



Chapter 5 - Carbon footprint

Reduction in the District's energy usage is important because of related greenhouse gas (GHG) emissions. By calculating Metro Parks' carbon footprint, we can trace the origin of most emissions during Metro Parks' regular operations. Emissions are reported in metric tons of carbon dioxide equivalent, or MTCO₂e.



To calculate emissions, MPT uses the Seattle Climate Partnership's Carbon Footprint Calculator¹² from 2010. The calculator measures emissions from three types of sources, labeled scopes. Scope 1 includes emissions directly produced on site from sources owned or controlled by MPT, such as fuels. Scope 2 includes indirect emissions from purchased energy, such as electricity. Scope 3 emissions are from sources not directly controlled by MPT but related to activities, such as employee commuting, business air travel, solid waste disposal and wastewater treatment. (See Figure 5.1.)

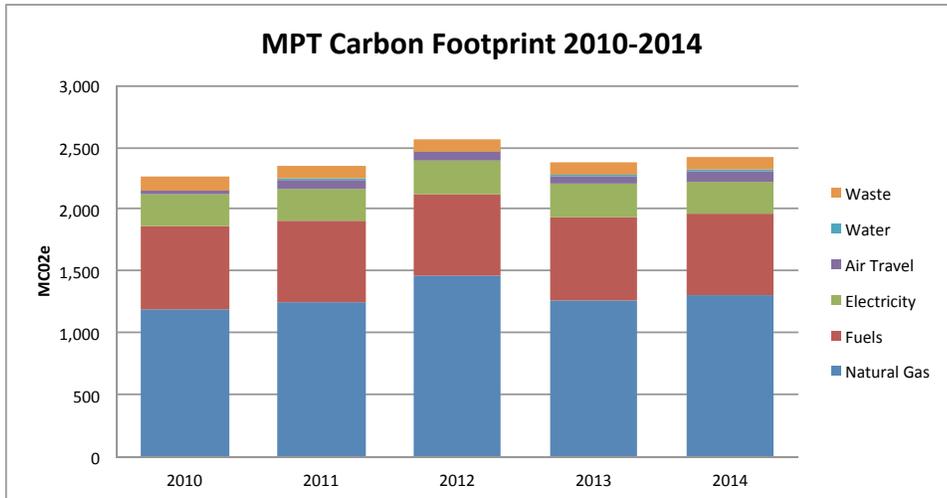


Figure 5.1. District wide emissions from a variety of sources from 2010 through 2014.

In addition to Scope 1 and 2 emissions, the MPT carbon footprint includes Scope 3 emissions from business air travel, water and solid waste disposal. Currently, MPT does not comprehensively measure the weight of landfilled waste, recycled materials or compost, so this is estimated.

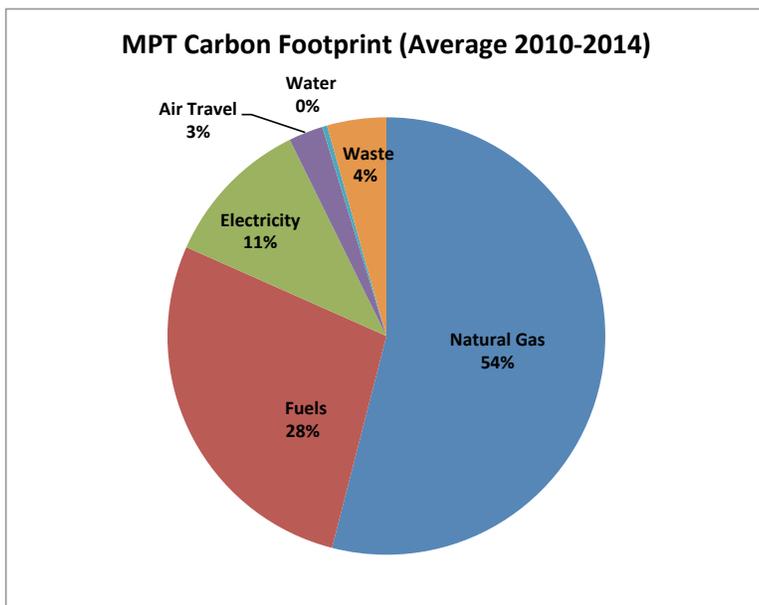


Figure 5.2. Sources of greenhouse gas emissions, based on the average from 2010 through 2014.

12 This calculator, created by the Seattle Climate Partnership, allows users to inventory greenhouse gas emissions to help prioritize and implement reduction tactics.

Because the emissions from employee commuting are technically outside of the control of MPT, they aren't included in the District's organizational footprint or given a specific target for reduction. However, because employees can be encouraged by their workplace to use alternative transportation options, they are estimated here, at approximately 402 MTCO_{2e}, (due to the seasonal nature of staff at MPT, this is just an estimate). If this was included in the MPT footprint, it would represent 14 percent of total emissions, more than electricity, air travel and water treatment combined.

Recommendations: In order to most effectively limit our greenhouse gas emissions, we should focus on the reduction of natural gas and fuels since they represent 82 percent of emissions combined. However, electricity is still important because of what is called its "reduction potential." Actions to reduce electricity use allow clean hydropower to be used by a nearby utility, resulting in an existing fossil fuel power plant running less often. Therefore, while this plan recommends a focus on other sources of energy, cutting down electricity use affects emissions indirectly.

While MPT staff want to do everything within their power to reduce greenhouse gas emissions from MPT activities, they also must serve our community by providing healthy opportunities to learn, play and grow. To do that, energy must be used to do things like heat buildings and pools, light baseball fields and power vehicles. MPT also needs to take into account the growth of the organization. At the time of this report, two new large buildings are being designed for PDZA, a new Eastside Community Center is being discussed, and the pool at People's Community Center is under construction. To realistically track the carbon footprint, goals are calculated by square foot to account growth.

Baseline: Average of 2010-2014: 2,328 metric tons of carbon dioxide equivalent, or MTCO_{2e} over 550,498 square feet.

Recommendations: Follow recommendations to decrease electricity, natural gas and fuel consumption.