Bishan - Ang Mo Kio Park and Kallang River

Singapore

Bishan Park is one of Singapore's most popular parks in the heartlands of Singapore. As part of a much-needed park upgrade and plans to improve the capacity of the Kallang channel along the edge of the park, works were carried out simultaneously to transform the utilitarian concrete channel into a naturalised river, creating new spaces for the community to enjoy. This project is part of the Active, Beautiful, Clean Waters (ABC Waters) Programme, a long-term initiative to transform the country's water bodies beyond their functions of drainage and water supply, into vibrant, new spaces for community bonding and recreation.

At Bishan Park, a 2.7 km long straight concrete drainage channel has been restored into a sinuous, natural river 3.2 km long, that meanders through the park. Sixty-two hectares of park space has been tastefully redesigned to accommodate the dynamic process of a river system which includes fluctuating water levels, while providing maximum benefit for park users. Three playgrounds, restaurants, a new look out point constructed using the recycled walls of the old concrete channel, and plenty of open green spaces complement the natural wonder of an ecologically restored river in the heartlands of the city. This is a place to take your shoes off, and get closer to water and nature!

Awards: WAF Landscape of the Year Award 2012, Excellence on the Waterfront Honor Award 2012
Client: Public Utilities Board & National Parks Board
Engineers: CH2M Hill, Geitz & Partner
Expertise: park, community participation, river restoration water sensitive urban design
Design: 2007 - 2010
Construction: 2009-2012
Area: central catchment 140 km²
62 ha / 155 acres
GPS: 1°21'49" N / 103°50'30" E

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Expertise: park, community participation, river restoration water sensitive urban design
Design: 2007 - 2010
Construction: 2009-2012
Fee: 3,090,000 € Bishan Park
140,000 € Masterplan
83,000 € Design Guidelines
Project Budget: 39,000,000€ Bishan Park
Area: central catchment 140 km²
62 ha / 155 acres
GPS: 1°21'49" N / 103°50'30" E


before


ATELIER DREISEITL
after


ATELIER DREISEITL

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ATELIER DREISEITL


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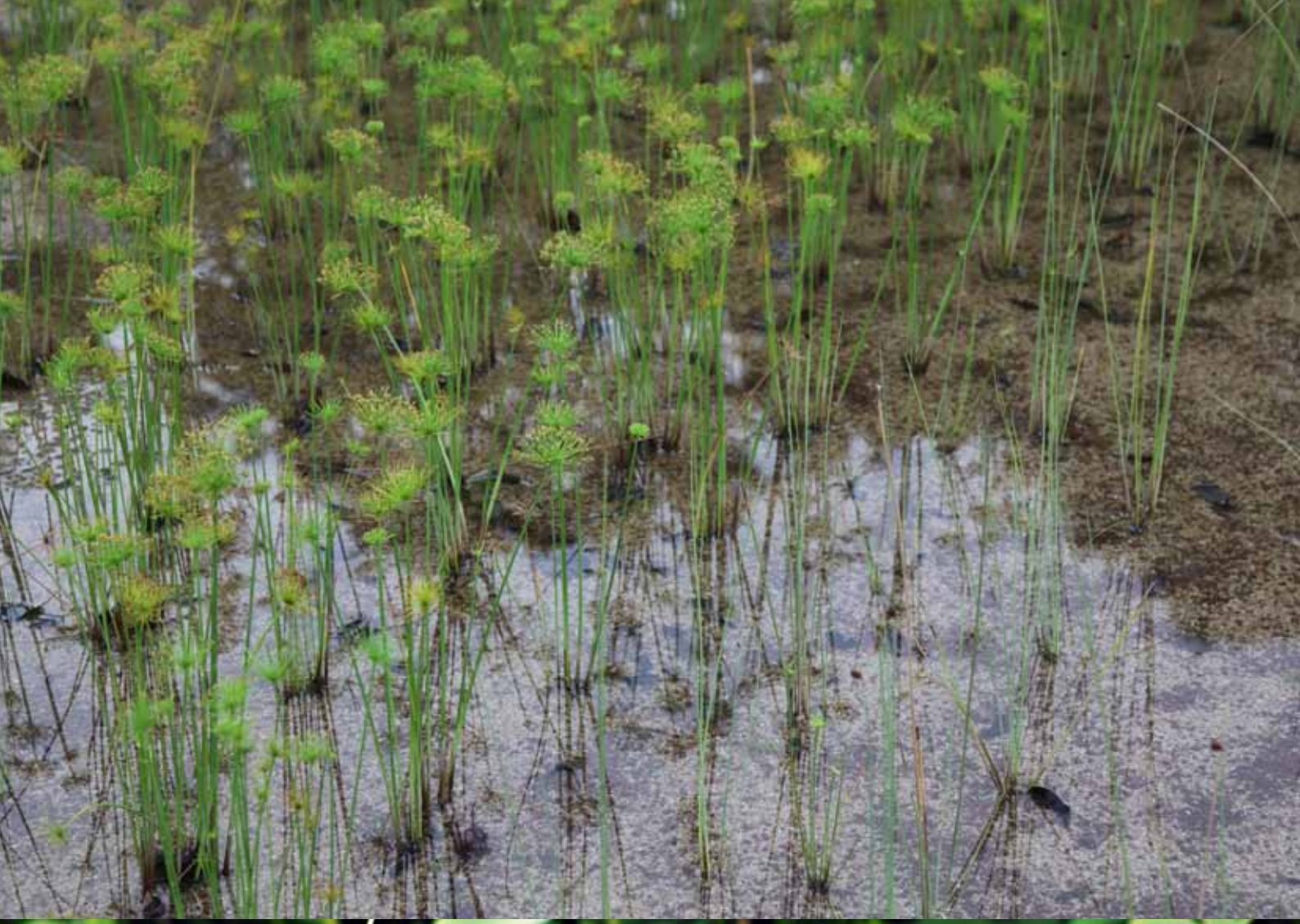
INPUT:
uncleansed
water
NATURAL CLEANSING PROCESSES
OUTPUT:
cleansed
water
Interactive Holistic Benefits
ATELIER DREISEITL



