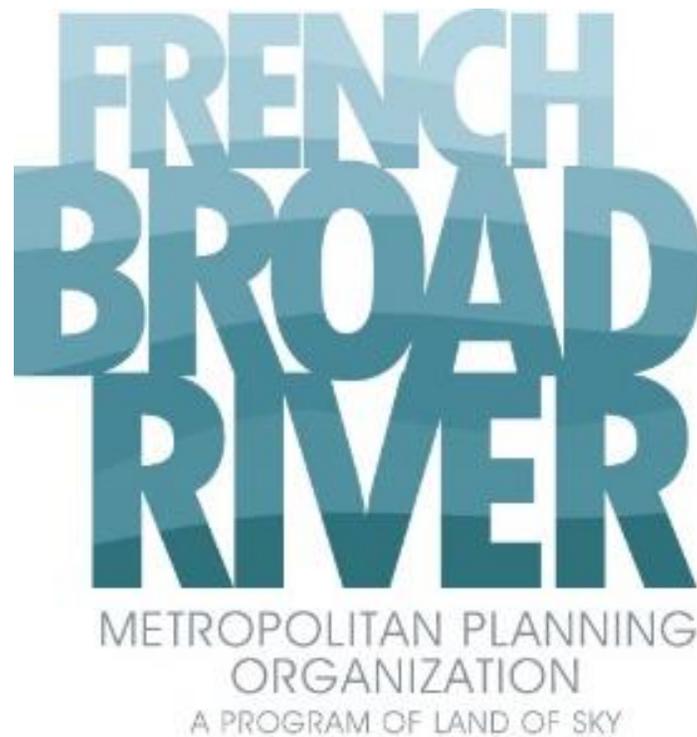


# **FBRMPO Land Use and Socio-Economic Data Forecasting Study Request for Proposals**



Release Date:

April 20, 2018 \*\*\*updated May 10, 2018

# Introduction and Overview

## About the French Broad River MPO

The French Broad River MPO (FBRMPO) is the regional transportation planning body for the metropolitan planning region centered on Asheville, North Carolina. The FBRMPO planning area includes urbanized portions of Buncombe, Haywood, Madison and Transylvania Counties and all of Henderson County; as well as portions of those counties expected to urbanize over the next twenty years. Land of Sky Regional Council is the Lead Planning Agency for the French Broad River MPO and also houses the Land of Sky Rural Planning Organization. The French Broad River MPO Board is the governing body for the MPO, made up of local elected officials; the Technical Coordinating Committee (TCC) is an advisory committee to the MPO Board, consisting of local government and NCDOT staff members.

## French Broad River MPO Travel Demand Model

The French Broad River MPO Travel Demand Model (as most recently updated in 2015) includes the full five counties (Buncombe, Haywood, Henderson, Madison and Transylvania) for a combined Land of Sky transportation planning region. The French Broad River MPO has an agreement with NCDOT under which NCDOT Transportation Planning Branch houses, runs and maintains the French Broad River MPO Travel Demand Model. The FBRMPO is responsible for providing socio-economic data inputs as part of model updates. The FBRMPO Travel Demand Model is a traditional “trip-based” four-step model, built in TransCAD.

## Project Background

As the Metropolitan Planning Organization (MPO) for the Asheville Metropolitan Area, FBRMPO is required to produce a population forecast for the region to accompany its Metropolitan Transportation Plan (MTP, also known as Long-Range Transportation Plan), with a horizon year that is at least twenty years out from the plan’s adoption date. The current RFP is for a data forecast to accompany the Regional Travel Demand update to 2045 and MTP 2045 plan update.

The 2045 MTP will serve as the guiding document for future investments in transportation related activities and services – roads, transit services, aviation, bicycle and pedestrian facilities – to match anticipated growth in the Land of Sky region of Western North Carolina. It plans for the next 25 years of transportation projects, from 2020 to 2045. The land use and socio-economic data forecast developed under the current proposal will be utilized to update the FBRMPO Travel Demand Model and to serve as support in MTP 2045 and future Comprehensive Transportation Plan updates.

