

Retraction

Retracted: The Construction Path and Protection Measures of Wetland Park from the Perspective of National Participation in the New Era

Advances in Multimedia

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their

agreement or disagreement to this retraction. We have kept a record of any response received.

References

- [1] L. Li and L. Li, "The Construction Path and Protection Measures of Wetland Park from the Perspective of National Participation in the New Era," *Advances in Multimedia*, vol. 2022, Article ID 6081375, 10 pages, 2022.

Research Article

The Construction Path and Protection Measures of Wetland Park from the Perspective of National Participation in the New Era

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In order to study many problems, such as unreasonable wetland protection, development, and utilization, resulting in a large reduction of wetland area, and so on, with the rise of the construction and research upsurge of the municipal wetland park, a method of wetland park construction path and protection measures based on the perspective of the new era of national participation was proposed. This method takes the construction of urban wetland parks as the research object, starts with the actual demand for wetland parks from the perspective of urban residents' health in the new era, and discusses the construction path and related protection measures of wetland parks from the perspective of national participation. The results show that urban wetland park is an important green infrastructure in the region. In addition, it should have elastic adaptability, complex benefits, and special regional characteristics, to create an elastic dynamic system that can adapt to changes in planning and design, improve social public service functions, set up public access points, stimulate media benefits, and integrate regional characteristics.

1. Introduction

Since the beginning of the new century, China's economy has been growing rapidly, even showing an explosive growth trend, while the ecological environment has been ignored indirectly or directly in the process of economic development. Ecological environment deterioration and environmental protection have become the key issues to consider in the current economic development process. With the continuous deterioration of the ecological environment, a large area of environmental pollution and disease cases caused by environmental pollution also emerge in an endless stream. These events have also triggered widespread concern from all walks of life, and people gradually realize the importance of economic development and ecological environment coordination. As the "kidney of the earth," wetland park plays a key role in improving the urban ecological environment. At the same time, in the context of the new era, the scientific planning and design of wetland parks will also

provide leisure and entertainment, tourism, wetland protection, and other functions for urban residents [1]. In the field of landscape design and planning, how to start from the needs of the whole people for ecological environment and health in the new era to try the scientific planning and design of wetland parks is very important.

The theory of a healthy city is put forward to solve the problems of subhealth, chronic disease, and infectious disease caused by urbanization. The World Health Organization defines it as "an evolving urban system in which people can live happily and realize personal value, where a city provides a healthy environment and services for its residents and continuously improves the quality of the environment and the health of its residents." The research on healthy city theory is relatively broad, including medicine, urban geography, sociology, and political science. The establishment of a sound and reasonable urban green space system is an important part of the construction of a healthy city [2], which can provide higher quality outdoor recreation

places, improve the ventilation and lighting of buildings, increase the carbon storage and oxygen emissions of plants, reduce the use of artificial energy, increase the opportunities for outdoor activities, and improve the physical and mental health of residents [3].

2. Literature Review

Some scholars put forward the construction of the health care ecological community and divided it into five categories: olfactory, physical therapy, auditory, visual and tactile. Olfactory plants are made of aromatic plants. Body therapy is in the area of physical fitness activities around the selection of benefits to human health plants. Hearing, sight, and touch are created by the sound, gesture, and touch in the natural environment [4]. According to the different health needs of children, teenagers, middle aged and old people, special groups, and public groups, the health plants were classified, focusing on the efficacy and allocation principles of healthy plants. This article discussed the concept of medicinal and health cover plants and classified them according to their biological, ecological, and health functions. In addition, some scholars have conducted studies from different perspectives, including the impact and application of garden elements on health. Researchers have studied the health effects of five basic garden elements, including topography, plants, buildings and pieces, roads and squares, and infrastructure. The health care garden's guiding ideology and construction mode are emphatically studied. From the sterilization and health care function of the landscape and the health care function of body and mind, the health care function of the landscape should be considered in the design to shape the landscape into a place conducive to people's health.

The garden attached to a city hospital is a garden that provides specific rehabilitation treatment for patients by using the healthy plant theory and the theory of Yin and Yang and the five elements. In addition, most health gardens in China are aimed at healthy and sub healthy people, including health gardens, health squares, gardens, and so on [5]. Wanli City Ecological Community Wellness Park is a ginkgo ecological wellness forest where people and nature live in harmony. The Yinyang Taiji ecological green space constitutes the health protection of ecological forest land. A large number of ginkgo trees are planted around the square according to the five lines. Combined with health knowledge and landscape design theory, a bold design attempt was made in the waterfront garden villa of Lanqiao, Changdao, and Beijing by some scholars. Under the guidance of landscape aesthetics and landscape construction theory, they select the appropriate health landscape factors and optimize the comprehensive health care effect, which to arouse people's awareness of health care, enhance their knowledge and understanding of nature, and achieve physical and mental relaxation when connecting with nature through garden art, to achieve the purpose of health [6].

3. Urban Wetland Park Ecosystem Based on InVEST Model

3.1. Land Use/Cover Data. Combined with the dynamic assessment of the needs of ecosystem service functions in the study area, the extraction of land use/cover types in the Dachen River Wetland Nature Reserve requires three phases of remote sensing images [7]. ENVI5.3 was used to conduct atmospheric correction, radiometric calibration, image clipping, band synthesis, and image enhancement for the obtained 3 phase remote sensing images as shown in Table 1.

