

DVRPC CONGESTION MANAGEMENT PROCESS



WHAT IS A CMP?

A CMP is a systematic process for managing congestion that provides information on transportation system performance. It recommends a range of strategies to minimize congestion and enhance the mobility of people and goods. These multimodal strategies include, but are not limited to, operational improvements, travel demand management, policy approaches, and additions to capacity. The CMP advances the goals of the DVRPC Long Range Plan and strengthens the connection between the Plan and the Transportation Improvement Program (TIP).

The CMP, as included in current federal transportation regulations, enhances the existing concept of a Congestion Management System (CMS) with emphasis on being an ongoing cycle and other refinements. It identifies congested corridors and multimodal strategies to mitigate the congestion. Where more single-occupancy vehicle capacity is appropriate, the CMP includes supplemental strategies to reduce travel demand and get the most value from the investment. It completes its cycle evaluating the effectiveness of transportation improvements, coordinating with other planning processes, and providing updated analysis of the performance of the transportation system as it goes back around.

LIMITING TRAFFIC CONGESTION AND ACHIEVING REGIONAL GOALS

HOW DOES THE CMP HELP THE DELAWARE VALLEY?

The CMP improves connections in transportation planning that will help with transportation connections in the real world. The benefits of an ongoing CMP include:

- More focused use of limited federal transportation funds where they can do the most to help the region meet its goals
- Enhanced use of each mode of transportation for what it does well, improved connections among modes, and between transportation, land use, economic development, and environmental planning
- Ways of encouraging a wide range of stakeholders to participate and coordinate including data, guidance on helping projects conform to the CMP, priority for conforming projects in the TIP and LRP update processes, help keeping track of progress, and opportunity for stakeholders' studies to be more widely used
- A program for regular monitoring and evaluation of system performance
- Technical resources useful for a range of projects, such as ongoing analysis of the effectiveness of strategies
- CMP is required by federal regulation

PLANNING AND THE ADVISORY COMMITTEE

A CMP update starts with key stakeholders discussing ideas and coming to agreement. The CMP Advisory Committee includes representatives of:

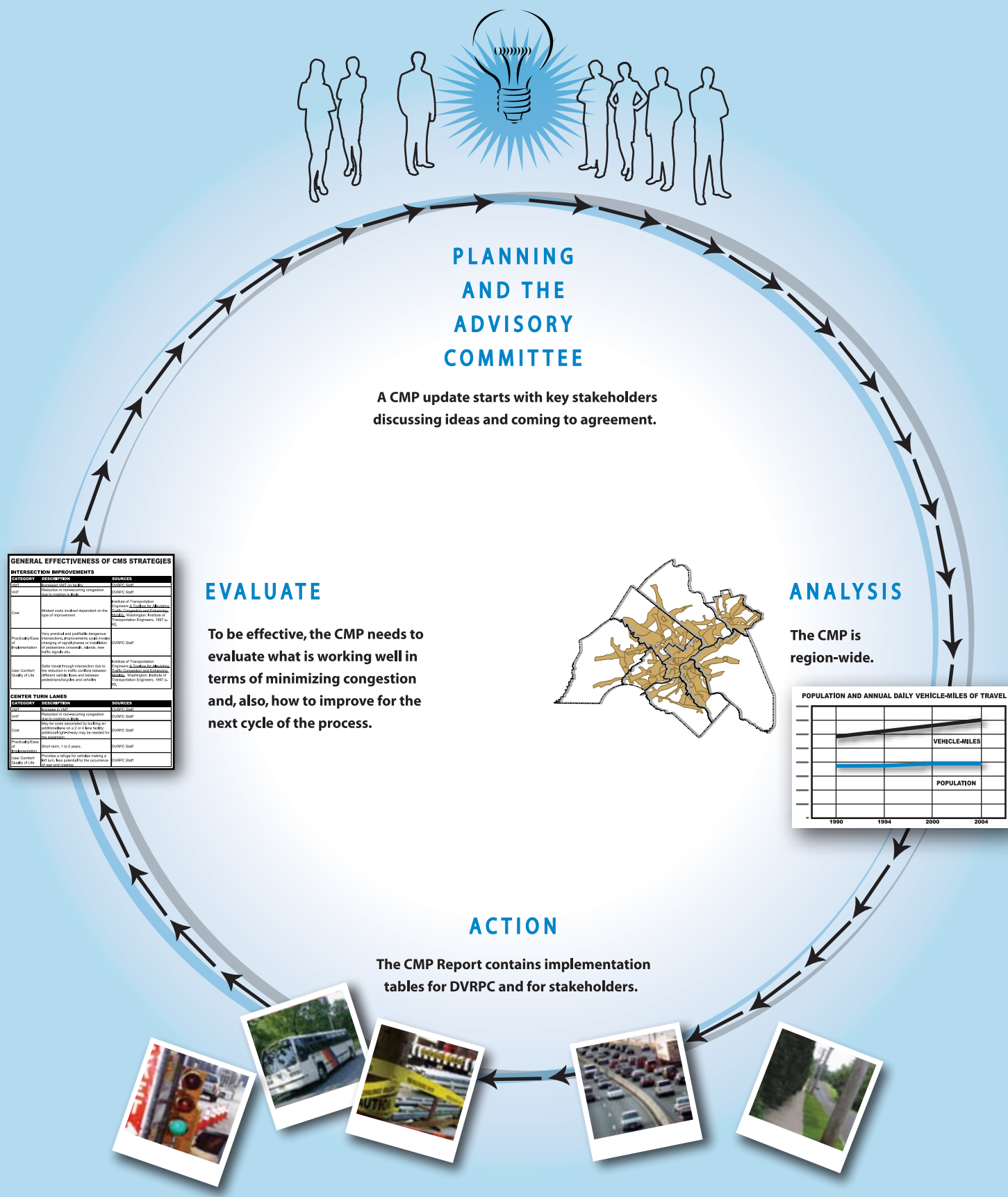
- Each of the nine DVRPC counties
- Pennsylvania and New Jersey departments of transportation and transit authorities
- Federal partner agencies (Federal Highway Administration and Federal Transit Administration)
- DVRPC Regional Citizens Committee and Good Movement Task Force
- Transportation management associations
- Others

In addition, there are interdepartmental team meetings of DVRPC staff and consultation with adjacent metropolitan planning organizations. Initially, this effort results in a methodology and technical memorandum on policy issues. The Committee was and remains an active, productive, and integral part of CMP.

EVALUATION

To be effective, the CMP needs to evaluate what is working well in terms of minimizing congestion and, also, how to improve for the next cycle of the process. This involves:

- Agree on how to measure change in congestion and ability of people and goods to get where they need to go, and then apply these measures; this ties into the regional indicators project
- Track that supplemental projects continue to move forward in a reasonable manner with their "parent" project, the one that adds single-occupancy vehicle capacity
- Learn from the cycle of the CMP to do the next cycle better
- Coordinate with and participate in various studies and projects and then feed results back into the CMP to enhance future efforts
- Regularly update the CMP and keep it timed to feed into updates of the Long Range Plan



ANALYSIS

The CMP is region-wide. It uses the following approach:

- Agree on criteria to evaluate congestion and meet the goals of the CMP
- Identify congested corridors and segment them into subcorridors within which similar transportation strategies seem to be appropriate at a regional planning level. This effort results in a focused set of appropriate strategies for each subcorridor
- Sketch corridors that seem likely to become congested in the future or that are not currently congested but serve key regional roles
- Agree on procedures such as for federally funded capacity-adding road projects not in corridors. Such projects may be appropriate but start with a higher burden of proof than ones in congested corridors, given the limits on funding
- Projects that add single-occupancy vehicle capacity must include beneficial supplemental strategies to protect the investment that must be funded at the same time as the main project

ACTION

The CMP Report contains implementation tables for DVRPC and for stakeholders. They include:

