

Tuesday, March 20, 2007

Environmental and Engineering Group Dinner Meeting

New Location Cheddar's • 10601 Westpark Drive
(the southwest corner of Westpark and Beltway 8)
Social 5:30 p.m., Dinner 6:30 p.m.

Cost: \$25 Preregistered members; \$30 non-members & walk-ups

Make your reservations now on-line through the HGS website at www.hgs.org; or, by calling 713-463-9476 or by e-mail to Joan@hgs.org (include your name, meeting you are attending, phone number and membership ID#).

by *John R. Larson*

Global Warming, GHGs and the Carbon Markets— Welcome to the 21st Century

Humans release about 8 billion tons of carbon-based (or 8 gigatons GtC) greenhouse gases (GHGs) per year: 6 GtC from fossil fuels and 2 GtC from land disturbance (soil erosion, forest depletion, etc.). Of this the oceans absorb 2 GtC and plants absorb about 2 GtC; the remaining 4GtC are added to the atmosphere each year.

Possible solutions to mitigate excess GHGs and their associated global warming/climate change effects include increased energy efficiencies and new conservation measures, further development and use of alternative energy sources, and carbon capture and storage. This presentation provides an overview of the global carbon cycle, potential global warming causes and effects, and geo-engineering solutions for mitigating those effects. These mitigating measures are fundamental to establishing the value of the current carbon commodity markets where carbon cap and trade of credits and GHG/carbon inventories will play a dominant role in future economies. ■

Biographical Sketch

JOHN R. LARSON is a licensed professional geologist with a BS in Geology from SMU and a Masters of Public Health in Environmental Health Sciences from the UT-Houston. He has published on topics that range from health effects associated with community water supplies, impacts of effluent loadings on estuarine environments, to in-situ bioremediation and

environmental justice. His expertise is in the area of providing cradle-to-grave risk management for environmental projects. His clients have included electronics manufacturers, oil and gas producers and shippers, transportation carriers and real estate developers in 21 states. Larson has also directed projects that include significant public involvement, regulatory agency interface, and legal aspects for complex development projects including National Environmental Policy Act issues.

John is President of BioGeo Solutions, a company he launched in July 2006. Before establishing his own company he held the following positions:

- Faculty member, Sciences Department, University of Phoenix (current);
- Program Manager, TRC Environmental, Kansas City Missouri, 2004-2006;
- Assistant Vice President and Environmental Group Manager, TranSystems Corp., Kansas City, Missouri, 1999-2003;
- Senior Risk Assessor, Dames & Moore, Houston, Texas, 1993-1994 and 1996-1999;
- Project Manager, DuPont Environmental Remediation Services (DERS), Houston, Texas, 1994-1996; and
- Exploration Geologist, Marathon Oil Co. and Texas Oil and Gas Co. (TXO), Houston, Texas, Shreveport, Louisiana, and Oklahoma City, Oklahoma, 1984-1992.

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