



The North DuSable Lake Shore Drive (NDLSD) Phase I Study is currently evaluating the five remaining NDLSD Build Alternatives (“Level 3 Screening”) in accordance with the National Environmental Policy Act (NEPA). This evaluation is considering nearly 30 different criteria. Analysis of several of these criteria require information about future transportation demand in the NDLSD corridor. In order to forecast future demand, the transportation network is modeled for proposed future conditions. This Study Spotlight provides an overview of the transportation modeling process as it relates to the NDLSD project. For additional details regarding the overall Phase I Study, please visit the project website at northdusablelakeshoredrive.org.

TRANSPORTATION MODELING

Decisions as to where, when, and how people make trips are affected by several factors, such as:

- Relative locations of housing, employment, and other destinations and activities that generate travel demand
- Travel Time and/or Distance
- Transit Availability, Capacity, and Convenience
- Travel Costs (Parking, Tolls, Transit Fares, etc.)

Travel behavior changes when one or more of these factors change. Over time, many individual changes in trip making result in regional changes to transportation demand. This affects and is affected by housing supply and demand, employment locations, and other factors, and these changes may potentially result in undesirable impacts on environmental resources such as air quality, water quality, amount of open space, etc.



The popularity of the private automobile after World War II caused travel demand changes to accelerate in many metropolitan areas in the 1950s. Responding to the growing impacts of these changes, in the early 1960s the Federal government mandated that any metropolitan area with more than 50,000 residents create a metropolitan planning organization (MPO) dedicated to long-range transportation and land use planning. This requirement was codified into law in with the 1962 Federal Aid Highway Act, and has been renewed with subsequent federal laws regarding surface transportation. The duties of the MPOs have evolved over time to also address safety, sustainability, non-motorized transportation users, and more.

Transportation Planning in Northeastern Illinois

The Chicago Metropolitan Agency for Planning (CMAP) is the Federally recognized MPO for the 284 municipalities and seven counties in the Chicago metropolitan region. CMAP’s primary responsibilities were defined by the Illinois General Assembly in the Regional Planning Act (70 ILCS 1707), as summarized below:

- Regional transportation and land use data collection, analysis, and evaluation
- Regional travel forecasting and modeling
- Develop and maintain a regional comprehensive plan that integrates land use and transportation development

Additionally, because northeastern Illinois is an area that does not meet air quality standards required under the federal Clean Air Act, CMAP is required to have its regional plan updated and certified by the Federal government every four years (CMAP’s most recent regional comprehensive plan, ONTO 2050, was adopted in October 2018 and updated in October 2022). All proposed transportation investments using Federal or State funding must be evaluated by CMAP to ensure that progress toward Federal air quality targets are met.



CMAP's Role in Transportation Projects

CMAP's regional comprehensive plan is developed through a process that includes extensive public involvement and coordination with local municipalities and county agencies. One product of this effort is the development and maintenance of a regional travel demand model that is based on existing conditions, committed transportation investments, and land use, housing, and employment policies proposed to be implemented. The travel demand model predicts how trip making will change if the comprehensive plan is implemented, and includes both motorized (auto, transit) and non-motorized (walking, bicycling) trips. Any proposed transportation improvement must be modeled by CMAP and their travel demand forecasts used for project evaluation in order for those projects to be eligible for Federal or State funding. Why is this the case?



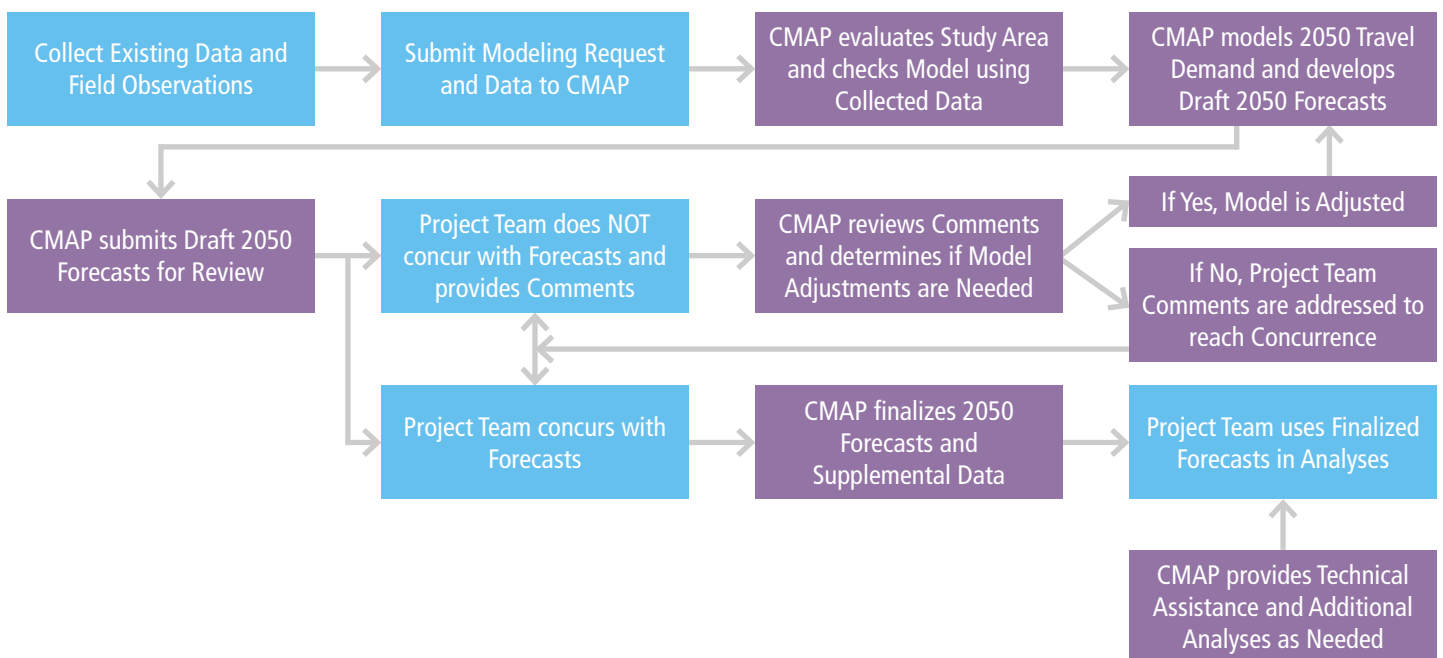
- The State defines CMAP as the “authoritative source” for “regional data collection, exchange, dissemination, analysis, evaluation, forecasting, and modeling”
- Per Federal law, CMAP must conform any projects using Federal or State funds according to Clean Air Act requirements
- Per Federal law, CMAP is responsible for developing a Transportation Improvement Plan (TIP), that contains all projects eligible for Federal funding over the duration of the comprehensive plan’s planning period (currently 2050)