ATELIER DREISEITL

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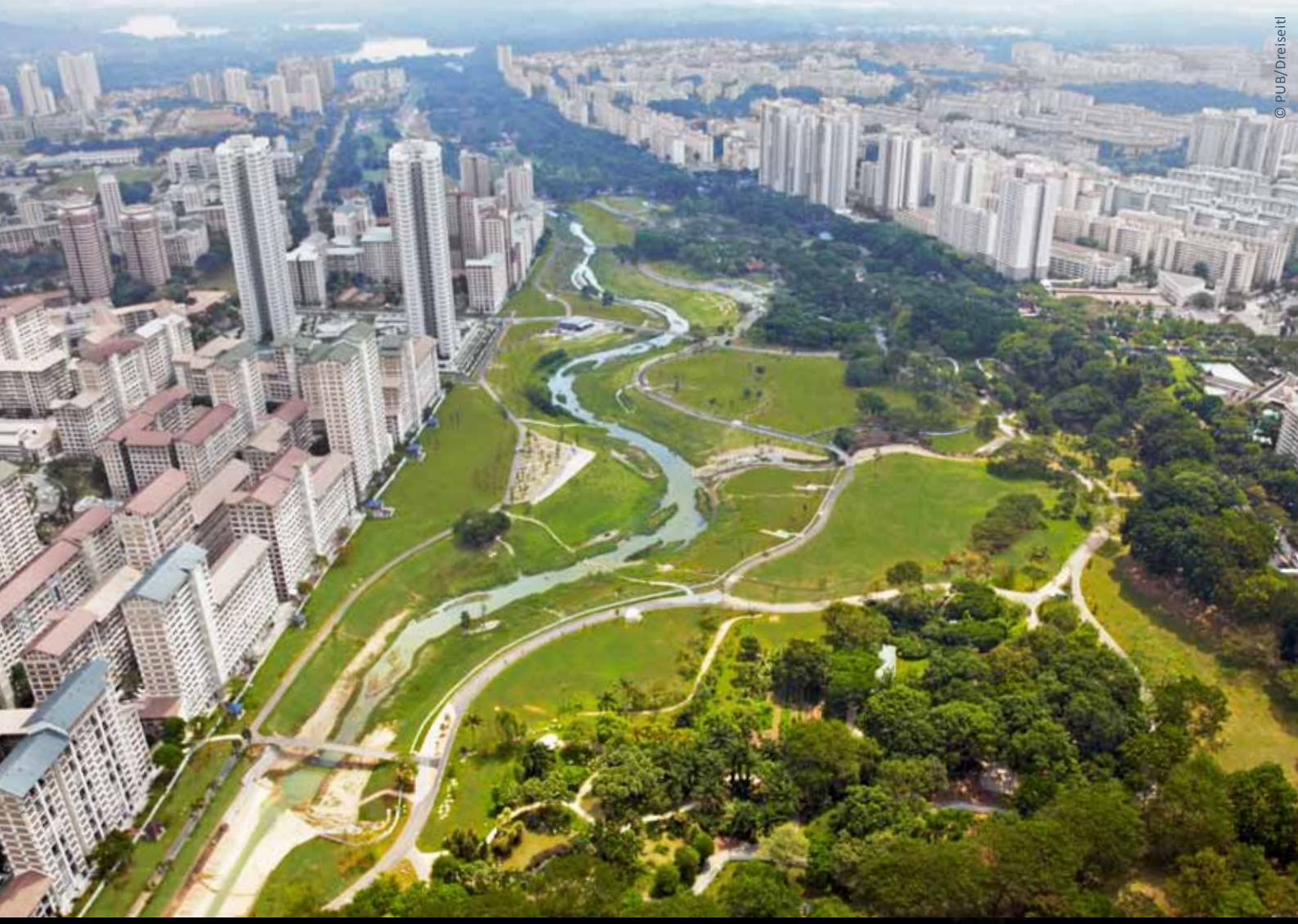

