



# CITY COUNCIL AGENDA STATEMENT



**March 2, 2021**

**File ID: 20-0544**

## **TITLE**

PRESENTATION OF THE 2018 COMMUNITY AND MUNICIPAL GREENHOUSE GAS EMISSIONS INVENTORY REPORTS

## **RECOMMENDED ACTION**

Council receive the report.

## **SUMMARY**

As part of the City's ongoing greenhouse gas (GHG) monitoring effort and to comply with the 2017 Climate Action Plan (CAP), staff completed the 2018 Municipal and Community GHG Emissions Inventories report. The report is structured into two sections, 1) Community Inventory: This includes GHG emissions created within City boundaries such as from homes, businesses, vehicles, water usage and the generation of waste. 2) Municipal Inventory: This covers GHG emissions created by City operations, such as from City operated buildings, street and traffic lights, vehicle fleet and waste generated from City facilities. Because much of City operations take place within City boundaries many of the emissions in the Municipal Inventory are also included in the Community Inventory.

The 2018 GHG Inventory report indicates that the annual city-wide community GHG levels have decreased by 13% compared to the 2005 baseline. These reductions are even more significant when considering the 23% increase in population over this same time period. The report indicates a 29% decrease in per capita emission levels compared to the 2005 levels. In addition, the municipal report indicates an approximate 5% increase in emissions from municipal sources (i.e. operations, facilities and vehicle fleet) compared to 2016 levels but still 67% below the 1990 baseline. Part of the reason for the increase was a new project to install additional solar panels in June 2018. During construction, the existing solar panels were disconnected to merge new systems with the existing systems, which led to an increase in building energy usage. Staff expect building emissions to go down when the solar system are activated and generating electricity and as the remaining electricity from the grid increases to 100% clean by 2035. Staff will continue implementation of the 2017 CAP and is anticipated to present the Climate Change Working Group (CCWG) recommendations to the Sustainability Commission in February and then bring to City Council later in the year.

## ENVIRONMENTAL REVIEW

The Development Services Director has reviewed the proposed activity for compliance with the California Environmental Quality Act (CEQA) and has determined that the activity is not a “Project” as defined under Section 15378 of the State CEQA Guidelines because it will not result in a physical change in the environment; therefore, pursuant to Section 15060(c)(3) of the State CEQA Guidelines, the activity is not subject to CEQA. Thus, no environmental review is required.

## BOARD/COMMISSION/COMMITTEE RECOMMENDATION

City Staff presented the 2018 Community and Municipal GHG inventories to the Sustainability Commission (SSC) on January 11<sup>th</sup>, 2021. The SSC unanimously recommended that City Council adopt the report.

## DISCUSSION

The City of Chula Vista continues to be a nationally recognized leader in fighting climate change in our community. The 2017 CAP includes 11 climate “mitigation strategies”, each with multiple individual actions designed to reduce GHG emissions. Together with previous climate action planning documents, these actions guide the ongoing City staff efforts. In addition to addressing climate change, these climate action measures offer numerous community co-benefits such as utility savings, better air quality, reduced traffic congestion, local economic development and improved quality of life. The most recent CAP progress, attached, shows that 71% of actions included in the 2017 CAP were either completed or ongoing

