridge and replacement of the I-74 Mississippi River crossing. The third phase was consideration of a new East Mississippi River bridge. After 18 years, the plan should be revisited with both highway and rail in mind.

PUBLIC PARTICIPATION AND TITILE VI OF THE CIVIL RIGHTS ACT

35. **What opportunities are provided for public participation at key decision points in the planning, programming, and project development phases of transportation decision making? Have the public participation activities influenced transportation investment decisions and policies?**

An extensive LRTP engagement process is summarized in Appendix A of the *2045 Quad Cities Long Range Transportation Plan*. This included consensus decisions on the goals/objectives, population and employment projections, and capacity projects at Policy Committee meetings. Public hearing formats and formal published notices are used with the LRTP, TIP, and certification review, and coincide with the Transportation Policy Committee. The BSRC website under transportation planning has a page dedicated to public participation information and the Public Participation Process is included in the key transportation documents produced for the MPO.

(Reference: http://bistateonline.org/transportation/public-participation)

36. **Discuss efforts to make BSRC information and documents available in electronically accessible formats**

Documents are posted to the BSRC website on the World Wide Web 24/7, referenced on the topical page, and posted under documents. This includes the *2045 Quad Cities Long Range Transportation Plan*, *Bi-State Regional Intelligent Transportation System (ITS) Architecture Plan* (2013), *Bi-State Region Transit Development Plan* (2015), *Title VI Program and Non-Discrimination Policy for Bi-State Regional Commission* (2015), *Bi-State Region Freight Plan* (2015), Transportation Improvement Plan, Transportation Planning Work Program, Public

Participation Process (PPP), Surface Transportation Program (STP) Evaluation Manual, Transportation Alternative Program (TAP) Evaluation Manual, and Household Travel Survey Summary. Meeting agendas and minutes are posted for Bi-State Regional Commission (BSRC), Transportation Policy and Technical Committees, Bi-State Regional Trails Committee, Bi-State Region Air Quality Task Force, and Drug and Alcohol Consortium. Media releases and meeting notices are sent electronically to local media.

37. **What visualization techniques have been used to aid the public in understanding the MTP, TIP, and supporting studies?**

Visualization tools are selected as appropriate for the information. Displays and a looped slide presentation were used at the LRTP public information meetings. Maps were used to accept comments using sticky dots. A public engagement tool, MindMixer was used to accept initial comments on transportation and economic issues, using surveys, polling, mapping push-pins, and written comments. Graphs, tables, diagrams, photos, and maps are used in most plan documents. Guided discussions on placements with common transportation icons were used during the LRTP input. Interactive maps using GIS were used in discussions with the Technical Committee on the LRTP modeling and projects development.

38. **How is public participation evaluated—internally and externally? What is considered "successful" public participation?**

Various definitions for public engagement point to a broad spectrum of two-way communication, requiring listening and discussion to generate a mutual benefit. This communication is accessed by quantity, quality, and informed and actionable diverse input. As the pipeline for project development, the LRTP public involvement summary outlines this outreach. Using the comprehensive, coordinated, and continuing "3-C" process, projects identified in the LRTP are moved forward to project programming and finally to construction. There are outreach opportunities and check-points or milestones along the way, both through the federal, state, regional, and local processes. From the perspective of techniques used internally that work or not, evaluation goes back to the number for participants, quality of input, and actionable feedback occurring as a result of the outreach. For example, BSRC contracted with the Iowa Extension to help reach a greater Hispanic/Latino population during the LRTP development. The positive aspect of this was the social and business connections utilized to encourage attendance. However, as with other public meetings, there was limited attendance. At the suggestion of attendees for future meetings, staff posted flyers with English/Spanish translation in neighborhood locations, such as specialty markets for the LRTP public informational meetings, but still had limited attendance. However, the quality of the in-person meetings lent better to a dialog on transportation issues than surveys and online engagement. The broad spectrum and collective informed input seems to be the most effective strategy to public engagement.

39. **What strategies and efforts have been employed throughout the planning process for ensuring, demonstrating, and substantiating compliance with Title VI?**

The TPWP outlines the federal requirements related to Title VI. BSRC adopted an Affirmative Action Analysis and Plan that is updated annually. The agency incorporates this in its hiring practices, committee assignments where possible, and career outreach opportunities. Additionally, accommodation is noted in the PPP. Meeting locations are selected to be

convenient and accessible with an emphasis toward where minority, low-income, and LEP populations are encouraged to attend. This includes consideration of time of day and access to public transit availability. During the LRTP engagement process, a voluntary self-input form including demographics was used to help substantiate participation. Representatives from the Iowa-Illinois Independent Living Center with disabilities often attend Technical and Policy Committee meetings. BSRC has received no Title VI complaints.

40. **What analytical processes are utilized to examine the benefits and burdens of transportation investments across all socio-economic groups?**

GIS mapping and analysis have been used to examine potential benefits and burdens based on proposed transportation investments as part of the STP evaluation process, TIP development, and LRTP. These are high-level analyses to consider general populations in the vicinity of these projects. Appendix C of the LRTP outlines this analysis. Maps 3.1 -3.3 on pages III-8, III-12, and III-13 of the *FY2016-2019 Transportation Improvement Program* serve as early notification of potential environmental and social effects within the metro area. As projects move from programming to project development, these maps can be used to further define benefits and burdens for the selected projects.

(Reference: *FY2016-2019 Transportation Improvement Program*, http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-10-34/quad-cities-metro-bi-transportation-improvement-program)

41. **Discuss how the planning process has demonstrated sensitivity to the unique transportation needs of the elderly and disabled.**

The median age in the MPA is 38.4 years, higher than the U.S. (37.1), Illinois (36.5), and Iowa (38.0) median ages. Of urbanized area peers, only Huntington-Ashland, WV-KY-OH has a higher median age of 40.2 years. The key to providing access is recognizing mobility needs as our population ages. The TDP and LRTP examine accessibility to services by populations of need. LRTP Map 1.9 illustrates the locations of medical providers, regional service centers, and social service centers compared to the density of populations who are without a vehicle, have disabilities, and are older than 65 years. In this visual analysis, areas where there is greater density but few services may have greater transportation needs via passenger transportation, fixed-route, paratransit, or regional transit if outside a fixed-route service area. In Chapter 2 of the LRTP, Table 2.1 illustrates the percent change projected between 2015 and 2045 by age-group. Cohorts 75 years and older will see a 100% change or greater during the next 30 years.

(Reference: *2045 Quad Cities Long Range Transportation Plan* Chapters 1 and 2, http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-19-45/quad-cities-metro-lrtp-long-range-transportation-plan)

42. **Do MPO member agencies have ADA Transition Plans that address accessibility improvements for public rights of way?**

Yes. Many of our larger governments are confirmed to have transition plans. The following are noted examples. In 2004, the City of Davenport entered into an agreement with the Department of Justice, creating a transition plan to bring 4210 locations into compliance with ADA requirements. This is in addition to constructing all new facilities in compliance with ADA

standards. Moline adopted an ADA transition plan a couple of years ago. It addresses how Moline plans to prioritize addressing their non-ADA compliant locations and work towards becoming ADA compliant in the future. Moline also now budgets funds specifically for replacing non-ADA compliant ramps at intersections. In Silvis, they are required to make ADA improvements to sidewalks adjoining streets that undergo major repairs or replacement. Scott County also has a plan in place.

TRANSPORTATION SYSTEMS MANAGEMENT

43. **How were management and operational considerations incorporated into the development of the metropolitan transportation plan? What data or performance measurement will engage system operators in the implementation of the MTP?**

Operations and management was discussed in various chapters of the LRTP. In Chapter 3 on roadways, it was discussed in relation to deployment as part of the regional ITS architecture, as well as traffic movement and congestion. In the LRTP and *Bi-State Region Freight Plan* (2015), operational efficiencies for the freight network are discussed.

44. **How does the region measure congestion? What types of data are being collected and/or modeled for the Congestion Management Process (CMP)? Describe how the data is used to measure transportation system performance, identify the locations and causes of congestion, develop and evaluate alternatives, and prioritize solutions.**

BSRC performs semi-annual travel time surveys of the most heavily trafficked corridors. These corridors are determined through input from the Transportation Technical Committee. The travel time surveys determine how the survey vehicle's speed compares to posted speed limits. Additional data being collected for the CMP include: volume/capacity (V/C) ratios, level of service information, vehicle miles traveled, non-recurring delay due to crashes and accidents, and transit service data. V/C and crash data were used to guide the decision making process in prioritizing expansion projects in the MTP.

