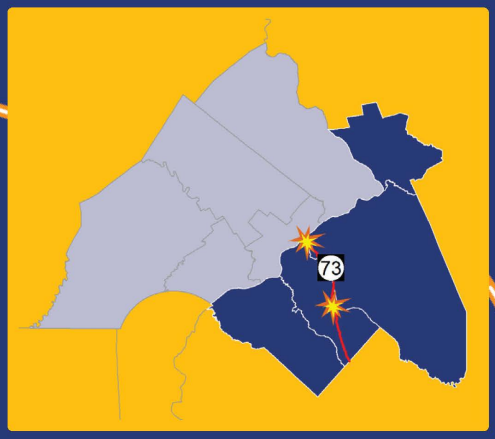
Sitting in traffic *again*?

We all have better things to do...



This Edition:

NJ 73 from the Tacony Palmyra Bridge to Evesham Road

Inside: New tools *and* strategies to reduce congestion

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION
April 2015

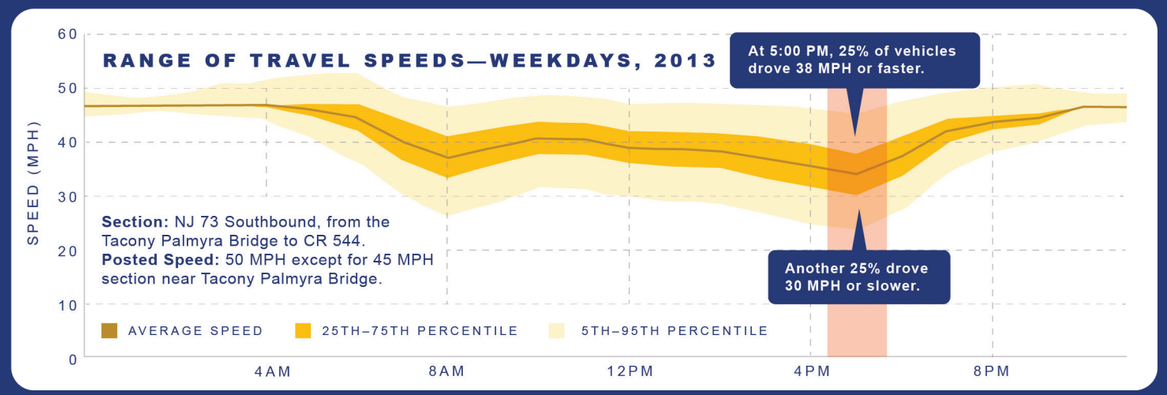
Managing congestion is hard in the 21st century, as insufficient funding and ever-increasing traffic pose challenges to providing a safe, efficient transportation system for all. For example, although several problem statements have been submitted in recent years, the only project to improve this stretch of NJ 73 that is currently programmed in the Fiscal Years 2014–2017 Transportation Improvement Program for New Jersey falls under a statewide line item. Fortunately, a new generation of analytic tools, enhanced strategies, and better cooperation among organizations can help address congestion in the absence of major capital projects.

NJ 73 from the Tacony Palmyra Bridge to CR 544

NJ 73 carries between 32,000 to 86,000 vehicles per day, depending on the section. It intersects with several regionally significant roadways, including the New Jersey Turnpike, I-295, US 130, NJ 38, and several county highways. It is typically at least somewhat congested during peak periods. However, when there are unexpected problems, such as crashes or bad weather, congestion tends to increase significantly. Investments that improve reliability would help in this situation.

Recurring Congestion

On typical weekdays in 2013, southbound travel speeds on the 12-mile section of NJ 73 between the Tacony Palmyra Bridge and CR 544 (Marlton Parkway/Evesham Road) averaged about 34 MPH during the evening peak hour (see below). The average, though, doesn't tell the whole story. The graphic below depicts the range of speeds experienced by travelers on NJ 73.



Reliability

On an average evening, it takes about **23 minutes** to drive through this segment of NJ 73 at 5:00 PM. However, travel **frequently** slows down due to factors such as crashes, construction, and weather. To almost surely be on time you would need to budget **40 minutes**—**nearly double** the time!

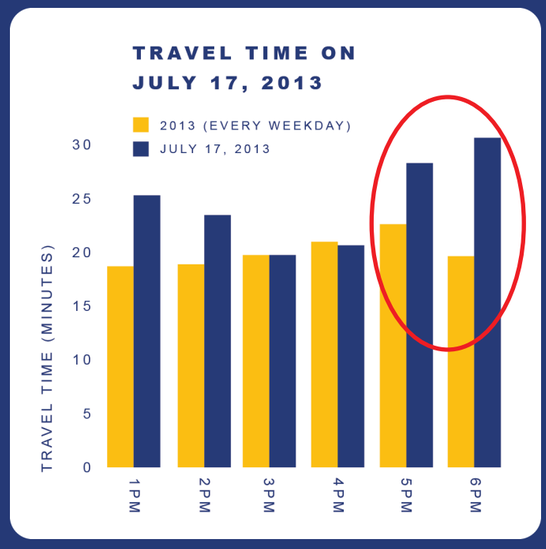
Non-Recurring Congestion

Crashes, construction, and weather are among the reasons for frustrating, non-recurring congestion. On July 17, 2013, a crash in a southbound lane of NJ 73 at 5:03 PM caused a traffic jam that lasted for over two hours and caused average travel times to increase by more than 30 percent. Improving safety on NJ 73 would help reduce the severity of non-recurring congestion.

