



## MEMORANDUM

**To:** CMAP Transportation Committee

**From:** CMAP staff

**Date:** January 13, 2016

**Re:** ON TO 2050 Financial Plan for Transportation Update

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As required by law, CMAP must prepare a financial plan, including expected revenue sources to carry out the operation, maintenance, and expansion of the region's surface transportation system over the ON TO 2050 planning period (2019-50). Specifically, federal regulations require that "for purposes of transportation system operations and maintenance, the financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available to adequately operate and maintain Federal-aid highways" and "public transportation" (CFR § 450.322 (f) (10)).

To fulfill these requirements as part of the quadrennial long range plan, CMAP is forecasting revenues and expenditures, and prioritizing investments in the administration, operation, maintenance, enhancement, and expansion of the region's transportation system. In [September](#) and [November](#), CMAP staff presented information on major transportation revenue trends and obligation trends, respectively, to the Transportation Committee.

Long-range financial forecasting requires determining a base set of assumptions regarding revenue and expenditures trends, understanding the future implications of current policies, and development of a robust, accurate, and straightforward methodology that is appropriate for a planning-level forecast. Similar to GO TO 2040, CMAP staff is performing financial analysis and conducting policy research to develop revenue and expenditure forecasts, including reasonably expected revenues, in consultation with CMAP committees, stakeholders, and experts.

This memo describes draft definitions for the allocation categories that will be used to prioritize expenditures, initial forecasts for core revenues, and a comparison of these forecasts to GO TO 2040.

## Core revenues

Forecasts of core revenues include funding sources the region currently receives for transportation purposes and do not include any new sources. The forecasts assume that northeastern Illinois will continue to receive revenues from federal, state, and local sources for constructing, operating, administering, and maintaining the current roadway and transit system. This includes periodic transit fare and toll rate increases, which will be necessary to ensure that there are sufficient revenues to pay for these systems over the 32-year planning period. In addition, this assumes that three state capital programs will be enacted during the planning period, which will ensure the region's ability to make capital investments in the transportation system. We do not currently expect the provisions contained in the recent amendment to the state constitution regarding transportation funds ([Article IX, Section 11](#)) to have an effect on the forecast.

As required by federal regulations, revenues were forecast in year of expenditure dollars rather than real or constant dollars, meaning that inflationary increases are included in the forecasts. The following table provides a summary of the various sources of estimated revenues totaling \$460.0 billion over the 32-year planning period. Additional details on methodology can be found at the end of this memorandum.

### Draft core revenue forecasts, 2019 to 2050, in millions, year of expenditure dollars

<b>Federal</b>	Locally-programmed federal revenue	\$12,233
	Federal transit revenue	\$26,180
	State-programmed federal highway revenue	\$23,506
<b>State</b>	Public Transportation Fund	\$22,176
	State Motor Fuel Tax	\$6,756
	Motor vehicle registration fees and other user fees	\$25,354
	Tollway revenue	\$84,797
	State capital program	\$24,563
	Other state transit	\$1,362
<b>Local</b>	RTA sales tax	\$70,510
	Local allotment of state MFT	\$8,966
	Collar County Transportation Empowerment Program	\$7,939
	Other local revenues	\$81,485
	Real Estate Transfer Tax (portion for CTA)	\$3,410
	Transit passenger fares	\$52,996
	Other transit operating revenue	\$7,804
	<b>Total core revenues</b>	<b>\$460,037</b>

**Comparison of forecasting between the GO TO 2040 update and ON TO 2050.** For the most part, the overall methodology used to develop revenue forecasts for ON TO 2050 remains the same as the GO TO 2040 forecast updated in 2014. There are two primary ways that the draft ON TO 2050 forecast differs from the GO TO 2040 forecast.

- Different annual **growth rates** were used when the data indicated that a different rate would better reflect trends.
- The **base from which growth rates are derived and/or applied** is different because actual or estimated 2015 and 2016 revenues were different from the GO TO 2040 forecast.

With regard to revenues, some of the major differences between the two forecasts include the following:

- Federal highway revenues are lower in ON TO 2050 due to lower annual growth rate assumptions; 2.25 percent as compared to 3.6 percent in GO TO 2040.
- State motor fuel tax revenue was forecast to experience less decline in ON TO 2050 due to higher revenue in 2015 and 2016 than forecast in GO TO 2040.
- Transit passenger fare revenues are lower in ON TO 2050 due to slower than anticipated growth in fare revenue in recent years.
- RTA sales tax revenue exhibited a slightly higher forecast, in part because actual and estimated revenues generated in recent years were higher than in the GO TO 2040 forecast.