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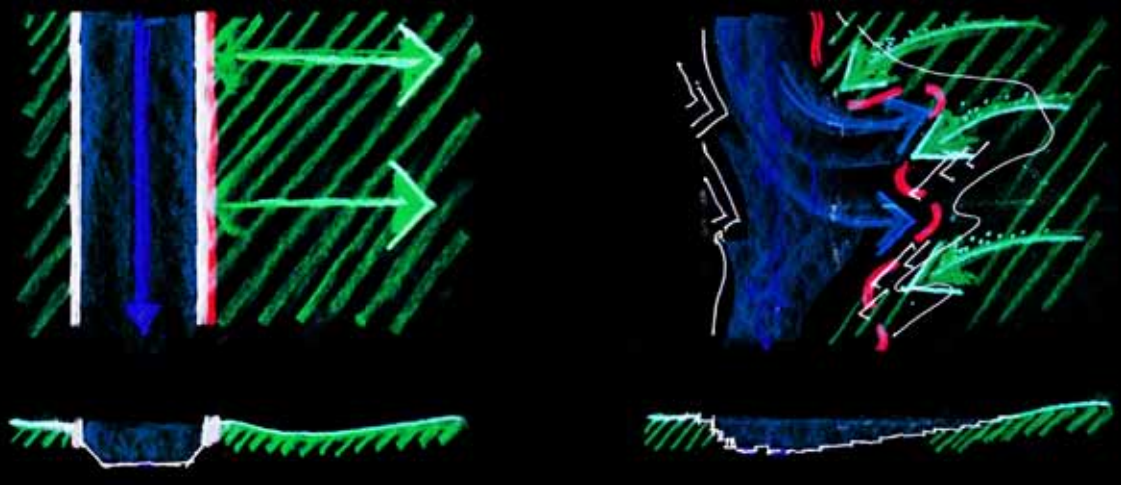
MORE RIVER
MORE PARK

BEFORE

under capacity
no ecology
dangerous
no community benefit

40% increase conveyance capacity
30% increase in biodiversity
7 bioengineering techniques
recreational & community benefit

