

WATER RESOURCES RESEARCH **-expertise and activities at Imperial**

Relevant academic staff expertise at Imperial

Hydrology and water resources:

Adrian Butler, Neil McIntyre, Simon Mathias, Christian Onof, Howard Wheater

Water supply and distribution systems :

Nigel Graham, Cedo Macsimovic, Ivan Stoianov, Michael Templeton

Wastewater treatment/chemicals in the environment:

David Stuckey, Nick Voulvoulis

Land disposal of organic wastes:

Stephen Smith

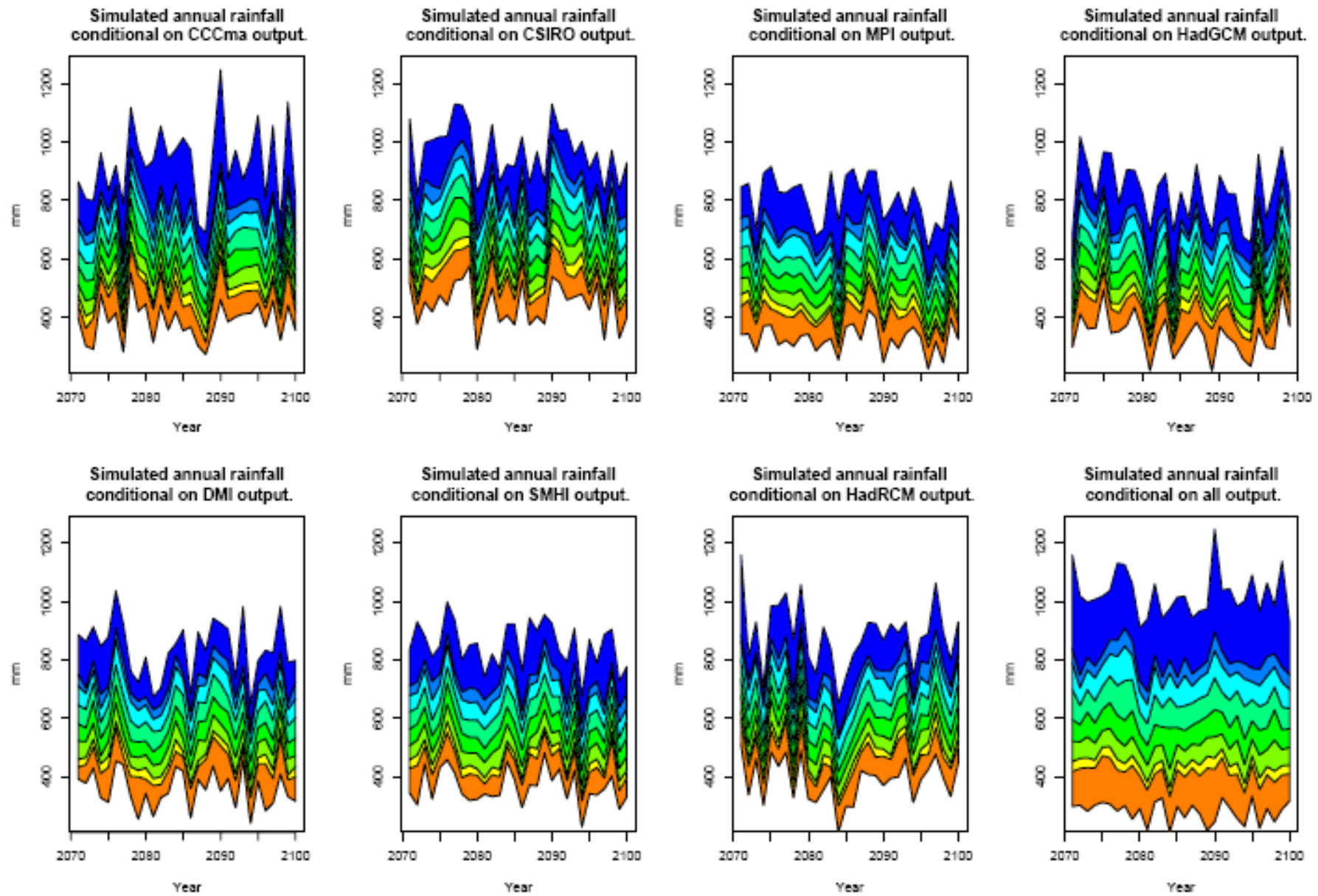
Some current relevant research

- Climate change – development of new downscaling methods for GCMs (with UCL and Grantham Institute for Climate Change Research)
- Hydrological modelling and climate change impacts assessment
- Chalk hydrology, including recharge modelling and drought yield assessment
- Risk assessment for water resource systems
- Water quality modelling, including nutrient transport in Chalk systems

