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## Solving the 23 Major Mysteries in Hydrology: Who Cares and Why?

**Daniel Loucks**

Cornell University, Civil & Env. Engrg., Ithaca NY, United States of America (loucks@cornell.edu)

A recent paper (Bloeschl, et al. 2019) reported on the outcome of a multi-year effort involving over 200 scientists identifying the 23 most unsolved scientific issues facing the hydrologic community today. The purpose of this exercise was to motivate the hydrologic research community to focus their work on these issues to better understand the major causes of how water behaves in our catchments, watersheds and river basins, often in different ways at various space and time scales, and under the influence of various degrees of human interactions. Aside from the scientific value that this increased understanding might bring, this presentation focuses on two questions: Why and how might this increased understanding be beneficial and who would benefit? In other words, who should care and why? This interactive presentation attempts to provide some answers to these two questions for each of the 23 identified unsolved scientific problems. But in general it is clear much of the impact that humans are having on our environment is driven by how the hydrologic cycle fits in with the needs of humans and our supporting ecosystems. Water in our environment affects the spread of contaminants and pathogens, the energy and food and industrial goods we produce, the ecosystem services we enjoy, and the duration and extent of floods and droughts some endure. Understanding these links and their economic, health, and social consequences will allow us to manage our water resources and their use more effectively, and perhaps even reduce the risks of reaching tipping points that could forever change how we all will live and survive in the future.