

# Park Connectors

Singapore



*LIVING LARGE  
IN SMALL SPACES*



The Park Connector Network is an innovative programme that allows busy Singaporeans to enjoy the outdoors more. Developed by the National Parks Board in cooperation with other government agencies, it involves the development of a green matrix of paths connecting parks and nature areas from underused spaces along roads, canals and railway corridors. The popular and relatively low-cost solution has brought recreation and nature much closer to people's doorsteps, and continues to evolve in interesting ways. In land-scarce Singapore, these spaces promote diverse benefits well out of proportion to their size – from healthier lifestyles and sustainable transport to social interaction and biodiversity.

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- 01 Drainage reserves were originally set aside for canal maintenance.
- 02 Canal banks often lacked shade, amenities, and natural or aesthetic value.

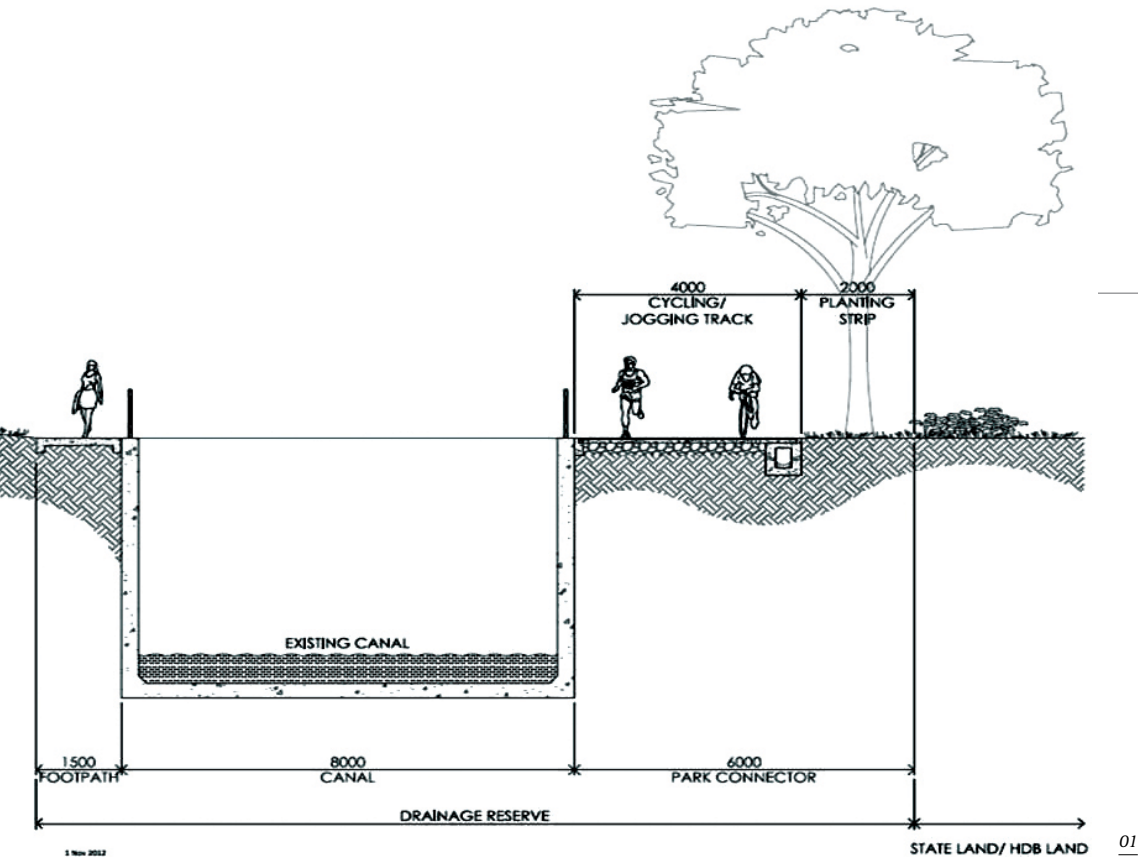
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## The Challenge

From the 1960s, Singapore began to systematically plant trees, shrubs, hedges and creepers across the city – along roads, bridges, car parks, fences and retaining walls. Parks were also developed or safeguarded for this purpose in city plans.