## General Information

As a result of responses to this RFP, FBRMPO plans to review submissions and conduct interviews with selected consultants it determines can best meet the requirements outlined below. Subject to “Reservation of Rights” below, it is anticipated that a contract will be awarded for the work described. The contract awarded will be for a period of one year, with an optional extension.

# Project Scope & Tasks

## Project Description

The French Broad River MPO is seeking a consultant with experience in the modeling of

land use decisions in medium-size urban areas (200,000-1,000,000 population) to develop disaggregated socio-economic data (SE data) including population, household and employment numbers and some special populations by Traffic Analysis Zone (TAZ) across the five-county region for 2045. It is expected that a land use model will be utilized to disaggregate the population and household projections across the region. Employment projections out to 2045 by industry category will be provided and disaggregated under this project as well. The socio-economic data provided under this project will be used as inputs into the FBRMPO traditional trip-based four-step travel demand model.

FBRMPO expects the project to be completed within a year. The SE data will be needed in time to be utilized for the Travel Demand Model update as part of the FBRMPO MTP 2045 Plan update in 2019-2020.

### Scope of Services

Proposals must address all requirements outlined below. FBRMPO is seeking to work with a consultant to provide detailed socio-economic data for the Agency's four-step travel models. It is expected that some form of land use model would be utilized to provide SE data at a sufficient level of spatial granularity to allow for land use and population change analysis that could be broken down to a community/town center/village center scale analysis of land use changes suitable for communicating to staff, partner agencies, and stakeholders within the region. At a minimum, granularity at a TAZ level is required.

### Maximum Budget for the Project

The maximum budget for this project is \$60,000.

### Theoretical Framework and Model Design

All proposals must include an overview of the conceptual underpinnings of the land use model that will be utilized to develop the disaggregated SE data, including the roles of transportation accessibility and real estate markets in the influence of land use choices. In addition, respondents must address the following topics in their proposals:

- Employment forecast for 2045, 2015 base year and interim years (2020, 2030) is required as part of the scope of work. Employment forecast numbers will need to be disaggregated by county, TAZ and industry type. The base year employment will also need to be broken out by county, industry type and TAZ. InfoUSA data for 2015 will be made available by the FBRMPO for base year employment calculations by TAZ and industry type. Employment industry types for the purpose of the FBRMPO Travel Demand Model are as follows:
  - Retail (RET)
  - Highway Retail (HWYRET)
  - Industrial (IND)
  - Office (OFF)
  - Service (SVC)
  - Total Workers (TOTEMP)
- Population data will be broken out into the following categories for input into the FBRMPO Travel Demand Model, in addition to being disaggregated by TAZ:
  - HH (Households as defined by Census - Occupied Dwelling Units)
  - HHPOP ("Population in Households" as defined by Census)
  - GQPOP ("Group Quarters Population" as defined by Census)
  - SeasonalDU (Seasonal Dwelling Units (includes both occupied and unoccupied households))