The region's Surface Transportation Program project selection process prioritizes submissions based on V/C, traffic volume, crash data, and physical condition; and gives special consideration to air quality, designated truck/bus routes, connectivity, and proximity to employment centers, all of which tie back to the CMP.

45. **Has the CMP been utilized in the Bi-State Region for implementing improvements to demand management, system operations, transit, and/or ITS?**

Implementation of improvements are affected indirectly through the STP process as noted in Question 43. The CMP has also set a number of goals including the expansion of transit service and other alternative modes. It also emphasizes objectives, such as increasing the number of synchronized corridors and increased use of ITS systems.

46. **What procedures connect the CMP results to the metropolitan planning process (TPWP and TIP development)? How does Bi-State envision the CMP affecting planning and investment decisions in the future?**

The region's Surface Transportation Program (STP) project selection process prioritizes submissions based on considerations outlined in the CMP as outline in Question 43.

47. **Discuss the status of the region's Intelligent Transportation System (ITS) Architecture. Has the Architecture been useful in guiding investment decisions and/or fostering integration and interoperability?**

The *Bi-State Regional Intelligent Transportation System (ITS) Architecture Plan* was updated in 2013. The database – Turbo Architecture – has been updated with changes as part of the I-74 Mississippi River Corridor, which is the backbone of the MPA's technology deployment. The document provides an overall framework and is revisited annually with a joint Iowa-Illinois traffic safety group meeting. Technology deployment to manage traffic will be critical when I-74 reconstruction of the central section is underway. IADOT and the BSRC staff have been looking for opportunities to fund such an effort and try newer technologies.

48. **Has BSRC been engaged in emergency relief and disaster preparedness planning?**

Yes, a number of these efforts were itemized under Question 18. BSRC assisted in the preparation of the *Scott County, Iowa Multi-Jurisdictional Hazard Mitigation Plan* (2012) and is set to work with the county on an update. Assistance is currently underway to finalize the *Rock Island County Multi-Jurisdictional Hazard Mitigation Plan* update. BSRC staff have also prepared an evacuation plan for Scott County and another for the Illinois Bi-State Region including Rock Island, Henry, and Mercer Counties.

BSRC staff participate in the Rock Island County Local Emergency Planning Committee, focused on hazardous chemical spills/materials, the Quad Cities Emergency Planning Committee, IADOT I-80 Incident Management Division Routing meetings, Scott County Community Awareness of Roadway Safety Group, and Illinois Quad Cities Traffic Safety Group. BSRC's Executive Director serves on the Red Cross board. BSRC provides staff training in CPR/AED and first aid for interested staff members. A few staff are 100 Level National Incident Management System (NIMS) trained. Staff is also working towards floodplain manager certifications.

49. **Does BSRC currently have a Continuity of Operations Plan?**

The development of a Continuity of Operations Plan is underway and anticipated to be completed for review in spring 2016.

PROGRAM DEVELOPMENT

50. **Which performance measures identified throughout the BSRC planning process are most likely to affect project selection or prioritization? What other factors typically direct the selection or timing of transportation investments?**

The current STP evaluation process examines level of service, safety and physical condition. These broad groups align with the national performance measures. See the following table.

Category	Criteria	Maximum Points
1. Level of Service	Existing Volume/Capacity Ratio 10-Year Projected Traffic Volume Traffic Congestion Reduction	50 50 50
2. Safety	Total Number of Accidents Accident Severity Accident Rate	50 50 50
3. Physical Condition	Surface Type, Facility Condition, Existing Volume, 10-Year Projected Volume, Number of Lanes	150
4. Special Consideration	Air Quality Truck/Business Route Connectivity Employment Center	0-2% 1% 1% 1%

The special considerations also align with the national measures related to freight, system reliability, and environmental sustainability. The STP and TAP evaluation manuals are anticipated to be reviewed with the passage of the FAST Act and completion of the LRTP update. Factors outside of the process that affect the selection are geographic distribution of the projects and ability to match the federal share, which can affect timing. Information is also provided related to environmental justice to supplement the decision-making.

(Reference: STP and TAP evaluation manuals are available online at: http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-10-34/project-programming-processes. This page also discusses FTA Designated Recipient funds and suballocation of 5307, 5310 and 5339 funds.)

51. How are asset management principles utilized (either formally or informally) throughout the region? What role does BSRC play in implementing regional asset management strategies–leadership, data support, performance monitoring, other?

BSRC staff have facilitated discussions on local pavement conditions data for the Illinois Quad Cities and spoken with ILDOT related to potential partnering. In the Iowa Quad Cities, data pavement conditions is collected through the IADOT in a systematic process for state and local facilities.

There have been some discussions on pavement useful life, state of good repair for bus and bus replacement, and bridge sufficiency.

52. Does BSRC and its member agencies provide meaningful input into the programming decisions of the State DOT's?

Beginning with the LRTP development, there are conversations about fiscally-constrained needs and projects requiring further study. BSRC and its members, as well as transit and chamber advocates, meet regularly on the area's highest priorities, both formally, such as meetings or legislative trips, or informally with advisory meetings or inquiries on status. These groups also participate in special TIP meetings, if held, and project development meetings open to the public.

53. Does BSRC coordinate any efforts concerning local agency applications to the Highway Safety Improvement Program or other programs administered through IDOT?

While BSRC staff provide information on the availability of funds, a coordination of applications has not occurred.

54. Is the MPO notified or consulted by member agencies of applications for TIGER or other discretionary Federal funding?

BSRC has been contacted on requests for letters of support or concurrence as part of TIGER applications in the past. MetroLINK is the most recent request for electric buses in the upcoming round. These letters typically reference the project's relation or consistency with the LRTP and the regional Comprehensive Economic Development Strategy (CEDS) goals. BSRC staff inquire about applications that might be submitted by the DOTs for the I-74 reconstruction project and provided a similar letter for a recent FASTLane project submission.

55. Discuss the process and results of the programming of FY13 and FY 14 TAP funds. Did this process meet MPO expectations and are any adjustments being considered for potential future rounds?

In July 2013, Bi-State Regional Commission (BSRC) requested submittals of candidate projects for the Quad Cities Transportation Alternatives Program funds from the urbanized communities of the Quad Cities' region. At the time, it was estimated that there is $1,744,118 in Transportation Alternatives Program (TAP) funds for the Iowa Quad Cities through FY 2017, and $573,276 in TAP funds for the Illinois Quad Cities also through FY 2017. The estimate was based on the estimated targets through FY 2017. Federal funds were noted as subject to federal authorization of the TAP program under MAP-21 and its continuation beyond FY 2015. One project from each state was received. The Riverdale multi-purpose trail as a part of the Mississippi River Trail was awarded $318,644 in TAP as part of a $1,017,000 total project cost, has been completed. Other funds supplemented the projects. The Rock Island Safe Routes to Schools project with ADA curb ramps and a pedestrian hybrid crossing beacon was awarded $94,737 in TAP of a $573,276 total project cost. To date, it appears the funds will be returned.

In April 2014, Bi-State Regional Commission (BSRC) requested submittals of candidate projects for the Quad Cities Transportation Alternatives Program funds from the urbanized communities of the Quad Cities metropolitan planning area. It was estimated that there was $1,441,870 in Transportation Alternatives Program (TAP) funds for the Iowa Quad Cities through FY 2017, and $488,539 in TAP funds for the Illinois Quad Cities also through FY 2017. This estimate was based on the targets through FY 2017. Federal funds are subject to authorization of the TAP program under MAP-21 and its continuation beyond FY 2015. Three projects, were received in the Illinois and Iowa Quad Cities. All projects were ranked and awarded funds. Projects included two pedestrian/sidewalk projects (Silvis FFY 15 and Port Byron FFY 15), two MRT extensions (Buffalo FFY 16 and Moline FFY 16), one trail (Davenport FFY 16, 17 & 18), and one pave shoulder project (Davenport FFY 20). Most of the projects are in various stages of project development except for the Moline MRT extension and Davenport Locust Street paved shoulder project that were waiting to determine if funds would be authorized in FAST.

Jurisdictions are given a deadline for submittals based on the STP Evaluation Manual. The steps in this manual are used to receive, process, and rank projects. Rankings are reviewed by the

Technical Committee for recommendation by the Policy Committee. The Policy Committee makes final approvals based on the recommendation and review of geographic distribution, funding availability, and environmental justice information.

The TAP Evaluation Manual is noted in Question 50 with a link to the webpage. Programmed projects are identified in the TIP Table 2.6, and the funding balances are noted in Table 2.5. These tables noted when the next round is anticipated. ILDOT requested that projects be funded not less than 50% matching share. There may need to be review of project concepts by DOTs prior to programming. Consideration of raising the minimum threshold of total project cost of $100,000 may be considered in future rounds.