AFTER



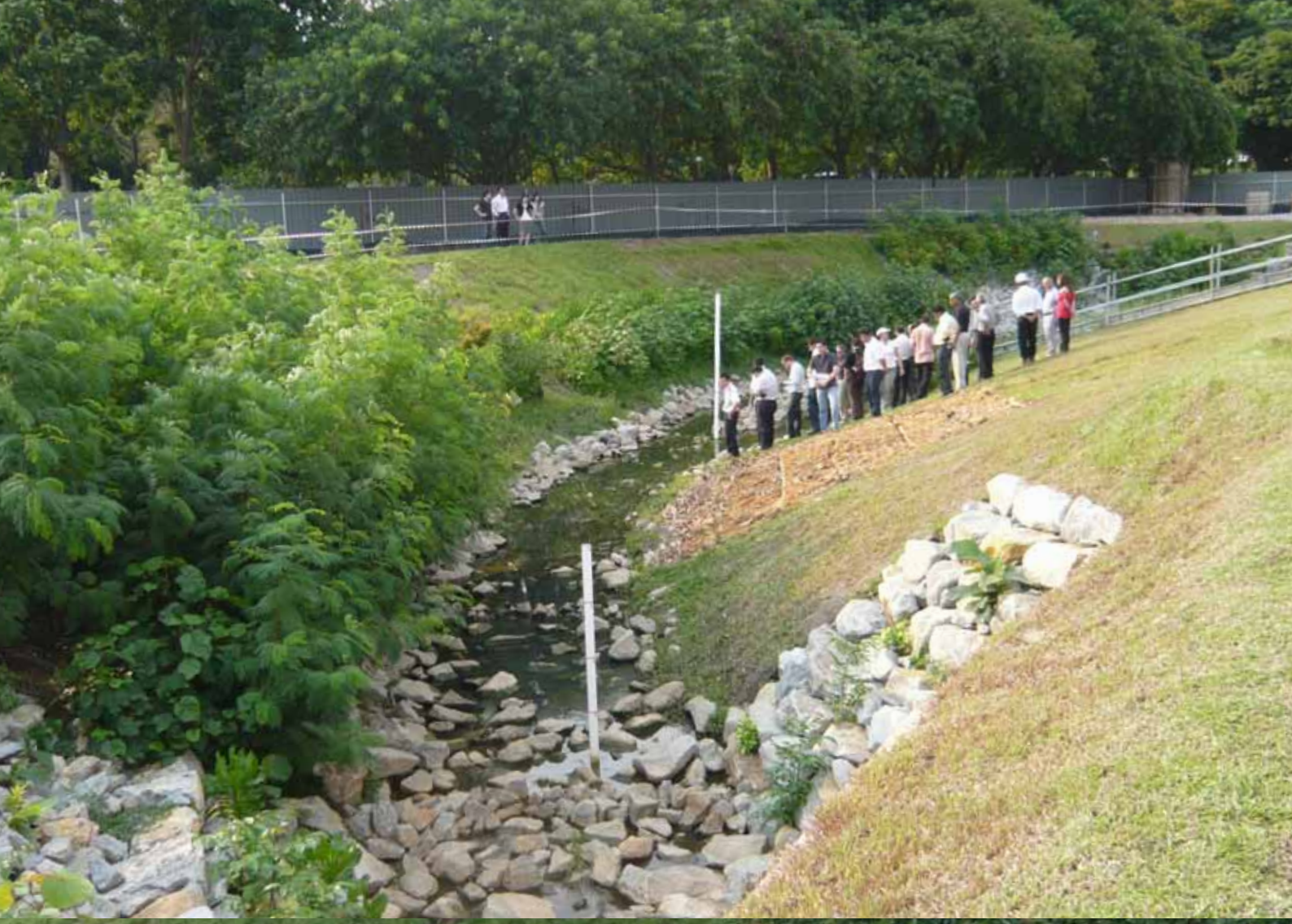
concrete drainage channel
2.7 km length

bioengineered river
3.2 km length

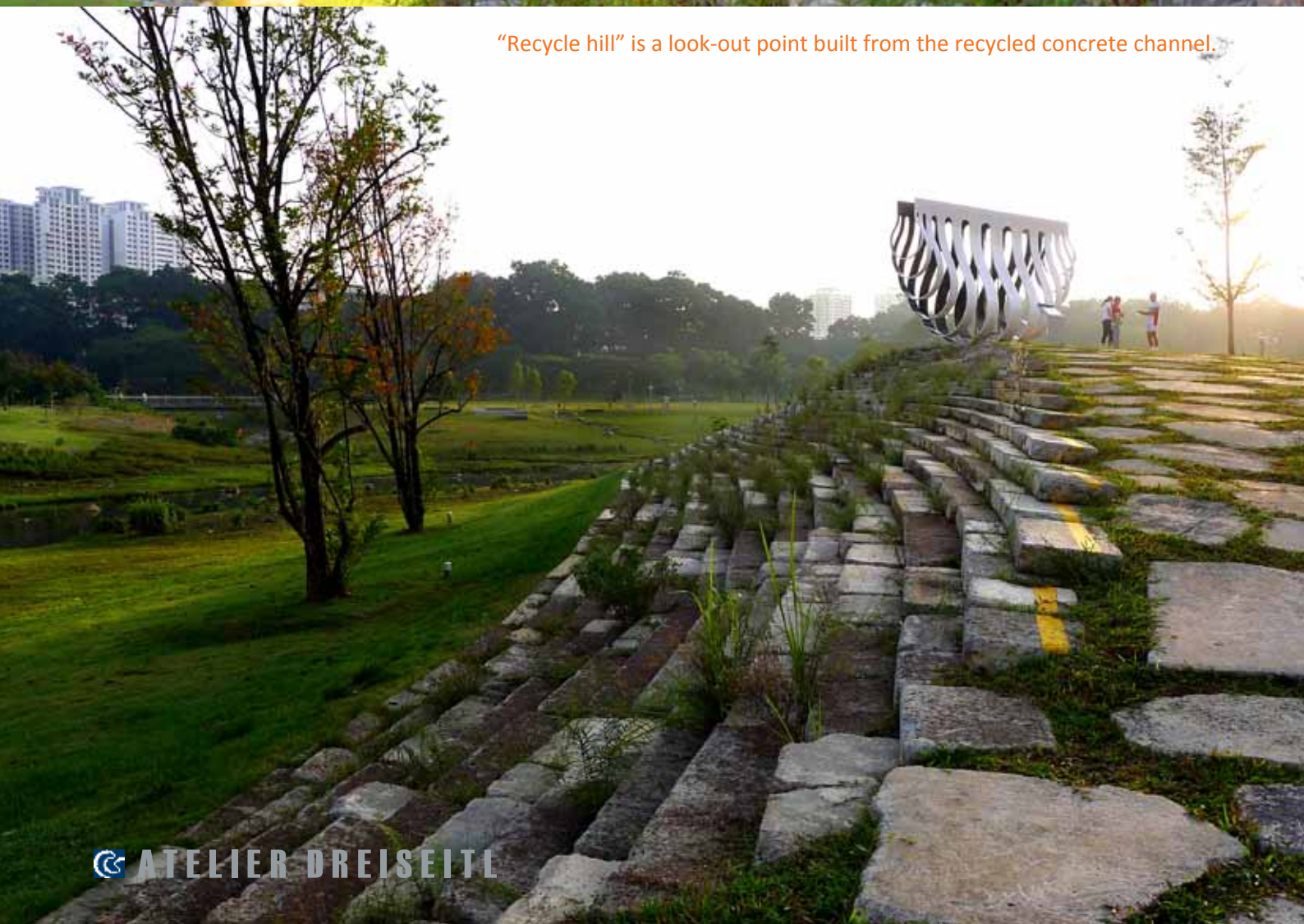
ATELIER DREISEITL

ATELIER DREISEITL

ATELIER BREISEITL



For the first time, people can get up close to Kallang River. “Recycle hill” is in the background, a look-out point built from the old concrete channel.



