Declaration of the Global Importance of Groundwater

NGWA INFORMATION BRIEF

Subjects

Groundwater use, irrigation, drinking water

Audience

Public officials, groundwater professionals, general public

Declaration

The National Ground Water Association invites others to join with it in recognizing that, given groundwater's vast reserves and broad geographical distribution, its generally good quality, and its protection from seasonal fluctuations and contamination, groundwater holds the promise to ensure future world communities an affordable and safe water supply. Further, by recognizing that both surface water and groundwater constitute essential resources, thoroughly integrated water resources management strategies will serve to enhance the security, reliability, and quality of the world's water supplies.

Water is essential for life, and groundwater is estimated to constitute more than 99% of the global, unfrozen freshwater reserves. The remaining freshwater supplies are found in lakes, rivers and wetlands, and the atmosphere. Groundwater is a renewable resource which, when managed properly, ensures a perpetual supply. Generally, groundwater supplies cost far less to develop than surface water supplies, given the extraordinary capital expenditures required for surface water storage, conveyance, treatment, and protection. In arid and semi-arid regions of developed countries and emerging nations, agricultural enterprises rely heavily on groundwater to meet crop water requirements. Its generally good quality also makes it desirable for drinking water supplies, and thus often is a major source of supply in many countries.

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The Groundwater Association

NGWA Proposals

Groundwater represents a generally underutilized resource of global importance. Integrated management of groundwater resources to meet the world's future needs necessitates the following:

- **More comprehensive water-management strategies that fully recognize groundwater's important role in the hydrologic cycle.** This requires better characterization of groundwater basins, including the inter-relationship of surface water bodies with the aquifer system, and a better understanding of the response of the entire hydrologic system to natural and human-induced stresses.
- **Making the maintenance of hydrologic balance a long-term goal of regional water-management strategies.** This requires that water managers identify options that minimize net losses of water from the hydrologic system; conjunctively manage groundwater and surface water resources; develop manmade infrastructure based on an understanding of the natural hydrologic system; encourage wise and effective water use; and ensure the fair allocation of water for human as well as environmental and ecological needs. Ongoing, coordinated surface water and groundwater monitoring programs must become an integral part of water-management strategies in order to adapt such strategies to changing socio-economic, environmental, and climatic conditions.
- **Improving scientific, engineering, and applied technological expertise in developing countries to accomplish sustainable water-resources management.** This requires that developed countries provide support to developing countries that is consistent with the country's socio-economic situation and culture.
- **An informed citizenry that recognizes groundwater's essential role in their community and the importance of its responsible use.** This requires that the science and applied technology communities enhance education and outreach programs to broaden understanding of the whole hydrologic system and its global importance to future generations.

Resources

Ground Water Use for America, National Ground Water Association, August 2009
www.ngwa.org
www.wellowner.org
www.groundwateradventurers.org

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The National Ground Water Association is a not-for-profit professional society and trade association for the global groundwater industry. Our members around the world include leading public and private sector groundwater scientists, engineers, water well system professionals, manufacturers, and suppliers of groundwater-related products and services. The Association's vision is to be the leading groundwater association advocating for responsible development, management, and use of water.

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