To achieve the purpose of this study, the land use/cover types in the study area were divided into 9 categories according to the relevant classification system, including building land, cultivated land, water body, marsh wetland, grassland, shrub, evergreen coniferous forest, deciduous broad-leaved forest, and coniferous and broad-leaved mixed forest [8]. Based on 89 samples obtained from field sampling, the classification results in 2017 were verified, and the interpretation accuracy of land use types in Dachen River Wetland Nature Reserve reached 84.6%, meeting the research needs [9].

3.2. Water Yield Model Principle and Data Processing. InVEST water yield model is based on the principle of water balance, combined with climate, topography, hydrology, land use type [10], soil characteristics, and vegetation available water parameters through the model calculation to get the basin water yield as shown in Figure 1.

The basic theory of the InVEST water yield model is based on the watershed scale, and the yield results at the sub-watershed level are credible [11]. The formula of the InVEST water yield model is as follows:

$$Y_{xj} = \left(1 - \frac{AET_{xj}}{P_x}\right) \cdot P_x. \quad (1)$$

Among these, Y_{xj} is the annual water output of the grid unit x , AET_{xj} is the average annual evapotranspiration of the grid unit x on land cover type j , and P_x is the average annual rainfall of the grid unit x . In the water balance formula, evapotranspiration AET_{xj}/P_x of vegetation of land use/cover type is calculated using the hypothesis formula (2) of hydrothermal coupling balance:

$$\frac{AET_{xj}}{P_x} = \frac{1 + \omega_x R_{xj}}{1 + \omega_x R_{xj} + (1/R_{xj})}. \quad (2)$$

In the above formula, R_{xj} is the ratio of potential evapotranspiration and precipitation in grid unit x on land cover type j , representing the dryness index, ω_x is the ratio of vegetation available water and precipitation [12], and the calculation formula is as follows:

$$R_{xj} = \frac{k \times ET_o}{P_x}, \quad (3)$$

$$\omega_x = Z \frac{AWC_x}{P_x} + 1.25.$$

TABLE 1: Classification system of land cover in the study area.

I-level classification	II-level classification
Forest lands	Evergreen needle leaf forest
	Deciduous needle leaf forest
	Broad leaf and needle leaf mixed forest
	Shrubland
Grasslands	Tussock
Wetlands	Wetlands
	Reservoir/pond and river
Croplands	Dry farmland
Other lands	Building land

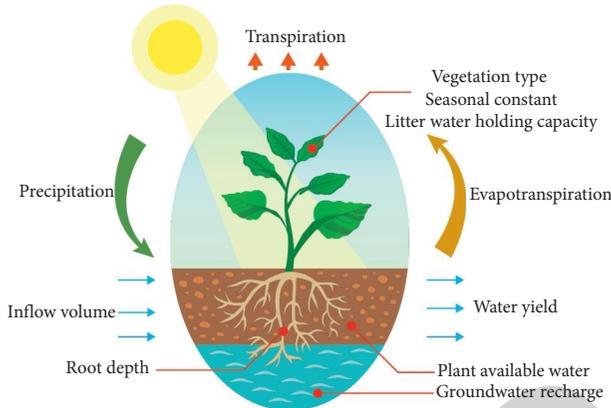


FIGURE 1: Water balance model framework.

AWC_x is soil available water content (mm) which is determined by soil texture and soil effective depth and can determine the amount of water provided by soil for plant growth:

$$ET_o = 0.0013 \times 0.408 \times RA \times (T_{avg} + 17) \times (TD - 0.0123P)^{0.76},$$

$$AWC_x = \text{Min}(\text{MaxSoilDepth}_x, \text{RootDepth}) \cdot PAWC_x. \quad (4)$$

RA is ($MJ \cdot m^{-2}d^{-1}$) radiation from the top layer of the solar atmosphere, also known as astronomical radiation; T_{avg} is the mean of the daily mean of the maximum high temperature and the daily mean of the minimum low temperature ($^{\circ}C$); TD is the difference between the mean of daily maximum temperature and daily minimum temperature ($^{\circ}C$); MaxSoilDepth_x is the maximum soil depth [13]; and RootDepth is the maximum root buried depth in the soil. $PAWC_x$ is the water available to vegetation in the grid cell x .

Potential evapotranspiration is an important parameter in water analysis, which represents the maximum amount of water lost by vegetation evaporation when the soil is fully humid. There are many estimation methods for potential evapotranspiration, some of which are highly recognized, but are limited by too many required parameters [14]. In this article, the Modified-Hargreaves method recommended by the model is selected for calculation, and the formula is as follows:

$$ET_o = 0.0013 \times 0.408 \times RA \times (T_{avg} + 17) \times (TD - 0.0123P)^{0.76}, \quad (5)$$

where T_{avg} is the mean of daily maximum temperature and daily minimum temperature ($^{\circ}C$); TD is the difference between the average daily maximum temperature and the average daily minimum temperature ($^{\circ}C$); and P is average monthly rainfall [15].

