



Characteristics of visibility around a Weir over the Nakdong River in Korea Peninsula

Park junsang, Cho changbum, Byon jaeyoung, Kim gyurang, and Choi byeongcheol

Applied meteorology research division, National Institute of Meteorological Research, Jeju, Republic Of Korea(happy3424@korea.kr)

Weirs were constructed near the Nakdong River in Korea Peninsula for the purpose of water resource securement and weather disaster prevention of the area near the river. Reservoir formed by weirs increase water area over the Nakdong River. Therefore, it is necessary to perform the local meteorological impact assessment by the change of water area. In order to analyze the impact on visibility by water surface, visibility meters were established around the Gangjeong-Goryeong Weir in Nakdong River and is operating after the construction of weirs. Data from two sites around Gangjeong-Goryeong Weir, are used in this study and were classified into among a bad visibility(less than 5 km), low visibility(5-10 km), and high visibility(10-20 km), and we analyzed temporal variation of visibility characteristics. Seasonal variation of the lower and bad visibility was distinctive from late autumn (November) to winter. It is noticeable that diurnal variation of bad visibility peaks from midnight to early morning. Bad visibility was mainly observed when humidity was over 90% or water temperature was higher than air temperature. It seems that water in the river evaporate by high water surface temperature and contribute to make low visibility due to water vapor in the air.