

## The Land Use Stabilization Wedge

John R. Nolon

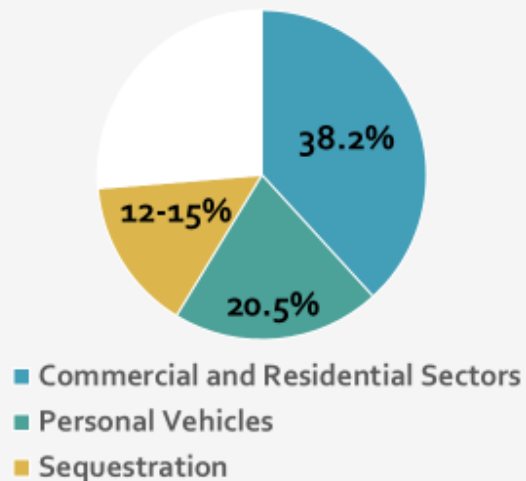
October, 2019

In 2004, Princeton Professor Robert Socolow provided a framework for mitigating climate change through “stabilization wedges,” each capable of preventing at least a billion metric tons of carbon emissions annually using existing technology.<sup>1</sup> We present a variation—the land use stabilization wedge.<sup>2</sup> Whether, in the aggregate, local land use mitigation efforts will prevent a billion or more metric tons of emissions each year depends on how many, and to what extent, local governments embrace them. This, in turn, may depend on how well their role in climate change mitigation is understood and supported by state and federal governments.

### Why Land Use?

- CO<sub>2</sub> accounts for 82% of the US GHG emissions
- Land Use Touches **73.7%** of CO<sub>2</sub>
- Commercial and residential sectors contribute **38.2 %**
- Personal vehicles contribute **20.5%**
- Sequestration reclaims **12-15%**

2015 End-Use Sector Emissions of CO<sub>2</sub>  
from Fossil Fuel Combustion



<sup>1</sup> Stephan Pacala & Robert Socolow, *Stabilization Wedges: Solving the Climate Problem for the Next 50 Years with Current Technologies*, 305 SCI. 968, 970 (2004), <http://science.sciencemag.org/content/305/5686/968>.

<sup>2</sup> See John R. Nolon, *The Land Use Stabilization Wedge Strategy: Shifting Ground to Mitigate Climate Change*, 34 WM. & MARY ENVTL. L. & POL'Y REV. 1 (2009) [hereinafter *Land Use Wedge Strategy*].