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Application of GDAHP on Quality Evaluation of Urban Lake Landscape

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ABSTRACT

The quality evaluation of urban lake landscape (QEULL) is extremely important for the healthy development of lake landscape. In this research, the evaluation model was established with the group decision analytic hierarchy process (GDAHP) method, which consisted of four layers including the target layer, the factor layer, the index layer and the criterion layer, thus forming a model tree based on their subordinate relationships. The GDAHP method was employed to determine the weights of constituting factors of each layer in the evaluation model, and the fuzzy method was used to establish the factors remark sets of the criterion layer, thus the single-layer evaluation and comprehensive evaluation of urban lake landscape quality was carried out. Quality evaluation model of urban lake landscape established based on the GDAHP method can provide grounds for planning, design, and renewal of urban lake landscape. This model has been used to evaluate and analyze the artificial lake in People' s Park of Xinxiang City, Henan Province. The results proved that the overall landscape quality of the artificial lake of Peoples Park in Xinxiang city was good.

KEYWORDS

Quality Evaluation, Urban Lake Landscape, GDAHP

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