Cuihu National Urban Wetland Park

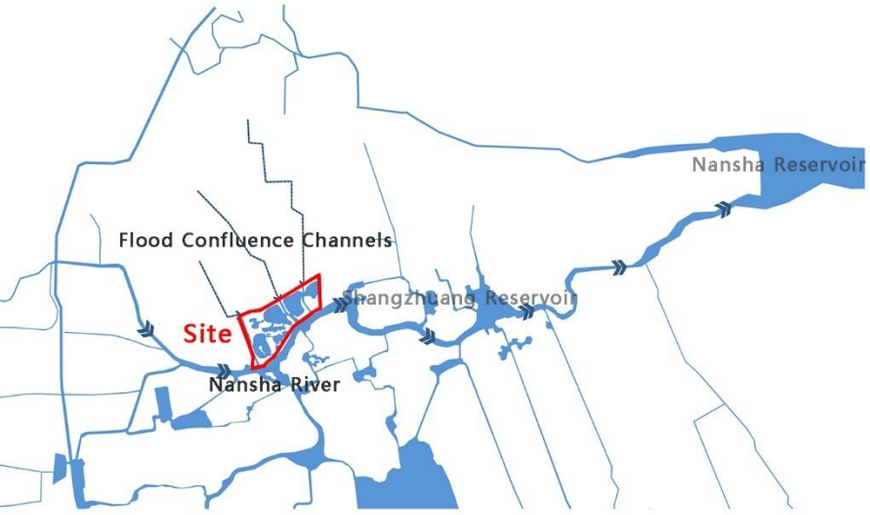
BeiJing BeiLin Landscape Architecture Institute CO.,LTD

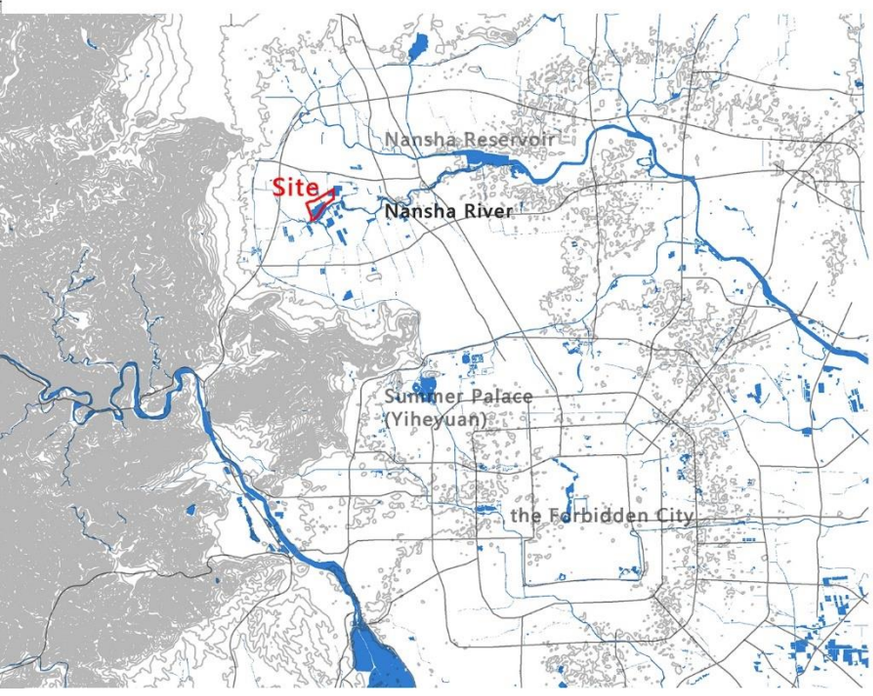
Project Profile

Cuihu National Urban Wetland Park, located at Haidian District, Beijing, is adjacent to Nansha River to the south and covers an area of 157.7 hectares. After the design and construction for almost eight years, the project site has been transformed from a partially deserted farmland to a urban wetland park which provides a stable habitat and a symbiosis of multi-species. The wetland park after construction has greatly improved the water environment of the surrounding watershed, and has expanded the animal's habitat with wetland birds as the priority; moreover, it is now considered as a demonstration area of wetland education.