56. Discuss BSRC's procedures to program sub-allocated Surface Transportation Program - Urban funds.

The STP Evaluation Manual is noted in Question 50 with a link to the webpage. Programmed projects are identified in the TIP Table 2.4 (includes CY projects were programmed and Annual Element Year) and the funding balances noted in Table 2.2 and 2.3. The later tables note when the next round is anticipated. STP rounds have occurred in CY2011, 2013, and 2014. In the last round, funds were programmed through 2019 (Iowa Quad Cities) and 2020 (Illinois Quad Cities). Criteria is noted above in Question 50.

The process is initiated with a call for projects that is sent to the Technical Committee and communities within the metro area. The correspondence is also carbon-copied to the Regional Transportation Advisory Group with the following statement as part of the public notification of the round:

"Staff encourages other persons receiving a carbon copy of this notice to work with their respective local governments on potential candidate projects. STP funds can be used for any mode of surface transportation – roadway, transit, pedestrian or bicycle facilities. Under MAP-21, these eligibilities remain. The STP funds are required to be matched with at least 20 percent non-federal funds. Projects must have a total project cost no less than $100,000, as the federal-aid process requires considerable administration on the part of the project sponsor."

Jurisdictions are given a deadline for submittals based on the STP Evaluation Manual. The steps in this manual are used to receive, process, and rank projects. Rankings are reviewed by the Technical Committee for recommendation by the Policy Committee. The Policy Committee makes final approvals based on the recommendation and review of geographic distribution, funding availability, and environmental justice information.

57. To what extent do transit operators, state DOTs, and local governments provide accurate information concerning projects and anticipated financial resources in a timely format during the TIP development process?

On the whole, information is timely and provided in a requested format. Some follow-up is done to either acquire the information or get clarifications. Initial requests for information for the TIP development occur in March/April timeframe. The TIP development process is taken to the Technical and Policy Committees in June.

58. When developing the TIP, how is fiscal constraint determined? What is the threshold for scope or funding changes to trigger an amendment for an existing project in the TIP?

Local fiscal constraint is tracked in the TIP for STP (Tables 2.2 and 2.3) and TAP (Table 2.5) funds that are under the MPO programming responsibilities. Funding available for FTA 5307, 5310 and 5339 are noted as well as references to bridge programs and operations and maintenance. TIP Revisions are outline in the TIP, page I-4, specifying the difference between an amendment and administrative modification.

An amendment is a major revision to the TIP that requires approval by the Policy Committee. In most cases, amendments are brought before the Technical Committee for recommendation of approval as well. Federally-funded projects that are added or deleted from the TIP constitute an amendment. In addition, changes to existing TIP projects are considered amendments when the amount of federal aid is being revised by 30% or more than $2,000,000, when there is a major change in project scope, when a project listed in TIP Table 4.1 or 4.2 is awarded federal funds, or when an additional federal funding source is added to a project.

(Reference: *FY2016-2019 Transportation Improvement Program*, http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-10-34/quad-cities-metro-mpo-transportation-improvement-program)

59. Do TIP Amendments receive public notifications and opportunity for Public involvement? Are all TIP amendments included on the BSRC website?

Requests for TIP amendments are noted on the Transportation Policy Committee agenda for consideration, and a copy of the TIP amendment is either listed on the agenda or attached and sent to the Regional Transportation Advisory Group. If amendments are transit related, they will also be sent to the Regional Transit Interest and Advisory Group, as well as the media. Agendas are sent about one week in advance of the meeting. TIP amendments are posted to the website (link noted in Requested Documents below).

60. Discuss the process for producing the annual Federal Listing of Obligated Projects. What visualization techniques are utilized? Is this publication helpful in transmitting information to implementers or the general public?

The TIP includes a status of the current FY Annual Element, identifying project status and/or whether the project has shifted to another program year. In Illinois, BSRC staff work with FHWA-IL Division and ILDOT on a summary listing of obligated projects. A general TIP information summary was created to provide notice on the TIP development and public hearing associated with the TIP. It is included on the BSRC website. A project progress report is discussed each Technical Committee meeting and an updated version is posted to the website.

TRAVEL DEMAND ANALYSIS

61. Provide a brief overview of the status of the BSRC travel demand model

The software used is TransCAD. The model is validated and calibrated within Federal Highway Administration standards. It is based on Quad Cities Household Travel Survey data and uses a

variety of data sources for model input, including Census, Reference USA InfoGroup employment data, school district, Departments of Transportation centerline and AADT data, and local sources for network confirmations. Through the use of consultant assistance, scripting, time-of-day/peak hour, and trip generation within the TransCAD software were improved/added. Additionally under another contract, socio-economic data and network improvements were made, trip generation for non-residential uses was revised, and scripting was modified. Under this contract, a fully-validated/calibrated model was achieved. Through this process, the MPO has received additional recommendations for model improvement, including the following baseline improvements or advancements to the modeling efforts:

- Concentration on employment data accuracy
- More detail on trip generation procedures
- Better representation of travel time and capacity effects at signalized intersections
- Enhanced trip distribution procedures
- Improved mode share estimates
- Better highway assignment algorithms
- Improved reporting and mapping functionality.

BSRC staff are working cooperatively with IADOT modeling staff toward the use of the ISMS to aid standardization of the model development process.

62. **How does BSRC come to consensus on regional population and employment growth scenarios? Are external technical reviewers typically engaged in developing planning assumptions for travel demand modeling?**

Refer to Question 25 on socio-economic data development for the model. The Technical Committee reviews the assumptions and is engaged in developing the land-use based projections for the travel demand model. No other outside source is consultant for a review.

63. **To what extent are BSRC modeling results for regionally significant projects utilized by implementing agencies in project development and environmental review processes?**

The results are used as a starting point in larger, regionally-significant projects. As an example, the results of the 2040 model were used in the initial analysis and part of the interchange justification process for the I-80/Middle Road reconstruction project. The model has been used in the analysis of changing one-way couples on U.S. 61 for Brady and Harrison Streets in Davenport. Additionally, requests for projection information by area (Traffic Analysis Zone) have been used related to development requests (Bettendorf) and school district planning (Davenport).

64. **Does BSRC prepare model runs for purposes outside the MPO structure and if so, is there a formal policy for sharing these files?**

Yes. We have a formal digital data release policy.

REQUESTED DOCUMENTS

Please provide an **electronic copy** or **internet link** to each of the following items or documents as part of your response to this questionnaire:

- **Map of Planning Area Boundary and Urbanized Area Boundary (Attached)**
- **Cooperative Agreement/Bylaws (TPWP Appendix)**

  Transportation Planning Work Program FY2016 (TPWP), Appendix, pages 8-11 http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-10-34/quad-cities-metro-bowp-transportation-planning-work-program)
- **FY 16 Unified Planning Work Program** (See link above)
- **Long Range Transportation Plan/Metropolitan Transportation Plan (2011 & 2016)**

  2040 Quad Cities Long Range Transportation Plan (2011 final publication) and *2045 Quad Cities Long Range Transportation Plan* (2016 draft publication) http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-19-45/quad-cities-metro-lrtp-long-range-transportation-plan)
- **Public Participation Plan** http://bistateonline.org/transportation/public-participation and included in all major documents within an appendix
- **Title VI Report** (2015) http://bistateonline.org/transportation/public-participation and referenced with compliant forms http://bistateonline.org/careers as part of non-discrimination and equal opportunity
- ***FY2016-2019 Transportation Improvement Program***

  http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-10-34/quad-cities-metro-tip-transportation-improvement-program
- **Congestion Management Process** (2040 LRTP Appendix C, referenced link above; 2045 LRTP Addendum underway but not presented at this time)
- ***Bi-State Regional Intelligent Transportation System (ITS) Architecture Plan*** **(2013)**

  http://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-19-45/2012-11-13-20-28-02
- **Federal Listing of Obligated Projects** (latest version) (Reference the TIP Status of Projects and for Illinois see Attached)

DISPOSITION OF ACTION ITEMS FORM FROM THE 2012 CERTIFICATION REVIEW

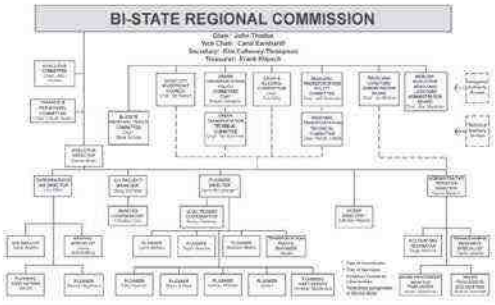
We will discuss briefly during the on-site review.

