

#### WHAT IS THE RECAP SNAPSHOT?

The ReCAP Snapshots are made available to member agencies of the San Diego Association of Governments (SANDAG) as part of the Regional Climate Action Planning Framework (ReCAP). Each ReCAP Snapshot is meant to assist jurisdictions with monitoring community-wide greenhouse gas (GHG) emissions and/or Climate Action Plan (CAP) implementation over time and includes the following components: GHG Inventory, Jurisdiction Quick Facts, and Activity Data. It is important to note that: 1) the ReCAP Snapshot is meant to support, but not replace, a jurisdiction's efforts to monitor and report on implementation of their individual CAP; and 2) Climate planning activities vary by jurisdiction and are dependent on a variety of factors, such as funding and staff capacity. For jurisdictions without an adopted CAP, the ReCAP Snapshot provides data that can help inform ongoing or future CAP development and/or other sustainability plans and initiatives.

The table below outlines the various components covered in the ReCAP Snapshot:

Includes an annual GHG emissions inventory associated with community-wide activities that are specific to each jurisdiction. Common GHG emissions categories include, but are not limited to: Transportation, Electricity, Natural Gas, Solid Waste, Water, and Wastewater.	The GHG inventory in the 2018 ReCAP Snapshot is based on best available data, which includes 2016 transportation data and 2018 data for all other emissions categories <sup>1</sup> . Common sources for GHG emissions categories include:  Transportation: estimated origin-destination VMT, SANDAG <sup>2</sup> Electricity and Natural Gas: community-wide consumption, SDG&E Solid Waste: waste sent to landfill, CalRecycle  Water/Wastewater: water consumption and wastewater produced, City/water agency
Includes basic facts on each jurisdiction for reference. This section includes information on a jurisdiction's total population, number of square miles, and number of occupied households (excluding	Jurisdiction Quick Facts are provided for 2018, to coincide with the GHG emissions inventory year. Sources include:  Population: DOF  Number of Square Miles: U.S. Census Bureau
	inventory associated with community-wide activities that are specific to each jurisdiction. Common GHG emissions categories include, but are not limited to: Transportation, Electricity, Natural Gas, Solid Waste, Water, and Wastewater.  Includes basic facts on each jurisdiction for reference. This section includes information on a jurisdiction's total population, number of square miles, and number







ReCAP Snapshot Category	Description	Overview of Data Sources
	provides links and information on a jurisdiction's current CAP progress and identifies the jurisdiction's subregion within San Diego County.	Occupied Housing Units: DOF Current CAP Progress: City Subregion: SANDAG
Activity Data	Represents select GHG reduction activities commonly included in local CAPs in the San Diego region. While activity data may not align precisely to GHG reduction measures and/or the metrics identified in a jurisdiction's CAP, they are regionally consistent and similar among all jurisdictions. While the activity data are primarily community-wide, some municipal indicators have been included in each jurisdiction's 2018 ReCAP Snapshot, where data are available. Community-wide data represents activities that take place within a jurisdiction's boundaries, while municipal data represents activities that take place at Cityowned facilities and buildings.	Activity data are based on data from 2018. In cases where jurisdictions do not track specific activity data, that activity is not included. Sources include:  Transportation: SANDAG, DMV, MTS, NCTD  Water and Wastewater: City/water agency  Carbon Sequestration: City Energy Efficiency: SDG&E, City Renewable Energy: CEC, California Distributed Generation Statistics, City  Solid Waste: CalRecycle

#### Notes:

CAP = Climate Action Plan; CEC = California Energy Commission; DMV = Department of Motor Vehicles; DOF = Department of Finance; GHG = greenhouse gas; NCTD = North County Transit District; SANDAG = San Diego Association of Governments; SDG&E = San Diego Gas & Electric; MTS = San Diego Metropolitan Transit System; VMT = vehicle miles traveled, CalRecycle = California Department of Resources, Recycling, and Recovery; ReCAP = Regional Climate Action Planning Framework

Source: SANDAG 2020

For more information, please see the Methods and Data Sources Summary available at <a href="mailto:sandag.org/climate">sandag.org/climate</a>.





<sup>&</sup>lt;sup>1</sup> The best available data for VMT at this time continues to be estimates for the year 2016, based on the SANDAG Series 14 forecast and ABM2 transportation model. This same VMT dataset was used to prepare the 2016 Inventory included in the first edition Snapshots (published November 2019). As a result, the VMT used in the 2018 GHG emissions inventory is the same as that in the 2016 GHG emissions inventory.

<sup>&</sup>lt;sup>2</sup> More information on the SANDAG transportation model is available later in this FAQ.

