



# County of Monterey

**Item No.3**

## Board Report

Board of Supervisors  
Chambers  
168 W. Alisal St., 1st Floor  
Salinas, CA 93901

**Legistar File Number: 24-750**

**December 17, 2024**

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**Matter Type:** General Agenda Item

- a. Receive a presentation from staff and Ascent Environmental on an update of the Community Climate Action & Adaptation Plan Greenhouse Gas Inventory; and
- b. Provide direction to staff.

### RECOMMENDATION:

It is recommended that the Alternative Energy and Environment Committee:

- a. Receive a presentation from staff and Ascent Environmental on an update of the Community Climate Action & Adaptation Plan Greenhouse Gas Inventory; and
- b. Provide direction to staff.

### SUMMARY:

Staff recommends that the Alternative Energy and Environment Committee receive an update on the Greenhouse Gas Inventory that will be used to inform the Community Climate Action and Adaptation Plan (CCAAP). Since previous unincorporated Monterey County emissions inventories were published on the County's Konveio website in 2022, several updates were made based on comments received and the availability of newer information. These updates are described in more detail in the following sections and are related to the following specific sources: livestock operations on agricultural lands, fertilizer application on agricultural lands, pesticide application on agricultural lands, and vehicle miles traveled (VMT) associated with residents, employees, and visitors of the unincorporated county. Additionally, the attached Final Monterey Community GHG Inventory Memo discusses each of these areas in detail.

### DISCUSSION:

#### On-Road Transportation

The Association of Monterey Bay Area Governments' (AMBAG) Regional Travel Demand Model (RTDM) provides vehicle miles traveled (VMT) estimates for the entire region and for each of the counties of Monterey, Santa Cruz & San Benito. However, according to AMBAG, VMT data provided by the RTDM is not accurate at smaller geographic scales, including at the jurisdiction-specific level. As part of its services for local agencies, AMBAG produced a 2019 GHG emissions inventory for the unincorporated county, including a VMT estimate, which was used in the January 2022 inventory publication.

The VMT estimate used in the January 2022 publication was derived from Caltrans' Highway Performance Monitoring System, which reports the average daily VMT on roadways by jurisdiction. These data were scaled by countywide VMT from the California Air Resources Board's (CARB) EMFAC2017 to the unincorporated area by multiplying the VMT by the daily VMT associated with the County's jurisdiction (excluding military, state, and federal

jurisdictions) and divided by the total daily VMT in the entire county. This method likely undercounted VMT because it excluded travel on state highways associated with trips starting or ending in the unincorporated county.

For the final October 2024 inventory report, VMT estimates specific to the unincorporated county were not available despite updates to AMBAG's RTDM. Therefore, estimates for countywide VMT (including incorporated places) were obtained from CARB's EMFAC2021 model. Using household data from the California Department of Finance, countywide VMT data were scaled to the unincorporated county using the proportion of households within the unincorporated county compared to the county as a whole. While this accounting method is not consistent with the Regional Targets Advisory Committee (also known as "RTAC") origin-destination method established through SB 375 and CARB recommendations, it is consistent with AMBAG's current approach for estimating jurisdiction-specific VMT and was chosen as the best currently available methodology.

#### Livestock Management

The Monterey County 2019 Crop Report provided initial estimates for total heads of pasture-raised cattle and calves as well as stocker cattle in the county, which were revised based on information from local ranchers and research conducted by the University of California Agriculture and Natural Resources (UCANR) (County of Monterey 2020). USDA's 2017 Census of Agriculture provided total heads of sheep and lambs, goats, hogs, poultry, and horses (USDA 2019). The County of Monterey Agricultural Commissioner's Office and UCANR confirmed livestock heads data used in this inventory. Average months per year that livestock reside in the county were provided by UCANR and local ranchers. Emissions factors for livestock were obtained from CARB's California GHG Emission Inventory (CARB 2021).

#### Fertilizer Application

Synthetic and organic nitrogen applications were quantified using data from the Central Coast Regional Water Quality Control Board (2022), which documents the amount of nitrogen applied, by agricultural operation and crop, in the county in 2019. In total, these data show 71,610 tons of nitrogen applied. This represents an increase from the previous estimate, which was 21,516 tons of nitrogen applied. This previous estimate was based on 2019 crop acreage data for 51 distinct crops in the county; each crop's acreage was multiplied by an assumed nitrogen application rate (in pounds of nitrogen per acre) that were compiled from a literature review. The method used in this memorandum improves on the previous method; this is because the new method is based on recorded nitrogen application within the county, rather than the previous method which relied on estimates based on assumed application rates.

#### Pesticide Application

Methyl bromide and sulfuryl fluoride are pesticides used for commodity fumigation and structural pest control, respectively. Data on the quantity of these pesticides applied in the county in 2019 was obtained from the California Department of Pesticide Regulation's (CDPR's) Pesticide Information Portal (CDPR 2024). These quantities were multiplied by their respective CARB emissions factors to calculate emissions for these sectors. Pesticide-related emissions were not included in the previous publications of the unincorporated county GHG inventory. Pesticide use is regulated by CDPR and therefore, is not included in the unincorporated county's total GHG emissions. CDPR is responsible for reducing the emissions

associated with the application of pesticides, including methyl bromide and sulfuryl fluoride.

OTHER AGENCY INVOLVEMENT:

Staff have collaborated with the Agricultural Commissioner's Office and the Association of Monterey Bay Area Governments on quantifying greenhouse gas emissions. County Counsel has reviewed and approved as to form.

FINANCING:

This item has no budgetary implications.

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Attachments:

Monterey Community GHG Inventory Memo with Appendix