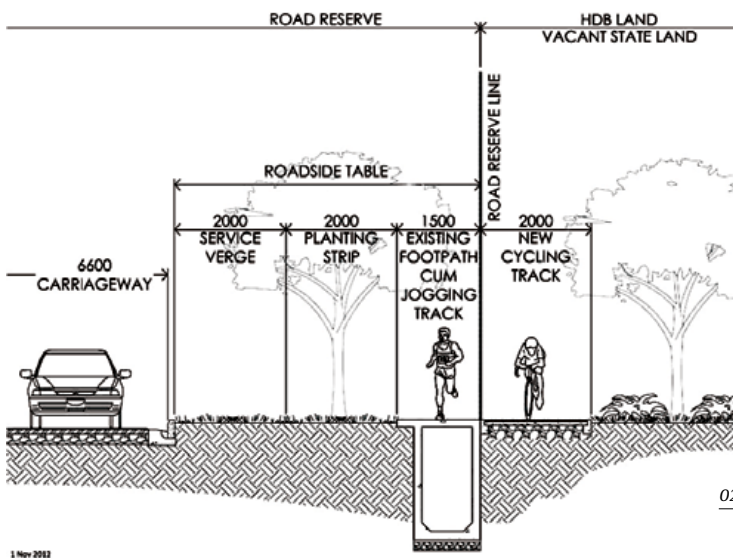
Amidst rapid industrialisation and urbanisation, government leaders anticipated that these efforts would improve liveability and help attract foreign investments by differentiating the city-state as a clean and green oasis. These early initiatives earned Singapore its reputation as a Garden City.

Over the last half century, Singapore sustained rapid economic and urban growth, while its population also grew from 1.6 million in 1960 to three million in 1990 and 5.3 million today. As a result, the built environment is increasingly dense, and people have to cope with the stress of fast-paced, big-city life. In this context, the National Parks Board sought ways to keep the city attractive and liveable by bringing nature closer to people.



## The Solution

The Park Connector concept exploits linear spaces that are too narrow for other use, by converting these into landscaped footpaths and bicycle lanes that link parks and nature areas. These marginal spaces include road and drainage reserves, and land beneath elevated railway tracks. Typical connectors along waterways, e.g. big drains and canals, are located within six-metre-wide drainage reserves, comprising a four-metre-wide jogging and cycling track and a two-metre-wide planting strip. Roadside Park Connector tracks consist of a 3.5-metre-wide jogging and cycling track, sharing with the 1.5-metre-wide roadside covered drain. These connectors are shaded by trees in the two-metre-wide planting strip.



First-generation connectors were basic tree-lined trails, simply furnished with benches and bins. Today, where there is space, especially in adjoining developments; fitness equipment, small playgrounds and simple



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- 01 Waterway Park Connector.
- 02 Roadside Park Connector.
- 03 The North Eastern Riverine Loop is the fourth and newest of the seven planned loops built.
- 04 Preschool children with their teacher on the Punggol Park Connector.

shelters are provided for community gatherings. Fast-growing, preferably native, trees and shrubs are planted along connectors to attract birds and other wildlife. In linking nature areas, these green corridors support biodiversity by helping wildlife access more food sources and mates. Upon maturity, the densely-planted trees form a continuous canopy that shades the foot and bike paths below.

Besides offering pleasant recreational spaces, connectors help Singaporeans – who mostly live in dense urban communities – access parks and nature areas more easily. The Park Connector Network proposal was adopted by the Garden City Action Committee in 1991. A network of over 300 kilometres was initially identified for development, to be phased in over 20 to 30 years. Where possible, routes providing a better recreational experience and more meaningful nature conservation connections are chosen. User feedback also indicates that people prefer routes along waterways. The island-wide network includes seven regional loops of between 20 to 40 kilometres each. Each loop adopts the character of the neighbourhoods and parks it links.