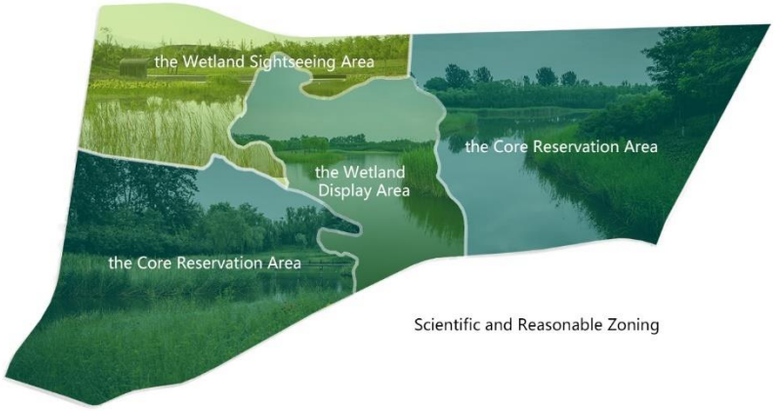

1. Main Entrance and Vistor Center
2. Exhibition of the Wetland Plant
3. Exhibition of the Fish
4. Exhibition of the Amphibian
5. Exhibition of the Reptile
6. Exhibition of the Insect
7. Wetland Display Area
8. Core Reservation Area
9. Wetland Scientific Research Work Station
0
100
200
300
400
N