Soil stores and provides water for plant growth. The part of soil water that can be used by plants is called soil available water. Therefore, soil available water can also represent the water available to plants. In this paper, the empirical estimation model of soil available water content is selected to calculate the soil available water content in the study area, and the calculation formula is as follows:

$$AWC = 176.998 - 3.265\text{Sand} + 0.045(\text{Sand})^2 - 7.959\text{Clay} + 0.135(\text{Clay})^2 + 7.675\text{OM} - 0.90(2\text{OM})^2. \quad (6)$$

Sand, Clay, and OM, respectively, represent the mass percentage content of Sand, Clay, and organic matter in the soil.

The biophysical table consists of Root Depth and evapotranspiration coefficient (Kc) corresponding to land use type based on reference data provided by the model. The seasonality factor is the zhang coefficient mentioned in the model principle, which represents the rainfall characteristics of the research area. Based on the consistent data required by the model, different coefficients are put into operation, and the final value is 3.33 after verification according to the generated results. The Water Demand Table represents the predicted average consumption of water for different land use types [16]. The consumption of water is the amount of water for crop growth and human consumption, which is determined based on the actual situation and the reference data of InVEST model. The details are shown in Table 2:

In this article, the aboveground biomass and underground biomass carbon pools are combined into vegetation carbon pools [17], and the data of carbon density values of various carbon pools are integrated, and the results are shown in Table 3.

3.3. Habitat Quality Model Principle and Data Processing

3.3.1. Model Principle. In the InVEST habitat quality model, the habitat quality index is used to represent regional habitat quality, and the calculation formula is as follows:

$$Q_{xj} = H_j \left(1 - \left(\frac{D_{xj}^z}{D_{xj}^z + k^z} \right) \right), \quad (7)$$

where Q_{xj} represents the habitat quality of grid x when land use type is j ; H_j represents habitat adaptability of land use type j ; D_{xj} is the threatened level of grid x when land use type j ; k and z are scale factors [18], k constant is half full constant, usually equal to the value of D , so that it can take

TABLE 2: Root depth and evapotranspiration coefficient in the study area.

Code	Land use/cover	Root depth/mm	Evapotranspiration coefficient
1	Land for construction	500	0.3
2	Grass	1700	0.64
3	Mixed needle and broad-leaved forest	7000	1
4	Deciduous broad-leaved forest	7000	1
5	Brush	2000	0.399
6	Water	500	1
7	Marsh wetland	2000	1.3
8	Evergreen coniferous forest	7000	1
9	Arable land	2000	0.63

TABLE 3: Carbon density values of different land use/cover types in Dabanhe wetland (t·hm⁻²).

Code	Land use/cover	Vegetation carbon library	Soil carbon library	Litter carbon bank
1	Land for construction	0	0	0
2	Grass	3.06	156.03	0
3	Mixed needle and broad-leaved forest	76.5	335.28	2.9
4	Deciduous broad-leaved forest	88.6	205.22	4.6
5	Brush	1.56	149.32	3
6	Water	1.42	0	0
7	Marsh wetland	4.63	467.54	0
8	Evergreen coniferous forest	113.2	166.51	8.2
9	Arable land	3.1	149.32	0

half of the maximum value of D_{xj} , z is defined as the constant 2.5. D_{xj} , the threat level, can be calculated by the following formula:

$$D_{xj} = \sum_{r=1}^R \sum_{y=1}^{Y_r} \left(\frac{w_r}{\sum_{r=1}^R w_r} \right) r_y i_{rxy} \beta_x S_{jr}, \quad (8)$$

where r is the threat factor; y is the total grid number of r -threat grid graph; Y_r is a group of threat grids in r threat grids; w_r is the weight of the threat factor, ranging from 0 to 1. y_r represents whether the grid y is a threat grid (0 or 1); i_{rxy} is the threat level of threat factor value y_r of threat grid y to grid x in the region; β_x is the accessibility level of the grid x , ranging from 0 to 1; S_{jr} is the sensitivity of land use type and j is the sensitivity of threat factor r , which ranges from 0 to 1. i_{rxy} can be calculated by the following formula:

$$i_{rxy} = 1 - \left(\frac{d_{xy}}{d_{r \max}} \right) \text{if linear}, \quad (9)$$

$$i_{rxy} = \exp \left(- \left(\frac{2.99}{d_{r \max}} \right) d_{xy} \right) \text{if exponential}. \quad (10)$$

Formula (9) is a linear distance decay function, and formula (10) is an exponential distance decay function. d_{xy} is the linear distance between the grid x and y ; $d_{r \max}$ is the maximum range of the threat factor r .

3.3.2. Data Processing. Threat factor data are a CSV table composed of threat factors, the impact distance, and impact the weight of each threat factor on habitat integrity. Based on the actual situation of land use/cover in the study area, this article selected roads [19], building land, and cultivated land as the threat factors and referred to the model

recommended data and many existing research results. The setting of threat factor data in this article is shown in Table 4.

Different land cover types have different habitat suitability. For land cover types that do not belong to habitats, values of 0 are assigned in the CSV table and values between 0 and 1 are assigned to the rest according to the suitability degree. Land cover types belonging to habitats have different sensitivities to each threat factor. The sensitivity ranges from 0 to 1, where 0 represents that the land cover type belonging to habitats is not sensitive to threat factors and 1 represents that the habitat is highly sensitive to threat factors [20]. In this article, the sensitivity of each land cover type to each threat factor is set as shown in Table 5, referring to the model application examples and existing relevant research results.