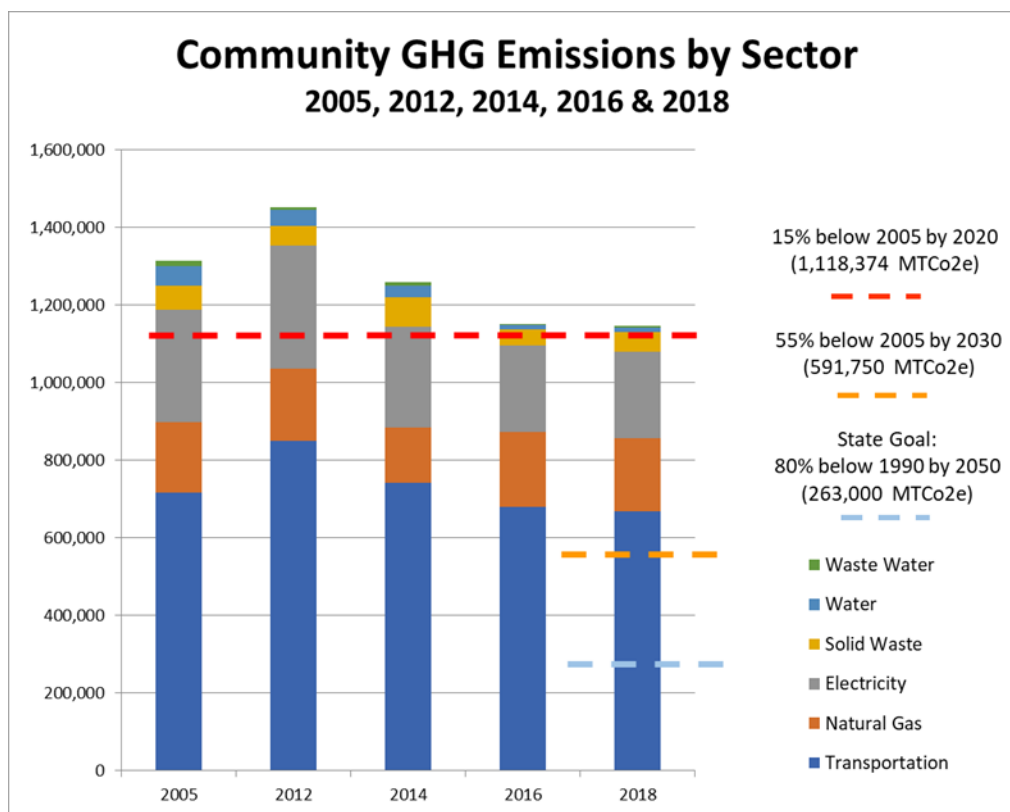
### 2018 GHG Inventory Report Methodology:

Like the 2016 GHG Emissions Inventories, the Municipal GHG Inventory was created by City staff and the Community GHG Emissions Inventory was compiled by the University of San Diego’s Energy Policy Initiatives Center (EPIC). For this effort, EPIC utilized SANDAG’s Regional Climate Action Planning (ReCAP) Framework. The ReCAP framework is a tool created by SANDAG through collaboration with local agency staff and leading climate planning experts to prepare a planning framework that identifies best practices for preparing Climate Action Plans (CAP) and monitoring their implementation. ReCAP establishes a technical framework for regionally consistent climate action planning that also preserves local policy flexibility for the unique needs and circumstances of each local jurisdiction. Additional information on ReCAP is available on the SANDAG website ([www.sandag.org/climate](http://www.sandag.org/climate)).

The 2018 Snapshot and monitoring information are attached (TECHNICAL APPENDIX I’). A full review of the inventory methodology can be found online at [www.sandag.org/uploads/cap/ReCapTAL.pdf](http://www.sandag.org/uploads/cap/ReCapTAL.pdf). Many of the GHG inventory methodologies remained the same and continued to use the U.S. Community Protocol (Version 1.0). In the protocol, the emissions from five main parameters – building energy consumption, transportation, water (embedded energy), wastewater and solid waste are evaluated. These parameters are based solely on “end use activities” and their emissions are expressed as CO<sub>2</sub> equivalent (or CO<sub>2</sub>e), which allows greenhouse gases of different strengths to be added together. One significant change from the 2016 GHG emissions inventory methodology is related to the transportation data used. SANDAG was not able to provide an updated 2018 Vehicle Miles Traveled (VMT) estimate so EPIC updated the 2016 VMT estimate based on the most recent demographic information from 2018. This is the reason for the 13,000 MT CO<sub>2</sub>e difference between the SANDAG ReCAP total and the City’s Community Inventory.

### Community Inventory

Community GHG emissions in 2018 totaled 1,146,000 metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e). This is a reduction of 1% below the 2016 inventory and 13% below the 2005 baseline. The City is still within 2% of meeting its 2020 GHG reduction goal of 15% reductions below 2005. These emissions reductions are even more significant after considering the city experienced a 23% increase in population during the same time period. The report indicates a 29% decrease in per capita emission levels compared to the 2005 baseline levels. The three largest sources of emissions were from the transportation sector (58%), electricity sector (19%), and natural gas sector (16%), see Figure 1 below. The waste sector had the most emission growth from the last inventory as it rose 27% above its 2016 emissions however, remains 15% below its 2005 baseline. More detailed information can be found on Attachment “1”. The only sector that was above the 2005 baseline were emissions from natural gas. The 2018 GHG inventory shows community emissions reductions will probably not be uniform and many emissions are still tied to economic activity. Working with the State to bring GHG reduction solutions that decarbonize our economy and ensure that our progress does not stall will be important to meeting the City’s and State’s long term carbon reduction goals.

