Variation characteristic of the Yellow River water resources in Ningxia section

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Abstract

The subject of rapid economic and social development impact of global climate change and the upper reaches of the Yellow River in the past decade, Ningxia Yellow River water into Gansu substantial reduced, resulting in Ningxia exit water also reduced to varying degrees, but the water entry and exit difference (water consumption) has increased. In this paper, comparative analysis of the Yellow River in Ningxia Section from 2001 to 2012 and from 1956 to 1995 data, found the average years of entry water by about 18%, leaving an average of about 23% less water for many years, Ningxia Yellow River water consumption increased by about 48%. Water impact from Meili Canal, Qixing canal, Qing Tongxia east and west main canal, 211.73 m³/s annual flux above Qing Tongxia Reservoir was evacuated by 2001 to 2012, more water in irrigated areas back from Shi Zui Shan section of the Yellow River once again return to the Yellow River, flow in the Ningxia exit section of the Yellow River than Qing Tongxia station extra 102.99 m³/s; the point of view during the year, due to the irrigation water from late March, the entry water becomes greater than exit water of the Yellow River in Ningxia section, effective irrigation due to precipitation increases in August, the difference between entry water and exit water becomes narrow, with the withdrawal of water regression in irrigated areas in downstream segment, thus result of the Shi Zuishan exit section flow than the entry of water cross section in varying degrees of increases in September, October and December.

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