Recommendations Actions Summary

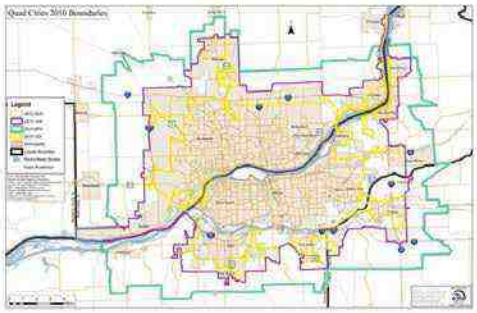
1. **Agency Cooperation** – MPO has striven to work cooperatively with coordinating agencies toward collaborative goals. Examples: I-74 reconstruction implementation, regional freight plan, travel demand model development.
2. **Travel Demand Model** – Completed *Quad Cities Household Travel Survey* (2014) and utilized consultant expertise to develop trip rates and provide model enhancements, including providing full migration of model to TransCAD, time-of-day & peak-hour capabilities, and assistance on model calibration/validation on 2040 model (2013-14). Hired consultant to finish calibration of 2045 travel demand model to meet LRTP deadline (2015). Held 2013 DOT & FHWA meeting on LRTP and model timelines. Regular attendance at MTMUG and IL Modelers Users Group. Attended Household Travel Survey (2013) and TRB conferences 2014 & 2015.
3. **Long Range Plan** – Held plan development meetings with DOTs and FHWA 4/2013, 12/2013 and 1/2015. Shared plan and model development timelines throughout process. Plan adopted March 23, 2016 on time.
4. **Metro Area Boundary** – Resolved mapping issues.
5. **Interested Parties, Participation and Consultation** – Restructured website 9/2013 to separate MPA from RPA and added page for public participation information 11/2015. Added reference to "data" and LEP information to public participation plan 5/2013. Incorporated EJ outreach utilizing consultant assistance to reach minority/ethnic groups; focus on Latino/Hispanic populations for LRTP (12/2015). Developed/utilized voluntary outreach survey (2014, 2015) for LRTP public meetings to collect information on income, minority status and ethnicity. Utilized online public engagement tool – MindMixer – for transportation and economic development public input (4/2014-6/2014).
6. **Transportation Improvement Program** – Incorporated EJ analysis in STP programming processes as part of decision-making process 2014. Noted in TIP tables when project programming is anticipated, as early announcement. Continued practice of including RTAG on call for projects solicitation to local jurisdictions.
7. **Certification Review Public Involvement Meeting** – Coordinated with FHWA on hold public hearing as part of the Certification Review 4/2016.
8. **Interagency Planning (Transit Facilities)** – Initiated MPO transit managers quarterly meetings 2014.
9. **Quad Cities Transit Advisory Working Groups** – Held regional transit summits in lieu of formalized committee 12/2013 Centre Station, Moline; 3/2014 Library, Muscatine, 4/2015 Library Muscatine, 12/2015 Library, Bettendorf. Attended on-going meetings for Muscatine Human Services group and RIM Transit (Rock Island-Mercer County Transit), and MetroLINK board. Hold MPO transit manager quarterly meetings, initiated 2014.
10. **Environmental Justice Analysis** – Implemented in TIP and in STP programming process 6/2014. Included EJ analysis in *Bi-State Region Transit Development Plan* (2015), *Title VI Program and Non-Discrimination Policy for Bi-State Regional Commission* (2015), *2045 Quad Cities Long Range Transportation Plan* (2016).

11. **Title VI** – Completed Bi-State Region/MPO Title VI Plan 12/2012. Added non-discrimination references in transportation documents 2013 and complaint forms to website 2013. Updated *Title VI Program and Non-Discrimination Policy for Bi-State Regional Commission* 10/2015 and accepted by FTA 1/2016.
12. **Limited English Proficiency** – Incorporated as part of Title VI and EJ analyses, see above.
13. **Congestion Management** – Updated the *Bi-State Regional Intelligent Transportation System (ITS) Architecture Plan* (2013) and sent staff to training in 7/2014. Updated CMP as addendum to 2045 LRTP, underway 2016.
14. **Fiscal Constraint** – Worked with DOTs and FHWA on fiscal constraint analysis. Noting AC references in TIP.

BSRC Organizational Chart



Planning Area Boundaries



Moving Forward

Starting Today to 2045

2045 Quad Cities Area Long Range Transportation Plan (LRTP)
Population Projections' Scenarios

Population projections' scenarios were created to illustrate a range of population growth for within the Quad Cities planning area. These projections will be used as a threshold for population projection input from local governments within the planning area. All of the population projection scenarios are based on the base year 2010, which had a population of 298,005. Five different scenarios were examined to determine a range of population projections. The color coded scenarios are tied to Table 1 and Figure 1.

Recommendation to Guide Population Growth for the Travel Demand Model

The Transportation Technical Committee recommends using Scenario 1 as the lowest threshold for growth and Scenario 5 as the highest threshold for growth. This range is proposed to be used to frame the individual community population estimates by Traffic Analysis Zone (TAZ), so the cumulative total of the estimates by TAZ fall between this range.

Scenario 1 - Historical growth for the 3-county region based on decennial census data from 1970 – 2010

- Based on the population change of the 3-county region that the planning area lies in over 40-year period
- Percent change 1970-2010: 0.2000%
- Annual percent change (based on 40 years): 0.0050%
- Straight line growth rate formula was used to create the projected years (2011-2045)

Scenario 2 - Historical growth in the planning area from 2000 to 2010

- Based on the population change from 2000 to 2010 within the planning area
- Total population for 2000 was obtained using Esri @ Community Analyst, a web-based data analysis and software application.
- 2000 Total Population: 293,749
- 2010 Total Population: 298,005
- Percent Change 2000-2010: 1.4498%
- Annual percent change (based on 10 years): 0.0449%
- Straight line growth rate formula was used to create the projected years (2011-2045)

Scenario 3 - Historical growth for the 3-county region based on decennial census data from 1990-2010

- Based on the population change of the 3-county region the planning area lies in over a 20-year period
- Percent change 1990-2010: 3.500%
- Annual percent change (based on 20 years): 0.1765%
- Straight line growth rate formula was used to create the projected years (2011-2045)

Scenario 4 - Growth based on Woods & Poole Economics, Inc. data

- Woods & Poole Economics, Inc. data is available at county level geography
- The percent of the population that is within the planning area (2010) was determined and then that percentage was used to determine the population projection using Woods & Poole data; this is assuming that the planning area remains constant through 2045.
- Total population of Henry, Rock Island, and Scott Counties (3-county region) in 2010: 363,256

- Percent of total population within the planning area: 82.0372%
- Woods & Poole, Inc. data was only available to 2040; a straight line growth projection was created using Microsoft Excel 2007 with fill option to fill the population value to 2045.

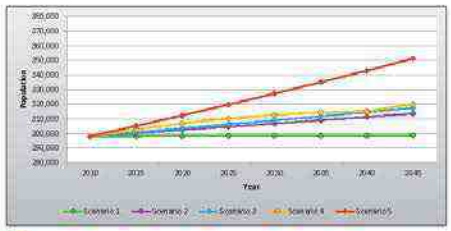
Scenario 5 - Historical growth based on the fastest growing County that intersects the planning area from 1990-2010

- All three counties that lie within the planning area were analyzed based on population change. Scott County was the fastest growing county in the region at 9.4%. This growth rate was applied to the planning area. Henry County was at -1.3% and Rock Island County was -0.8% in the time period.
- Percent change 1990-2010 for Scott County: 9.4000%
- Annual percent change (based on 20 years): 0.4700%
- Straight line growth rate formula was used to create the projected years (2011-2045)

Table 1 - Population Projections for the Planning Area

	2010	2015	2020	2025	2030	2035	2040	2045
Scenario 1	298,005	298,980	299,454	299,229	298,303	298,078	298,452	298,027
Scenario 2	298,005	300,172	302,354	304,553	306,767	309,998	311,244	313,508
Scenario 3	298,005	300,897	303,413	306,152	308,919	311,709	314,524	317,365
Scenario 4	298,005	302,269	306,768	310,166	312,674	314,292	315,229	320,115
Scenario 5	298,005	305,674	312,311	319,120	327,304	335,065	343,017	351,154

Figure 1 - Population Projections for the Planning Area



Source(s):

Scenario 1 - U.S. Census Bureau: 2001-2010 decennial censuses (SF1), Community Analyst; TAZ boundary shapefile that was created for the 2045 Long Range Transportation Plan based on 2010 Census geographies, University of Oregon (http://pages.uoregon.edu/rgp/PPPM410/class6.htm).