These differences drove an overall lower revenue forecast for core revenues than in GO TO 2040. However, the ON TO 2050 forecast for operating and capital maintenance expenditures may also vary from the GO TO 2040 forecast. Just as growth rates for revenues have been lower than assumed in GO TO 2040, the same is true for growth in expenditures. The expenditure forecast will be presented at the March Transportation Committee meeting.

## **Allocation category definitions**

After forecasts are complete, the region will need to prioritize how to invest the funds in the transportation system by allocating planned expenditures into different categories. The level of funding in each allocation will be driven by expenditure forecasting as well as the region's priorities for investment, which have typically emphasized the maintenance and enhancement of the existing system. CMAP staff has drafted definitions for the categories, revising the operate/maintain, systematic enhancement/moving the system toward a state of good repair, and major capital project categories from GO TO 2040. The planned expansion of the Regionally Significant Project definition will create a larger list of projects, with broader variety within that list. As a result, allocation category definitions may include changes to how expansion and enhancement projects are categorized relative to GO TO 2040. The following represent draft definitions for categories:

### **Maintain, operate, and administer to the current state of repair and operation**

This category, similar to GO TO 2040's "operations and maintenance to a safe and adequate level," includes two main pieces:

- The cost of administering, operating, and servicing debt for the region's roadway and transit system.
- The cost of capital maintenance on the region's roadway and transit system to its current state of repair and operation. The system as a whole is assumed to be safe and adequate, but not all facilities are in a state of good repair. This means that sufficient maintenance

is performed to assure the safety of the system's users and the general public. While performing maintenance on today's typical cycles results in a significant backlog of facilities that are in fair or poor condition at any given time, the resulting system condition remains safe and adequate.

Forecasting will be accomplished using COST, HERS-ST, CMAP's bridge model based on National Bridge Inventory data, and for other assets, basic lifecycle forecasting.<sup>1</sup> These costs include capital maintenance expenditures completed in tandem with Regionally Significant Projects. This category does not include any costs that would address a need for increased capacity on the transportation system.

### **Achieving performance targets**

ON TO 2050 will include a set of performance measures intended to serve as benchmarks for monitoring the progress of plan implementation. This category will include investments that will help achieve ON TO 2050 targets for several specific performance measures. For example, to achieve targets for bringing the transportation system toward a state of good repair, this category may include allocations toward investments in more frequent maintenance on the roadway and transit system. Maintenance cycles will be increased using our assumed lifecycles, HERS-ST, CMAP's bridge model, and COST. Costs here are inclusive of more frequent maintenance or enhancements completed in tandem with expansion projects constrained in other categories.

### **All other strategic enhancements**

Capital and operational enhancements or improvements not already constrained under other categories such as:

- Bicycle, pedestrian, and ADA improvements
- Highway management and operations, including intelligent transportation system infrastructure
- Expansions that do not meet Regionally Significant Project definition
- Intersection improvements
- All other enhancements and improvements

### **Regionally Significant Projects**

Based on prior feedback and outreach, this category will constrain specific projects, including:

- Highway capacity projects on the National Highway System and transit capacity projects with separate right-of-way or priority over other traffic that are greater than \$100 million
- State of good repair projects on particular transit lines or roadways that are at least \$250 million (as opposed to system-wide programs of projects)

Similar to the approach taken in GO TO 2040, the portion of project costs attributable to capacity expansion will be accounted for in this category, while other project costs, such as maintenance and enhancements, will be accounted for in the other respective categories.

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<sup>1</sup> The Highway Economic Requirements System-State (HERS-ST) will be used to forecast pavement condition and expenditures on National Highway System roadways. Similarly, the RTA's Cost Optimization Support Tool (COST) will be used to forecast transit asset condition and investment needs.

## **Next steps**

CMAP staff would like feedback on the draft revenue forecast contained in this document, as well as the draft allocation category definitions. Over the next month, CMAP staff will produce forecasts for the operation and maintenance of the roadway and transit systems, and revise revenue forecasts based on feedback from the Transportation Committee. These forecasts will be presented at the March 9, 2017 MPO Policy Committee meeting.

## **Questions**

- Do the draft allocation categories reflect the region's investment priorities?
- Which performance targets should be fiscally constrained?
- Are there any investments that should be recategorized or constrained differently?

## Forecast methodology

This section will discuss the specific methodologies used for projecting revenues for ON TO 2050 over the 2019-2050 planning period.