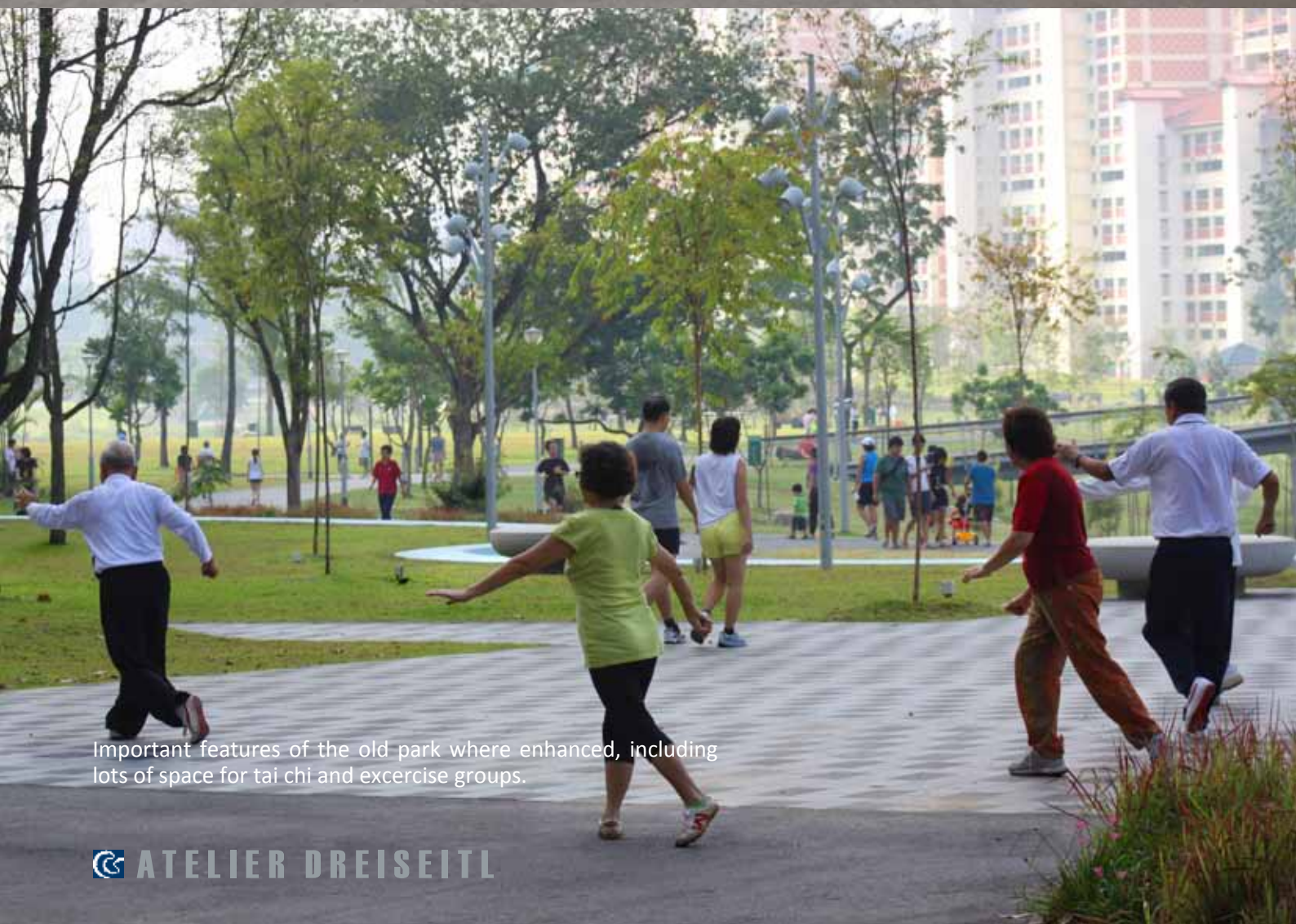
"Recycle hill" is a look-out point built from the recycled concrete channel.

ATELIER DREISEITL


Friends of Kallang River@Bishan Park(FOBP)
We strive for 3E
Enjoy
Encourage
Educate

ATELIER DREISEITL

3 new playgrounds create fun space for kids to test their boundaries in a funky, natural environment.



Important features of the old park where enhanced, including lots of space for tai chi and excercise groups.

ATELIER DREISEITL

Biodiversity has already increased by 30%. 66 species of wildflower, 59 species of birds and 22 species of dragonfly have been identified in Bishan Park; not bad for a city park.