In this article, species diversity index, richness index, and evenness index were selected to represent plant diversity.

Simpson's Diversity Index:

$$D_{sim} = \frac{N(N-1)}{\sum n_i(n_i-1)}. \quad (11)$$

Shannon-Wiener index is

$$H = - \sum P_i \ln P_i. \quad (12)$$

Margalef index of species richness is

$$D_{ma} = \frac{(S-1)}{\ln N}. \quad (13)$$

Pielou Evenness Index:

$$J_{sw} = \frac{(- \sum P_i \ln P_i)}{\ln S}. \quad (14)$$

TABLE 4: Threat factor attribute table.

Threat	Maximum influence distance (km) (MAX_DIST)	Weight	Decay linear correlation (DECAY)
Road	3	0.5	Linear
Land for construction	8	1	Exponential
Arable land	8	0.7	Linear

TABLE 5: Sensitivity of land cover types to various threat factors.

Code	Land cover type (LULC)	Habitat suitability (Habitat)	Rode	Land for construction	Arable land
1	Land for construction	0	0	0	0
2	Grass	0.9	0.7	0.6	0.5
3	Mixed needle and broad-leaved forest	1	0.5	0.5	0.5
4	Deciduous broad-leaved forest	1	0.5	0.4	0.5
5	Brush	1	0.7	0.5	0.4
6	Water	1	0.7	0.7	0.7
7	Marsh wetland	0.7	0.7	0.7	0.7
8	Evergreen coniferous forest	1	0.5	0.7	0.7
9	Arable land	0.3	0	0	0

In the above formula, N is the total number of individuals of all plant species in the sample site; n_i is the importance value of species i ; P_i is the relative importance value of species i , and the relative importance value = importance value/total number of species; and S is the number of species. Importance value is a relative quantitative index reflecting the importance of plant population in a plot community. The calculation formula is as follows:

Importance value = (relative height + relative density + relative coverage or relative superiority)/300.

Among them, the relative coverage of the herb layer and shrub layer was selected to participate in the calculation. The relative dominance of the tree layer was selected to participate in the calculation.

3.4. Ecosystem Service Function Assessment

3.4.1. Analysis of Land Cover Type Area Change. Based on the phase III land cover type map of the study area (Figure 2), the spatial statistics function of Arc GIS software was used to calculate the land cover type area of the six types of grade I classification, and the results are shown in Table 6.

3.4.2. Dynamic Attitude of Land Cover Type. As shown in Table 7, from 1996 to 2005, water bodies and construction land in the study area grew fastest, reaching 76.04% and 38.21%, respectively. From the above analysis, it can be seen that the super high growth rate of the water body may be caused by misjudgment of classification. With the establishment of the protected area, construction land increased in the study area. Wetland decreased the fastest during this period, with an annual reduction rate of 5.38%. The dynamic attitude of grassland and cultivated land was stable and maintained the original level. The dynamic attitude of forestland was 3.15%, which was also relatively stable. However, due to the large base of forestland in the study area, the changing area in 9 years also reached 34682.20hm². From 2005 to 2017, the increase rate of grassland area in the

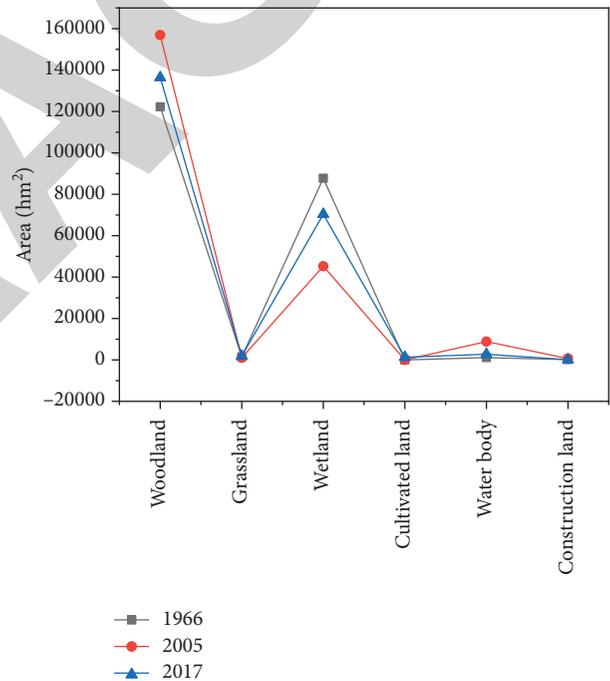


FIGURE 2: Area histogram of each land cover type in 1996, 2005, and 2017.

study area was 6.87%. The water area was reduced, and the dynamic attitude was -5.76%. Compared with the previous period, the reduction of wetland area was improved, with a recovery rate of 4.62%. The dynamic attitudes of other land cover types tended to be stable [21].

In this article, the zoning statistical function of ArcGIS was used to analyze the water supply of various natural vegetation cover types in the study area in different periods, and the water supply per unit area of different land cover types in three periods (see Figure 3) and the total water supply (see Figure 4) were obtained.

TABLE 6: Change table of the land cover type area.