### Core revenues

#### Locally-programmed federal revenue

Draft forecast: \$12.2 billion	Draft assumptions for ON TO 2050
Portion of annual federal apportionment that is sub-allocated to the Chicago region for programming. This includes the federal fund sources of CMAQ, Transportation Alternatives Program-Local, Surface Transportation Program-Local, and Surface Transportation Program-Counties.	Revenues were assumed to grow 2.25% annually. This is based on the assumption that federal funds will come to the region at a rate commensurate with growth in the economy. Congressional Budget Office projects that non-farm business sector Gross Domestic Product will grow 2.25% annually between 2019 and 2026.

#### Other federal transit revenue

Draft forecast: \$26.2 billion	Draft assumptions for ON TO 2050
Projection includes New Starts, bus and bus facilities, State of Good Repair, and Urban Formula programs, as well as other federal transit grants.	Revenues through 2021 are based on the FFY2017-21 State/Regional Resources Table. After 2021, revenues are forecast to grow at a rate of 2.25% annually. This is based on the assumption that federal funds will come to the region at a rate commensurate with growth in the economy. Congressional Budget Office projects that non-farm business sector Gross Domestic Product will grow 2.25% annually between 2019 and 2026.

#### State-programmed federal highway revenue

Draft forecast: \$23.5 billion	Draft assumptions for ON TO 2050
Portion of annual federal apportionment that is allocated to the State of Illinois for programming. This includes the federal fund sources of National Highway Performance Program, Surface Transportation Program-Urban, Highway Safety Improvement Program, Transportation Alternatives Program, and Recreational Trails.	Revenues were assumed to grow 2.25% annually. This is based on the assumption that federal funds will come to the region at a rate commensurate with growth in the economy. Congressional Budget Office projects that non-farm business sector Gross Domestic Product will grow 2.25% annually between 2019 and 2026. Forty-five percent of the statewide total annual apportionment was assumed to go to northeastern Illinois.

**State Public Transportation Fund**

Draft forecast: \$22.2 billion	Draft assumptions for ON TO 2050
State funds equal to 30 percent of RTA sales tax and real estate transfer tax revenues.	Revenues from this matching fund equals 30% of forecasted Regional Transportation Authority (RTA) sales tax and real estate transfer tax estimates.

**State Motor Fuel Tax**

Draft forecast: \$6.8 billion	Draft assumptions for ON TO 2050
Portion of state motor fuel tax retained by IDOT for the Road Fund and State Construction Account. The current rate is 19 cents per gallon (21.5 cents per gallon of diesel).	<p>Using a methodology to account for increasing vehicle fuel economy, revenues generally decreased throughout the planning period. CMAP forecasted annual vehicle miles traveled (AVMT) and average miles per gallon (MPG) to estimate revenue. To forecast AVMT, CMAP used actual statewide AVMT data for passenger vehicles (1996 – 2015) and for all other vehicles (2009-2015) to calculate linear trendlines for AVMT. Average annual percent change in AVMT between 2019 and 2050 was 0.3% for passenger vehicles and 0.9% for other vehicles.</p> <p>For MPG estimates for passenger vehicles over the planning horizon, CMAP created estimates based on National Highway Traffic Safety Administration (NHTSA) rules for Corporate Average Fuel Economy (CAFE) standards, estimated standards for 1978 through 2025 model years for cars and light trucks, and information about vehicle fleet from the Federal Highway Administration’s 2009 National Household Travel Survey. For non-passenger vehicles, MPG was assumed to improve with NHTSA fuel efficiency standards for medium- and heavy-duty vehicles.</p> <p>After accounting for various statutory deductions, the region is assumed to receive 45% of these revenues for the purposes of funding state road construction and maintenance projects.</p>

**State motor vehicle registration fees and other state fees**

Draft forecast: \$25.4 billion	Draft assumptions for ON TO 2050
Annual vehicle registration fees, certificate of title fees, overweight fines, permit fees, and operator’s license fees collected by the State that are deposited into the Road Fund and State Construction Account.	Motor vehicle registration fee revenues to the Road Fund and State Construction Account, were assumed to grow at a rate of approximately 1 percent annually. Other types of fees in this category were forecast to grow approximately 1.8 percent annually. The region is assumed to receive 45 percent of these revenues for the purposes of funding state road construction and maintenance projects. Fee rate increases were not assumed here, as they would likely be accounted for in future state capital programs.