Site Plan

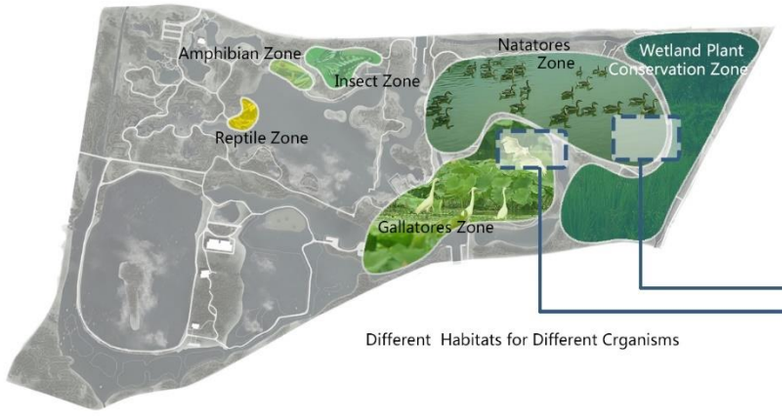




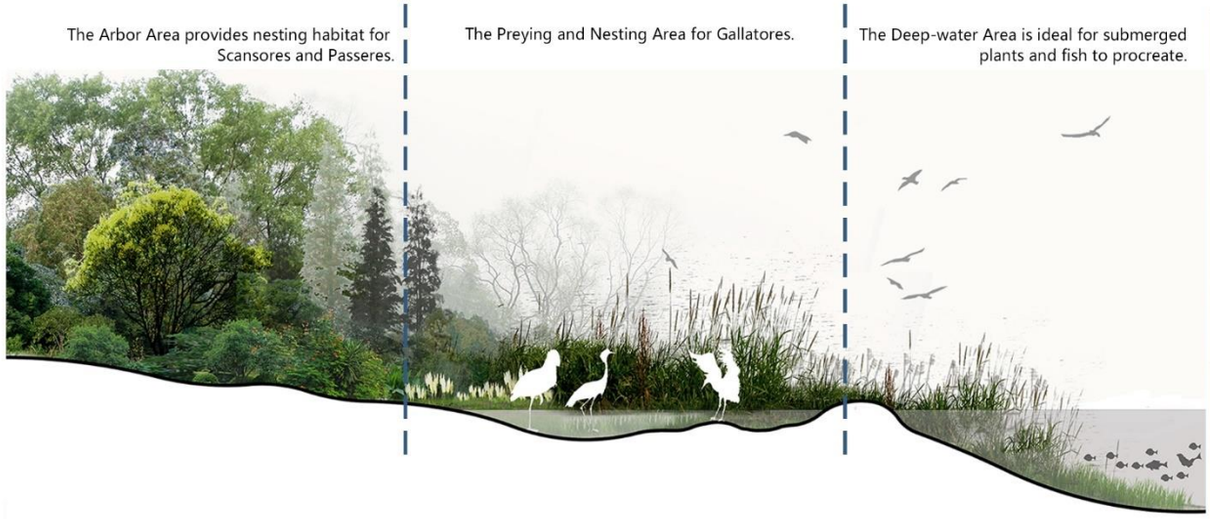
location Plan and the original photos

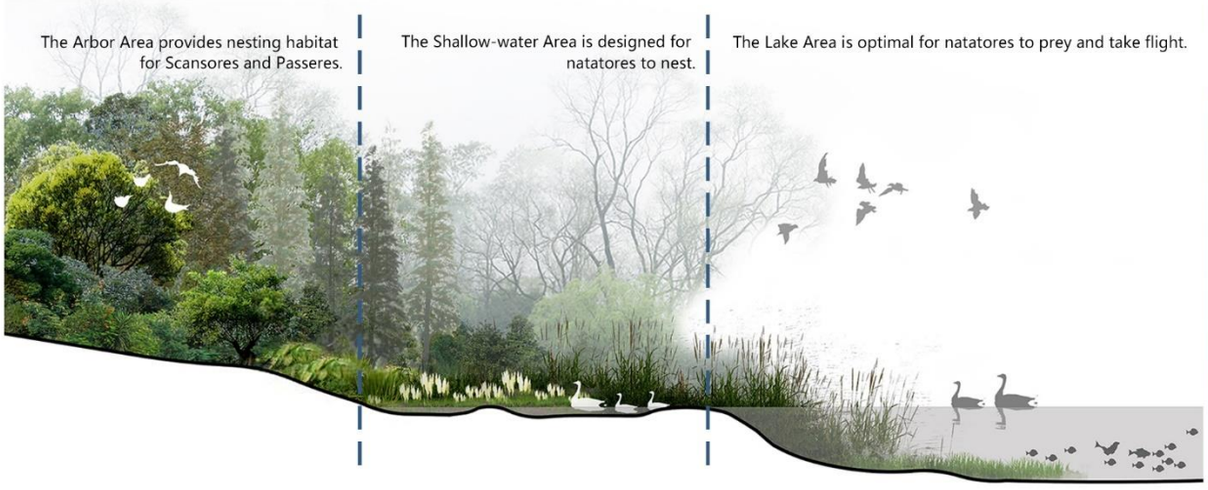


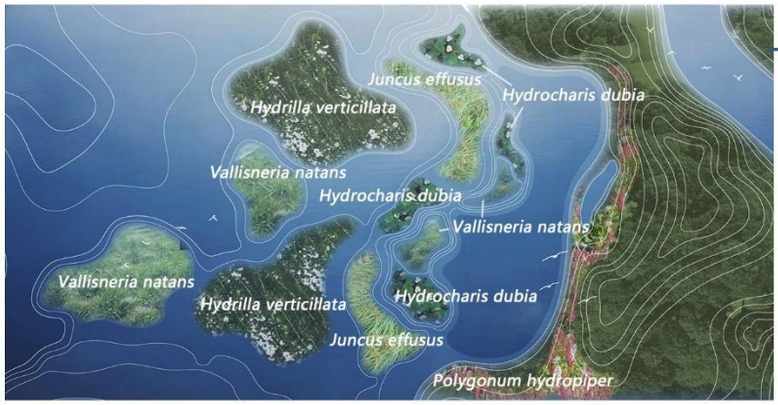
Scientific and Reasonable Zoning



Different Habitats for Different Crganisms







Particularly, the landscape architects designed the habitat space for the birds (Natatores and Gallatores), the amphibians and the insects in conformity with their life habits.

The phytocoenosium design simulated Beijing natural wetland community, which would be conducive to purify water.

The vegetation system is constituted by trees, shrubs, ground over, emerging plants, emersion plants and submerged plants to form abundant wetland vegetation space and to create a distinctive wetland habitat in combination of the habits of local animals.

Plenty of birds inhabit and reproduce at the wetland park.

The project tends to establish biodiversity with the amphibian’s habitat shown in the figure.

The large lake is conducive to form abundant lakebed terrain, which provides decent inhabitation environment to the submerged plant, the fish and the natatores. The wide lake surface is favorable to the natatores to fly.

Gallatores habitat is established to provide upholder for the gallatores for predation.

The wetland core reservation area can only be accessible to staff and scientific researchers so that the birds can act more freely without human activities.

The wetland display area is open to the visitors. It is the primary site to carry out science popularization education and recreational activities.

Integration of science popularization and environment.

The closed bird view tower guarantees the visitors' minimum disturbance to the birds while viewing birds.

The working personnel led the youth to carry out science popularization education at the wetland demonstration area.

The wetland attracts plenty of birds to inhabit and nest here and it become the midway stay to the migrating birds.