Land cover type	In 1996		In 2005		In 2017		In 1996–2017 Change in area (hm ²)
	Area (hm ²)	Percentage (%)	Area (hm ²)	Percentage (%)	Area (hm ²)	Percentage (%)	
Woodland	122235.80	57.46	156918.21	73.76	136397.80	64.12	14,162
Grass	1463.72	0.69	1024.78	0.48	1869.22	0.88	405.5
Wetland	87765.20	41.25	45249.66	21.27	70367.45	33.06	-17,397.75
Arable land	0.00	0.00	0.00	0.00	1268.51	0.60	1268.51
Water	1132.88	0.53	8876.67	4.17	2736.55	1.29	1,603.67
Land for construction	150.86	0.07	669.60	0.31	100.65	0.05	-50.21

TABLE 7: Dynamic attitudes of different land cover types in the study area.

Land cover type	In 1996		In 2005		In 2017	
	Area change (hm ²)	Dynamic attitude (%)	Area change (hm ²)	Dynamic attitude (%)	Area change (hm ²)	Dynamic attitude (%)
Woodland	34682.20	3.15	-20522.50	-1.1	14161.69	1.07
Grass	-436.72	-3.33	843.76	6.87	405.88	2.53
Wetland	-42522.71	-5.38	25077.41	4.62	-17343.29	-1.86
Arable land	0.00	-	1267.55	-	1267.55	-
Water	7745.76	76.04	-6131.81	-5.76	1614.93	12.96
Land for construction	515.86	38.21	-568.97	0.31	-50.18	-3.05

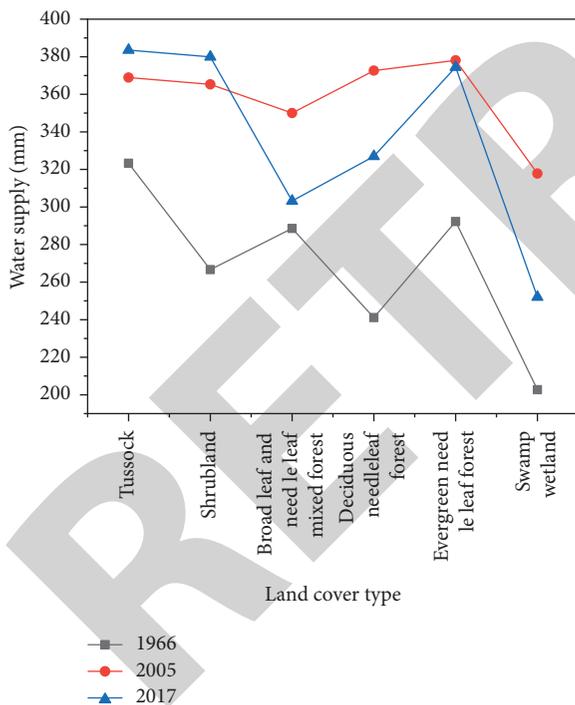


FIGURE 3: Water supply of each land cover type.

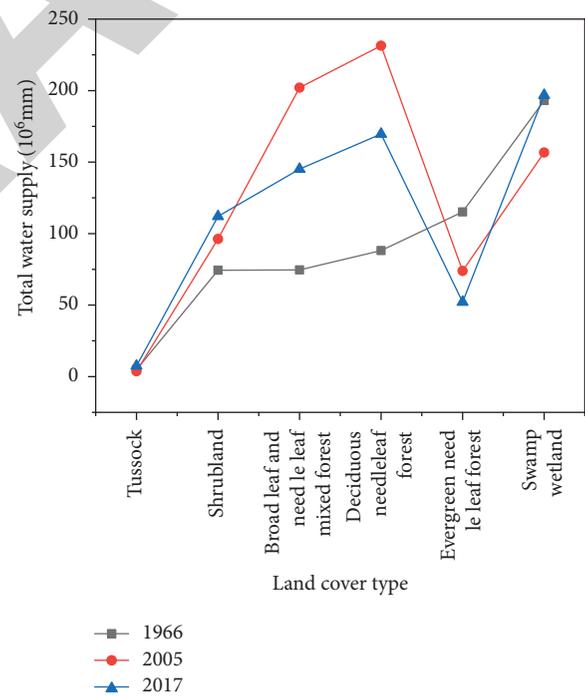


FIGURE 4: Total water supply of each land cover type.

Generally speaking, the total water supply of forestland increased firstly and then decreased from 1996 to 2017, and the total water supply of forestland increased greatly in 2005 compared with 1996. The change ratios of shrub, coniferous, and broadleaf mixed forest, deciduous broadleaf forest, and evergreen coniferous forest were -0.66%, 12.91%, 14.23%, and -11.44%, respectively. In 2017, the variation range of total water supply in the study area was relatively small, with the

change proportion of shrub, coniferous and broadleaf mixed forest, deciduous broadleaf forest, and evergreen coniferous forest being 3.84%, -5.32%, -5.28%, and -1.94%, respectively. The total water supply of wetlands decreased first and then increased, with a varied range of 14.69% and 8.10%, respectively. According to the total water supply of different land cover types in the three periods, the order of water supply can be obtained as marsh wetland > deciduous broadleaf

forest > coniferous mixed forest > shrub > evergreen coniferous forest > grassland.

