OLLI News Writeup

Timely Course Presented at Reston April 15- May 13, 2010

Water, Water, Everywhere

The amount of moisture on Earth has not changed for the last 3 billion years of its geological history. The water that the dinosaurs drank millions of years ago is the same water that falls as rain today. But will there be enough water for a more crowded world? (National Geographic Magazine, April, 2010)

Our planet, the Earth, is also referred to as the "Water Planet". It is estimated that approximately 70% of the Earth's surface is covered by water, mostly in the form of oceans. The surface of the Earth and the shallow part of its crust contain approximately 366 million trillion (366×10^{18}) gallons of water. Of this amount, 96.5% is salty (oceans, seas, bays, estuaries) and 1% is brackish groundwater, both of these forms not amenable to the sustenance of human life. The balance of water on the planet is "fresh" and is estimated to be 2.5% of the total water budget. Of this amount of fresh water, 69.6% is frozen in ice sheets, glaciers, permanent snow cover, and permafrost, all of which is not very available to support human life. 30.1% of freshwater sources are beneath the ground in soils and aquifers fed by surface seepage and potentially available for human consumption. Finally, only 0.3% of fresh water on the planet is in the form of readily available lakes, rivers, and wetlands but also includes all of the water that are in plants, animals, and the atmosphere (National Geographic Magazine, April 2010). One of the issues before us in this course is: Is this amount of water sufficient to sustain life and if not, what can we all do on this planet to ensure that this becomes a sufficient quantity?

This course presents and explores the issues associated with both the availability of adequate clean water as well as the impacts resulting from inadequate supplies of affordable clean water on both the human condition as well as on the environment. We have arranged for five outstanding speakers from the Institute for Water Resources of the US Army Corps of Engineers, the Water Environment Federation, An Assistant Professor of Global and Community Health from George Mason University, the World

Resources Institute, and last but not least, an OLLI board member to make presentations on water and global security issues, new technologies to implement sustainable water management, changes in global health patterns associated with availability of clean water, climate change and eutrification, and a successful water conservation campaign in Egypt.

These issues are vital to all citizens of this planet and this course offers its attendees a superb opportunity to be “brought up to speed” on the latest thinking and developments in this area.

Class space is still available for signup. “Water, Water Everywhere” Course Catalogue No. R 806 meets at the Reston venue on Thursdays April 15-May 13 from 2:00-3:30 PM. Hope to see you there.

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Course Coordinator