Project Description

Site History

According to history, this area where the project is located was a river five thousand years ago, and then became a large river wetland after the river changed its route. It featured beautiful scenery with picturesque scenery before Qing Dynasty. With the manmade development and agricultural reclamation in the last over 200 years, a great amount of wetland has been replaced by farmland and villages, and the original wetland environment has gradually become suburban farmlands. In 1998, when the overall agriculture of Beijing City was transformed, partial farmlands within the area were gradually deserted together with descended water quality and intensified ecological damage.

Progressive Design

Entrusted by the government in 2007, the design group carried out ecological remediation and landscape design of the wetland park. Commenced in July 2007, the project design and construction lasted for a long time and has undergone many changes. Meanwhile, the master planning has been subject to several significant adjustments in the eight-year design cycle. During the course, the design group has been persisting in the design objective. With unremitting efforts, it has integrated the mutually-restricting provisions and requirements from multiple aspects in terms of planning, water conservancy, garden, land and municipal administrations, etc., and finally achieved the initial design intention, that is, to resume the historic and natural landscape, reappear the original ecology of Beijing natural wetland and form the fairyland of symbiosis of multi-species. Open to the public partially in 2013, the project has become the core of urban parkland and has been awarded “China Human Settlement Exemplification Prize” by China and the Ministry of Housing and Urban-Rural Development as the national demonstration project.

Scientific and Reasonable Zoning

As a resource-conservation park, it was strictly divided into conservation area and activity area in the preliminary phase so as to avoid excessive interference and effect of the human activities. This project divided the park to the core reservation area (core of the park, where the visitors would be prohibited from entering), the wetland display area (as the transition area from the conservation area to the sightseeing area, the visitors would be restricted from entering) and the wetland sightseeing area (which would be open to regular visitors and is also the primary site where the science popularization education and the recreational activities are carried out). The core reservation area accounts for 49.2% of that of the park.

Establishment of the Habitat of Fauna and Flora

In the preliminary phase, the landscape architects deeply studied the topographic and hydrological characteristics of the wetland as well as the structure of plant community that Beijing highlighted. The design considered the natural wetland with original ecology as the main structure while planting regionally indigenous plants as the subject to form the flora constituted by trees, shrubs, ground over, herbs, emerging plants, emersion plants and submerged plants. In this sense, the extensive vegetation space was combined with the habits of local animals to create a distinctive wetland habitat area. Besides, the elaborate layout of lakes, mountain streams, branching streams, swags, tidal-flats, shallow water areas and waterfront demarcation line has constructed an abundant and diversified habitat area for inhabiting, reproducing and foraging, etc. of those wetland animals. Particularly, the landscape architects designed the habitat space for the birds (Natatores and Gallatores), the amphibians and the insects in conformity with their life habits. As of 2014, there had been 371 species of original and planting wetland advanced plants subject to 90 families and 264 genera, together with 178 species of wild birds, subject to 16 orders and 38 families, 20 species of fishes, subject to 4 orders and 9 families, 7 species of amphibians, subject to 1 order and 5 families as well as 8 species of reptiles, subject to 3 orders and 5 families.

Flood Storage and Water Quality Guarantee

The design group integrated three flood confluence channels and took advantage of specific daub earth on the original site as the water foundation in order to enable the project to be the flood storage wetland of Nansha River. The design guaranteed the water quality in the park by means of the self-purification capacity of the wetland vegetation and relevant techniques, and played an active role in improving the water quality of the lower-reaching reservoir through the combination of the water system in the park and that of Nansha River.

Science Popularization Education

After the construction of Cuihu Wetland Park, thousands of visitors from the city have enjoyed the beautiful environment, abundant vegetation, diverse and distinctive scenery throughout the year. In the wetland demonstration area, the propagandizing, sightseeing and viewing facilities have been all combined to display a different wetland habitat and biology, providing a science popularization education with minimum disturbance to the nature. When the visitors return to the routine life, the joyful memory of the wetland would intensify their love of nature and their sense of protection of environment. The park's science popularization education is not only carried out within the park but also on the internet and social network by displaying the scenery and popularizing other knowledge in respect of wetland.

Revitalization of Vivid Scenery

After the design and construction for several years, the flora and fauna resources on the site have been greatly enriched. Multiple valuable and rare birds now live and reproduce here. It has also become a safe stay for migrating birds. Thanks to the joint efforts of the design group and the constructors, Cuihu Wetland Park has achieved the goal of resuming the wetland landscape and protecting the biological diversity. In the meantime, this area has successfully become a truly natural park, a paradise of multiple species, and a site for people to study and to share family time.