
INTEGRATING GREEN INFRASTRUCTURE INTO THE BUILT ENVIRONMENT

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While there is widespread recognition of the value of green infrastructure in providing recreational and attractive spaces and managing stormwater, the potential multiple and measured benefits of green infrastructure are less recognized. Quantifiable benefits include management of air pollution particularly in urban canyons, treatment of stormwater pollutants including sediment, VOCs and heavy metals, treatment of grey and black water, carbon sequestration, temperature and humidity moderation, increased biodiversity, provision of food, soil stabilization and increased property value. Non-quantifiable benefits include benefits to human mental health and increased community values and local pride. Findings from recent research into green infrastructure from around the world which identify the various quantifiable and non-quantifiable benefits from green infrastructure to both protect the environment and to improve and enhance human health will be presented. The applicability of those findings to Auckland will be discussed. The extent to which green infrastructure could be incorporated into existing or new buildings and infrastructure will also be addressed. Standards, safety and structural concerns must be considered as well as potential for problems to arise. Finally a framework for integrating and optimizing green infrastructure within a city will be presented, recognizing the timeframe required to address current barriers and to incorporate green infrastructure into building and infrastructure stock.

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