

## عنوان مقاله:

Developing a Non-linear Model for Water and Waste Load Allocation in the River Systems Using Fuzzy Cooperative Game: A Case Study

## محل انتشار:

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## خلاصه مقاله:

In this paper, a model is presented for water and waste load allocation in the river systems under the uncertainty and based upon three models as initial allocation, cooperative allocation and fuzzy cooperative game. The presented method consists of three main stages. First, the initial allocation model of the water and waste load is formulated. Then, the cooperative allocation model of the water and waste load is compiled by organizing all the possible coalitions in order to increase the economic interests. Finally, in order to allocate the water and waste load in the case of cooperation among the water users and with the consideration of uncertainties, the benefits of coalition are reallocated by implementing a fuzzy cooperative game. The capability of the suggestive methodology is verified using the quantitative and qualitative data of Dez river located in Khuzestan, Iran. The obtained results indicate the proper performance of the present model in cooperative allocating of the water and waste loads, maintaining the river's water quality standards and the effect of the formation of the cooperative farming coalitions on their ultimate benefit .increase

## کلمات کلیدی:

Water and waste load allocation, Fuzzy cooperative game, Cooperative coalition, Dez river system

## لینک ثابت مقاله در پایگاه سیویلیکا:

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