4. Construction Planning Path and Protection Measures of Wetland Park

4.1. Overall Planning of Wetland Park Based on Health

4.1.1. Terrain Processing. In the overall planning of wetland parks from the perspective of health, proper terrain treatment is conducive to the construction of a distinctive wetland park landscape, as well as the convergence and drainage of surface water. The microtopography design in the landscape is beneficial to enriching the landscape level and forming the elevation effect with priority. The undulating terrain is also a manifestation of nature. People can experience the real fun of nature and relax better in outdoor activities. It also provides people with landscape effects of different heights and helps guide people to climb high for proper physical exercise. The undulating topography surrounding the different communication spaces can be used as a barrier between the park and the outside world to avoid interference [22].

4.1.2. Functional Division. Wetland parks based on a health perspective should provide users with as much convenience as possible according to their psychological and behavioral rules and clarify spatial functions. According to the regular activity needs of users in the park, the functional space of wetland park from the perspective of health is divided into water activity space and land activity space. Water sports space is divided into ecological protection areas and water sports areas according to whether people are accessible. The key point of the environmental protection area is to restore the natural ecosystem of wetlands, improve the level of biodiversity, promote the development of the wetland ecosystem, naturalize the wetland landscape, and reflect the harmony between man and nature.

The onshore exercise space has fitness equipment, exercise space, and walking facilities. To promote people to exercise and maintain the ecological wetland environment, the design of the wetland park from the perspective of health is based on walking. Therefore, in the design, we should focus on the comfort of the house-type channel; the comfort of the walking path will affect people's environmental experience. As walking is an important activity in the daily use of wetland parks, the road design of walking space must be of quality assurance to improve the pleasure and safety of users when walking.

4.1.3. Plant Planting Design. When selecting wetland park plants from the perspective of health, local tree species, low maintenance, and strong adaptability should be considered in plant selection. Special attention should also be paid to the following points.

First of all, safety factors should be considered in the selection of plants. Poisonous, prickly, and allergenic plants should not be planted in outdoor landscape spaces.

Examples include oleander, prickly citrate, wolfberry, and sumac. It is not recommended to plant many catkins on the site, such as poplar, willow, and mulberry. Avoid using pollen-contaminated plants, such as mugwort plants.

Secondly, plant species beneficial to ecological protection should be selected in planting design. Choose plants with tall trees and various leaves, which are conducive to photosynthesis and absorption of harmful gases in the air. Plants with large leaves are conducive to the adsorption of dust and impurities in the air. In the selection of aquatic plants, it is necessary to choose plants with strong vitality, strong resistance to disease, and the ability to absorb harmful substances in water, which is conducive to improving the natural ecological environment, purifying water and air, and forming a good wetland ecological environment.

Plants have the practical function of dividing and directing spaces and creating private spaces within them. Different planting forms in wetland parks have different landscape effects. For example, plants planted in rows can divide space and guide the sight. Plant species, shape, planting density, and the density of branches and leaves will affect the presentation effect of landscape space. For example, plants with a height of 0.3 to 0.6 m can produce space guidance when planted in rows, plants with a height of 1 m can be used as space partition, plants with a height of 1.2 m have an obvious separation effect, and plants with a height of more than 1.5 m can create space privacy.

The wetland park from the perspective of health should first meet the landscape requirements of the wetland park and consider the beauty of the landscape based on the ecological functions of the wetland park. For example, in landscape design, symmetry, and balance, the color of plants is also an important aspect. Different colors of plants bring different feelings to people. Green gives a feeling of softness, calmness, and freshness, while red gives a feeling of warmth, boldness, and excitement. We should also pay attention to using color contrast to create different effects. Planting plants with obvious color differences make each plant more distinctive, exciting, and eye-catching. Planting a plant of similar color can reflect a kind, harmonious, confluent effect.

4.2. Performance Evaluation of Wetland Park from the Perspective of Health. According to the influencing factors of city, village, building, and other related health evaluation systems, combined with the health perspective of wetland park design principles, overall planning, and other requirements, as well as related case studies, the influencing factors of wetland park performance evaluation from the perspective of health are summarized (as shown in Figure 5), which are mainly discussed from three parts: medium element, perceptual element, and measure element.

4.2.1. Dielectric Elements. The natural environment of wetland park is fresher and more beautiful, which is very important for human health. Air, water, and plants have a direct impact on the natural environment of wetland park. The air health of wetland parks is mainly reflected in the dust content and the movement of wetland microclimate wind, as