- MedInc (Median Income)
- Hotel (Number of hotel rooms)
- RV\_Camp (Number of RV Hookups)
- BnB (Number of bed and breakfast facilities)
- Motel (Number of motel rooms)
- Cabins (Number of vacation cabins)
- Resort (Number of resort rooms)
- FBRMPO will provide the HHPOP projections by County out to 2045 and for the interim years (2020, 2030, 2045)
- FBRMPO will provide the following the following population data parameters by TAZ for base year, 2045 and interim years (2020, 2030):
  - K-12Enroll (K-12 Enrollment @ School location)
  - UnicEnroll (University Enrollment @ school location)
  - PctOffCampus (Percentage of enrolled students living off campus)
  - UnicStudRes (University Student Residences)
  - YearlyVis (Yearly Visitors)
- The land use model is expected to use population and employment “control totals” for the forecast horizon year and all interim years. Model outputs are expected to be reported out for the following years: 2020, 2030, 2045. Provide a description of the model’s ability to accept exogenous control totals (along with specific data-formatting requirements) and generate data for interim analysis years.
- The model must be able to accommodate localized population and household increases at interim years based on “pipeline” information of known planned developments maintained in FBRMPO’s Development Database. Describe the process for incorporating pipeline development information into the land use modeling procedures.
- Describe how the firm’s approach to land use modeling and SE data forecasting and disaggregation would allow for multiple scenarios to be analyzed based on the assumption of adoption of specific planning strategies or combinations of multiple strategies. Two different scenarios are desired to be developed for 2045 and interim years:
  - Business as usual scenario, based on existing land use controls and policies across the five-county region and recent growth trends
  - Strong and vibrant communities scenario, which would include an expectation for increased density in existing dense, walkable nodes including historic downtown centers as well as development/redevelopment of additional new walkable nodes with a more dense pattern of development along major travel corridors and transit corridors
- There are some developed areas in the FBRMPO region where infill or redevelopment can play a role in the revitalization or growth of a community. The land use model must account for the redevelopment or “upzoning” of uses, and not be strictly based on consumption of available land. Describe how infill development can be specifically addressed within the land use model.
- A GIS file of model Transportation Analysis Zones is available for review. Provide a discussion of the proposed scale of model output and the model’s ability to adapt to alternative geographies.
- Model interface must be able to provide results for horizon and interim years in the following forms, for both “Business as Usual” and “Strong and Vibrant Communities” scenarios:
  - mapped display on selected indicators/variables (including files in ESRI ArcGIS format)
  - comma-delimited tables of selected variables to serve as inputs to FBRMPO travel models.
 Please indicate whether the model output can be provided in these formats.

## Coordination and Reporting

The French Broad River MPO Prioritization Subcommittee with addition of a representative from the NCDOT Transportation Planning Branch will serve as the Steering Committee for this study. The consultant will maintain active communication with the FBRMPO staff and may be requested to present to the FBRMPO Prioritization Subcommittee, TCC and Board as part of the project.

The consultant team selected will have an in-person meeting or a conference call with the FBRMPO staff prior to the Steering Committee kick-off meeting, to identify major issues and questions relevant to the study.

An in-person presentation of the draft final study results is expected. Phone conference and webinar options may be utilized for additional Steering Committee meetings. It is expected that at least four Steering Committee meetings would take place. The consultant team will provide quarterly reports to the FBRMPO to summarize study progress, potential obstacles, and upcoming activities. Quarterly reports will include an update on schedule and budget. A draft final report and a final report will be prepared for the study. Sufficient time will be provided after submission of the draft final report for the comments and feedback from the Prioritization Subcommittee, the MPO TCC, Board and the general public, and to make changes and corrections to the Final Land Use and Socio-Economic Data Forecast Report as needed.

## Timeline

This Land Use and Socio-Economic Data Forecasting study is expected to be completed 12 months after notice to proceed, with possible extensions at the discretion of the Steering Committee. FBRMPO goal is to have a fully-functioning land use model and disaggregated SE Data tables for 2045 and interim years in place by September 2019 so that those results be used for the FBRMPO MTP 2045 Plan Update.

## Qualifications

All interested firms including primary and sub-consultants should be- or should be capable of quickly becoming- prequalified with the North Carolina Department of Transportation (NCDOT) as a Private Consulting Firm and registered as a vendor.

Firms should also document prior experience in land use modeling, demographic data forecasting and travel demand modeling.

## Deliverables

The final product should include:

- Maps of the Land Use Forecast results for 2045 and interim years, both in pdf format for presentations and in ArcGIS format for MPO staff future use
- Employment forecast data for 2045 and interim years, disaggregated by employment type and by county and TAZ, in table (CSV) format

- Population and other categories forecast SE Data for 2045 and interim years, disaggregated by county and TAZ, in table (CSV) format
- A digital copy of the final report
- Three (3) hard/paper copies of the final report
- Any presentation/Steering Committee materials

The consultant team selected will be expected to provide a presentation to the FBRMPO Prioritization Subcommittee, the FBRMPO TCC and the FBRMPO Board upon completion of the project. In addition, the consultant team selected will share any applicable presentation materials with the FBRMPO staff to provide ongoing updates for the FBRMPO TCC and Board on a quarterly basis.

