Design Strategy of Eco-wetland Park in Dawan District of Guangdong, Hong Kong and Macao

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Abstract: Wetland is one of the important natural resources in cities. With the deterioration of urban ecology, people begin to pay attention to the protection and restoration of urban ecology. The author discussed the design of Dawan Eco-Wetland Park in Guangdong, Hong Kong and Macao. The results of research and analysis indicate that at this stage, the ecological balance and population development of different animal and plant species within the system should be maintained, and different types of auxiliary facilities should be added on the basis of not destroying the natural habitat of the wetland as much as possible, so as to realize the rational development of natural resources. And the improvement of the ecological environment finally reflects the realm of harmony between man and nature.

1. Introduction

The 21st century is a new century that focuses on ecological civilization. The competition for human survival in the future is not only economic competition, but also ecological and environmental competition. There are three major ecosystems on the planet: forests, oceans, and wetlands [1]. Wetland is a unique and unique ecosystem and one of the important environments for human survival [2]. The acceleration of the modernization process and the improvement of the demand for ecological landscapes have made the government and relevant departments pay more attention to the protection and rational use of wetlands, and the urban wetland parks are gradually emerging [3]. With the rapid development of China's economy and the rapid advancement of urbanization process, many places have experienced a rapid deterioration of the natural environment [4]. With the development of economy and the aggravation of human activities, human industrial civilization has created a brilliant modern civilization, at the same time, it has also caused different degrees of damage to these ecosystems, making their own balance seriously affected [5]. And it has threatened mankind itself. Nevertheless, wetland restoration is rapidly becoming an important strategy for many development projects and environmental projects in China, and it is not only an environmental compensation after development, but also an important part of the sustainable development process [6-8].

2. Methodology

Urban ecological wetland is also located in the scope of urban planning, there is a certain biological chain of wetland. Looking back on the detours our Party has gone through since the founding of New China, we must realize that our Party must join the WTO and become a party that does not shy away from the present life [9]. The curriculum objective setting of red experiential teaching activities should also reflect that our Party has entered the WTO and has the characteristics of the times. According to the current trend of wetland protection and management at home and abroad, wetland landscape areas with the functions of species and habitat protection, ecotourism and ecological environment education can be called "ecological wetland" [10]. Each lake area is arranged according to its shape to observe the island, forming a wetland park characteristic that the water quality changes with the water level and the landscape is purified with water quality. Designers' understanding of the landscape design of urban ecological wetland parks is limited to the excavation of ponds and the planting of plants, which seriously affects the overall construction

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effect of wetland parks, which makes them have great conflicts with wetland protection and ecological wetland landscape design concepts. China's wetland is widely distributed, with a large number of types and rich in biodiversity. As an important natural resource in the city, it plays an irreplaceable role in maintaining the ecological balance of the city.

The acceleration of the modernization process and the innovation of ideas have made people gradually realize the importance of wetland landscape design. At present, the Guangdong, Hong Kong and Macao Dawan District Wetland Research Institute covers a wide range of issues, including the role of wetlands in global change, wetland ecosystems, and environmental purification functions of wetlands. The Urban Ecological Wetland Park builds different types of ancillary facilities without destroying the urban wetland ecosystem. The functions of ecological protection, eco-tourism and ecological education are organically combined, highlighting the three characteristics of nature, theme and ecology, and integrating multi-functional artificial ecological wetlands such as ecological protection, ecological sightseeing and leisure, ecological science education and wetland research. It can shorten the time needed for wetland to return to its ideal state by transplanting plants, restoring animal population and controlling disturbance of resource organisms. The reason for this arrangement is that the hydraulic load of surface flow wetland is low and the pollutant concentration is high when it is at the intake end. Mosquitoes and flies are easy to breed in summer, which affects the landscape environment. Ecological function is the basic function of urban wetland park. It can store flood and prevent drought, purify sewage, adjust urban regional climate, provide habitat for animals and plants, realize landscape and biodiversity, and ultimately promote the ecological balance of urban areas.

3. Result Analysis and Discussion

The Wetland Park has two entrances and parking lots. Its road traffic system includes main road, secondary road, walking path and water traffic. It plays an important role in early flood storage and prevention, reducing environmental pollution, regulating climate, purifying water quality and maintaining biodiversity. Water system design covers two aspects: water environment improvement and revetment design. In the process of landscape design of urban eco-wetland parks, the responsible persons concerned should protect their water environment, construct natural eco-efficiency sedimentation tanks, filter water bodies, minimize water pollution and improve water quality. The Natural Wetland Park is based on the wetland nature reserve, which zoning a certain range, constructing different types of auxiliary facilities, and carrying out eco-tourism and ecological education. Therefore, in this context, the planned wetland park should be only one type of ecological park.

Urban ecological wetland is an ecological wetland park, because wetland park can be regarded as a manifestation of human hydrophilic nature in modern life, and it is the inheritance and expansion of traditional garden waterscape. These studies and activities are important for the history of science and important events in both domestic and international history. At the same time, urban ecological wetland park is a special ecological green space. The special ecological environment and the complex ecosystem composed of various wetland biological communities provide abundant food sources for wading birds, swimming birds, butterflies and small mammals, and create good environmental conditions for avoiding enemies. It will become the key point of urban biodiversity conservation. On the basis of "nature, ecology and wild interest", it provides citizens with an ideal space full of vitality, comfort and tranquility.

4. Conclusions

Wetland is the natural resource treasury and living environment for human survival and development. It is widely distributed in all natural zones of the world. Designers should comprehensively consider the ecological problems and landscape effects in the process of landscape design of urban ecological wetland parks. At the same time, we should combine the regional and landscape elements to maximize the overall design effect of urban ecological wetland park, in order

to achieve the harmonious coexistence between man and nature, and fundamentally promote the acceleration of the ecological process and the construction of a good urban pattern. At the same time, in the process of curing wetland parks, chemical fertilizers and pesticides cause pollution to water bodies. There are three types of revetment design: natural ecological revetment, hard revetment and variable revetment. Designers should combine the specific water system design requirements and make reasonable planning and selection of the bank type. It can be said that the construction of wetland parks is an important measure to implement the urban natural ecological environment management strategy. The development of wetlands into wetland parks can not only achieve reasonable protection, but also provide a good leisure, entertainment and recreational activities. Therefore, urban wetland parks are an important part of the urban landscape design process.

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