Title: Bayesian networks for environmental flow decision making and an application in the Yellow River estuary, China

In this paper, the authors proposed a framework for environmental water allocation based on Bayesian networks, using the Shangdong Irrigation District as case study. I would recommend its publication in *Hydrology and Earth System Sciences* following some minor changes set out below.

(1) P8 Line 22: Check the statement that "approximately 90% of total water resources are used for agricultural purposes". Is this correct? Is only 10% currently available for industrial, domestic, and environmental uses?

(2) P5 line14:Explain what is the "reference crop" and how it and the related coefficients have been adapted to crops and conditions in the Shandong area.

(3) P13 Line8: Reference to 30% savings clearly contains large uncertainty.

(4) P10 Line 2 and page 11 line6: Use of the term "maximum environmental flow" is not clear. For the consistent reason, I think the "minimum" in P10 Line 2 and P11 line6 should also be changed too. Here, I recommended "high" and "low".

(5) Given that the applications in the paper are all to the past conditions, how about the applicability of the framework to future situations. I think the framework is only valuable if it can be applied in future decision making. How can it now be used?