## Selection Criteria

Proposals from qualified firms will be examined and scored by the project steering committee based on the following attributes from the proposal:

1. Demonstrated experience, of both firm and personnel assigned to this project, in the field of socio-economic data development, land use modeling and interaction with travel demand model inputs.
2. Responsiveness of the proposal to the scope of work, as demonstrated through a clearly defined methodology, process, and estimate of FBRMPO/NC DOT staff and other outside data resources necessary for additional data and/or data calibration prior to input into the regional Travel Demand Model.
3. Quality and relevance of examples.
4. Timeline--does the proposal provide a clear timeline of the length of time required for completing tasks?

## Submittal Requirements and Selection Process

Prospective consultants should submit an electronic copy of their proposal with the following included:

- (1) Identify the Consultant team that will be involved in this project. Include a narrative describing the team's combined qualifications and strengths. Clearly identify the project manager, specify the role of subcontractors and describe the team's structure for leadership, support and accountability. Each individual with time on the project should be identified, their qualifications outlined and their role defined whether they work for the lead firm or a subcontractor.
- (2) Provide a narrative proposal of the approach and techniques the applicant will use to complete the entire scope of services. The proposal must include a clear and concise work plan for achieving the identified tasks and preparing the required deliverables.
- (3) Provide at least two examples of similar work for Metropolitan Planning Organizations that the Consultant has completed. Specify the client, the date completed and the approximate cost of each example. Provide references for each project including the individual contact name and phone number of project managers who are willing and able to comment on the proposed project manager's ability to produce a quality professional product on time and within budget.

Prospective consultants are advised to not include a fee proposal. However, a very detailed cost estimate is required by NCDOT as part of final contract negotiation.

All Proposal should be sent to [MPO@LandofSky.org](mailto:MPO@LandofSky.org) by **Friday, May 18, 2018 by 5:00 p.m.**\*\*updated date

## Contractual Agreement

The contract FBRMPO anticipates awarding as a result of this RFP and subsequent rate submissions and negotiations, will indicate the service requirements, time periods involved and applicable hourly rates.

### Reservation of Rights

FBRMPO reserves the following rights if using them will be more advantageous to the FBRMPO:

- 1) Withdraw this RFP at any time without prior notice.
- 2) Accept or reject any and all submissions, or any item or part thereof
- 3) Postpone proposals due date.
- 4) Not award a contract to any submitter responding to this RFQ.
- 5) Award a contract without negotiations or discussions.

Consultants who are or have been seriously deficient in current or recent contract performance in the absence of evidence to the contrary or circumstances properly beyond the control of the Consultant shall be presumed to be unable to meet these requirements. Past unsatisfactory performance will ordinarily be sufficient to justify a finding of non-responsibility.

Questions may be referred to Lyuba Zuyeva, (828) 251-7454 or Email: [lyuba@landofsky.org](mailto:lyuba@landofsky.org).

### Interview Process

Should the project Steering Committee decide it is necessary, consultant teams may be requested to conduct an interview with the project Selection Committee.

### Selection Process

The Project Selection Committee will be formed from a subset of the Steering Committee, with inclusion of FBRMPO staff and NCDOT TPB staff. The Project Selection Committee will score consultant proposals based on the criteria outlined in this RFP. Should any consultant fail to provide any requested information or fail to provide anything requested in this RFP, the Project Selection Committee may reserve the right to disregard the consultant's proposal.

Cost estimates should not be included as part of the proposal. Only after a consultant firm is selected would the selected firm and sub-consultants will be required to submit a detailed man-hour estimate, wage rates, overhead, cost of capital, other miscellaneous expenses, and fees in accordance with NCDOT's "Policies and Procedures for Procurement and Administration of Major Professional or Specialized Services Contracts," and other current standards. The negotiated contract will be submitted to the Office of Inspector General, Consultant Audit Unit for review prior to issuance of an NTP.