Many segments of this 12-mile section of highway have a high* crash rate. From 2011 to 2013, there were 1,951 crashes reported to police, which directly affected 5,490 people. Specifically:

- 4 people died in crashes;
- 769 people were injured; and
- 4,717 people were involved in crashes but were not injured.

*Compared to similar roads (DVRPC Congestion Management Process)



Effective, Low-Cost Strategies

Current and Potential Use on NJ 73

Recurring Congestion

Traffic signal optimization can reduce congestion and improve travel time reliability. The New Jersey Department of Transportation (NJDOT) optimized 211 signals statewide between September 2011 and March 2013, resulting in:

- average reduction in travel time of 5 to 15 percent per vehicle during the peak period at the relatively low average cost per signal of $10,000 to $15,000;
- Benefit to Cost (B/C) ratios range between 4 and 56 per dollar invested; and
- emissions reductions of 3 to 16 percent.

NJDOT optimized the signals on this stretch of NJ 73 in late 2014 as part of its statewide signal optimization program. DVRPC provided data and conducted field observations to help refine the new signal timing plan.

Non-Recurring Congestion

NJDOT's **Safety Service Patrol (SSP)** helps reduce congestion by getting crashes, broken-down vehicles, and debris off the roadway as quickly as possible. Statewide, over 50 SSP trucks cover 225 miles of highway to provide upwards of 100,000 assists per year within a budget of approximately $6 million.

A long-term recommendation of DVRPC's *Transportation Operations Master Plan* is to establish peak-hour SSP coverage on NJ 73 in the vicinity of the Tacony Palmyra Bridge. However, the Plan identified other routes in the region as more immediate priorities due to higher vehicle volumes and/or crash rates.

The source of most of the data and analysis in this brochure is the **I-95 Corridor Coalition Vehicle Probe Project Suite.** For more information, see www.i95coalition.org.

What Can We Do?

Decision Makers

It has become clear that we can no longer build our way out of congestion. Transportation investments must be spent on maintaining the existing system, improving operations, and providing multimodal options to reduce congestion.

Planners, Engineers, and Other Partners

DVRPC's Congestion Management Process (CMP) includes multimodal strategies for all locations in the region to minimize congestion and enhance the ability of people and goods to reach their destinations. Recommended strategies for this section of the NJ 73 corridor include:

- signal improvements: NJDOT optimized 32 signals on NJ 73 in 2014;
- other operations strategies, such as SSP, incident management task forces, and intersection improvements; and
- Transportation Demand Management, such as making it more desirable to live near jobs and more convenient to walk, bicycle, or take transit.

All of Us

- Use NJ 511 to check conditions before departing to consider mode (such as taking transit), route, and least-congested time to travel if you have flexibility.
- Don't cause crashes—drive safely.
- Learn about and participate in transportation planning and funding decisions.

Agencies at Work

Delaware Valley Regional Planning Commission (DVRPC) builds consensus among transportation agencies in the Philadelphia metropolitan region of New Jersey and Pennsylvania. www.dvrpc.org

NJDOT uses its Capital Investment Strategy to evaluate efficient ways to invest the limited funds it has available. A 2014 signal optimization project on NJ 73 should help improve the traffic flow on this congested corridor. www.state.nj.us/transportation

Several **New Jersey Transit** bus routes cross NJ 73 each day, although there are currently very few stops in the corridor. Adding transit service would help relieve congestion by reducing auto trips. www.njtransit.com

Everyday Resources

DVRPC CMP –
www.dvrpc.org/CongestionManagement

NJ 511 – www.511nj.org

Transit Locator –
www.transitlocator.com

NJ Intersections –
www.njintersections.com

Abstract: *Congestion is getting harder to manage, but tools to analyze it and cost-effective measures are always improving. This is the second in a series of brochures using archived operations data to understand the causes of congestion and what can be done about it. The focus corridor for this edition is NJ 73 from the Tacony Palmyra Bridge to Evesham Road; however, the emphasis on operations, multimodal approaches, and partnerships as realistic approaches to congestion are widely applicable.*

The Delaware Valley Regional Planning Commission is dedicated to uniting the region's elected officials, planning professionals, and the public with the common vision of making a great region even greater. We serve a diverse region of nine counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey.

Publication Number: NL14031
Staff Contact: Jesse Buerk
Senior Transportation Planner,
Office of Transportation Safety & Congestion Management
(215) 238-2948
JBuerk@dvrpc.org
www.dvrpc.org

dvrpc