



Congestion Management



www.firstcoastmpo.com



904.306.7500

888.488.4898 (toll free)

TDD 904.306.7502

fax 904.306.7501

1022 Prudential Drive

Jacksonville, Florida 32207

Coming to Grips with Congestion

You've heard it a thousand times. "We can't build our way out of congestion." So what can we do? Land use policies, controlled by city, county and state governments, determine where and how growth occurs. Transportation agencies must tackle the challenge of accommodating that growth and planning for future mobility.

The Congestion Management System identifies congested state roadway segments and corridors, and ways to reduce or minimize congestion that don't involve building more lanes or adding new roads. This list is updated on a five-year cycle with data collection, planning studies, improvement projects and monitoring in the interim. For the current list of congested roadways, studies and projects, please visit www.firstcoastmpo.com.



How do we measure congestion?

Three types of measurements are used to identify congested roadways:

1. **Roadway Length** – to be included, a roadway must be greater than four miles because many congestion management strategies would be impractical within anything shorter.
2. **V/C** – volume to capacity ratio calculated by dividing traffic volume by capacity (lane configuration). To be identified as congested, roadways or segments must have a current and ten-year projected V/C > 85%. Ten-year projected future congestion is based on computer modeling that includes new roads and road expansion projects already planned over the next ten years.
3. **VMT** – vehicle miles of travel calculated by multiplying the number of vehicles on a given segment or roadway (traffic count) by its length in miles. This measures how much a road is used.

Once these roads have been identified, several factors are used to screen and prioritize the list:

- **Roads with Recent Studies and Interstates**
These roads are removed from the list because roadway planning studies generally already include an analysis of congestion management options as well as build alternatives. The three interstates within the First Coast area, I-95, I-10 and I-295, have undergone extensive planning studies including review of congestion management alternatives.
- **Constrained Roadways**
Constrained roadways are generally those with limited capacity for additional lanes, either due to right of way, land use, political or environmental constraints. Many congestion management strategies are most successful in areas where widening is not possible, so constrained roadways are given a higher priority ranking.
- **Transportation Concurrency Exception Area (TCEA) Designation**
TCEAs are designated to support the development and use of public transportation and reduce the adverse impacts that transportation concurrency requirements may have upon urban infill development and redevelopment projects. There are two TCEAs in the First Coast MPO boundary – downtown Jacksonville and the City of St. Augustine. Congested roads that serve these TCEAs are given a higher priority ranking.
- **Regional Factors**
Congested roadways crossing county boundaries (within the First Coast MPO area) are given a higher priority since congestion across county boundaries is more likely to have regional or statewide impacts.

The priority list is used to determine candidates for congestion management studies and projects.

Congestion Management Tools

Transportation Demand Management (TDM)

The goal of TDM strategies is to reduce the number of single-occupant vehicles traveling during peak hours by encouraging the use of alternate commute methods including:

- **Telecommuting/Flextime**
- **Vanpools and Carpools**
- **Transit – Bus, Skyway, Trolley and future Bus Rapid Transit (BRT)**
- **Biking and Walking**

These strategies have been very effective in reducing congestion, but it is challenging to get people to change their perceptions and behavior. Transportation Management Organizations (TMOs) are public/private partnerships that can be formed to promote these alternatives and provide supporting services. Employer support is critical in getting people to change the way they travel to work. Employers can:

- Identify positions or types of tasks that would be suitable for telecommuting or flextime to reduce the number of people traveling to and from work between 7-9 a.m. and 4-6 p.m.
- Sponsor vanpools and promote vanpools, carpools and transit use to take advantage of Commuter Choice tax deductions and credits available to employers and employees.
- Provide showers, bike racks and lockers to encourage biking and walking to work.
- Government agencies involved in transportation and land use planning are working to improve the convenience, safety, comfort, timeliness and reliability of commuting alternatives.



Land Use

Land use strategies must be implemented by local governments and have been shown to have a positive impact on reducing congestion:

Establish Land Use Districts (TCEAs) – TCEAs encourage land use design and development funding to support using transit instead of driving.

Revise Street Connectivity Standards – many new neighborhoods are created with only cul-de-sacs and one way in and out. Traveling to adjacent neighborhoods and businesses often requires getting on and off major roadways, increasing congestion and opportunities for accidents. Land development regulations could be changed to require that streets be connected internally to adjacent developments to provide safe, convenient access and reduce unnecessary trips on major roadways.

