

CONGESTION MANAGEMENT PROCESS

for the

**NASHUA, NEW HAMPSHIRE
TRANSPORTATION MANAGEMENT AREA**

2022 PLAN UPDATE



NRPC

Value yesterday. Enhance tomorrow. Plan today.

Federal Guidance for CMP Development

- CMP is required for TMAs (metro areas > 200k population)
- Congestion management involves the multi-modal system
- Develop measures to evaluate congestion levels
- Establish program for data collection & system performance monitoring
- Identify and evaluate CMP strategies for inclusion in the MTP
- Follow an 8-step framework for federal compliance
 - Develop regional objectives
 - Define CMP network
 - Develop multi-modal performance measures
 - Collect data/monitor system performance
 - Analyze congestion problems and needs
 - Identify and assess strategies
 - Program and implement strategies
 - Evaluate strategy effectiveness

Regional Objectives/CMP Network

Regional Objectives

- Reduce transportation network congestion/improve efficiency
- Increase mobility for alternative modes
- Improve safety performance

CMP Network

- State highways & Main Street, DW Highway in Nashua
- Public and private transportation systems, including park-ride lots

CMP Toolbox

- **Highway Physical Improvements**
 - Increase lanes, turn lanes, interchange reconfiguration
- **Transit Strategies**
 - Expand NTS service area, new service areas, P&R expansion, employer micro-transit, amenities, passenger rail
- **Bicycle/Pedestrian Improvements**
 - Bike lanes & trails, safety improvements, amenities
- **Transportation System Management & Operations**
 - Optimization of signals, signal coordination, information & incident management systems, all-electronic tolling
- **Transportation Demand Management**
 - Telecommuting, teleconferencing, flex hours, ridesharing program
- **Access Management**
 - Left turn restrictions, driveway consolidation, frontage roads

Congestion Measures

- Traffic count trends
- Arterial peak period speed data/travel time indices
- Arterial capacity utilization & level of service
- Arterial segment crash rates (non-recurring congestion)
- Bicycle level of traffic stress
- Transit capacity utilization
- Transit on-time performance

Congestion Mitigation Strategies

- Existing MTP capacity enhancing projects are evaluated for improvements to volume/capacity (FEE Turnpike, NH 101A)
- Safety improvements (Turnpike Exit 5 re-alignment, NH 101, US 3/Wire Rd)
- Major new construction (Broad St Parkway/Franklin St interchange, Turnpike Exit 12 north ramps)
- Implement traffic signal management system now used on Hudson arterials to other congested areas (Nashua CBD, NH 101A, US 3 Merrimack)
- Implement flashing yellow signals for left turn traffic where feasible
- NTS service extensions to Merrimack, Milford, Hudson
- Interregional transit strategies, including bus shuttles and passenger rail.
- Bike lane implementation to improve LTS.
- Promote transportation demand management strategies such as telecommuting and flexible work hours.

CMP Continuing Process

- Integrate new CMP strategies into Metropolitan Transportation Plan, as enabled by financial constraint analysis
- Conduct CMP updates on a five-year schedule in the year preceding an MTP update
- Maintain continuous monitoring of peak period speed data for all CMP arterials
- Continue to monitor traffic trends and arterial capacity utilization
- Add intersection capacity analysis to next CMP update (precluded this round by COVID impact on traffic)
- Evaluate impacts of project implementation (travel speeds, capacity analysis, bicycle LTS)