**Tollway revenue**

Draft forecast: \$84.8 billion	Draft assumptions for ON TO 2050
Toll revenues forecasted to be collected on the 286-mile system, as well as other operating revenues. The current toll rate structure went into effect in 2012. Following 2017, the commercial rate will be adjusted annually for inflation.	Toll revenue projections were derived from estimates prepared for the Illinois Tollway by CDM Smith in May 2016. The projection assumed that the annual adjustment in commercial toll rates beginning in 2017 would be 2 percent annually. CMAP also included an assumption of two passenger toll rate adjustments throughout the planning period.  Other operational revenues, such as concessions and miscellaneous income, were forecast to grow at a compound rate of 2.0% annually.

**State capital program**

Draft forecast: \$24.6 billion	Draft assumptions for ON TO 2050
State capital programs are typically funded with a variety of revenue increases, including fee increases on sources like vehicle registration and certificate of title.	It is assumed that the state will enact a capital program three times during the planning period, in ten year intervals. Funding levels were assumed to grow 2.5% annually, with Illinois Jobs Now! as a base.

**Other state transit**

Draft forecast: \$1.4 billion	Draft assumptions for ON TO 2050
The State has provided \$8.5 million annually to support Pace Americans with Disabilities Act (ADA) Paratransit service since 2010. The State also provides reduced fare reimbursements to the service boards.	Both reduced fare reimbursements and ADA support are forecast to remain flat for the duration of the planning period.



**RTA sales tax**

Draft forecast: \$70.5 billion	Draft assumptions for ON TO 2050
The RTA sales tax is equivalent to 1.25% of sales in Cook County and 0.75% of sales in DuPage, Kane, Lake, McHenry, and Will counties. The RTA receives 2/3 of the collar county revenues.	Forecast was provided by the RTA. RTA sales tax revenues are assumed to grow 3% annually throughout the planning period.

**Collar County Transportation Empowerment Program**

Draft forecast: \$7.9 billion	Draft assumptions for ON TO 2050
1/3 of collar county revenues generated from the RTA sales tax are returned to DuPage, Kane, Lake, McHenry, and Will counties to be used for roads, transit, and public safety.	Growth in revenues generated for the collar counties are based on projected population growth combined with inflationary assumptions. During the planning period, annual growth averages 3.0%.

**Local allotment of state MFT**

Draft forecast: \$9.0 billion	Draft assumptions for ON TO 2050
Counties, townships, and municipalities receive a disbursement of state MFT revenue. Cook County receives a 16.74% share. The remaining county share is based on motor vehicle registration fees received, township share is based on share of mileage of township roads, and municipal share is based on population.	State MFT revenue was forecasted using the methods explained above. County vehicle registrations relative to the rest of the State are assumed to remain constant. Based on historic trends, municipal population in the region relative to the rest of the State is forecast to increase and township road miles relative to the rest of the state is forecast to decrease.

**Other local revenues**

Draft forecast: \$81.5 billion	Draft assumptions for ON TO 2050
These are local revenues, such as property tax revenue, sales tax revenue, local motor fuel taxes and impact fees used for transportation, excluding the RTA sales tax, state funds, and federal funds. Local governments with jurisdiction over transportation include counties, townships, and municipalities.	Revenues were calculated for municipalities and townships using 2012 U.S. Census of Governments data, which includes all local governments in the region. County revenues were obtained from recent county budget documents. Revenues were adjusted to the current year using the change in the Consumer Price Index and population growth. To forecast to 2050, growth rates for CMAP population forecasts were added to an annual 2.5% inflationary adjustment. Average annual growth regionwide was 3.1%. County MFTs for DuPage, Kane, and McHenry were forecast separately using the same methodology for the state MFT, although baseline fuel economy was derived separately for each county and AVMT growth was calculated using growth rates in AVMT for each county for each air quality conformity analysis year.

**Chicago Real Estate Transfer Tax (RETT) (portion for CTA)**

Draft forecast: \$3.4 billion	Draft assumptions for ON TO 2050
The \$1.50 per \$500 of value of the City of Chicago's RETT is transferred to the CTA.	Revenues were forecast to grow at an average annual rate of 2.1% annually.

**Transit passenger fares**

Draft forecast: \$53.0 billion	Draft assumptions for ON TO 2050
This includes passenger fares for the CTA, Metra, Pace, and Pace ADA.	Forecast was provided by the RTA. Revenues were forecast to grow at an average rate of 2.9% annually. This assumes average annual ridership growth of 1.1% and the remaining growth is assumed to come from periodic fare increases.

**Other transit operating revenue**

Draft forecast: \$7.8 billion	Draft assumptions for ON TO 2050
This included other revenues for the RTA, CTA, Metra, Pace, and Pace ADA such as advertising revenue, investment income, and Medicaid reimbursements.	These revenues are assumed grow at a rate of 2.7% annually, based on assumed rates of growth in system revenue and ridership.

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