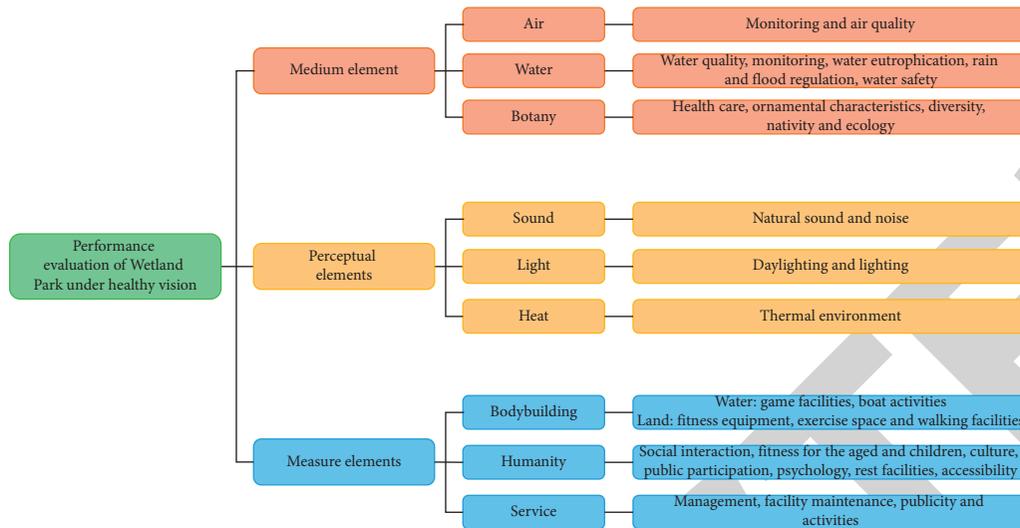


FIGURE 5: Schematic diagram of influencing factors of wetland park performance evaluation from a health perspective.

well as the influence of surrounding industrial enterprises, so it is necessary to do a good job in air quality monitoring.

Water is the most representative element in a wetland park. The water body is closely related to people's life, and the cleanliness of water will affect people's quality of life. Unclean, polluted water is a breeding ground for bacteria, which can affect the physical and mental health of those living nearby, even if they are not drunk.

Plants not only beautify the environment but also maintain and improve people's physical and mental health. Health care plants can promote human health through vision, smell, and touch. The diversity, localism, and ecology of plant design are conducive to the construction of stable plant communities. The planting area of plants also determines the content of negative oxygen ions, which is conducive to the regulation of the mental state of the cerebral cortex.

4.2.2. Perceptual Elements. The sound environment is an important part of the healthy wetland park landscape, and the disharmonious sound environment is not good for people's health and has damaged people's auditory systems. Natural sounds such as water, birds, and wind play a positive role in relieving psychological stress. Noise in wetland parks mainly comes from traffic noise in adjacent streets. The sound environment can provide people with a quiet, peaceful natural environment, which is conducive to relieving people's mental pressure.

The light environment in wetland park is mainly divided into natural light and artificial light. Bright light during the day is good for health, but too much light can cause visual fatigue and discomfort, so pay attention to the reflective surfaces of the facilities in the park. In the park lighting system, the light can affect people's eye health, and the warm yellow light is even and soft. The good light environment of the wetland park provides security for people's outdoor activities.

The outdoor temperature has an important impact on human health. The thermal environment will affect people's outdoor activities. In wetland parks, we should provide a sunny environment in winter and pay attention to the needs of outdoor activity spaces such as sun protection in summer.

4.2.3. Measures. Fitness is to promote the healthy development of human organs and systems through various physical activities and body movements, which is the most direct way to affect human health. According to the elements of wetland park, fitness is divided into water space and land space.

Water space is the water area for swimming and boat activities within a certain range of water body planning, including swimming, boating, water slide, water bubble ball, water games, and other water sports. Water sports can enhance lung function and prevent hypertension, coronary heart disease, diabetes, and so on.

Land space walking is the most important means of transportation. In the open space, the walking route is arranged along the edge of the space, so that you can experience the scale of the large space but also unconsciously extend the walking distance and promote physical health. Considering the walking distance of people in outdoor activities, rest spaces should be set up in the landscape area every corresponding distance, and chairs and other related rest facilities should be set up to reflect the function of the landscape more humanized so that people can have a beautiful experience in the gap between sports. Various types of fitness equipment are easy to use, which can enhance body strength and make it easier to form a good exercise habit. Both aerobic and muscle-strengthening exercises offer unique health benefits.

A wetland park management system and facility maintenance are important means to achieve a healthy wetland park. Strengthening the publicity of health

knowledge and promoting people to receive the correct health knowledge are conducive to the formation of a healthy lifestyle and are very important for maintaining good health.

5. Conclusion

This article studies relevant theories of landscape design and wetland parks from the perspective of health and defines the concept of wetland park design from the perspective of health. The wetland park discussed in this article from the perspective of health has promoted and improved people's health of the wetland park, whose function positioning is to maintain and promote health, and has a certain rehabilitation effect, so that healthy people keep healthy, subhealth people improve their health status.

Through the study of basic theories and the analysis of related cases, the function positioning, design principles, and overall planning of wetland parks from the perspective of health are summarized, and the performance evaluation system of wetland parks from the perspective of health is summarized. From the perspective of health, a wetland park is healthy, ecological, and leisure, with ecology, aesthetics, health, safety, and participation. From the perspective of health, the terrain treatment of wetland parks should have a landscape level to achieve the effect of garden artistry and ecological environment improvement. The function division can be divided into two parts: water and land, and the plant design should pay attention to the selection of species. The influencing factors of wetland park performance evaluation from the perspective of health are mainly reflected in three aspects: medium factors such as air, water, plants, and so on; sensory factors such as sound, light, heat, and so on; and measures such as health, humanity, service, and so on.