Scenario 3 - U.S. Census Bureau 2010 Census; Woods & Poole Economics, Inc. (2014) (2011-2040); extended line for 2045 using 2007 Microsoft excel

Scenario 3 - U.S. Census Bureau: 1970-2010 decennial censuses; University of Oregon (http://pages.uoregon.edu/rgp/PPPM613/class8a.htm)

Scenario 4 - U.S. Census Bureau 1990-2010 decennial Censuses; University of Oregon (http://pages.uoregon.edu/rgp/PPPM613/class8a.htm)

Scenario 5 - U.S. Census Bureau 1990-2010 decennial Censuses; University of Oregon (http://pages.uoregon.edu/rgp/PPPM613/class8a.htm)

Formula:

P=B (1+G)^T

P= Future Population

B= Base year Population

G= Growth Rate

T= Projected year time

Source: University of Oregon.
(http://pages.uoregon.edu/rgp/PPPM613/class8a.htm)

Table 2 - 40 Year Historical Change (1970-2010)

	Henry County	Rock Island County	Scott County	Rock Island and Scott County Total	3 County Total
1970	53,217	166,734	140,687	309,421	**362,638**
1980	57,960	165,968	160,022	325,990	**383,950**
1990	51,159	148,723	150,979	299,702	**350,861**
2000	51,020	149,374	158,668	308,042	**359,062**
2010	50,486	147,546	165,224	312,770	**363,256**
# change 1970-80	4,751	-766	17,335	16,569	**21,320**
% change 1970-80	8.9%	-0.5%	12.1%	5.4%	**5.9%**
# change 1980-90	-6,809	-17,245	-9,043	-26,288	**-33,089**
% change 1980-90	-11.7%	-10.4%	-5.7%	-8.1%	**-8.6%**
# change 1990-00	-139	651	7,689	8,340	**8,201**
% change 1990-00	-0.3%	0.4%	5.1%	2.8%	**2.3%**
# change 2000-10	-534	-1,828	6,556	4,728	**4,194**
% change 2000-10	-1.0%	-1.2%	4.1%	1.5%	**1.2%**
# change 1990-10	**-673**	**-1,177**	**14,245**	**13,068**	**12,395**
% change 1990-10	**-1.3%**	**-0.8%**	**9.4%**	**4.4%**	**3.5%**
# change 1970-2010	**-2,731**	**-19,188**	**25,537**	**3,349**	**610**
% change 1970-2010	**-5.1%**	**-11.5%**	**15.8%**	**1.1%**	**0.2%**

Source: U.S. Census Bureau, decennial censuses 1970-2010

Moving Forward
Starting Today to 2045

***2045 Quad Cities Area Long Range Transportation Plan* (LRTP)**
Employment Projections

September 9, 2014 Employment projection scenarios were created to illustrate a range of employment change for the Quad Cities planning area. The "approved" projections will be used as a threshold for employment projection input from local governments within the planning area. All of the employment projection scenarios begin at the 2010 base year, a total employment of 183,401. (Source: Infogroup 3rd Quarter, 2010; local sources)

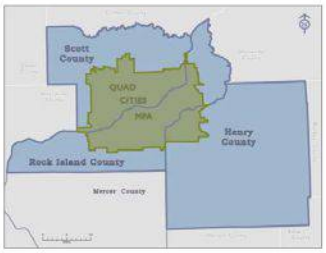
Approved Population Projections:

	2010	2025	2045	Total Population Growth 2010-2045	Percent Change 2010-2045
Scenario 1	298,005	298,229	298,527	522	0.2%
Scenario 5	298,005	319,720	351,154	53,149	17.8%

Source: U.S. Census Bureau, 1970-2010 decennial censuses; University of Oregon (http://pages.uoregon.edu/rgp/PPPM613/class8a.htm)

Goals for the Employment Projections:

- Choose the best scenarios as the thresholds for the employment projections
- Provide a logic check for the community input data that is used in the travel model
- All the scenarios are based on the total *employed* at *employers* within the MPA



Three Basic Methods for Projections:

- Historical Trends: This method looks at databases with multiple data years (i.e. 2000 and 2010 data sets), and calculates the rate of change between those years and applies the (annualized) rate of change beginning with the base year total employment through the horizon year (compounded annually) to create projections.
- Third-Party Projections: This method uses already produced projections from a source either commercially produced or through another institution.
- Hybrid Method: This method used a combination of data and resources. Using the approved population scenarios, BSRC staff took the 2010 base year data for total population (298,005) and total employment (183,401) and calculated the ratio of employed-to-population (61.54%). That ratio (61.54%) was then applied to the projected 2045 total population for both scenario 1 and 5 to determine projected employment.

Employment Projections:

- Historical Trends: The data used was from 2000 and 2010, for their availability and consistency for all the datasets.

Dataset	2000	2010	% change 2000-2010	2010 Base Year	2025	2045	Annual % change (35 years)	% Change 2010-2045
InfoGroup	176,418	197,118	11.7%	183,401	218,471	275,897	1.44%	50.42%
CEW	181,710	173,896	-4.3%	183,401	171,906	137,693	-0.40%	-14.02%
LED	174,314	164,216	-5.8%	183,401	174,009	162,221	-0.33%	-11.54%

a. InfoGroup
   1. Definition: Internet-based reference service database that contains detailed business information.
   2. Geography: Henry County, IL, Rock Island County, IL, and Scott County, IA
   3. Timeframe used: 2000 and 2010

b. Census of Employment and Wages (CEW)
   1. Definition: Data is available from the U.S. Bureau of Labor Statistics. The program originated in the 1930s, and was known as the ES-202 program until 2003 when the current CEW name was adopted. The primary economic product is the tabulation of employment and wages of establishments which report to the Unemployment Insurance (UI) programs of the United States. Employment covered by these UI programs represents about 97% of all wage and salary civilian employment in the country.
   2. Geography: Henry County, IL, Rock Island County, IL, and Scott County, IA
   3. Timeframe used: 2000 and 2010

c. Local Employment Dynamics (LED) Partnership
   1. Definition: Data is from the U.S. Census Bureau. LED is an extraction tool that allows access to the employment figures from the Quarterly Workforce Indicators (QWI) dataset.
   2. Geography: Henry County, IL, Rock Island County, IL, and Scott County, IA
   3. Timeframe: 2000 and 2010

- Third Party Projections

Dataset	2010 Base Year	2025	2045	Annual %change (35 years)	% Change 2010-2045
Woods & Poole	183,401	203,295	220,537	0.52%	25.16%
WIA	183,401	196,465	220,491	0.58%	20.22%

a. Woods & Poole
   1. Definition: Projection and historical database. Woods & Poole produces numbers from 1969-2040. For this projection we used the Woods & Poole projected data from 2011-2040; then using Microsoft Excel extended the line using a straight line fill method to 2045.
   2. Geography: Data is available at county level; then the percent of the total employed within the MPA that is within the 3 county area (Henry County, IL, Rock Island County, IL, and Scott County, IA) was used to obtain projected numbers.

Total Employed in the 2010 MPA boundary	183,401
Total Employed in the 2010 3 County boundary	218,332
Percent of total employed within the MPA boundary	84.00%

Source: Woods & Poole Economic, Inc. (2014)

b. Workforce Investment Areas (WIA)
   1. Definition: WIA data is produced by the Illinois Department of Employment Securities (IDES). IDES creates projections by WIA for 2010 and 2020. We used that rate of change and applied that rate to the base year to create projections.
   2. Geography: WIA 13- Henry, Mercer, and Rock Island Counties, IL. This was only available for the Illinois Counties.
   3. Timeframe: 2010 and 2020 projections

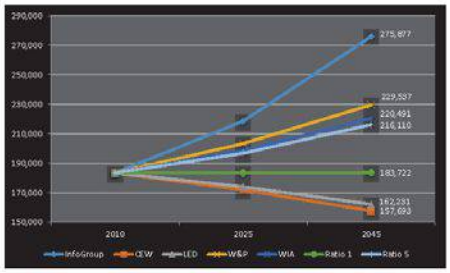
- Hybrid Method

Dataset	2010 Base Year	2025	2045	Annual % change (35 years)	% Change 2010-2045
Employment to Population Ratio - Scenario 1 (1970-2010)	183,401	183,339	183,722	0.01%	0.18%
Employment to Population Ratio - Scenario 5 (1990-2010)	183,401	196,765	216,110	0.51%	17.83%

a. Employment to Population Ratio
   1. Definition: Using the approved population scenarios, we took the 2010 base year data for total population (298,005) and total employment (183,401) to find the ratio of employed-to-population (61.54%). That ratio (61.54%) was then applied to the projected 2045 total population for both scenario 1 and 5 to determine projected employment.
   2. Geography: The MPA

