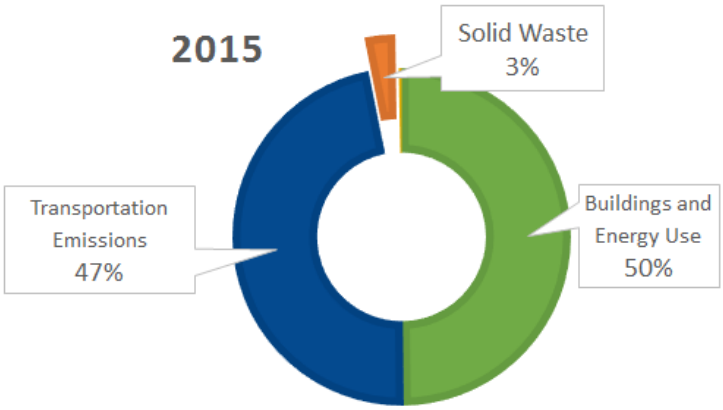
Piedmont Climate Action Plan Task Force
Meeting #5 - Tuesday, July 25th, 2017
Solid Waste and Consumption Sectors Review

1. Background: Solid Waste

Solid waste generates methane, a greenhouse gas, when organic material decomposes in anaerobic landfill settings. Diverting organic materials from landfills and directing them to facilities that can process them correctly reduces GHG emissions associated with solid waste. In 2015, Solid Waste accounted for about 3% of Piedmont's total community GHG emissions, down from about 5% of the 2005 community inventory. From 2005 to 2015, tons of solid waste being sent to the landfill have been reduced by about 60%.



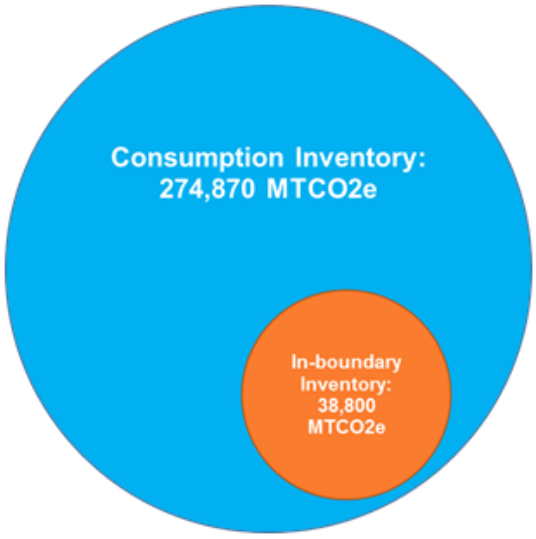
According to a report by Republic Services, Piedmont's waste hauler, the City produced 2,319.6 tons of waste in 2015. Over the past seven years, Piedmont has consistently diverted a majority of its waste from landfill to recycling and composting facilities. In 2015, Piedmont diverted 74% of its waste, an all-time high. As a result, the emissions associated with solid waste disposal remain low. Piedmont can continue to build upon its success in diverting waste from landfills, sending all organic materials to composting facilities, and recycling products that can be recycled.

2. Solid Waste Objectives and Measures

Solid Waste Objectives focus on encouraging downcycling, recycling, and composting when possible. Diverting organic material from the landfill can reduce emissions of methane. Reducing the total amount of waste created, by conscientious consumption of materials and reuse, can also reduce the quantity of waste ending up in the landfill. The overarching goal is to reduce waste going to the landfill by an additional 10% by 2030, so that the diversion rate is closer to 85%.

3. Background: Consumption

In 2016, the Bay Area Air Quality Management District and UC Berkeley released a consumption based greenhouse gas emissions inventory for all households in the Bay Area. Modelling for the study relied on actual consumption data, regional modelling, and household size and income.

