



Chicago Metropolitan
Agency for Planning

CMAQ Performance Plan

3rd Performance Period

October 2026

CMAQ Performance Plan

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CMAQ Program Performance

This report summarizes the federal requirements for the Chicago Metropolitan Agency for Planning (CMAP) in the establishment and monitoring of performance measure targets associated with the Congestion Mitigation and Air Quality Improvement (CMAQ) program. In 2018 CMAP established the 2-year and 4-year targets for the 1st Performance Period with the adoption of ON TO 2050¹. With the adoption of the ON TO 2050 Update on October 12, 2022, CMAP established new 2-year and 4-year targets for the 2nd Performance Period. This report contains the new 2-year and 4-year targets for the 3rd Performance Period which are being adopted with the 2026 Regional Transportation Plan (RTP) as well as providing a progress assessment of achieving the performance targets from the 2nd Performance Period.

The performance measure targets include unified urbanized targets for the performance measures of Peak Hour Excessive Delay (PHED) and Non-Single Occupancy Vehicle (SOV) travel in the area of traffic congestion, and a quantifiable target for Emissions Reduction for applicable pollutants and precursors for the nonattainment/maintenance areas within the CMAP planning area boundary. The targets describe in this report meet the Infrastructure Investment and Jobs Act (IIJA)/Moving Ahead for Progress in the 21st Century Act (MAP-21)/Fixing America's Surface Transportation Act (FAST Act) performance-based planning and programming requirements and are consistent with the target setting approaches of Illinois, Indiana and Wisconsin.

Performance Plan

Baseline Performance

The CMAQ Performance Plan is required to report baseline performance for each CMAQ measure. For the PHED and Non-SOV measures, baseline performance is reported for calendar years 2025 and 2024 respectively. For the Total Emissions Reduction measure, baseline performance is reported for the applicable pollutants associated with CMAQ funded projects obligated in federal fiscal years 2022 through 2025.

Peak Hour Excessive Delay (PHED)

This measure is calculated using data from the Federal Highway Administration's (FHWA) National Performance Management Research Data Set (NPMRDS). The NPMRDS provides travel time by road segment for the National Highway System (NHS) in 15-minute intervals. Travel times are provided for passenger, freight, and combined values. Along with the travel time information, a geographic file of the road segments is provided through the NPMRDS.

¹ <https://www.cmap.illinois.gov/2050>



The geographic file includes information for each road segment including length in miles, average annual daily traffic, functional classification, and other roadway attributes. A conflation process was used to assign a speed limit information to the NPMRDS data. The 4:00 p.m. – 8:00 p.m. afternoon peak is used to be consistent with CMAP’s travel model time periods.

The PHED is calculated for each 15-minute interval in the peak periods for all segments in the Chicago urban area. The 15-minute interval PHED is calculated in the following steps:

- Segment length divided by a segment’s speed threshold (larger of 20 miles per hour, or 60 percent of speed limit) times 3,600 where travel time less than or equal to 900 seconds.
- Segment travel time minus the result from above step
- If result from above step greater than 0, then result divided by 3600
- Result from above step multiplied by the 15-minute volume and the average vehicle occupancy for the segment
- The results from the above steps are summed for the urban area and divided by the urbanized area population

The total PHED is divided by the urbanized area population to calculate the peak hour excessive delay per capita. Illinois Department of Transportation (IDOT) provided access to the Regional Integrated Transportation Information System (RITIS)² tool that was used to calculate this measure for the Chicago, IL-IN urbanized area. For the Round Lake Beach-McHenry-Grayslake, IL-WI urbanized area CMAP staff with the assistance of Wisconsin Department of Transportation (WisDOT), IDOT and Southeast Wisconsin Regional Planning Commission (SEWRPC) utilized raw NPMRDS data to estimate a baseline.

Table 1. Baseline Performance Period PHED – Chicago, IL-IN Urbanized Area

CY 2025 Performance
16.5hours

Table 2. Baseline Performance Period PHED – Round Lake Beach-McHenry-Grayslake, IL-WI urbanized area

CY 2025 Performance
5.1 hours

Non-SOV Travel

The baseline for the Non-SOV Travel is calculated using the most recent table DP03 from five-year estimated of the U.S. Census Bureau’s American Community Survey (ACS) dataset. 2024 is

² Regional Integrated Transportation Information System www.ritis.org



the most recent five-year data available. The percentage of commuters that predominantly do not commute by driving alone in a car, van or truck is used.

