

**Theoretical system study on watershed ecological compensation standard**

FU Yi-cheng<sup>1</sup>, YU Hui<sup>1</sup>, WU Wen-qiang<sup>1</sup>, GE Huai-feng<sup>2</sup>

(1. *China Institute of Water Resources and Hydropower Research, Beijing 100038, China;*

2. *China Renewable Energy Engineering Institute, Beijing 100120, China*)

**Abstract:** Eco-compensation standard is the key point during eco-compensation implementation. To realize ecological sustainability, the paper makes water quantity and water quality as the focus, studies the compensation standard calculation method combining with current implementation experience. According to the integral characteristics of water quantity and quality, cross-regional watershed eco-compensation calculation method is given. By considering ecosystem species and habitats diversity, water body function differentiation from river, forest and wetland system, the paper present evaluation method of watershed water ecological restoration priority. The thesis gives the theoretical framework and quantitative evaluating method to judge the priority of water ecological restoration from the level of system theory. Finally, the paper puts forward the study difficult-point and key-point combining the reality.

**Key words:** watershed eco-compensation standard; water quantity; water quality; ecological services