

***Interactive comment on “Future Flows Hydrology:
an ensemble of daily river flow and monthly
groundwater levels for use for climate change
impact assessment across Great Britain” by
C. Prudhomme et al.***

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We are very pleased that the referee has found the Future Flow Hydrology dataset useful and liked our paper. We also thank the referee to have taken the time to look at the Future Flows and Groundwater Levels project website. Below are our responses to the specific comments:

- Future Flows Hydrology is based on HadRM3-PPE transient ensemble which was only run under the A1B (medium high) emission scenarios. See

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http://badc.nerc.ac.uk/view/badc.nerc.ac.uk__ATOM__dataent_12178667495226008 for more information. In addition to Future Flows Hydrology, the project also considered the fuller climate change uncertainty as described as by the UKCP09 probabilistic sample scenarios and has generated sets of changes for three time slices and emissions scenarios combinations (2050s and medium emissions scenario (A1B); 2080s under a medium emissions scenario (A1B); 2050s under a high emissions scenario (A1F1). Those outputs are not part of Future Flows Hydrology dataset.

- ZOOMQ3D is a regional groundwater model for simulating groundwater flow in three dimensions for a given aquifer. The model calibrated over the Berkshire Downs (MAB-WEC) was used in the project to produce maps of changes in groundwater levels over the Berkshire Downs for the 2050s to investigate regional changes in groundwater levels but those results are not part of the Future Flows Hydrology dataset.

- One report has been produced describing the R-groundwater model, which is now available through the Future Flows and Groundwater Levels project website. The other models have been described in published reports and journal papers referenced in the final technical report. They could be requested to their authors.

- The R-groundwater model is planned to be in the public domain in 2012-2013. We are sorry if the webpages are misleading regarding its accessibility.

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