Table 3. Baseline Performance Period Non-SOV Travel – Chicago, IL-IN Urbanized Area

CY 2024 Performance
37.7%

Table 4. Baseline Performance Period Non-SOV Travel – Round Lake Beach-McHenry-Grayslake, IL-WI Urbanized Area

CY 2024 Performance
25.9%

Total Emissions Reduction

Applicable criteria pollutants for the CMAP non-attainment area include ozone and particulate matter 10 microns (PM₁₀) as reported in Environmental Protection Agency’s Green Book.³ Primary precursors for ozone are volatile organic compounds (VOC) and nitrogen oxides (NO_x). For particulate matter 2.5 microns (PM_{2.5}) the region was unclassifiable for a period several years ago and while the region has been reclassified to unclassifiable/attainment, it has continued reporting for baseline performance and targets for PM 2.5 even though it is not required. The Primary PM_{2.5} annual national ambient air quality standards (NAAQS) was lowered in 2024. As a result, the region may have areas that will be classified as nonattainment. The process of making these determinations is underway and is expected to be completed in the next few years. The Total Emissions Reduction measure for each of the criteria pollutants or applicable precursors for all projects reported to FHWA’s CMAQ Public Access System are calculated to the nearest one thousandth by using the daily kilograms of emission reductions. CMAP staff calculates the daily kilograms of emission reductions as part of the project evaluation and selection process and provides that information to IDOT staff for inclusion in the CMAQ Public Access System. Lyons Township in western Cook County is declared a maintenance area for PM₁₀. The maintenance area is not the result of mobile source emissions, but a point source problem related to quarry activities within the township. Because these emissions are unrelated to transportation and mobile sources the baseline performance and targets are reported as zero.

³ <https://www.epa.gov/green-book>

Table 5. Baseline Performance Period Total Emissions Reduction

Criteria Pollutants and Applicable Precursors	FFYs 2022-2025 Performance (kg/day)
Volatile Organic Compounds (VOC)	217.740
Nitrogen Oxides (NOx)	1281.541
Particulate Matter (PM _{2.5})	13.990
Particulate Matter (PM ₁₀)	0.000

Targets and Assessment of Progress

CMAQ must establish both 2-year and 4-year targets for the Chicago metropolitan planning area for each CMAQ performance measure and assess the progress of those targets with each biannual update of this report.

Peak Hour Excessive Delay (PHED)

The 2017 baseline PHED of 14.8 hours was used to set the targets for the Chicago, IL-IN urbanized area. The targets were set in coordination with CMAP and Northwestern Indiana Regional Planning Commission (NIRPC) staff using data from the RITIS platform. Trend data and other factors were considered in setting the target including construction and agency policies and goals of increasing transit ridership, transit supportive land uses, and improving traffic operations.

Table 6. PHED Performance Targets for 2nd Performance Period – Chicago, IL-IN Urbanized Area

Baseline	2-year Target	2-year Progress Assessment	4-year Target	4-year Progress Assessment
14.8	15.6	13.4	15.9	16.2

The Chicago region has achieved both two year and four year targets for PHED. Those targets were set at a time when it was unclear how durable the travel changes of the pandemic, such as work from home, would be. While congestion has been increasing, it has not yet returned to pre-pandemic levels. The region has also invested in bike, transit and walking infrastructure that reduces vehicle demand.



New 2-year and 4-year targets were set with 2025 baseline congestion data for both Chicago, IL-IN urbanized area and Round Lake Beach-McHenry-Grayslake, IL-WI urbanized area. The same process was followed in setting this target of coordination with NIRPC and SEWRPC staff, consideration of trend data, and achievement of agency policies and goals. These target values reflect the goal of maintaining the current level of congestion. Congestion declined post pandemic and changes such as work from home appear to be durable. The new targets were approved as part of the Regional Transportation Plan System Performance report appendix.⁴

Table 7. New PHED Performance Targets for 3rd Performance Period – Chicago, IL-IN Urbanized Area

Baseline	2-year Target	4-year Target
16.5	12.0	12.0

Table 8. New PHED Performance Targets for 3rd Performance Period – Round Lake Beach-McHenry-Grayslake, IL-WI Urbanized Area

Baseline	2-year Target	4-year Target
5.1	5.1	5.1

Non-SOV Travel

The targets were set in coordination between CMAP and NIRPC staff based upon ACS trends between 2012 and 2016 and the ON TO 2050 goal of doubling transit ridership in the CMAP region by 2050 and the anticipated effects this would have on the non-SOV travel in the urbanized area.

