

Legras (S.), Cavailhès (J.) (2016) Environmental performance of the urban form, *Regional Science and Urban Economics*, vol. 59, 1-11.

Abstract. Urban polycentricity and periurban areas are increasingly common features of regions worldwide. This paper presents a spatially explicit model to explore the environmental performance of the urban form with respect to two variables, natural or agricultural land consumption, and greenhouse gas emissions from commuting. It introduces different lot sizes based on residential location, which provide a stylized representation of the decrease in lot size with distance, observed in the real world. In doing so, this model emphasizes the role of residential lot size in the environmental consequences of urban development. It points out to the possibility of conflicting environmental objectives in the management of urban development.