

QUALITY LIVING

We engage in active research and development work to create a comfortable and pleasant living environment for all ages.

Active, Beautiful, Clean (ABC) Project

Driven by the vision of sparkling rivers with landscaped banks, kayakers paddling leisurely in the streams with clean waterways flowing into the picturesque lakes, Singapore has undertaken the challenge of transforming into a City of Gardens and Water.

Over the years, Singapore has gradually developed a pervasive network of about 8,000km of waterways and 17 reservoirs for our water supply. To realise the full potential of this water infrastructure, PUB has launched the Active, Beautiful, Clean Waters (ABC Waters) Programme in 2006. It is a strategic initiative to improve the quality of water and life by harnessing the full potential of our water bodies.

By integrating the drains, canals and reservoirs with the surrounding environment in a holistic way, the ABC Waters Programme aims to create beautiful and clean streams, rivers, and lakes with postcard-pretty community spaces for all to enjoy.



NATURE & WELL-BEING

Multi-disciplinary research on the well-being effects of urban nature has enabled Singapore to advance the implementation of nature-based solutions for enhanced public health and well-being.

Effects of Landscapes on Mental Well-being

While it is widely acknowledged that exposure to natural environments has beneficial influence on people's mental health and well-being, little is known about how different landscape designs affect these outcomes. This collaborative research study between NParks and National University of Singapore (NUS) was conceived to fill the information gap, with the aim of paving the way towards the evidence-based design of landscapes that promote well-being.

The study represents one of the few comprehensive outdoor experimental studies that employ a multi-modal electroencephalography (EEG) and Functional Near-Infrared Spectroscopy (fNIRS) system for the objective assessment of the well-being impacts of green space exposure. The sites investigated included an urban space with minimal greenery and several landscape scenes with varying contemplative scores, measured using a validated landscape assessment tool, the Contemplative Landscape Model (CLM).



In-situ collection of brain activity data, from a participant exposed to a landscape with high contemplative quality.

The results demonstrated that landscapes with higher CLM scores are associated with greater positive changes in mental well-being. Based on the research findings, NParks has developed a technical guide titled "Design Guidelines for Contemplative Landscapes", which will help landscape professionals design and implement landscapes that enhance mental well-being.



Design Guidelines for Contemplative Landscapes.



Designers may increase the CLM score of a landscape by incorporating landform to lead visitors on a journey of experiences. In this example, pathways are weaved between mounds to partially obscure the viewer's line of sight, creating a sense of mystery.



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