ATELIER DREISEITL


ATELIER DREISEITL


Existing HDB Building


ATELIER DREISEITL

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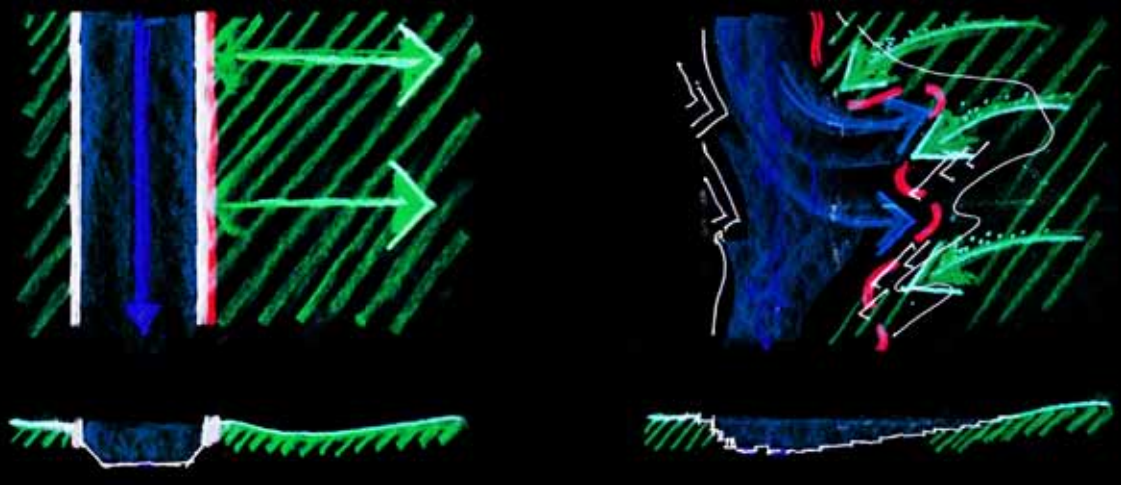

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2.7 km length

bioengineered river
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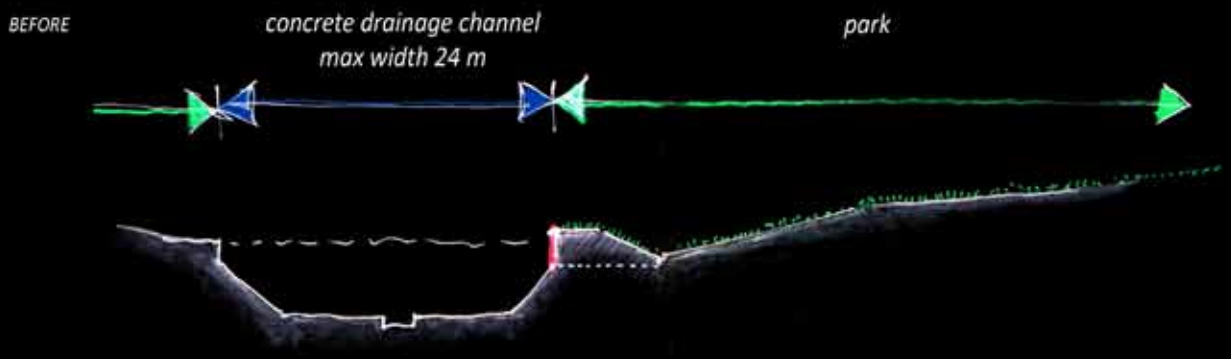
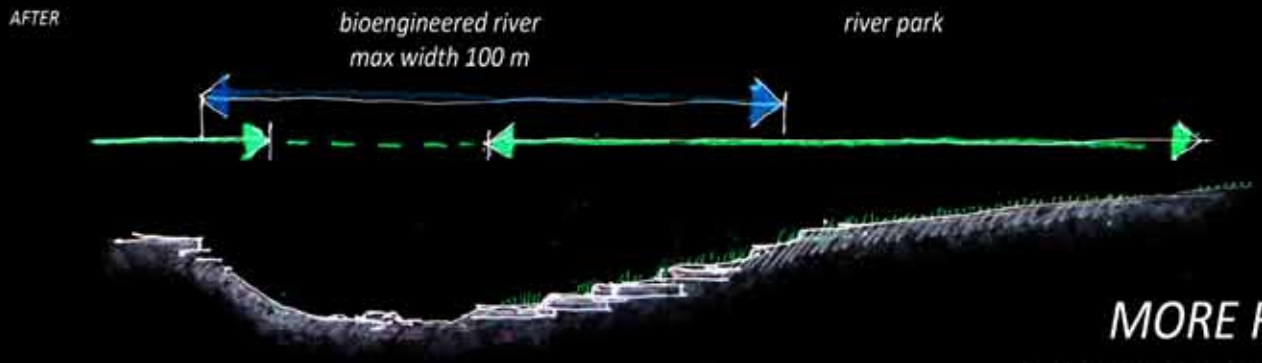
ATELIER DREISEITL





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MORE PARK

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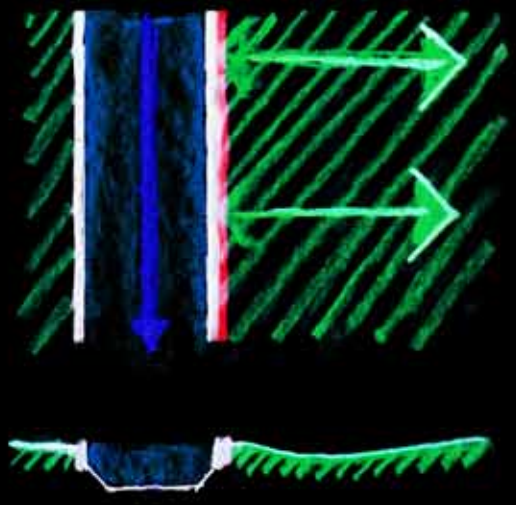

