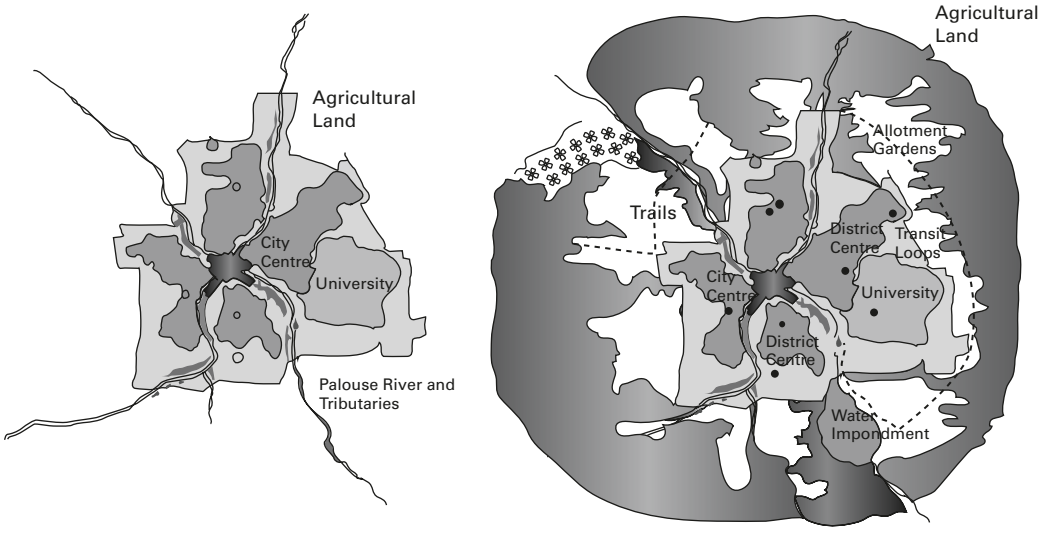

Figure 12.7
Pullman's Regional plans (existing and proposed) with required green belt and water retention lakes to balance its ecological systems of air and water.

district was too small to be sustainable. Adding a green belt and water impoundment system was necessary to balance air exchanges ($O_2 = CO_2$); water cycles ((precipitation = H_2O) use with conservation, impoundment and reuse of grey water); land and its food/fibre processes (gardens, urban forests, and reducing/reusing/recycling of resources); energy use (conservation and use of renewable resources). Figuratively, the increase in size represents the city's 'Ecologic Footprint' (Wackernagel and Rees, 1996). The existing and proposed regional plans are illustrated in Figure 12.7 and critical **regional design strategies** are summarized below and illustrated in Figures 12.8 and 12.9:

1. **Greenbelt and greenways moderate climate extremes and increase recreational opportunities and bio-diversity. These important land banking, green programmes use primarily indigenous landscaping which conserves water, reduces maintenance and celebrates the unique qualities of the region. Family farming is also encouraged in allotment gardens in the greenbelt. A farmer's market fosters local agricultural produce and handicrafts**
2. **Spring water runoff is impounded and retained in balancing lakes to supplement dry seasons' shortages, to reduce spring flooding, to filter eroded soils, and to improve water quality, fishing and recreation potential**
3. **The increased costs of non-renewable energy create a positive shift to conservation and renewable resources. The proposed community's sustainable energy budget comes from 50% regional hydropower, 40% solar and photovoltaics, and 10% wind farms in the greenbelt. Wind farms are currently becoming an important renewable energy industry in the region**

Figure 12.8
Green belt controlling suburban sprawl (Boulder, Colorado, USA).

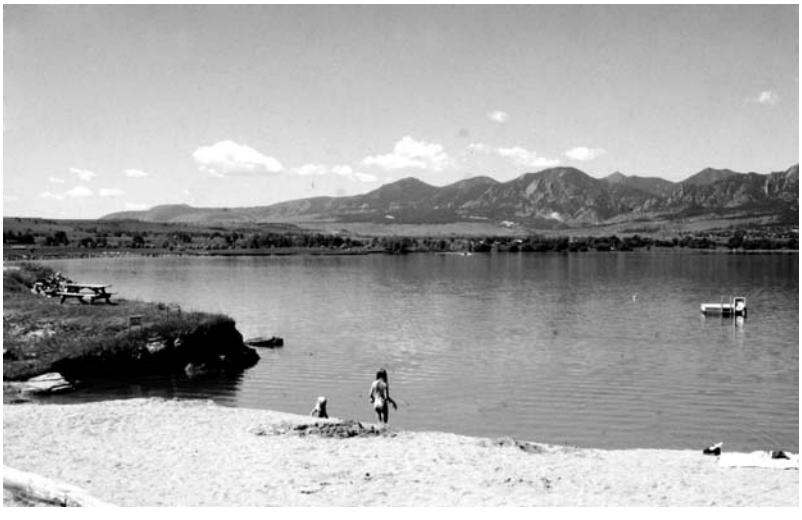

Figure. 12.9
Retention lake/reservoir (Boulder, Colorado, USA).

B City level strategies

City level strategies provide for a nested hierarchy of central places (city, districts, and neighbourhoods) supported by an effective infrastructure emphasizing pedestrianization, bikeways, and public transit. This more efficient infrastructure is expressed in community greenways and the clustering of activities, which increases pedestrian enjoyment and accessibility. The critical