Modify Minimum Parking Space Requirements – land use regulations generally require a minimum number of off-street parking spaces based on the number of new homes or amount of commercial space being developed. This does reduce congestion by reducing on-street parking or people driving around in search of a space, but it can have unintended consequences. Large parking lots separating development from sidewalks and transit stops make it harder and more dangerous for people to use these alternatives. In densely developed areas with paid parking, good transit service and sidewalks, it may be beneficial to have maximum parking allowances instead of minimum parking requirements to encourage people not to drive in congested areas.

Traffic Operations and Access Management

Intersection Design and Signals – existing roadways can operate more efficiently with improvements to intersection design, such as extending turn lanes so turning traffic doesn't back up into through lanes. Traffic signal timing and coordination should be reviewed and updated to accommodate growth and new travel patterns.



Intelligent Transportation Systems (ITS) – ITS includes a broad range of electronic and wireless technologies used for freeway management, traveler information, traffic control and construction zones, emergency services and accidents, trucking, rail and transit operations, military operations and homeland security, and special events. When incorporated into our transportation infrastructure and coordinated through institutional partnerships, ITS improves the efficiency of our transportation system and saves lives, time and money. For detailed information on ITS, visit www.firstcoastmpo.com.

Value Lanes (HOT, HOV or FAIR Lanes) – on interstates, freeways and expressways, High Occupancy Vehicle (HOV), High Occupancy Toll (HOT) and Fast and Intertwined Regular (FAIR) lanes can be effective congestion management tools. HOV lanes are restricted to vehicles with two or more passengers and transit. HOT lanes allow single occupant vehicles to use these lanes by paying a toll that's collected by a wireless electronic reader detecting a transponder on their windshield. Toll prices can change dynamically based on the amount of traffic on the toll lanes. FAIR lanes give credits to those with transponders who drive in the "regular" lanes. The credits can be used as toll payments on HOT lanes, or as payment for transit, paratransit or parking at commuter park and ride lots in the corridor.

Access Management – coming in and out of neighborhoods and businesses on major roadways increases congestion and accidents. Reducing the number of median openings and driveways improves traffic flow and safety. By partnering with existing property owners, we can encourage shared driveways and intersection improvements to maintain access with fewer medians.

Congestion Management Policies

1. When congestion management projects are identified, we must determine up front how they will be funded including city, county, regional, state and private sector sources.
2. Before the First Coast MPO will approve a project involving adding capacity to a roadway, a congestion management analysis has to be done and the results provided to the MPO. If congestion management strategies are not included as part of the project, justification for their exclusion must be provided to the MPO. The analysis has to include the potential for adding "value lanes" on limited access state highways. It may include evaluating improvements for more efficient traffic operations (e.g. signal timing strategies) or deploying intelligent transportation systems (ITS) involving that roadway.
3. A maximum width of six general-purpose lanes is recommended, excluding special lanes and turning lanes at major intersections, on arterial highways other than limited access highways. If congestion continues due to the lack of additional lanes, congestion management strategies will need to be developed as short-term improvements. This policy does not discourage or preclude reserving or acquiring rights-of-way now for use in adding general-purpose lanes beyond the specified six-lane maximum should they be deemed needed and appropriate at a future date.
4. The First Coast MPO supports designating and developing Transportation Concurrency Exception Areas (TCEAs) within the First Coast MPO area after a congestion management analysis has been conducted and congestion reduction strategies have been identified.
5. The First Coast MPO encourages local governments to develop policies that support access management and driveway sharing.

What Can I Do to Reduce Congestion?

Each of us sitting in traffic, alone, is part of the congestion problem. We're also part of the solution. We don't have to make radical changes to get results. Our individual small steps can add up to big collective results. Here are a few ideas:

- Try a new way to work – just once! Carpool, vanpool or take transit. If you've never done it before, contact the First Coast MPO and we can help you.
- Stay home from work or come in at a different time. Ask your employer about telecommuting and flextime options. If you have a job with flexibility, do you really need to go into the office if you don't have meetings or appointments? Just have your phone forwarded and imagine how much work you could get done once in awhile!
- If you and your neighbors each drive your kids to the same school, consider carpooling. Even though after school activities and commitments may vary, you can probably find at least one day per week when it would be feasible.
- Plan ahead. Decide if you need to run errands or make optional trips during peak hours. If you do, try to link them so you save multiple trips.



A Big Step - Live near where you work or work near where you live.

We all make these major personal decisions based on many factors, including the types of homes, neighborhoods, schools, amenities, jobs and benefits we want and what's realistic. The drive to work may seem like it's not so bad now. And gas prices may seem like they're not too high at the moment. Yet commute times will get longer and gas prices will rise – and we'll each have our own "breaking point" that makes us want a change. If you have the choice and the chance to live and work in close proximity, it's a decision that will likely improve your quality of life, while reducing congestion.