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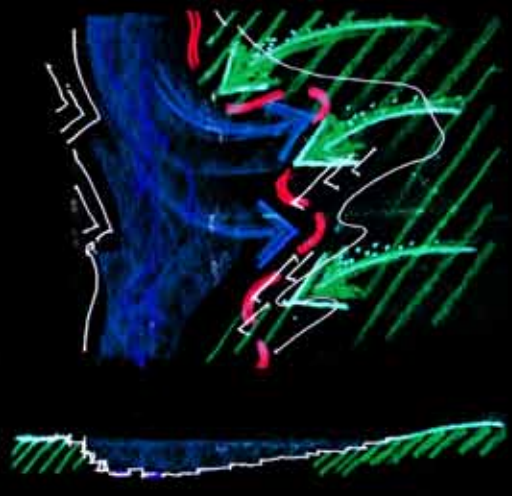
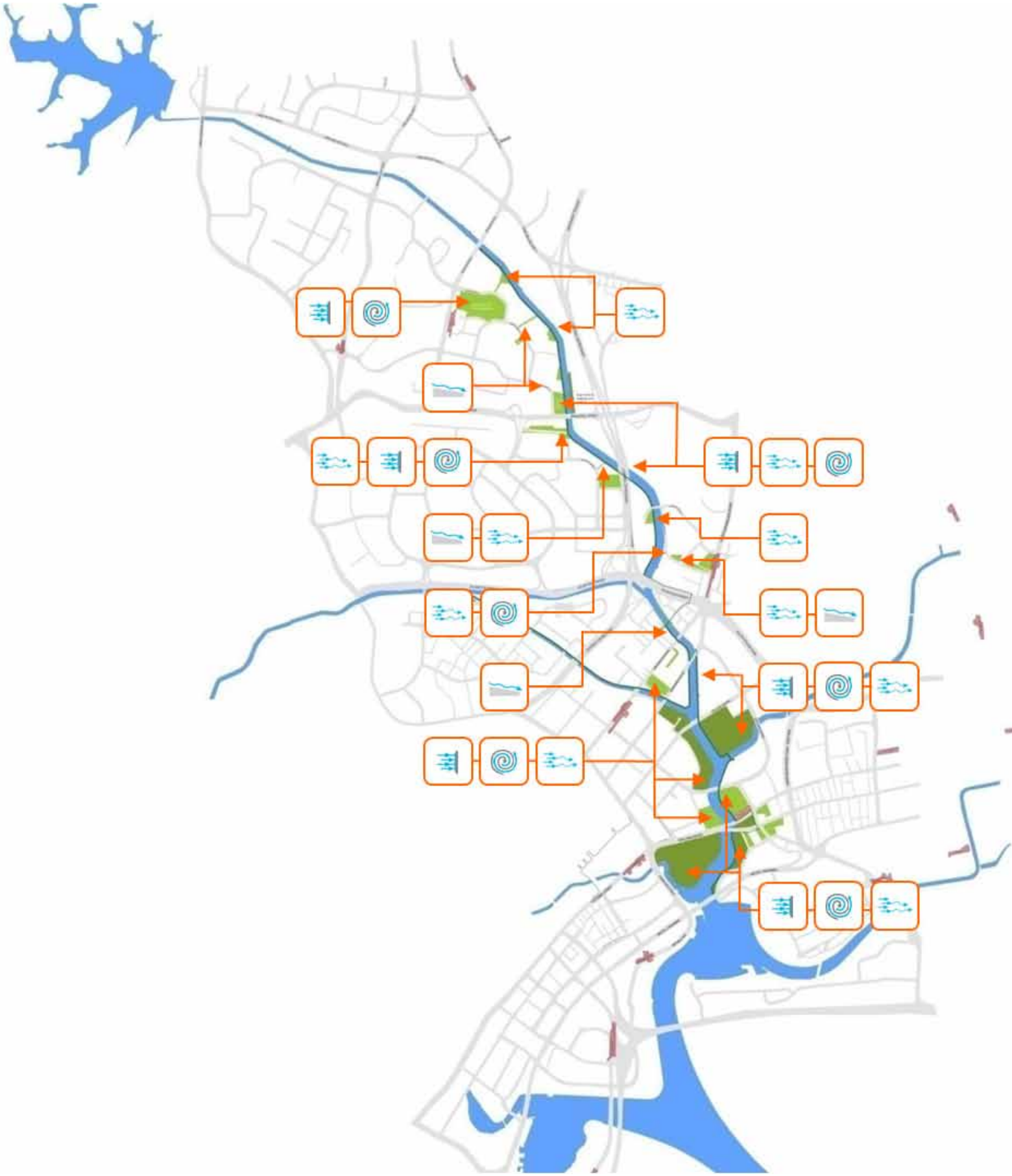
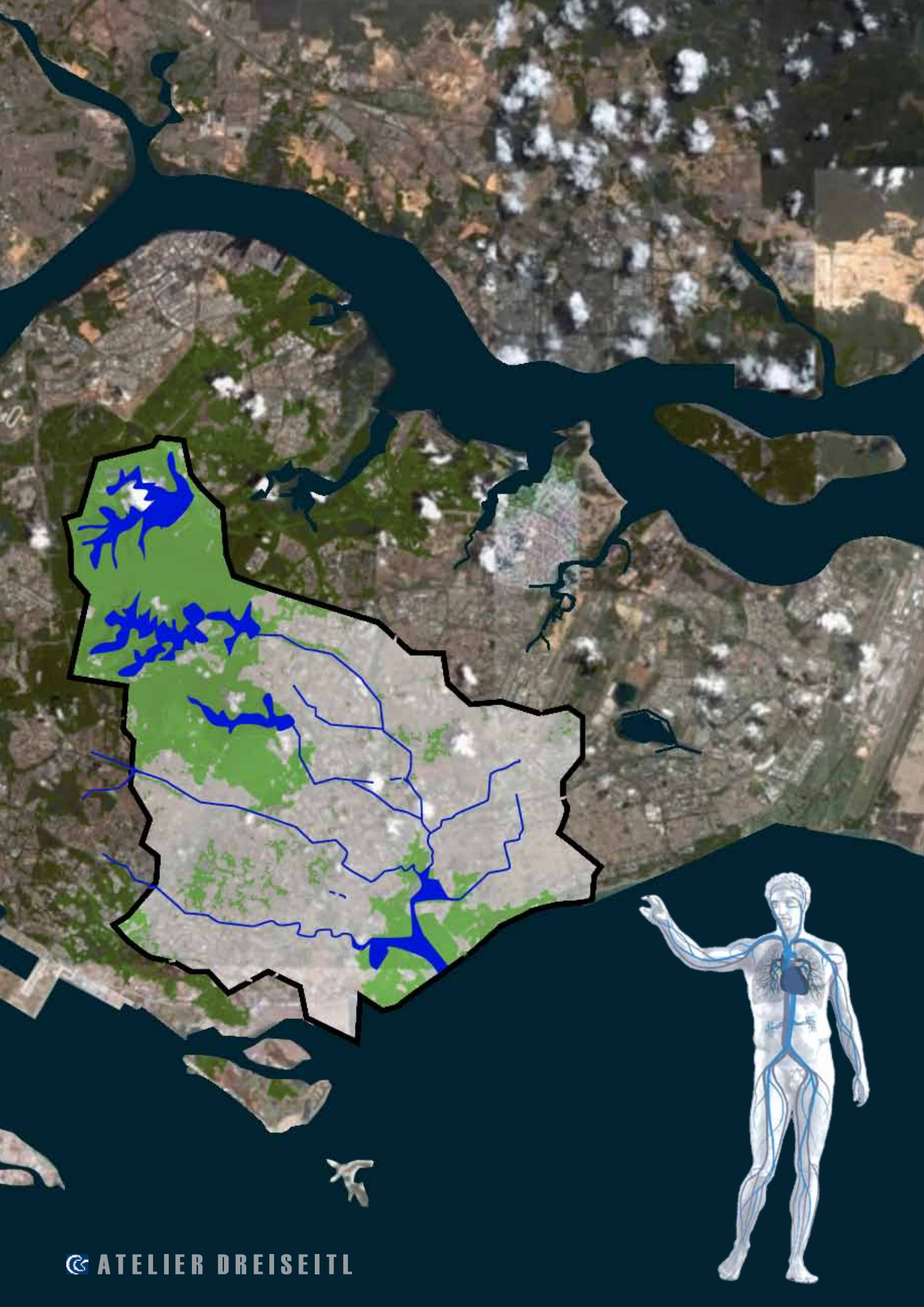