- Use of pervasive sensors for leak detection and water quality monitoring in distribution systems
- Carbon footprint assessment for water distribution systems

- Chemicals in the environment, including endocrine disruptors, pharmaceuticals and veterinary medicines

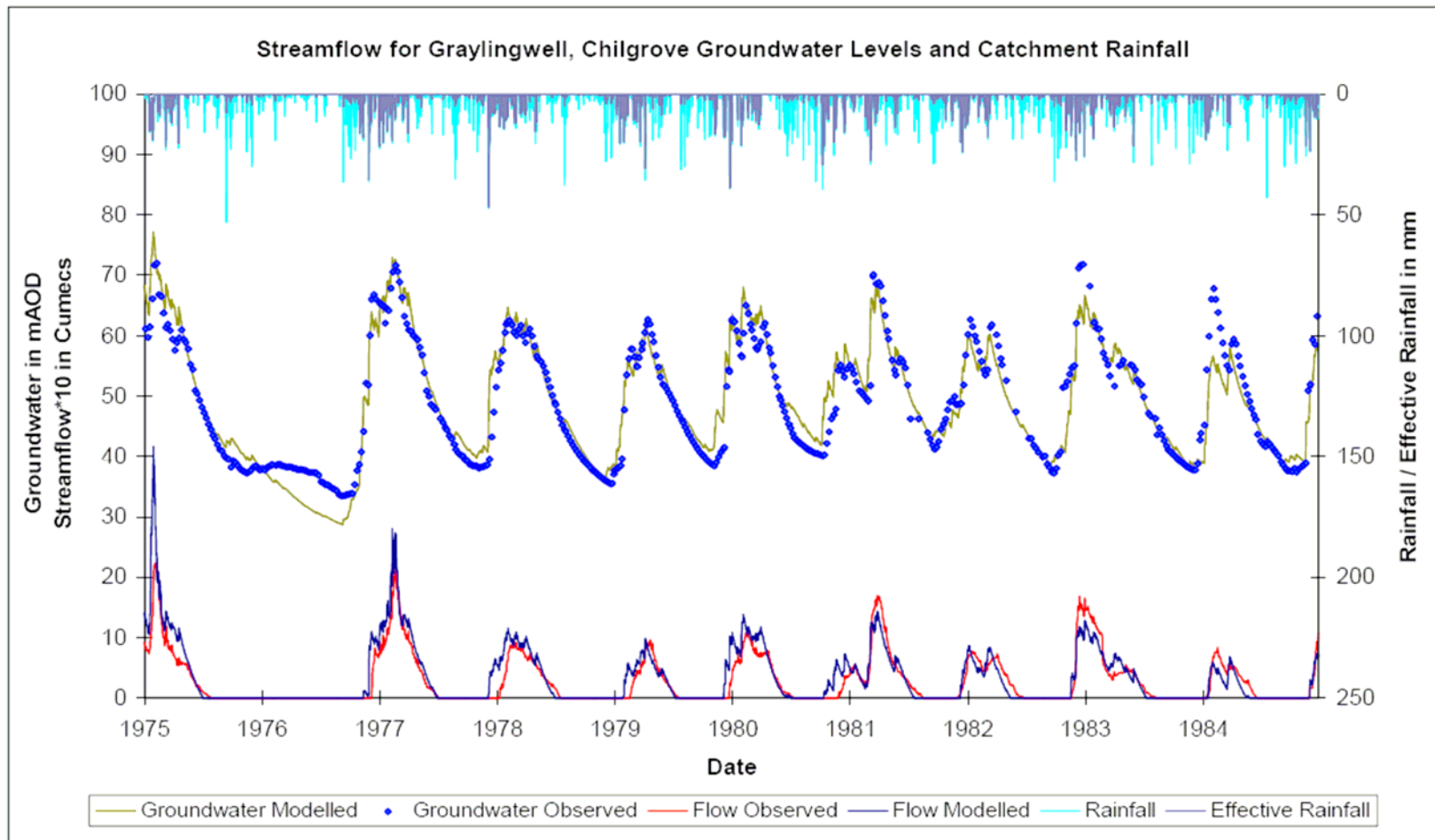
- International water resources management applications – Middle East, Nile basin, India



GLM-simulated annual rainfall, Heathrow, 2071-2100

. Top boxes, data from 4 different GCMs. Lower boxes, from 3 RCMs + all 7

Model performance: River flows and groundwater levels – 1975-85



Annual minimum groundwater levels 1970-2000 (blue) and 2050-H

**Results suggest major
reductions in
groundwater
levels**