This also means that any travel demand modeling or forecasting not performed by CMAP must be reviewed and validated by CMAP in order for it to be used in evaluation of proposed alternatives on projects using Federal or State funding to be in compliance with Federal and State law.

How is CMAP's Modeling Data Used in the NDLS Study?

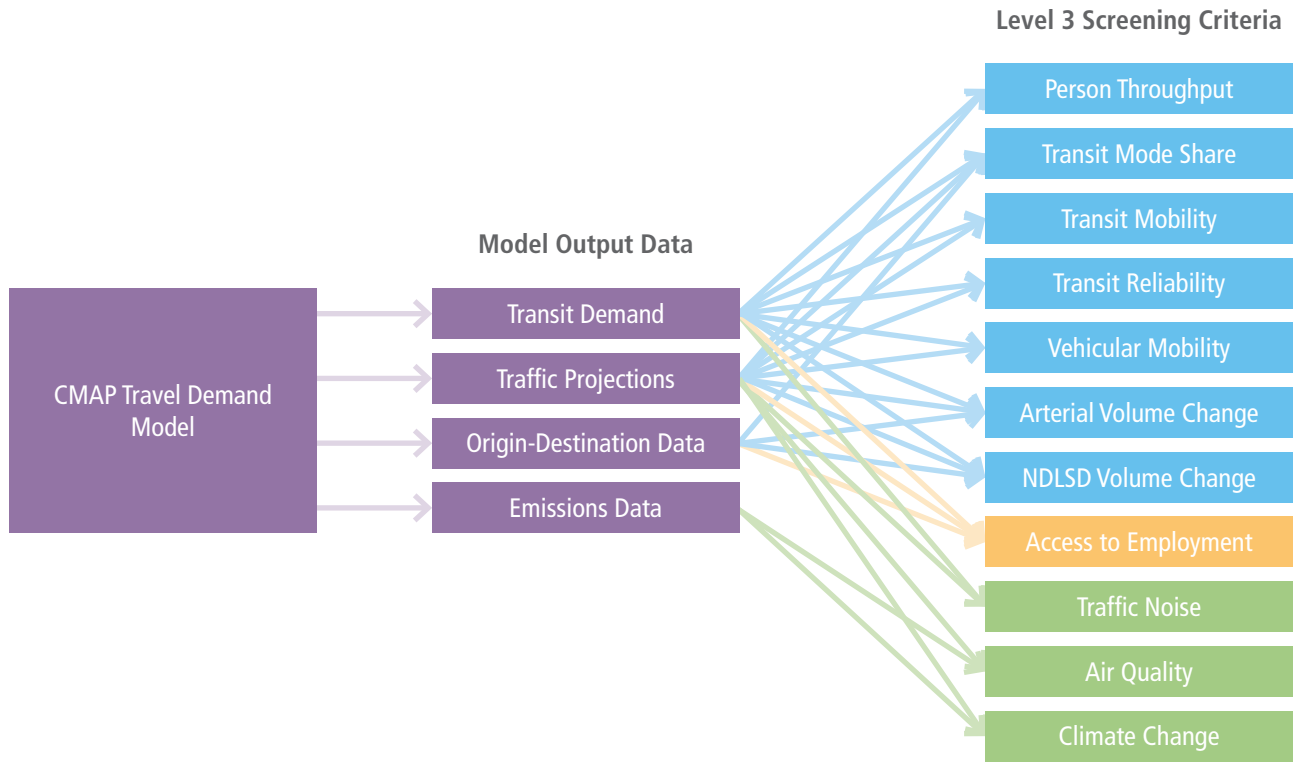
The NDLS project team has worked in close coordination with CMAP staff to develop travel demand forecasts throughout the course of the study. The graphic below illustrates the coordination process between CMAP and the project team.

CMAP Project Coordination Process



Once the project team and CMAP reached concurrence on the travel forecasts, the data produced from the forecasts were used in several of the Level 3 screening analyses, as illustrated in the graphic below.

Role of CMAP Travel Demand Model Data in Level 3 Screening Analysis



As indicated in the above graphic, the travel demand model data obtained by CMAP were used to inform analysis of many of the Level 3 screening criteria for the proposed alternatives. While these data were primarily focused on evaluation of performance criteria, they were also used to evaluate access to employment and effects to traffic noise, air quality, and climate change.

What does this mean for the NDLSD Phase I Study?

CMAP is the Federally designated MPO for the Chicago region, and their data and forecasts must be used in environmental evaluation of the project to adhere to the National Environmental Policy Act (NEPA).

