

2.13 Climate

Goal: A regional climate action agenda and a transportation system with significantly reduced emissions.

Climate change is a large-scale challenge requiring cross-jurisdictional actions across many sectors. As emissions continue to climb, the window of opportunity to avert the worst impacts of a changing climate shrinks. CMAP's vision to address regional challenges and advance good governance, planning, and investment in an equitable way are at the heart of the climate challenge. CMAP is well-positioned and resourced to take a strong role in the global climate challenge: a focus on the long term and the large scale; providing regional guidance for transportation investments; researching and advising policy at multiple scales; providing and interpreting data and tools for decision makers; convening regional partners to catalyze action; and shaping and helping to ensure parity in community climate planning region wide.

Transportation is a major source of greenhouse gas (GHG) emissions which have been steadily increasing in the Chicago region. At the same time, the performance and long-term maintenance of our transportation network is affected by the impacts of climate change. Through its transportation programming and policy mandate, CMAP has the potential to play a significant role in climate mitigation and adaptation. CMAP does not consistently use the reduction of GHG emissions as a performance indicator in transportation programming decisions. In FY21, CMAP will build a better understanding of GHG emissions from the transportation sector, examine existing and potential programs and strategies to influence mitigation and adaptation, and investigate regional transportation system vulnerability.

In FY21, CMAP will focus on implementing the following key ON TO 2050 recommendations:

[Intensify climate mitigation efforts](#)

[Plan for climate resilience](#)

Climate multi-year implementation planning (2021.005)

Program manager: Wilkison

Project manager: Fassett Smith, Navota

Team: Beck, Cefali, Daly, Ihnchak, Patton, Stern, Pietrowiak

Total hours: 1370 / 0.70 FTE

Funding: Unified Work Program

Description: ON TO 2050 presented a broad framework of climate mitigation and adaptation strategies. In FY20, the Metropolitan Mayors' Caucus and CMAP partnered on a regional climate planning effort focused on local government actions. This FY21 strategic planning project builds on these foundational efforts to identify and confirm effective and feasible climate mitigation and adaptation strategies for the region, define the boundaries of CMAP's land use and transportation work in this arena, and identify specific workplan projects for subsequent fiscal years for all agency program areas. It will also explore the equity, inclusive growth, and environmental justice aspects of the climate challenge in the region. This work will involve multiple tasks:

Engage and identify partnerships with climate actors. Building on previous work, CMAP will outline existing climate mitigation and adaptation efforts, actors, and major stakeholders within the state, region, and mega-region, as well as actions by peer MPOs. CMAP staff will engage working committees, regional and state stakeholders, and potential partners across the Midwest and beyond.

Assess climate mitigation and adaptation strategies. Building on ON TO 2050, current efforts in the region, and peer review, CMAP will further explore priority mitigation and adaptation areas, identify GHG reduction needs and climate change impacts, identify critical approaches and pathways, including legislation, and assess CMAP's expertise and influence in those areas.

Define CMAP role and future workplan projects. Through the above steps, CMAP will better define the agency's role, and the value, level of engagement, and support for different initiatives, such as a regional climate coalition and regional climate action agenda. This effort will inform a multi-year workplan strategy.

Outcomes: This project will yield a multi-year climate strategy and workplan of projects and desired outcomes to advance implementation of select ON TO 2050 recommendations.

Transportation mitigation strategies (2021.015)

Program manager: Navota

Project manager: Menninger

Team: Bozic, Ferguson

Total hours: 460 / 0.24 FTE

Funding: Unified Work Program

Description: This project will examine potential contributions the region can make toward reducing emissions from the transportation sector. This exploratory effort will broadly assess existing and potential transportation strategies to reduce emissions, the level of information needed to inform the selection of effective mitigation strategies, and how existing CMAP programs and partner agencies can support implementation. For example, the Regional preparation for emerging transportation technology project has identified fleet electrification as a priority for examination in FY21 (see related workplan item). Existing GHG emissions of transportation sub-sectors will be estimated from the regional GHG inventory to better understand trends, priority areas, and other strategies. This project will likely include:

Research potential mitigation strategies in other transportation workplan areas. CMAP will explore whether and how existing transportation policy projects, processes, and operations might integrate mitigation considerations and/or advance understanding of GHG reduction strategies and trends.