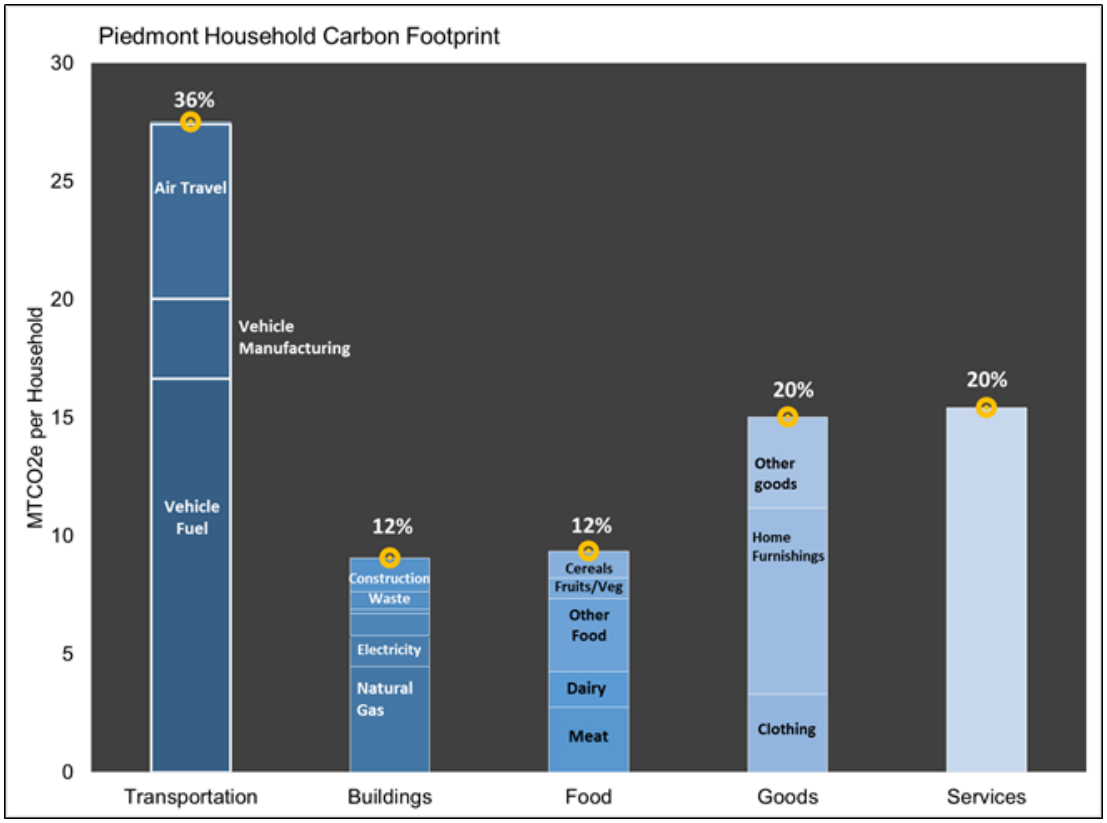


The study used a life-cycle analysis of GHG emissions embodied in goods and services. Due to global economic changes, the United States imports many of the products it consumes. As a result, the U.S. has essentially *exported* its manufacturing-based GHG emissions to other countries, predominantly China. A consumption based inventory attributes GHG emissions produced

across the world to the location of the consumer of the product. This allows accountability for emissions to be placed with the source of the demand rather than the supplier.

The elements of the consumption based emissions inventory that contribute additional information to Piedmont's Community GHG Inventory are food, goods, and services. The estimates for these sectors are:

1. Food: 36,000 MTCO2e
2. Goods: 58,000 MTCO2e
3. Services: 59,000 MTCO2e



4. Consumption Objectives and Measures

Eliminating GHG emissions released within Piedmont's boundaries is the primary focus of this Climate Action Plan, but it is important to avoid reallocating emissions to other jurisdictions. While Piedmont's in-boundary GHG emissions are very low, Piedmont's rates of consumption corresponds to a significant quantity of GHGs released globally.

Understanding consumption based GHG emissions provides a new lens to apply to climate action in Piedmont. While initially disheartening, Piedmont's high consumption based emissions serves to demonstrate the power Piedmont residents yield globally with their purchasing decisions.

The City of Piedmont does not have any influence on resident purchasing decisions, but it can provide information and education on how consumption relates to GHG emissions. The proposed measures provided address consumption based emissions from food, goods, and services only.

When purchases are made in Piedmont, the environmental harm and GHG emissions associated with that product's production and end life are not located within the City and not accounted for in the GHG inventory. Thinking about the environmental harm associated with purchases can incentivize green practices. Therefore,

while manufacturing of goods does not occur within Piedmont's borders, residents have the opportunity to address issues of equity and environmental justice by taking action to reduce consumption based emissions.

The key targets of Consumption Objectives are, education, food, goods, and building deconstruction. Consumption based emissions inventories are still new. There is minimal understanding about what consumption emissions are and education is a vital first step. Other objectives for consumption focus on reducing the carbon intensity of food, reducing food waste, and enabling local food. Lastly, the consumption measures address the emissions associated with purchasing new goods and building with new materials. Reducing consumption-based emissions is possible the most significant sector where Piedmonters' behavior and choices can impact GHG emissions.

5. Enclosures:

· Proposed Solid Waste and Consumption Sector Measures, Objectives, and Actions