Employment Projections - All Options:

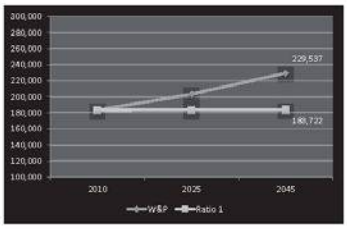
Dataset	2010	2025	2045	Annual Percent Change	Percent Change 2010-2045
1.Historical Trends					
InfoGroup	183,401	218,471	275,877	1.44%	50.42%
CEW	183,401	171,906	157,693	-0.40%	-14.02%
LED	183,401	174,009	162,231	-0.33%	-11.54%
2. Third- Party Projections					
Woods & Poole	183,401	203,295	229,537	0.72%	25.16%
WIA	183,401	198,465	220,491	0.58%	20.22%
3. Hybrid					
Employment to Population Ratio - 1	183,401	183,539	183,722	0.01%	0.18%
Employment to Population Ratio - 5	183,401	196,765	216,110	0.51%	17.83%



Recommendations:

- The recommended thresholds for the planning area are Woods & Poole projected data (third-party projections) and Population to Employment ratio 1 (hybrid method).
- These options provide opportunity for future employment in the planning area to grow from between 321 to 46,136 (a range of 45,765) additional employees in 35 years (or a maximum of 1,318 annually).

Recommended Thresholds	Dataset	2010	2025	2045	Annual % change	% change 2010-2045	Total employment growth 2010-2045
Low	Employment to Population Ratio - 1	183,401	183,539	183,722	0.01%	0.18%	321
High	Woods & Poole	183,401	203,295	229,537	0.72%	25.16%	46,136



Sources:

1. Infogroup - 3rd Quarter 2000 and 2010
2. U.S. Bureau of Labor Statistics
3. U.S. Census Bureau, Longitudinal Employer-Household Dynamics
4. Woods & Poole Economics, Inc. (2014)
5. Illinois Department of Employment Securities
6. U.S. Census Bureau, decennial censuses (1970-2010)
7. Formula - University of Oregon (http://pages.uoregon.edu/rgp/PPPM613/class8a.htm)

Formula:

F=B(1+G)^T

F= Future Population

B= Base year Population

G= Growth Rate

T= Projected year time

Note: Chapter 1 employment projection values will differ from this recorded summary due to modifications of the employment data set during the travel demand modeling process. The base year employment data used in the travel demand model and the basis of the projects had corrections applied that are shown in the TAZ tables accompanying Appendix B. The corrections date to the 12/18/15 draft version of the plan and model information.

Bi-State Regional Commission
Quad Cities: Davenport-Moline-Rock Island
Urbanized Area

Annual Listing of Federally Obligated Projects

Fiscal Year 2015
October 1, 2014 – September 30, 2015

Annual Listing of Federally Obligated Projects
Bi-State MPO – Fiscal Year 2015

The Moving Ahead for Progress in the 21st Century Act (MAP-21) requires:

"An annual listing of projects, including investments in pedestrian walkways and bicycle transportation facilities, for which Federal funds have been obligated in the preceding year shall be published or otherwise made available by the cooperative effort of the State, transit operator, and metropolitan planning organization for public review. The listing shall be consistent with the categories identified in the Transportation Improvement Program (TIP)."

In response, the Bi-State Regional Commission has developed a list of all transportation projects in the urbanized Illinois Quad Cities that have obligated federal transportation funds in the preceding fiscal year. The Iowa Department of Transportation has accepted a project status report included in the TIP as a sufficient listing of obligated federal funds, and therefore projects located in the Iowa Quad Cities have been excluded from this document. Obligation is defined as the Federal Government's legal commitment to pay the Federal share of a project's cost. Projects for which funds have been obligated are not necessarily initiated or completed in the program year, and the amount of obligation will not necessarily equal the total cost of the project.

The following report includes lists of roadway and transit projects obligated to receive Federal transportation funds during Fiscal Year 2015 (October 1, 2014-September 30, 2015). Since the Bi-State Regional Commission is not directly responsible for obligating federal funds, this report is based on information provided by the Illinois Department of Transportation, the local transit system (Metro), and the current Transportation Improvement Program (TIP). For each project, the TIP number, project description, obligated federal amount, programmed federal amount, total project cost, and state/federal project IDs are shown. Only obligated federal funds are included in this report, no local or state funds are reflected.

Also shown in this report is a list of Advanced Construction Projects. Advanced construction (AC) is used as a cash flow tool by Illinois Department of Transportation to utilize state funds at the time of obligation and later convert those funds to federal funding sources. Tables are provided for both advanced construction and converted projects.

Summary of FY 2015 Obligated Funds

Roadway

Number of Projects	Total Cost	Obligated Federal Funds
4	$33,536,367	$30,134,505

Transit

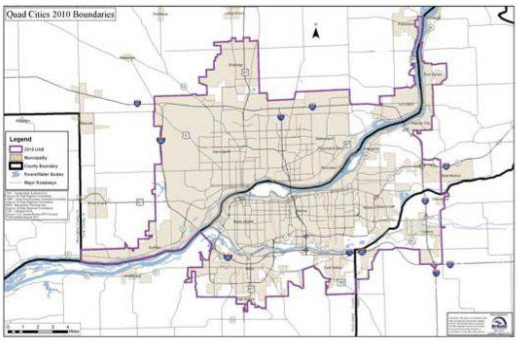
Number of Projects	Total Cost	Obligated Federal Funds
4	$1,882,500	$1,506,000

Summary of FY 2015 Advanced Construction Projects

Number of Projects	Total Cost	Advanced Construction Funding
3	$64,445,076	$52,951,560

Summary of FY 2014 Converted Advanced Construction Projects

Number of Projects	Total Cost	Converted Advanced Construction Funding
3	$5,457,366	$3,246,030



Annual List of Federally Obligated Roadway Projects
Bi-State MPO - Fiscal Year 2015 (October 1, 2014 - September 30, 2015)

TIP Number	State Project Number	Project Description	Obligated Federal Funds	TIP Programmed Federal Funds	Federal Source	Total Project Cost
IL-15-08	C-92-127-13	Reconst of the intersection of US 6 & IL 84 west of Colona inc put reconstruction, traffic signals, lighting, landscaping etc	$4,910,007	$4,465,000	HSIP	$5,457,366
IL-15-14	C-92-003-14	14.06 mi of milling, patching & resurf on I-74 from .4 mi north of US 6 to .4 mi south of IL 92	$9,405,738.88	$12,870,000	NHPP	$38,373,105
IL-15-10	C-92-031-14	7.94 mi of patching & resurfacing on I-80 from .5 mi east of I-74/I-88 interchange to .5 mi west of IL 92	$7,525,674.00	$8,000,000	NHPP	$8,885,183
IL-15-15	C-92-011-15/C-92-020-15	Planning, design, right-of-way acquisition and construction of the Interstate Route 74 bridge from Bettendorf, Iowa to Moline, Illinois. Demolition and removal of one building adjacent to I-74 in Moline for the I-74 reconstruction project.	202,714.00	$300,000	NCII	$720,714
		TOTAL	$30,134,505	$36,635,000		$53,536,367

Annual List of Federally Obligated Transit Projects
Bi-State MPO - Fiscal Year 2015 (October 1, 2014 - September 30, 2015)

TIP Number	Project Description	Project Type	Obligated Federal Funds	TIP Programmed Federal Funds	Federal Source	Total Project Cost
MIL-15-02	Preventive Maintenance	C	$ 1,250,000	$ 1,250,000	5307	$ 1,562,500
MIL-15-05	ADP Hardware	C	$ 64,000	$ 64,000	5307	$ 80,000
MIL-15-07	ADP Software	C	$ 16,000	$ 16,000	5307	$ 20,000
MIL-15-03	Transit Enhancements	C	$ 176,000	$ 176,000	5307	$ 220,000
	TOTAL		$ 1,506,000	$ 1,506,000		$ 1,882,500

Annual List of Advanced Construction Projects
Bi-State MPO - Fiscal Year 2015 (October 1, 2014 - September 30, 2015)