# Attachment A: Land Use Forecast and Future Year (2045) and Interim Years SE Data (2020, 2030) Work Tasks

1. Project Initiation
  - a. Two conference calls and a kickoff meeting
  - b. Information request and review
2. Review base year population and employment data provided by the FBRMPO as well as “development pipeline” projects
3. Acquire and disaggregate employment data out to 2045; interpolate/estimate interim years (2020, 2030)
4. Revise Population control totals
  - a. Prepare base year data for use
  - b. Classify industry forecasts and split Commercial forecasts into travel model categories (RET, HWYRET, IND, SVC)
  - c. Revise county control totals
5. Review assumptions and model logic for “Business as Usual” and “Strong and Vibrant Communities” scenarios
  - a. Coordination with local governments and MPO staff to update the Land Supply
  - b. Update Suitability Analysis
  - c. Update Future Land Use categories (allowable uses and densities)
  - d. Development Constraints for region and recalculate buildable area
  - e. Revise formulas and run growth model
  - f. Create map series for employment and dwelling unit forecasts by TAZ (2045 and interim years 2020, 2030)
  - g. In person meeting to present forecasts
  - h. Revise draft forecasts based on feedback from local governments
  - i. Data preparation for travel model runs
6. Primary deliverable is a GIS shapefile or feature class of TAZ based forecasts with the following variables, for both “Business as Usual” and “Vibrant Communities” scenarios:
  - a. Employment
    - i. Retail (RET)
    - ii. Highway Retail (HWYRET)
    - iii. Industrial (IND)
    - iv. Office (OFF)
    - v. Service (SVC)
    - vi. Total Workers (TOTEMP)
  - b. Residential
    - i. Households (HH) as defined by Census-Occupied Dwelling Units
    - ii. Population in Households (HHPOP) as defined by Census
    - iii. Group Quarters Population (QGPOP) as defined by Census
    - iv. Single Family Dwelling Units (SFDU)
    - v. Multi-Family Dwelling Units (MFDU)
  - c. Other
    - i. Number of Hotel Rooms (HOTELRM)
    - ii. Number of Motel Rooms (MOTEL)
    - iii. Number of RV Park hook-ups (RV\_Camp)
    - iv. Number of vacation cabins (CABINS)
    - v. Number of resort rooms (RESORT)
    - vi. Number of Bed and Breakfast facilities (BnB)
    - vii. Median Income (MEDINC) by TAZ
    - viii. # of Vehicles (AUTOOWN) by TAZ

### Additional Tasks Not Included in the RFP: FBRMPO Responsibility

To be completed by French Broad River MPO staff. Inventory will have the following variables by TAZ for base year, 2045 and interim years (2020, 2030):

- i. K-12Enroll (K-12 Enrollment @ school location)
- ii. UnicEnroll (University Enrollment @ school location)
- iii. PctOffCampus (Percentage of enrolled students living off campus)
- iv. UnicStudRes (University Student Residences – obtained by zip code and broken out by TAZ)
- v. YearlyVis (Yearly Visitors)

To be completed by French Broad River MPO staff for base year (2015) only:

- i. Base year employment data (InfoUSA format or similar) in ESRI ArcGIS shapefile (point file) format
- ii. Median Income (MEDINC) by TAZ
- iii. # of Vehicles (AUTOOWN) by TAZ

## Attachment B: Work Tasks Clarification of Responsibilities

This attachment is being provided in response to questions received about the RFP.

<b>Task</b>	<b>Who is Providing?</b>	<b>Additional Comments</b>
2015 HH Control Totals by County	FBRMPO	Based on Census Data
2015 EMP Control Totals by County	Consultant	From InfoUSA data provided by FBRMPO
2015 HH Info by TAZ	FBRMPO	Based on Census Data
2015 EMP Info by TAZ	Consultant	From InfoUSA data provided by FBRMPO
Interim Year HH Control Totals by County	FBRMPO with technical support from the Consultant	
Interim Year EMP Control Totals by County	Consultant	
Future Year 2045 HH Control Totals by County	FBRMPO with technical support from the Consultant	
Future Year 2045 EMP Control Totals by County	Consultant	
Disaggregated Data by TAZ for Interim and Future Years	Consultant	