- Communicate the CMP to various levels of stakeholders and help people use it
- Settle into strengthened regular coordination within DVRPC, including more closely connecting Long Range Plan, CMP, corridor studies, and TIP
- Address the most congested subcorridors through corridor studies leading to projects (coordinated with other management systems), advancing existing proposed projects, and in other ways
- Review TIP projects that would add single-occupancy vehicle capacity and work with project sponsors to produce projects that best serve regional goals

USING THE CMP

The CMP is useful for a wide variety of stakeholders, including interested citizens, engineers, and policy makers. It is a process to address congestion and it also results in reports, toolbox items, and other material. Some of the ways stakeholders may find it useful are:

➤ If you are working on a corridor study...

The results of analysis, a map of each congested corridor, and appropriate strategies as a starting point are available in the report. The CMP is also an avenue to visibility and effectiveness for your adopted recommendations.

➤ If your agency is developing a transportation project...

The report contains information on studies completed and projects underway in each subcorridor and it will be regularly updated. In addition, federal regulations require that projects adding major single-occupancy vehicle capacity conform to the CMP to be eligible for federal funding. If such capacity is not listed as a subcorridor strategy, the proposed project must undergo quantitative analysis including the listed strategies and comparison of the results for the region as well as for the project area. Projects outside of corridors must demonstrate consistency with the Long Range Plan, and follow the CMP Procedures Technical Memorandum checklists. DVRPC staff is available to help refine the initial ideas for projects. It is the responsibility of project managers to review the CMP and contact DVRPC early in the process.

➤ If you do transportation planning that affects the Delaware Valley...

Participate in studies, projects, plans, and updates of the CMP. Addressing congestion and meeting regional goals is an ongoing process and needs everyone's participation. Shape future updates of the CMP by communicating with your Advisory Committee members or by contacting DVRPC.

UPCOMING CMP PRODUCTS

- **Interactive Map and Other Website Resources** – The variety of information about each subcorridor will increase and be updated regularly in the interactive map section of the web site (see address at bottom of page)
- **Atlas of Congested Corridors** – The atlas will contain a detailed map of each corridor for a variety of uses
- **Status of Supplemental Projects** – There will be an annual update on the status of efforts included as commitments to projects that add single-occupancy vehicle capacity
- **Priority Subcorridors** – A short set of subcorridors is being finalized and focused upon for actions to manage congestion in addition to the efforts being applied to the whole region
- **Outreach Efforts** – These will include distributing an occasional newsletter focusing on one priority subcorridor at a time
- **Update** – Efforts to refresh the CMP with new data and refinements are scheduled to start in July, 2007 with estimated availability by June, 2008

FOR MORE INFORMATION

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CMP resources will increasingly be posted at:
www.dvrpc.org/transportation/longrange/CMP.htm

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TECHNICAL HIGHLIGHTS

CRITERIA USED FOR CMP ANALYSIS

The transportation system is evaluated using the CMP criteria developed through extensive discussion by the Advisory Committee and with analysis using Geographic Information System (GIS) software. Using GIS makes it easier to incorporate new data as it comes out. The criteria will be reevaluated as part of the full CMP cycle that feeds into each update of the Long Range Plan. The current CMP criteria are:

1. Current daily congestion of roads and intermodal centers
2. Current peak-hour congestion of roads
3. Heavily used roads and intermodal facilities: Roads with very high traffic counts and major intermodal centers provide key service even if not congested
4. Future daily congestion from the 2025 travel model simulation
5. Future peak-hour congestion from the 2025 travel model simulation
6. Frequent crash-related congestion: Unexpected congestion, such as that resulting from crashes, is reported to be even more frustrating to people than regular peak-hour traffic. This criterion focuses on sections of roads that had double the rate for that functional class of road in the DVRPC area by state
7. Intermodal importance: This criterion highlights roads important to trucks (the National Highway System), corridors with rail facilities (passenger or freight) or major bus routes (three or more buses in a peak hour) or that have potential for transit based on the draft DVRPC Transit Index
8. Land use: The CMP helps implement the goals of the Long Range Plan by supporting investment into core cities and then, in reducing priority, to 2025 centers, developed communities, and growing suburbs

ESTABLISHMENT OF CORRIDORS

Draft corridors were developed and then revised to a point of consensus. The intent was to keep the number of corridors manageable for regional analysis while covering key movements. Starting points included places with high numbers of CMP criteria points (each criterion that was true for the location could get a point) and other references, including existing TIP and Long Range Plan projects.