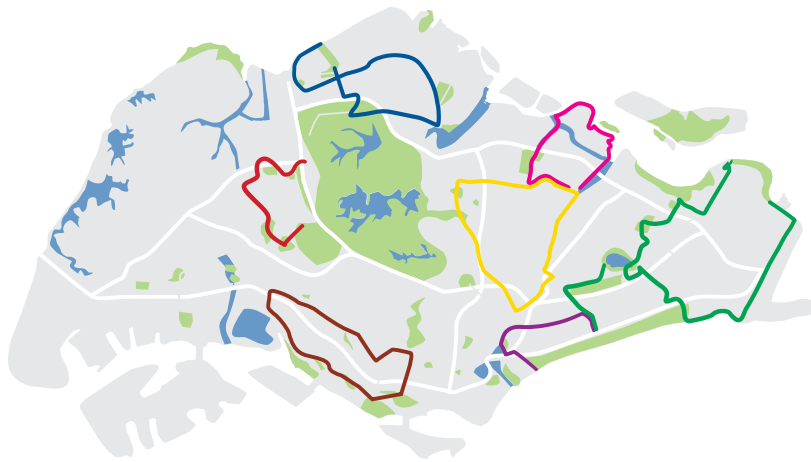
In terms of implementation, the biggest challenge was, and still is, finding enough space. With pavements, drainage reserves,

utility service pipes and roadside greenery squeezed into the narrow spaces beside roads, it is often difficult to imagine where the additional six-metre width for the Park Connector would come from. Where there are short stretches with less than ideal connections, design and management solutions are considered, such as barriers to slow down cyclists or signs asking them to dismount and push their bikes. It is not uncommon, after months of planning effort, for some Park Connector stretches to be abandoned due to unsatisfactory connections or conditions that turned out to be unsuitable for recreation. Alternative stretches are then explored.

Park Connectors use or visually ‘borrow’ greenery from adjoining land as much as possible to enhance the recreational experience, achieve better conservation results and create a sense of spaciousness. An example of such borrowing is when Park Connectors adjoin public housing developments, which are not fenced up. Close cooperation and negotiation with other government agencies and private land owners is an on-going and time-consuming part of the Park Connector planning process. Fortunately, it is not unusual for Park Connectors to be laid within adjoining properties, with the consent of land owners.



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TRY IT NOW

- Eastern Coastal Loop
- North Eastern Riverine Loop
- Western Adventure Loop
- Northern Explorer Loop

COMING SOON

- Kallang-Serangoon Loop
- Siglap-Kallang Basin Loop
- Southern Ridges Loop

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## The Outcome

National Parks Board surveys show that the proportion of people visiting the Park Connector Network has grown from 1% in 2006 to 26% in 2011. An earlier survey also revealed an increase in park visits in 2008, a year after the completion of the first Park Connector regional loop, the Eastern Coastal Loop. This suggests that, besides being appealing in their own right, Park Connectors may be encouraging more people to visit other parks in general.

Surveys indicate that people use Park Connectors mainly for exercising, such as cycling, jogging and rollerblading. People living nearby have also started to use connectors for social gatherings and even daily commuting. Given this growing popularity, Singapore's

- 01 Map of the Park Connector Network.
- 02 Cyclists along the Eastern Coastal Loop.
- 03 Bioswales along the North Eastern Riverine Loop filter rainwater, and provide food and shelter for wildlife.





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public housing agency and even private property developers have started to build tracks to let their residents access the Park Connector Network. The National Parks Board is also in discussions with agencies like the Land Transport Authority to integrate intra-town cycling path networks with Park Connectors where possible, and thus offer more options for commuting as well as recreational cyclists.

The Park Connector Network has also benefitted wildlife. Surveys of various Park Connectors have turned up a total of 90 species of birds, including the White-throated Kingfisher, Grey Heron and Scaly Breasted Munia; 57 species of butterflies like the Common Mime; and 22 species of dragonflies. Some locally uncommon species that usually reside in forests have been sighted near trails bordering nature parks and reserves.

More than 200 kilometres of Park Connectors have now been built, with 300 kilometres to be completed by 2015. The success of the Park Connector Network has precipitated plans to develop exciting new projects, like a 150-kilometre-long Round Island Route along the coast. This will take Singapore another step closer to its vision of becoming a City in a Garden



As CEO of the National Parks Board (NParks), **Poon Hong Yuen** is leading efforts to make Singapore a City in a Garden, with pervasive greenery, rich biodiversity and a strong sense of community ownership. Before joining NParks, Hong Yuen held a number of appointments across the Public Service including the Ministry of Finance, the Economic Development Board and the Infocomm Development Authority. He also worked as a venture capitalist covering markets in Shanghai and Silicon Valley. Hong Yuen graduated with a Bachelor in Electronic Engineering from the Imperial College of Science, Technology and Medicine, UK, in 1993.

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