Explore modeling and scenario planning approaches. CMAP will explore types of analysis that may be needed in subsequent years to help guide effective emissions reduction efforts. This could include selecting and developing a framework for transportation-related scenario planning, modeling, or back-casting; impact of different investment and policy scenarios on GHG emissions; or strategy modeling (type, scale, rate of adoption, etc.) for achieving emissions reduction targets to identify the most effective and efficient options, such as fleet electrification, transit investments, pricing, etc.

Climate mitigation and adaptation technical assistance strategy (2021.009)

Program manager: Ihnchak

Project manager: Daly

Team: Patton, Evasic, Pudlock

Total hours: 380 / 0.19 FTE

Funding: Unified Work Program

Description: The development of an internal resource guide to enhance CMAP's technical assistance program to provide guidance to project managers on how to incorporate climate mitigation and adaptation strategy recommendations and activities into planning processes and documents. This project builds on current partnerships to prioritize local climate strategies, strengthen connections between local actions and regional impacts, and help advance equitable treatment across communities with respect to climate mitigation and adaptation via the agency's technical assistance programs. Staff will examine ways technical assistance programs can better support climate goals including but not limited to:

Developing new program services to be offered through the Planning Resources Call for Projects.

Integrating existing data, tools, and strategies for climate vulnerability and adaptation into technical assistance plans and processes, including internal staff training on climate topics.

Identifying effective *mitigation* pathways and strategies appropriate for local government, such as those in the updated Greenest Region Compact (GRC). Evaluate actions that most directly or indirectly contribute to GHG emissions and potential alternatives, and integrate into technical assistance plans and processes.

Integrating climate knowledge and leadership training into capacity building and leadership development initiatives to encourage climate action at the local level.

Examine ways technical assistance programs can better support climate goals, such as explicit project solicitation through the Call for Projects, new planning project types, etc.

Climate data inventory and refinement (2021.012)

Program manager: Ahiablame

Project manager: Goods

Team: Beck, Patton, Ritzenthaler

Total hours: 695 / 0.36 FTE

Funding: Unified Work Program

Description: This project will review the climate-related data needs of CMAP and partners and identify areas where CMAP can refine, develop, or package climate data to better inform local and regional climate mitigation and adaptation strategies. This project will include coordination with research institutions and state and county agencies to avoid duplication and may involve partnerships to take advantage of existing work and expertise.

Outcomes: (Mitigation related) CMAP staff will review the most recent 2015 Regional Greenhouse Gas Inventory to identify different ways of presenting the data, meet with partners to confirm data needs, and explore how the inventory's emissions can be allocated to individual municipalities to help inform local climate action planning. In addition, CMAP staff will begin scoping the 2020 GHG inventory.

(Adaptation related) Understanding which portions of the region could be exposed to different climate change impacts can help prioritize investment and guide planning decisions. CMAP will identify existing and needed datasets reflecting exposure and vulnerability information. Using stakeholder input, the data collection will likely focus on the most critical climate impacts, such as heat, flooding, and drought, as well as projected impacts from different climate scenarios. CMAP will also explore producing a regional heat susceptibility index using a methodology established by the University of Illinois.

GHG reporting and performance monitoring (2021.014)

Program manager: T. Dixon

Project manager: Ferguson

Team: Buchhorn, Patton, Pietrowiak

Total hours: 320 / 0.16 FTE

Funding: Unified Work Program

Description: This project will explore agency approaches to transportation system greenhouse gas emissions analysis and reporting through existing performance monitoring activities and other studies. The primary goal is to understand the GHG emission implications of the current and future transportation portfolio to better inform the establishment of performance targets and provide data to transportation stakeholders. CMAP will also review potential for existing agency transportation programming criteria and evaluation processes to influence GHG emission reductions.

Outcomes: This work may include: an assessment of peer MPO approaches for incorporating GHG reduction goals in programming decisions; an assessment of how other agencies measure, track, and report similar information; discussion with state and regional transportation stakeholders; and discussions with IEPA to align CMAP's approach with state air quality and climate related goals. This project will begin to explore the potential to include or expand the use of GHG emissions as a criteria in CMAQ, STP, and other performance-based programming project selection criteria.