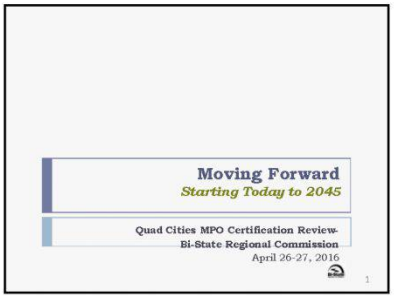
TIP Number	State Project Number	Project Description	Advanced Construction Funding	TIP Programmed Federal Funds	Federal Source	Total Project Cost
IL-15-01	C-92-010-13	Remove & repl the structures over Green Twp, two over BNSF RR & two over Barstow Rd & resurf from .3 mi N of US 92 to Henry Co line in Rock Island	$14,914,460	$14,914,460	NHPP	$15,586,366
IL-15-04	C-92-076-12	2.56 mi of pavement reconst. & widening to 6 lanes of IL 5 in Moline from .2 mi W of 30th St. to .2 mi E of 30th St. inc., noise & retaining walls, culverts, storm sewers, signals & lighting etc.	$38,240,000	$38,480,000	NHPP	$40,000,000
Bst-15-01	C-92-040-15	Resurfacing, sidewalk repl & curb & gutter repl on FAU 6863 (15th St) from IL 84 to 13th Ave & FCC put repl @ the intersection with Morton Dr, located in City of East Moline	1607,110	360,2549	STP-flex	$650,889
		TOTAL:	$52,915,750	$54,022,749		$56,445,076

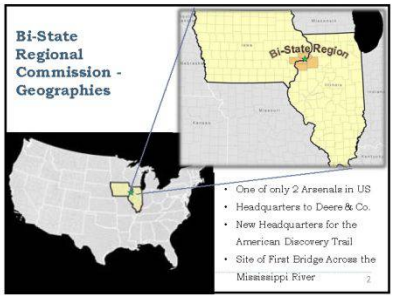
Annual List of Converted Advanced Construction Projects
Bi-State MPO - Fiscal Year 2015 (October 1, 2014 - September 30, 2015)

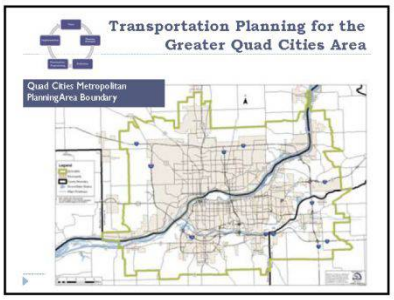
TIP Number	State Project Number	Project Description	Converted Advanced Construction Funding	TIP Programmed Federal Funds	Federal Source	Total Project Cost
IL-15-08	C-92-127-13	Reconst of the intersection of US 6 & IL 84 west of Colona inc put reconstruction, traffic signals, lighting, landscaping etc	$3,246,030	$4,465,000	HSIP	$5,457,366
IL-15-14	C-92-003-14	14.06 mi of milling, patching & resurf on I-74 from .4 mi north of US 6 to .4 mi south of IL 92	$12,857,300	$12,870,000	NHPP	$38,373,105
IL-15-10	C-92-031-14	7.94 mi of patching & resurfacing on I-80 from .5 mi east of I-74/I-88 interchange to .5 mi west of IL 92	$7,999,700	$8,000,000	NHPP	$8,885,183
		TOTAL:	$24,246,030	$24,465,000		$52,457,366

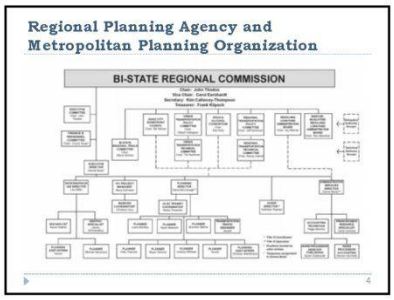
Appendix D: Bi-State Kick-Off Presentation

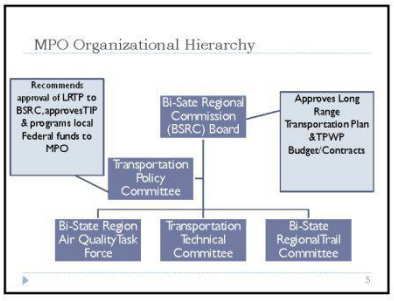
4/27/2016











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"The Quad Cities Region is recognized globally in 2030 for growing and attracting talent and businesses, is energized by a culturally rich community, inspires innovation and embraces lifelong learning."

Regional Vision for our Quad Cities Region

Developed through the Regional Opportunities Council (the ROC), a group of 100 business and community leaders who represent the largest contributors to the Quad Cities Chamber's economic and community development programs.

Source: Quad Cities Chamber of Commerce, 2014

2045 LRTP Planning Development Goals

-Aligning the Vision with Goals Based on Public Input

- Produce **vibrant** RESIDENTIAL DEVELOPMENT
- **Foster talent and innovation** for COMMERCIAL & INDUSTRIAL DEVELOPMENT **prosperity**
- Develop sustainable MOVEMENT of people and goods
- **Connect people** to CULTURAL FACILITIES, RECREATION AND OPEN SPACE
- **Advance our** GOVERNMENT FACILITIES/ SERVICES/INSTALLATIONS for present & future needs
- **Create an interesting,** quality, attractive, **people-friendly METRO** AREA

- Support Economic Vitality
- Increase Safety
- Increase Security
- Increase Accessibility and Mobility Options
- Protect and Enhance the Environment
- Enhance Connectivity and Integration between Modes
- Promote Efficient System Management and Operation
- Emphasize System Preservation

Performance Objectives

Supporting the investments in the Transportation System

Planning for Our Residents

Quad Cities Area- IA/IL: Scott and Rock Island Counties*

- 2 States IA/IL, 20 Communities
  - MPA Population 298,005
- 122,360 Households
- $ Median HH Income $49,783
- Persons per household 2.37 (2.58 US)
- Commute time (MPA) = 10-20 minutes
- ~ 100 miles of existing trails
- 120 Transit buses/water taxis & monthly universal pass

*2010 US Census Bureau and Bi-State Regional Commission

Top Travel Issues & Community Input To Date

- Maintenance
- Complete Streets/Healthy Cities
  - Sidewalks to key places
  - Bike friendly
  - Better bus system/connectivity
- Lack of funding
- Traffic congestion
- New I-74 Bridge
- Amtrak: QC-Chicago + IA City

Public Involvement To Date

- Household Travel Survey (1,700 HH)
- Public Input Survey (255)
- Freight Interest Surveys
- Web-based Meeting Forum (101)
- Outreach Meetings #12
- Committee Meetings #46

Other Major Issues – Moving Forward

- State of Good Repair – Road Improvements and Transit Vehicle Replacements
- Connecting Transportation Infrastructure/Services to Economic Development – Moving People and Freight; Transit-Oriented Development
- Filling gaps – roads, sidewalks, trails, transit

Where does technology fit into our Quad Cities transportation system? – mobile applications for information, dynamic traffic control and signing, on-board vehicle technology

FY2017 TPWP
Major Transportation Issues

- River Crossing Capacity Improvements
- Air Quality Improvement Activities & Congestion Management (Non-Recurring – Crashes/System Reliability)
- Modal Coordination for Sustainability (Complete Streets & Community Health)
- Connectivity
- Passenger Transportation-Coordination with Human Services & Specialized Transportation Providers (Connecting People to Essential Services/Jobs)
- Integration of Safety and Security
- Implementation of Planned Projects

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Planning for Our Residents

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Forecasting the Urban Activity

Land-Based Data	Base Year 2010 Total	Horizon Year 2025 Total	Horizon Year 2045 Total
Population	298,005	313,438	328,544
Housing Units	122,360	130,901	136,863
Employment	161,988	175,688	188,358

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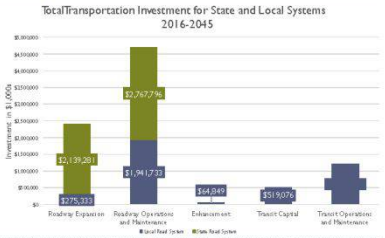
2045 Quad Cities LRTP
Transportation Investment – $8.9 Billion



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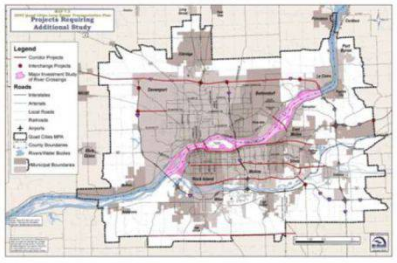
Requires Additional Study



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Draft Plan-
www.bistateonline.org

For more information, visit our website:
www.bistateonline.org

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E-Mail: gmccullough@bistateonline.org

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Appendix E: Federal Presentation

Bi-State Federal Certification Review

Public Meeting: April 26, 2016

Federal Highway Administration

Federal Transit Administration

Why Are We Here?

