

**Ten Mile Creek Amendment
Appendix 8**

Carbon Footprint Analysis

Updated October 2013

Carbon Footprint Analysis

Montgomery County Bill number 32-07 establishes a goal to stop increasing greenhouse gas emissions by the year 2010, and to reduce emissions to 20 percent of 2005 levels by the year 2050. In order to estimate the greenhouse gas emissions, a model is used that includes embodied energy emissions, building energy emissions, and transportation emissions. This model was run for the existing conditions, the projected buildout of the adopted 2004 master plan and the the proposed master plan amendment, with the following results. The analysis performed for the proposed amendment assumes that the maximum allowed retail square footage would be built both within the plan boundaries and in the Town Center and Cabin Branch. This presents a worst case scenario.

Scenario	Emissions (MTCO ₂ e*)	Per Capita Emissions (MTCO ₂ e/per person)
2010 Baseline	1,740,175	1099
Projected Buildout of the 1994 Plan	5,204,204	1399
Projected Buildout of the Proposed Amendment	6,142,433	1661

*Metric Tons Carbon Dioxide Equivalentents (over the life of the development)

Because this is a new growth area, there is a significant increase over the baseline for both buildout scenarios. The Proposed Amendment for 10 Mile Creek shows an increase in total emissions and per capita emissions over the existing conditions. This increase is due to the potential increase in retail development.