Geophysical Research Abstracts, Vol. 9, 04795, 2007
SRef-ID: 1607-7962/gra/EGU2007-A-04795

WaterNet: The NASA water cycle solutions network

D. Matthews(1), M. Brilly(2), P. Houser(3)(PI)

(1) Hydromet DSS, LLC, Silverthorne, CO 80498-1848 (2) FGG University of Ljubljana, Slovenia

(3) Center for Research on Environment and Water & George Mason University, Calverton, MD 20705

WaterNet is a new international network of researchers, stakeholders, and end-users of remote sensing tools that will benefit the water resources management community. This paper provides an over view and it discusses the concept of solutions networks focusing on the *WaterNet.* It invites EGU teams to join the in the initial stages of our *WaterNet* network. The NASA Water cycle Solutions Network's goal is to ***improve and optimize the sustained ability of water cycle researchers, stakeholders, organizations and networks to interact, identify, harness, and extend NASA research results to augment decision support tools and meet national needs.*** Our team will develop *WaterNet* by engaging relevant NASA water cycle research resources and community-of-practice organizations, to develop what we term an "actionable database" that can be used to communicate and connect NASA Water cycle research Results (NWRs) towards the improvement of water-related Decision Support Tools (DSTs). Recognizing that the European Commission and European Space Agency have also developed many related research products (EWRs), we seek to learn about these and network with the EU teams to include their information in the *WaterNet* actionable data base. An actionable database includes enough sufficient knowledge about its nodes and their heritage so that connections between these nodes are identifiable and robust. Recognizing the many existing highly valuable water-related science and application networks in the US and EU, we will focus the balance of our efforts on enabling their interoperability in a solutions network context. We will initially focus on identification, collection, and analysis of the two end points, these being the NWRs and EWRs and water related DSTs. We will then develop strategies to connect these two end points via innovative communication strategies, improved user access to

NASA and EU resources, improved water cycle research community appreciation for DST requirements, improved policymaker, management and stakeholder knowledge of NASA research and application products, and improved identification of pathways for progress. Finally, we will develop relevant benchmarking and metrics, to understand the network's characteristics, to optimize its performance, and to establish sustainability. The *WaterNet* will deliver numerous pre-evaluation reports that will identify the pathways for improving the collective ability of the water cycle community to routinely harness NWRs and EWRs that address crosscutting water cycle challenges.

Our tightly-knit team is composed of leading experts in NASA water cycle science, the water sector user community, and organizational connections and communications design and optimization. The team represents a strategically placed set of national and international organizations that will partner to harness NWRs to characterize and improve networks that sustain priority area solutions. Already established partnerships represent a cross-section of individual and networked NWRs and DSTs from government, private, and academic domains, that will enable us to quickly establish an operational solutions network, entrain more partner nodes and networks, and move *WaterNet* toward self-sustainability. EU projects like AWARE, and the flood and drought forecasting research efforts, and GMES projects are potential projects that may directly benefit from this *WaterNet* networking.

Specific goals and objectives, methods of communication, and process to join the *WaterNet* will be discussed.