Table 9. Non-SOV Travel Performance Targets for 2nd Performance Period

Baseline	2-year Target	2-year Progress Assessment	4-year Target	4-year Progress Assessment
33.1%	32.4%	34.8%	32.7%	34.8%

The non-SOV travel percentage is trending in the right direction in part to the COVID-19 pandemic. The region has achieved both 2 year and four year targets. A significant and sustained increase in work from home activity is largely responsible for achieving the targets. The region has also invested in bike, transit and walking infrastructure that reduces vehicle demand.

⁴ <https://cmap.illinois.gov/regional-plan/the-next-plans/regional-transportation-plan/>



New 2-year and 4-year targets were set with ACS trend data for both Chicago, IL-IN urbanized area and Round Lake Beach-McHenry-Grayslake, IL-WI urbanized area. The same process was followed in setting this target of coordination with NIRPC and SEWRPC staff, consideration of trend data, and achievement of agency policies and goals. One and five year ACS data shows that work from home is trending down and transit use is trending up. These two changes are happening at about the same rate, resulting in a stable non-SOV rate. This trend is consistent with the Chicago region's capital and operating investments towards a goal of increasing transit ridership. The new targets were approved as part of the Regional Transportation Plan System Performance report appendix.⁵

Table 10. New Non-SOV Travel Performance Targets for 3rd Performance Period – Chicago, IL-IN Urbanized Area

Baseline	2-year Target	4-year Target
39.1%	37.7%	37.7%

Table 11. New Non-SOV Travel Performance Targets for 3rd Performance Period – Round Lake Beach-McHenry-Grayslake, IL-WI Urbanized Area

Baseline	2-year Target	4-year Target
27.6%	25.9%	25.9%

Total Emissions Reduction

For the 2nd performance period the total emissions reduction targets were set based upon the program of CMAQ projects for FFY 2022 through 2026. The new targets were approved as part of the ON TO 2050 Update System Performance report appendix.⁶

⁵ <https://cmap.illinois.gov/regional-plan/the-next-plans/regional-transportation-plan/>

⁶ www.cmap.illinois.gov/2050/appendices



Table 12. Total Emissions Reduction Performance Targets for 2nd Performance Period

Criteria Pollutants and Applicable Precursors	Baseline	2-year Target (kg/day)	2-year Progress Assessment (kg/day)	4-year Target (kg/day)	4-year Progress Assessment (kg/day)
Volatile Organic Compounds (VOC)	279.242	209.351	182.358	418.702	217.740
Nitrogen Oxides (NOx)	1,271.470	1102.103	702.612	2204.206	1281.541
Particulate Matter (PM _{2.5})	47.555	42.332	0	84.664	13.990
Particulate Matter (PM ₁₀)	0.000	0.000	0	0.000	0.000

The region did not exceed the targets set for the VOC, NOx and PM_{2.5} targets. This can be attributed to several large projects which did not obligate their CMAQ funding as had been anticipated at the beginning of the performance period. This was partially an effect of project development slowdown during the pandemic period. Efforts are being made to actively manage the projects programmed in the region so that funds are obligated on a timely basis.

For the 3rd performance period the total emissions reduction targets were set based upon the program of CMAQ projects for FFY 2026 through 2030. The new targets were approved as part of the Regional Transportation Plan System Performance report appendix.⁷

Table 13. New Total Emissions Reduction Performance Targets for 3rd Performance Period

Criteria Pollutants and Applicable Precursors	Baseline	2-year Target (kg/day)	4-year Target (kg/day)
Volatile Organic Compounds (VOC)	217.740	62.324	124.647
Nitrogen Oxides (NOx)	1,281.541	413.061	826.122
Particulate Matter (PM _{2.5})	13.990	9.793	19.586
Particulate Matter (PM ₁₀)	0.000	0.000	0.000

⁷ <https://cmap.illinois.gov/regional-plan/the-next-plans/regional-transportation-plan/>



Description of Projects

Included in the table below are the progress assessments by project type categories as identified in FHWA's CMAQ Public Access System along with if the category contributes to the PHED and/or Non-SOV Travel Benefit measures.

Table 14. 4-year Progress Assessment by Project Type

Project Category	4-year Progress Assessment of Total Emissions Reduction (kg/day)			PHED Benefit	Non-SOV Travel Benefit
	VOC	NO _x	PM _{2.5}		
Alternative Fuels and Vehicles + Advance Diesel Technologies	0	0	0	No	No
Bicycle and Pedestrian Facilities and Programs	1.706	0.088	0	No	Yes
Congestion Reduction and Traffic Flow Improvements	35.139	8.791	0	Yes	No
Transit Improvements	180.792	1271.84	13.99	No	Yes
Travel Demand Management	0.104	0.031	0	Yes	No
Total	217.740	1281.541	13.99		