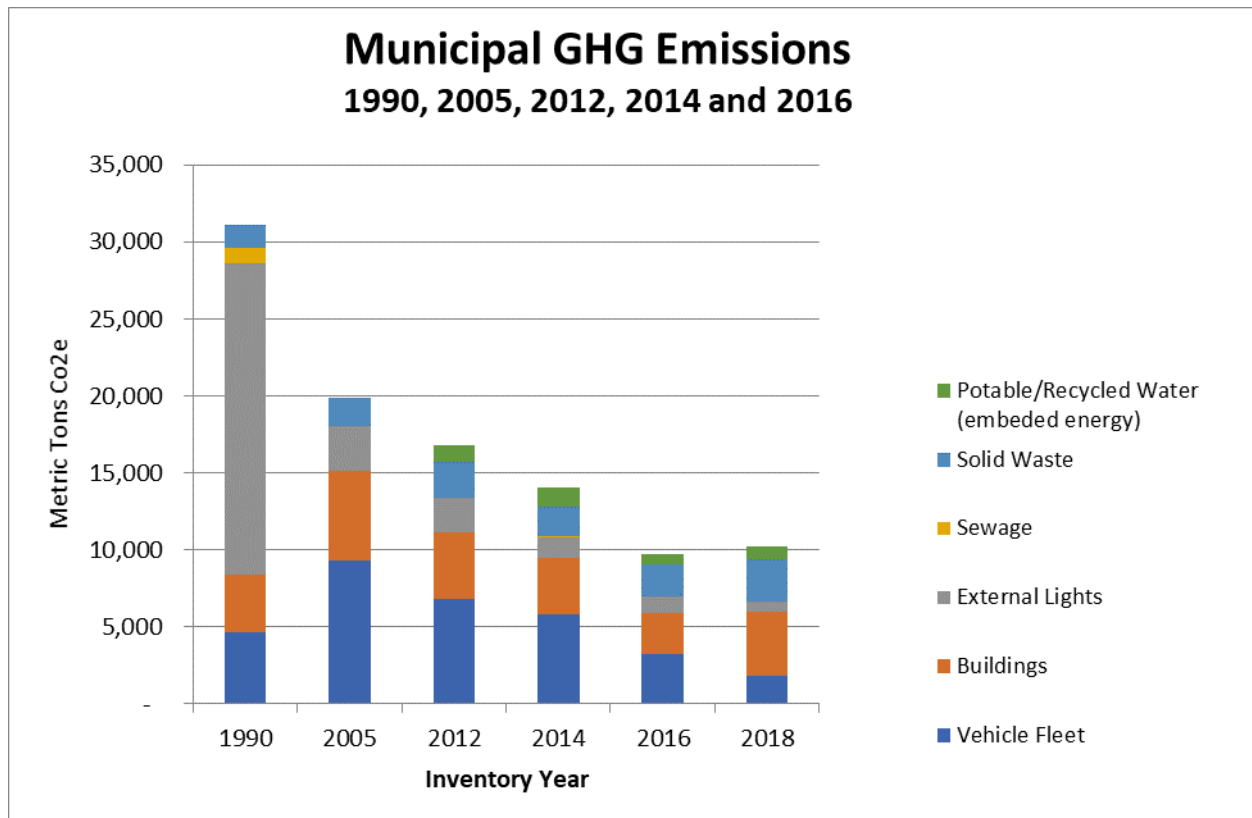


**Figure 1:** Total GHG emissions from community sources (by sector) in 2005, 2012, 2014, 2016 and 2018. The red dashed line represents the City’s 2020 carbon reduction goal, the yellow dashed line represents the City’s 2030 reduction goal, and the blue dashed line represents the State’s 2050 carbon reduction goal.

### Municipal Inventory

The 2018 GHG Emissions Inventory indicates that Chula Vista’s municipal GHG levels have increased by 5% compared to the last 2016 inventory. GHG emissions from municipal sources (i.e. operations, facilities, and vehicle fleet) in 2018 totaled 10,207 metric tons of carbon dioxide equivalents (MT CO<sub>2</sub>e). This represents

a reduction of 67% below the initial 1990 inventory. The two largest sources of emissions were from the energy consumption at facilities (41%) and emissions from the City’s solid waste disposal (27%), see Figure 2 below. More detailed information can be found on Attachment “2”. The City started a new project to install additional solar panels in June 2018. During construction, the existing solar panels were disconnected to merge new systems with the existing systems, which led to an increase in building energy usage. Staff expect building emissions to go down when the solar system are activated and generating electricity and as the remaining electricity from the grid increases to 100% clean by 2035. Due to significant reduction from the vehicle fleet emission (44% since 2016) that sector fell from the second to third largest sector.