bioengineered river
3.2 km length

ATELIER DREISEITL





ATELIER DREISEITL

Central Watershed Masterplan

Singapore

For the city state of Singapore, water autonomy is a top priority and the driver behind an island wide urban water management strategy. A tropical rainforest climate provides plenty of water, however this falls in fierce downpours which create a challenging situation in terms of flood management and water quality. Singapore has no water source. The city is also densely inhabited, the quality of urban space directly effects quality of life. Engineering of the past has left a legacy of concrete. These hard engineering systems typically create physical barriers disruptive to local communities and ecological wastelands, depriving citizens of recreational space and wasting much needed fresh water.

Atelier Dreiseitl collaborated with Singapore's Public Utilities Board to create a pragmatic new vision for water sensitive urban design in the tropics. Water management extends to streetscapes and the puplic realm, where a rich new blue-green design language creates fresh, comfortable city spaces which are part of the city's ecological infrastructure. Extensive community consultation ensures that interventions are socially relevant. The ABC Central Watershed Urban Masterplan is a strategy for transforming Singapore into a resource rich and highly livable city.

The ABC Central Watershed Urban Masterplan provides hope and inspiration for the world that we really can turn the corner and transform our concrete jungle input-junky metropolises into smart, liveable cities.

Client: Public Utilities Board & National Parks Board

Engineers: CH2MHill, Geitz und Partner

Expertise: urban catchment masterplan, water sensitive urban design guidelines, community particiaption, pilot projects

Design: 2006 - ongoing

Construction: since 2009

Area: Central Catchment 140 km²

GPS: 1°21'49" N / 103°50'30" E