

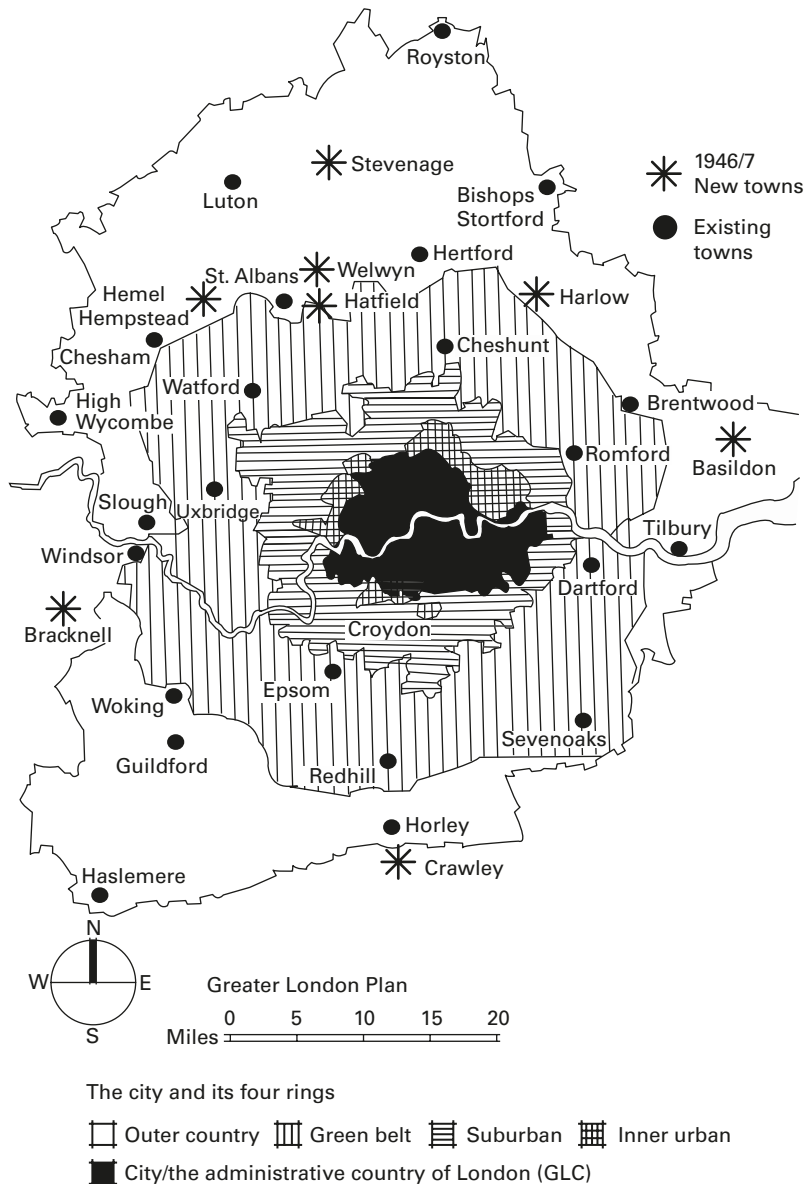
sustainable community proposal for the city of Pullman.² The Pullman regenerative proposal is based upon the above working definitions and related ecological modelling techniques which carefully balance on-site interchanges between the unique human and environmental systems. The amount a development uses renewable human and environmental resources is a useful ‘indicator’ or measurement of the degree to which sustainability is achieved. The primary ecological or biological variables used in this modelling process were **air, water, food and fibre, energy, and human ecology**. These interchanges became important indicators of sustainable development and define inherent qualities and carrying capacity of the city. This approach allows the Pullman community (as well as others) to model, measure, and programme a series of design strategies for sustainable development as well as to monitor the city’s regenerative process over time. The resultant programme and plan was an effort to revitalize the existing community, enhance its sense of place and human, social, economic, and environmental qualities. The critical integrated levels of sustainable, regenerative intervention permeates the qualities of the place at all scales of the hierarchy including the **region, city, neighbourhood, clusters, and dwelling units**. The proposal, its theory, and methodology have created a useful model and method for Pullman (and others) to evaluate the effectiveness of various planning and citizen initiatives as we work towards a sustainable future.

Clustered cells of urbanism: a Tale of Two Cities

Perhaps one of the most challenging issues facing any urban regenerative process, especially in the USA, is to create clustered communities while minimizing auto-driven sprawl. Clustered, transit-oriented developments are critical to sustainable urbanism. The ‘Costs of Sprawl’ are well documented and highly significant in terms of most human, social, economic, and environmental variables (RERC, 1974; Bartuska, 1979; Kelbaugh, 1993). Fortunately, there are a growing number of successful cells of clustered urbanism and successful regenerative strategies. Unfortunately, there are even more examples of wastelands of auto-dominated sprawl.

One well-known past example of successful clustered planning can be found in the 1944 Greater London Plan (Figure 12.1). London’s existing and unique ‘internal’ villages and focused

Figure 12.1
London's 1946 GLC regional
plan with clustered old and new
towns within a greenbelt.



communities of new and old towns surrounding London contained by greenbelts characterized the plan (Figure 12.2) (Forshaw and Abercrombie, 1943; Abercrombie, 1945; Rasmussen, 1983; Hebbert, 1999). This plan and the resultant developments illustrate the nature of a sustainable pattern of small to large clustered communities defined by greenbelts. Unfortunately, there have been regressive changes to these profound planning accomplishments, especially those in the mid 1980s enacted through government policies of deregulation.