



# MANDAI RAINFOREST RESORT BY BANYAN TREE

SINGAPORE,  
HOSPITALITY  
4.6HA, 314 ROOMS, 24 TREE HOUSES  
ARCHITECTURE, INTERIOR & LANDSCAPE DESIGN  
2017-2025

Opened in 2025, the Mandai Rainforest Resort by Banyan Tree marks an exciting development in Singapore's hospitality landscape and a key addition to the city-state's wildlife and nature destination, the Mandai Wildlife Reserve. WOW was appointed by Mandai Wildlife Group – the owner and developer of the resort – as the lead consultant, architect and interior designer following a design competition.

Located adjacent to a nature reserve, our winning design proposed a regenerative resort that sits sensitively and harmoniously with its natural surroundings.

The 4.6-hectare Mandai Rainforest Resort by Banyan Tree occupies areas previously used for back-of-house facilities, minimizing disturbance to the surrounding environment. Its building mass is carefully integrated into the existing site, and further enhanced through the replanting of native tree species. Inspired by the Liana vine, the branching building form meanders through the landscape, designed with no fixed façade, blending architecture and nature to deepen guests' connection to the rainforest and offer a truly immersive and conscious stay.

The resort's 338 rooms—including 24 elevated treehouses—are all envisioned for open-air living, maximizing natural ventilation and comfort through passive design. This is Singapore's first super-low energy resort, demonstrating a new approach to sustainable tropical design .

The resort achieves a 40% reduction in energy consumption through an integrated environmental strategy that includes naturally ventilated corridors and lobbies, mixed-mode air conditioning in guest rooms, solar panel integration, and the use of Passive Displacement Ventilation (PDV) in the Treehouses—where chilled air circulates silently and efficiently without the need for conventional compressors.

This project sets a new precedent for biophilic, regenerative design—a resort that blurs boundaries between built form and nature, cultivating appreciation and stewardship of the natural world.



## ARCHITECTURE & LANDSCAPE

Our concept is sympathetic to the existing vegetation, tree lines, as well as natural topography.

Wherever possible, the resort is elevated several meters above the ground to minimise footprint and preserve the site's existing forest floor and vegetation. It is also designed to be unobtrusive, sitting below the upper canopy layer of the surrounding trees.

The branching form of the 4-5 storey main guest wings weaves through the lush greenery, whilst the treehouses shaped like seed pods, each with a private patio, are nestled between existing trees.

The resort not only blends into its surroundings but also enhances it – trees of conservation and ecological value on the site were retained along with greening efforts with the planting of native species. Furthermore, integrated plantings on the rooftop and facade expand green surface area and enhance the resort's overall biodiversity.

## INTERIOR DESIGN

The interior design continues the journey of adventure and discovery through the layers of the rainforest.

The interior spaces and furnishing bring together comfort and coexistence with the outdoors and tropical climate. The rooms are designed to be comfortable shelters where guests can be close to nature. Verandas and patios are accessible by sliding doors, blending the indoors and outdoors with material continuity from interior to exterior.

The bathroom is designed to fill the shower area with natural light, while sliding panels open the bathroom to the bedroom area for a spacious and open feel.

Collaborations with local artists and artisans for wall murals and furniture tell the story of the rainforest ecology as well as celebrate the flora and fauna native to Singapore.



## MULTI-STAKEHOLDER COLLABORATION FOR A CONSCIOUS STAY

Owned by Mandai Wildlife Group and operated by the homegrown Banyan Tree Group, the resort is rooted in shared values of creating meaningful connections with nature and inspiring positive change for the world.

As lead design architect, WOW Architects worked in close collaboration with a multidisciplinary team of specialist consultants to ensure sustainability in planning, design, and delivery of the resort. These included Atelier Ten (Environmental Sustainability Design), Arup (Mechanical & Electrical), Bo Steiber (Lighting), Ramboll Environ (Ecology), Ramboll Studio Dreiseitl (Landscape Architecture), Warner Wong Design (Interior Design), and Web Structures (Structural Engineering).

In addition, a dedicated working group of academics and professionals provided critical guidance across key areas such as landscape, education, sustainability, ecology, horticulture, and acoustics.

WOW Architects envisioned a resort in harmony with its natural surroundings, embracing regenerative design principles. The resulting design blurs the boundaries between built form and nature, reflecting an ambition to enhance the landscape while offering guests a truly immersive and conscious stay in nature.



A multi disciplinary team of Singapore-based consultants led by WOW Architects

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#### WOW ARCHITECTS | WARNER WONG DESIGN

WOW is an international consultancy offering professional design services in architecture, interior design, landscape design and masterplanning. Our mission is to create spaces of extraordinary sensory experience, rooted in culture, memory and place. Our core competency lies in the areas of hospitality, residential and commercial design with strong lifestyle-driven concepts.

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