#### HOW WERE THE ACTIVITY DATA SELECTED?

Activity data were selected based on input from staff from the local jurisdictions and additional selection criteria such that activity data should:

- be representative of a majority of common GHG reduction activities included in local CAPs;
- demonstrate impact of City policies and/or actions; and
- have data sources that are available, can be regularly updated, and have jurisdiction-level regional consistency.

# WHAT IS THE RELATIONSHIP BETWEEN THE GHG EMISSIONS INVENTORY, ACTIVITY DATA, AND EACH CAP?

A CAP is a long-range plan that outlines specific activities a jurisdiction will take to reduce GHG emissions. This includes an analysis of community-wide GHG emissions and reduction target(s) to reduce GHG emissions. As of October 2020, 17 of the 19 jurisdictions in the region have adopted a CAP, and one additional city is currently developing its first.

The GHG emissions inventory provided in the ReCAP Snapshots quantifies emissions based on the methodologies described in ReCAP and aligns with best available transportation data. In comparing this 2018 GHG inventory to prior inventories and/or reduction targets in a jurisdiction's CAP, it is important to consider how the current data and methods may differ from prior analyses and identify where direct comparison may not be possible.

Furthermore, because the activity data are meant to be regionally consistent, the indicators may not align precisely to the GHG reduction measures and/or the metrics identified in an individual CAP. Each jurisdiction will have unique GHG reduction measures and may identify specific metrics for monitoring CAP implementation that are not included in their respective ReCAP Snapshot. The ReCAP Snapshot is meant to supplement, not replace, a jurisdiction's implementation and monitoring program.

# WHY DOES THE 2018 GHG EMISSIONS INVENTORY NOT INCLUDE 2018 VMT DATA?

The 2018 GHG emissions inventory was prepared using the best available data for each emissions category. The best available data for VMT at this time continues to be estimates for the year 2016, based on the SANDAG Series 14 forecast and ABM2 transportation model. This same VMT dataset was used to prepare the 2016 inventory included in the first edition Snapshots (published November 2019). As a result, the VMT used in the 2018 GHG emissions inventory is the same as that in the 2016 GHG emissions inventory.







Estimated changes in VMT since 2016 will be reflected in the forthcoming 2020 GHG emissions inventory. For the next ReCAP Snapshots, VMT estimates will be based on the forecast and land use used in the 2021 Regional Plan.

GHG emissions inventories are one tool for use in monitoring CAP implementation. Together, a GHG emissions inventory and activity data reflect CAP implementation progress. Until updated VMT estimates are available, performance of VMT-related CAP measures can be monitored based on activity data. Further detail about CAP monitoring and reporting can be found in the <a href="ReCAP Technical Appendix VI">ReCAP Technical Appendix VI</a>.

#### WHAT IS THE SANDAG TRANSPORTATION MODEL?

The SANDAG transportation model is an "activity-based model," referred to as an "ABM," that simulates individual and household transportation decisions that compose their daily travel itinerary. People travel outside their home for activities such as work, school, shopping, healthcare, and recreation, and the ABM attempts to predict whether, where, when, and how this travel occurs. The result is a forecasting and alternatives analysis tool that can help gain insight into potential future outcomes of land use growth, transportation network investments, and travel policies.

### WHAT IS THE SANDAG TRANSPORTATION MODEL USED FOR?

SANDAG plans for complex mobility issues facing the San Diego region through the development of the Regional Plan, which is typically updated every four years. In preparation of each Regional Plan, SANDAG uses transportation and land use models to forecast potential future scenarios of where people will live and how they will travel. These models provide planners and decision makers with information to help them equitably allocate scarce resources.

The ABM was developed to produce an average spring/fall weekday forecast of travel in the San Diego region. However, travel over the course of a year has a great deal of variation from seasonal fluctuations, school session schedules, special events, and other occurrences (wildfires, rain, etc.); therefore, the ABM should not be used to monitor observed trends in traffic. Rather, the ABM is a forecasting and alternatives analysis tool that can help gain insight into potential future outcomes of land use growth, transportation network investments, and travel policies.

In addition to its primary application in development of the Regional Plan, the ABM is used to generate estimates of vehicle miles traveled (VMT) for a given year, which are used to inform other related analyses in the region, including Community Plan Updates, General Plan Updates, and development of Climate Action Plans and the ReCAP Snapshots.





## WHAT DATA IS INCLUDED IN THE SANDAG TRANSPORTATION MODEL AND HOW OFTEN IS THIS DATA UPDATED?

SANDAG continuously updates the ABM and releases a new version for use in development of the Regional Plan, which typically occurs every four years. The ABM is calibrated to the latest observed data, such as jurisdiction vehicle traffic counts and transit passenger counts.

