

## Seeking Compatibility between Green Infrastructure and Recentralization: The Case of Greater Toronto Area

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**Abstract :** There are two distinct planning approaches attempting to transform the North American suburb so as to reduce its adverse environmental impacts. The first one, the recentralization approach, proposes intensification, multi-functionality and more reliance on public transit and walking. It thus offers an alternative to the prevailing low-density, spatial specialization and automobile dependence of the North American suburb. The second approach concentrates instead on the provision of green infrastructure, which rely on natural systems rather than on highly engineered solutions to deal with the infrastructure needs of suburban areas. There are tensions between these two approaches as recentralization generally overlooks green infrastructure, which can be space consuming (as in the case of water retention systems), and thus conflicts with the intensification goals of recentralization. The research investigates three Canadian planned suburban centres in the Greater Toronto Area, where recentralization is the current planning practice, despite rising awareness of the benefits of green infrastructure. Methods include reviewing the literature on green infrastructure planning, a critical analysis of the Ontario provincial plans for recentralization, surveying residents' preferences regarding alternative suburban development models, and interviewing officials who deal with the local planning of the three centres. The case studies expose the difficulties in creating planned suburban centres that accommodate green infrastructure while adhering to recentralization principles. Until now, planners have been mostly focussed on recentralization at the expense of green infrastructure. In this context, the frequent lack of compatibility between recentralization and the space requirements of green infrastructure explains the limited presence of such infrastructures in planned suburban centres. Finally, while much attention has been given in the planning discourse to the economic and lifestyle benefits of recentralization, much less has been made of the wide range of advantages of green infrastructure, which explains limited public mobilization over the development of green infrastructure networks. The paper will concentrate on ways of combining recentralization with green infrastructure strategies and identify the aspects of the two approaches that are most compatible with each other. The outcome of such blending will marry high density, public-transit oriented developments, which generate walkability and street-level animation, with the presence of green space, naturalized settings and reliance on renewable energy. The paper will advance a planning framework that will fuse green infrastructure with recentralization, thus ensuring the achievement of higher density and reduced reliance on the car along with the provision of critical ecosystem services throughout cities. This will support and enhance the objectives of both green infrastructure and recentralization.

**Keywords :** environmental-based planning, green infrastructure, multi-functionality, recentralization

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