- Every 4 years FTA and FHWA jointly review the metropolitan transportation planning process for those areas with over 200,000 population
- Part of this review includes seeking public input

Introduction of the Federal Team

U.S. Department of Transportation Federal Highway Administration

FHWA - Illinois/Iowa Division Offices

U.S. Department of Transportation Federal Transit Administration

FTA - Region VII Office

What Is Your Role?

- To give your opinions of the metropolitan area's transportation planning process

What Will Happen To Your Comments?

- Any comments received today and by mail (within the next 60 days) will be summarized in a report.
- Comments are taken into consideration while evaluating the transportation planning completed for the area

What is the Outcome of this Review?

- Report is issued in approximately 60-90 days summarizing the discussions during the review

Outcomes of review:

- Certified with findings, recommendations & commendations
- Could be certified subject to corrective actions
- Failure to certify

Metropolitan Transportation Planning Process

What is the *Planning Process?*

- A process by which transportation decisions are made and projects are planned, selected and prioritized for implementation within the region.
- The Bi-State Regional Commission is designated as the planning organization for transportation.

Metropolitan Transportation Planning Process

Why is the Planning Process important?

- Decides how a substantial share of federal funding is spent nationwide.
- Because of limited funding, the MPO must prioritize the regional needs and determine the best and most economical solution.
- The process lays the framework for the future transportation system.

Metropolitan Transportation Planning Process

Who is involved?

- MPO
  - Policy Committee
  - Technical Committee
  - Ad hoc Committees
- Departments of Transportation (IL & IA)
- MetroLINK, CitiBus, Bettendorf, River Bend Transit Agencies
- Local Jurisdictions (cities, counties)
- Local Citizens
- Interest Groups
- FTA & FHWA

Metropolitan Transportation Planning Process

How?

- **3-C Approach**
  - Continuing
  - Cooperative
  - Comprehensive
- **Multimodal (road and non-road users)**
- **Opportunity for Public Input**

Metropolitan Transportation Planning Process

- **Products of the Metropolitan Transportation Planning Process**
  - **Transportation Planning Work Program (TPWP)**
  - **Transportation Improvement Program (TIP)**
  - **Public Participation Plan (PPP)**
  - **Metropolitan Transportation Plan (MTP)**
  - **Congestion Management Process (CMP)**

What is… Transportation Planning Work Program?

- **A document describing the planning activities to be completed in**
- **Bi-State's Fiscal year.**
- **Creates the annual MPO transportation planning budget**
- **Includes federal and local funding**

What is...
The Metropolitan Transportation Plan?

- 20-year horizon multi-modal guide to regional needs and potential solutions
- Financially feasible/constrained
- Contains: financial plans, local goals & objectives, public involvement

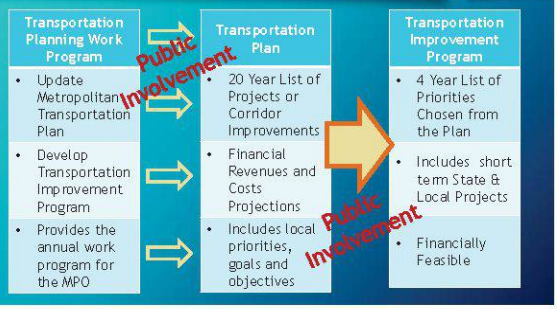
What is...
A Congestion Management Process?

- Short term and long term strategies
  - **Short term**—looks at current traffic and transit problems and tries to solve/reduce congestion
  - **Long Term**—tries to prevent congestion from occurring

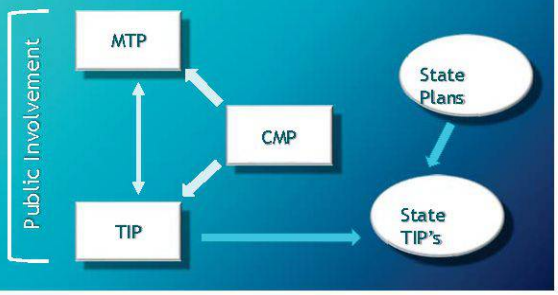
What is...
A Transportation Improvement Program?

- 4-Year list of financially feasibly projects
- A document prioritizing regional projects for funding and implementation

Metropolitan Transportation Planning Process How do the products fit together?



Metropolitan Transportation Planning Process How do the products fit together?



Public Comment Time

Here are some suggested items/thoughts for you to consider in making your comments:

1. What is your opinion of the effectiveness of the Bi State Regional Commission and its planning partners in conducting their planning products?
2. How is BSRC and its planning partners proceeding/doing in regard to multimodal planning?

Public Comment Time

3. What is your opinion of the effectiveness of the BSRC in seeking public input into its transportation planning process?

4. Do you have an adequate opportunity to participate in the planning process? Have you been involved in the transportation planning process?

5. And finally; what is your view/opinion of the process?

Public Comment Time

Written Comments - We have comment forms for you to fill out or take with you.

Mail Written Comments:

Mark Bechtel, Planning Team Leader
FTA Region VII
901 Locust Street
Kansas City, MO 64106

Email Written Comments: Mark.Bechtel@dot.gov

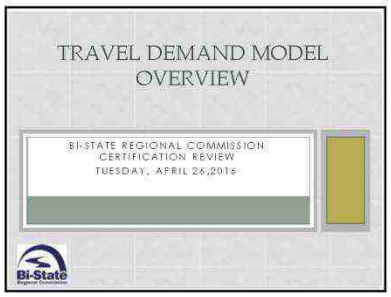
You have until June 30, 2016 to mail in your written comments.

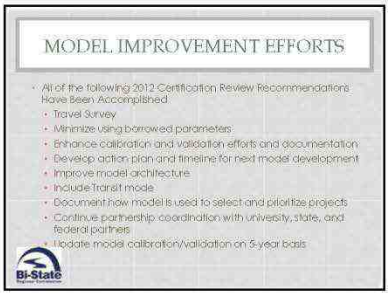
The "Floor" Is Yours!

- Please Identify Yourself For The Record
- All Opinions And Points Of View Are Valid
- Respect Opinions Of Others
- Please Keep Your Remarks To 5 Minutes Or Less
- Thanks For Your Time And For Participating!!

Appendix F: Travel Demand Model Overview

4/27/2016





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ADDITIONAL CONSULTANT ASSISTANCE

- Significant work has been accomplished in recent months focusing on:
  - Improved socio-economic data and special generators
  - Network improvements
    - Correcting turn penalty coding
    - Adjusting capacity assumptions
  - Vetting Illinois based traffic counts
  - Utilizing ITRAM to supplement external travel estimation

Bi-State

ADDITIONAL CONSULTANT ASSISTANCE

- Further utilizing the Bi-State household travel survey data to refine the following:
  - Trip Rates for non-residential uses
  - Trip attraction rates
- Re-calibration of trip distribution parameters
  - Better representation of trip lengths by trip purpose
  - Addition of K-factors for river crossing
  - Revised intrazonal travel assumptions
- Over 50 model calibration runs were done to test model adjustments

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2010/2045 MODEL CALIBRATION/VALIDATION RESULTS

- Table 3.14 – Quad Cities MPA Travel Model Results by Road Classification

Road Classification	Number of Observations	Traffic Count	Traffic Estimate	Difference	RMSE%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

- Table 3.15 – Quad Cities Travel Model Results by Area Type

[illegible]	Observations	Count	Estimate	Difference	RMSE%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Root mean square error (RMSE) measures the accuracy of model estimates on individual links with counts. 30% is desired for entire model area as a whole.

Bi-State

ADDITIONAL RECOMMENDED IMPROVEMENTS

- Model enhancements will continue to focus on:
  - Concentration on employment data accuracy
  - More detail on trip generation procedures
  - Better representation of travel time and capacity effects at signalized intersections
  - Enhanced trip distribution procedures
  - Improved mode share estimates
  - Better highway assignment algorithms
  - Improved reporting and mapping functionality

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IOWA STANDARDIZED MODEL STRUCTURE

- Iowa DOT work with HNTB, Michael Baker and HR Green to develop standardized policy and procedure process
- Iowa DOT/consultant/MPO will continue work to enhance model to new policy and procedure standards

Bi-State IOWA DOT

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