**Figure 2:** Total GHG emissions from municipal sources (by sector) in 1990, 2005, 2012, 2014, 2016 and 2018.

### Next Steps

The availability of data is critical for the preparation of GHG emission inventories and continues to be a challenge. In addition to the delay in VMT data, due to the Local Government Partnership contract with SDG&E ending, SDG&E will not be able to provide the same level of energy data they have provided for recent inventories. This may impact electricity and natural gas emissions in the 2020 inventory. Staff will continue to work with the University of San Diego’s Energy Policy Initiatives Center (EPIC) and SANDAG to identify solutions to data challenge and leverage the GHG inventory guidance that was created as part of the ReCAP stakeholder effort. We anticipate the 2020 inventory to be completed in 2022 with future inventories being conducted every other year, depending on data availability.

Staff will continue to implement the 2017 CAP and City Operations Sustainability Plan. The most recent CAP progress, attached, shows that 71% of actions included in the 2017 CAP were either completed or ongoing. Some of the implementation actions being taken are:

- Preparing for San Diego Community Power Phase 1 enrollment of municipal facilities starting March of 2021 and phase 2 enrollment of large commercial customers in July of 2021;
- Adoption of the Alternative Transportation Master Plan, with notable projects including Bike Lanes on Broadway (7.8 new miles), bikes lanes on Main and the Sweetwater Bike Path project;
- Implementation of the Existing Home Energy Efficiency Ordinance that requires energy saving retrofits in older existing homes;
- Development of a benchmarking ordinance that would increase transparency into energy usage at large commercial and multifamily buildings and require energy efficiency improvements for under-performing buildings;

Staff have presented the Climate Change Working Group (CCWG) recommendations, below, to the Sustainability Commission and will be presenting them City Council in April.

#### Proposed Climate Change Working Group Recommendations

1	Approve and implement zero waste plan recommendation to eliminate the use of single use plastics
2	Implement education and outreach in support of decarbonization in new construction and evaluate incentives and building code options to eliminate GHG emissions associated with building energy use
3	Review solar permitting process and revise where necessary
4	Implement education and outreach in support of clean transportation while evaluating appropriate codes that reduces fossil fuel usage
5	Ensure implementation of the Chula Vista Active Transportation Plan to increase protected bike lanes, or highest level of protection possible, focusing on where active transportations collisions have occurred
6	Adopt a Climate Equity Index to address disproportional impacts of climate change
7	Adopt GHG reduction goal of carbon neutrality by 2045

#### **DECISION-MAKER CONFLICT**

Staff has reviewed the decision contemplated by this action and has determined that it is not site-specific and consequently, the 500-foot rule found in California Code of Regulations Title 2, Section 18702.2(a)(11), is not applicable to this decision for purposes of determining a disqualifying real property-related financial conflict of interest under the Political Reform Act (Cal. Gov't Code § 87100, et seq.).

Staff is not independently aware, and has not been informed by any City Council member, of any other fact that may constitute a basis for a decision-maker conflict of interest in this matter.

#### **CURRENT-YEAR FISCAL IMPACT**

The development of the 2018 GHG Emissions Inventory was supported through existing departmental budgets and external funding sources such as the SDG&E Local Government Partnership, thus there is no new General Fund impact.

#### **ONGOING FISCAL IMPACT**

There are no ongoing fiscal impacts associated with the 2018 GHG Emissions Inventory.

#### **ATTACHMENTS**

Attachment 1 - 2018 COMMUNITY GREENHOUSE GAS EMISSIONS INVENTORY

Attachment 2 - 2018 MUNICIPAL GREENHOUSE GAS EMISSIONS INVENTORY

Attachment 3 – 2017 Climate Action Plan Implementation Update

Attachment 4 - SANDAG ReCAP 2018 Snapshot

Attachment 5 – SANDAG ReCAP Snapshot FAQ

Attachment 6- SANDAG ReCAP 2018 Snapshot GHG Inventory Data and Metrics

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