Data Availability

The labeled data sets used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

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References

- [1] M. Sun and J. Zhang, "Research on the application of block chain big data platform in the construction of new smart city for low carbon emission and green environment," *Computer Communications*, vol. 149, pp. 332–342, 2020.
- [2] J. Song, R. Li, L. Guo, X. Wu, and H. Liu, "Research on the construction of product carbon chain in supply chain and calculation of carbon footprint based on discriminant factors," *International Journal of Advanced Manufacturing Technology*, vol. 111, no. 1–2, pp. 1–8, 2020.
- [3] H. Ma, "The construction path and mode of public tourism information service system based on the perspective of smart city," *Complexity*, vol. 2020, no. 1, pp. 1–11, Article ID 8842061, 2020.
- [4] H. Zhang, H. Wang, Y. Li et al., "An investigation of the pullout behaviors of tire strips embedded in tire-derived aggregate reinforced sand," *Environmental Science and Pollution Research*, vol. 29, no. 24, pp. 35599–35614, 2022.
- [5] Z. Fang, Z. Zhu, and X. Chen, "Research on construction method and deformation control technology of high ground stress interbedded soft rock tunnel," *Journal of Intelligent and Fuzzy Systems*, vol. 40, no. 4, pp. 6175–6183, 2021.
- [6] W. Wang and D. Mandal, "Research on the construction of teaching platform of drama film and television literature based on iot," *Journal of Intelligent and Fuzzy Systems*, vol. 37, no. 3, pp. 3417–3424, 2019.
- [7] A. H. Mashhadi, M. Farhadmanesh, A. Rashidi, and N. Marković, "Review of methods for estimating construction work zone capacity," *Transportation Research Record*, vol. 2675, no. 9, pp. 382–397, 2021.
- [8] M. Aerts, A. J. Juga, and N. Hens, "Measures for concordance and discordance with applications in disease control and prevention," *Statistical Methods in Medical Research*, vol. 28, no. 10–11, pp. 3086–3099, 2019.
- [9] M. Yaw, H. D. Jeong, and K. Choi, "Effects of flexible notice-to-proceed provisions on the performance of transportation infrastructure projects," *Transportation Research Record*, vol. 2676, no. 4, pp. 790–800, 2022.
- [10] P. Kawale, L. Kalitsilo, J. Mphande et al., "On prioritising global health's triple crisis of sepsis, covid-19 and antimicrobial resistance: a mixed-methods study from Malawi," *BMC Health Services Research*, vol. 22, no. 1, pp. 613–13, 2022.
- [11] Z. Wang, P. Shi, X. Zhang, H. Tong, W. Zhang, and Y. Liu, "Research on landscape pattern construction and ecological restoration of jiuquan city based on ecological security evaluation," *Sustainability*, vol. 13, no. 10, pp. 5732–5773, 2021.
- [12] A. Li, Y. Ren, B. Chen, and H. Liu, "The development of public sports service system in central and western regions from the perspective of national health strategy," *Revista Brasileira de Medicina do Esporte*, vol. 27, pp. 76–79, 2021.
- [13] U. Ramanathan, N. L. Williams, M. Zhang, P. S. Nguanjin, J. A. G. Reyes, and L. A. Borges, "A new perspective of e-trust in the era of social media: insights from customer satisfaction data," *IEEE Transactions on Engineering Management*, vol. 69, no. 4, pp. 1417–1431, 2022.
- [14] M. A. Raymond and M. A. Simonetta, "Exploring cancer clinical trial participation in the new normal of covid-19: the patient perspective," *Journal of Clinical Oncology*, vol. 39, no. 3, p. 461, 2021.
- [15] L. Zhen, "Linkage development of sports industry and mobile internet in the internet era," *Journal of Intelligent and Fuzzy Systems*, no. 4, pp. 1–7, 2021.
- [16] A. Almudhi, "Evolution in technology and changes in the perspective of stuttering therapy: a review study," *Saudi Journal of Biological Sciences*, vol. 28, no. 1, pp. 623–627, 2021.
- [17] M. Schmidt-Hieber, D. Teschner, G. Maschmeyer, and E. Schalk, "Management of febrile neutropenia in the perspective of antimicrobial de-escalation and discontinuation," *Expert Review of Anti-infective Therapy*, vol. 17, no. 12, pp. 983–995, 2019.
- [18] N. Yuvaraj, K. Srihari, G. Dhiman et al., "Nature-inspired-based approach for automated cyberbullying classification on multimedia social networking," *Mathematical Problems in Engineering*, vol. 2021, pp. 1–12, Article ID 6644652, 2021.

- [19] D. Selva, B. Nagaraj, D. Pelusi, R. Arunkumar, and A. Nair, "Intelligent network intrusion prevention feature collection and classification algorithms," *Algorithms*, vol. 14, no. 8, p. 224, 2021.
- [20] X. Liu, C. Ma, and C. Yang, "Power station flue gas desulfurization system based on automatic online monitoring platform," *Journal of Digital Information Management*, vol. 13, no. 06, pp. 480–488, 2015.
- [21] R. Huang, S. Zhang, W. Zhang, and X. Yang, "Progress of zinc oxide-based nanocomposites in the textile industry," *IET Collaborative Intelligent Manufacturing*, vol. 3, no. 3, pp. 281–289, 2021.
- [22] M. K. A. Kaabar, V. Kalvandi, N. Eghbali, M. E. Samei, Z. Siri, and F. Martínez, "A generalized ML-hyers-ulam stability of quadratic fractional integral equation," *Nonlinear Engineering*, vol. 10, no. 1, pp. 414–427, 2021.

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