Other data included in updates to the ABM for new version releases include:

- Transportation networks
- Land use and demographics
- Surveys of travel behavior
- Forecasts of external variables
- Changes to the components and computer code that make up the ABM

# WHAT ARE SOME OF THE KEY DIFFERENCES BETWEEN THE TWO MOST RECENT SANDAG TRANSPORTATION MODELS?

As of November 2020, the current SANDAG transportation model is referred to as "ABM2," which was applied in development of the 2019 Federal Regional Transportation Plan<sup>1</sup>. The previous model is referred to as "ABM1," and was applied in the 2015 Regional Plan<sup>2</sup>.

Differences between any of these models are directly related to changes in the data inputs described in the previous question. For example, the ABM is updated with the latest travel data (through surveys, travel costs, and network changes such as transit routes and roadway changes) and is then calibrated to observed data.

One of the more significant differences between ABM1 and ABM2 has been attributed to changes in the land use and demographics forecast<sup>3</sup> between the Series 13 forecast (with a base year of 2012) and the Series 14 forecast (with a base year of 2016). The Series 13 forecast was completed during the recovery period of the Great Recession. It has been widely discussed and acknowledged that the Series 13 forecast, which was peer reviewed by local and national experts prior to release, did not foresee the depth and severity of the recession recovery and was slightly optimistic in future year growth.





<sup>&</sup>lt;sup>1</sup> For more information about ABM2 as used in the 2019 Federal Regional Transportation Plan: <a href="https://sdforward.com/docs/default-source/2019federalrtp/draftfinal/app-t---sandag-travel-demand-model-and-forecasting-documentation.pdf?sfvrsn=8047ff65">https://sdforward.com/docs/default-source/2019federalrtp/draftfinal/app-t---sandag-travel-demand-model-and-forecasting-documentation.pdf?sfvrsn=8047ff65</a> 2

<sup>&</sup>lt;sup>2</sup> For more information about ABM1 as used in the 2015 Regional Plan: https://www.sdforward.com/pdfs/Final PDFs/AppendixT.pdf

<sup>&</sup>lt;sup>3</sup> Note: the forecast includes the base year as well as future years, out to 2050.



Other differences between models are reflected in changes to the data inputs described in the previous question, such as future gas prices and observed vehicle traffic and transit passenger counts in the base year.

## HOW CAN THE SANDAG TRANSPORTATION MODEL DATA BE ACCESSED?

Data can be accessed through the SANDAG Transportation Forecast Information Center at <a href="http://tfic.sandag.org/">http://tfic.sandag.org/</a>. This data does not include Origin-Destination analysis.

Pursuant to SANDAG Board Policy No. 012<sup>4</sup>, SANDAG member agencies, non-member government agencies, and private organizations and individuals may request specific services, including modeling, through the <u>SANDAG Service Bureau</u>.

# HOW OFTEN WILL THE RECAP SNAPSHOTS BE PREPARED? WILL OTHER ACTIVITY DATA BE ADDED?

SANDAG plans to provide an updated ReCAP Snapshot to each jurisdiction every two years. The first edition ReCAP Snapshots were published in November 2019; the 2018 ReCAP Snapshots serve as the second edition. As technology advances and data sources and methods evolve, content in these ReCAP Snapshots may change, including methodologies for preparing the GHG emissions inventory and activity data reported.

As data becomes available and additional indicators become more refined and commonplace, future ReCAP Snapshots may also address other topics that are currently not addressed, including emission trends over time, environmental justice, social equity considerations, and climate adaptation and resiliency.

<sup>&</sup>lt;sup>4</sup> SANDAG Board Policy No. 012: https://www.sandag.org/organization/about/pubs/policy\_012.pdf







## IS THERE A ReCAP SNAPSHOT FOR EACH JURISDICTION IN THE SAN DIEGO REGION?

SANDAG prepared ReCAP Snapshots for 15 of the 16 cities that are a part of the Roadmap Program. The City of Coronado has postponed participation in the ReCAP effort until substantial progress has been made on their CAP. SANDAG has been providing energy efficiency support to local jurisdictions via the Roadmap Program since 2010 and expanded services to include climate action planning in 2016. In addition to the 15 Roadmap cities, the City of Chula Vista partnered with SANDAG to prepare a similar ReCAP Snapshot.

More information on the City of San Diego's CAP is available at: https://www.sandiego.gov/sustainability/climate-action-plan

More information on the County of San Diego's CAP is available at: <a href="https://www.sandiegocounty.gov/pds/advance/climateactionplan.html">https://www.sandiegocounty.gov/pds/advance/climateactionplan.html</a>

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