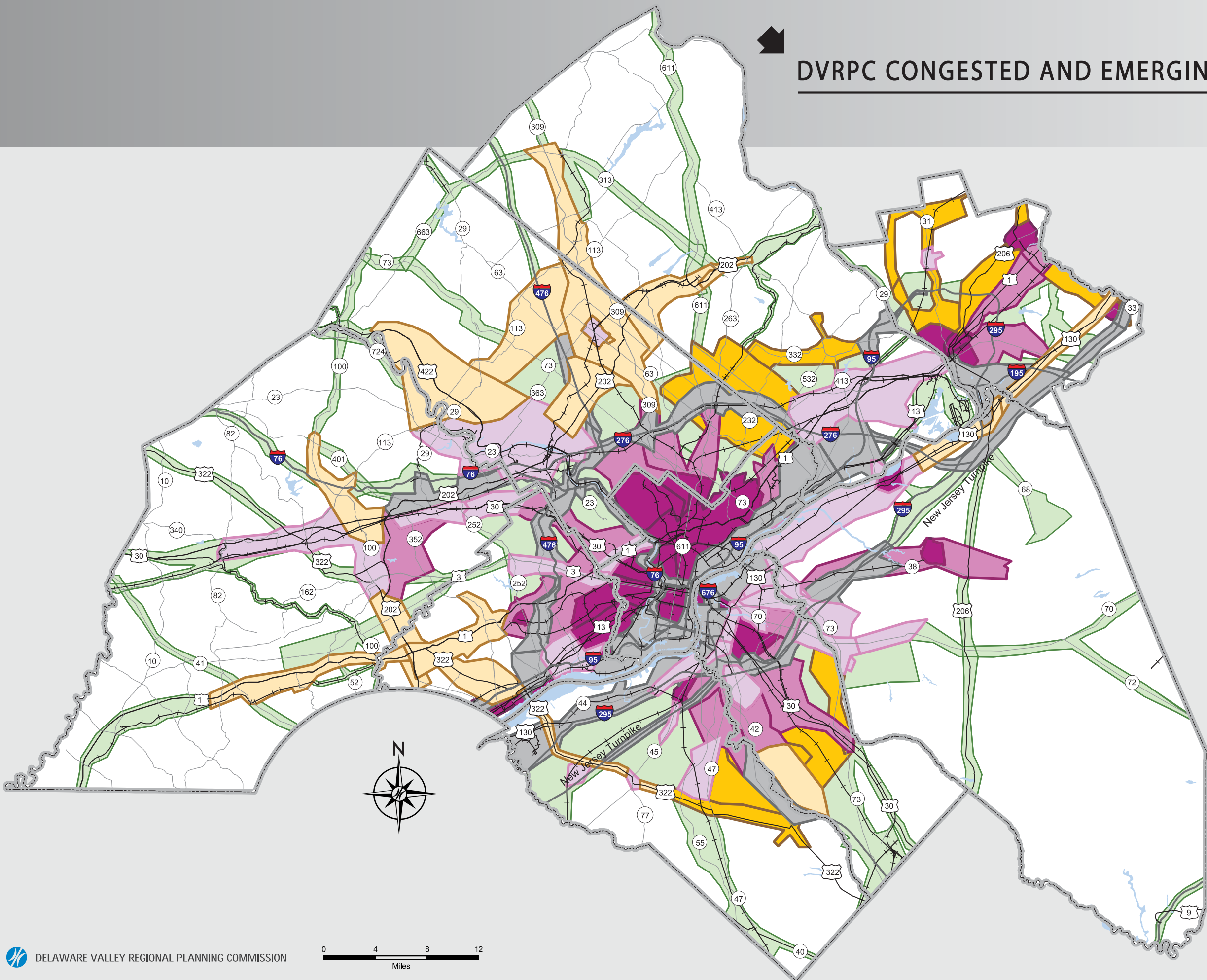
FULL RANGE OF STRATEGIES

A range of more than 90 strategies was prepared with a few sentences explaining each one and is available in the report. The strategies are in the following categories:

1. Operational Improvements, Transportation System Management (TSM), and Intelligent Transportation Systems (ITS)
2. Transportation Demand Management (TDM)
3. Policy Approaches
4. Nonmotorized Transportation
5. Public Transit Improvements (to the existing system)
6. Road Improvements (to the existing system)
7. New Public Transit
8. Goods Movement
9. New Roads



DVRPC CONGESTED AND EMERGING CORRIDORS



- EMERGING / REGIONAL CORRIDORS
- SUBCORRIDOR TYPES**
- INTERSTATES**
- FREEWAY; FREEWAY FUNCTION; INDUSTRIAL
- DEVELOPED SUBCORRIDORS**
- GRID
 - SUBURBAN NETWORK
 - DEVELOPED ARTERIAL; MAIN STREET
- DEVELOPING SUBCORRIDORS**
- SUBURBAN SECONDARY
 - DEVELOPING ARTERIAL; LIGHTLY DEVELOPED



UNDERSTANDING THE CMP SUMMARY MAP

WHAT THE SUMMARY MAP SHOWS

It is a challenge to reach consensus on specific strategies for all parts of the congested multimodal transportation corridors in an area of over 3,800 square miles and approximately five-and-a-half million people. It is almost as much of a challenge to present the results in one small understandable map. The current summary map is shown at left.

The approach used to develop strategies for all congested subcorridors was designed to be efficient, rational, flexible enough for unique local conditions, and to make good use of the time invested by reviewers.

- It started with a set of ten subcorridor types common in the DVRPC region and strategies for each one. The ten types are listed in the legend of the summary map
- Each subcorridor was assigned a type, with notes about its other characteristics
- This draft assignment was refined with consideration of specific environmental, community, and economic development issues, major adopted reports, and reviews by the Advisory Committee and DVRPC staff



WHAT THE MAP DOES NOT SHOW

The summary map does not differentiate between each congested corridor and it does not show much detail. Also, note that corridors overlap. The table below is a list of each congested corridor for this regional-level process. These corridors include related multimodal facilities that serve general flows of people and goods; they are responsive to the land uses that interact with transportation along them. Very brief names were used, but much more information is available in the full CMP report or through DVRPC.

REGIONAL CONGESTED CORRIDORS

STATE	CORRIDOR ID.	CORRIDOR NAME
NJ	1	I-295 & NJ Turnpike (North)
NJ	2	I-295 & NJ Turnpike (South)
NJ	3	AC Expressway/NJ 42
NJ	4	US 1 & US 206
NJ	5	US 30
NJ	6	US 130
NJ	7	US 322 & Cross Keys Area
NJ	8	NJ 31
NJ	9	NJ 33
NJ	10	NJ 38
NJ	11	NJ 45
NJ	12	NJ 70
NJ	13	NJ 73
NJ	14	CR 571
PA	1	I-276 (PA Turnpike)
PA	2	I-476
PA	3	I-76 & I-676
PA	4	I-95
PA	5	US 1
PA	6	US 13/McDade Blvd/PA 291
PA	7	US 30 to Philadelphia
PA	8	US 202, US 322, US 30, PA 100
PA	9	US 422
PA	10	PA 3 & Center City
PA	11	PA 113
PA	12	PA 132, PA 63, County Line Rd
PA	13	PA 332
PA	14	PA 611 & PA 309
PA	15	Ridge-Lincoln-Cheltenham