OPTIONAL PRE-CONFERENCE WORKSHOP:

Water, Energy and Carbon Cycling within Greater Everglades Ecosystems

Monday, April 17, 2017 -- 10:00 AM to 5:00 PM

FEE TO ATTEND: $25.00

ADVANCE REGISTRATION REQUIRED: *Attendance is limited to 50 people. You will be able to sign up for this workshop through the GEER online registration process. Participants may enroll on a first-come, first-served basis,* ***but no later than March 20th, 2017.***

Organizers:
- Barclay Shoemaker (U.S. Geological Survey, Davie, FL)
- Frank Anderson (U.S. Geological Survey, Sacramento, CA)
- Brian Benscoter (Florida Atlantic University, Davie, FL)

Objective: Workshop participants will learn about the historic, present and future state of water, energy and carbon cycles within Greater Everglades ecosystems.

Background: For centuries, the Greater Everglades has grown and evolved in response to water availability, sunlight, and photosynthetic capacity to store atmospheric carbon as peat soil. Modern disturbances - such as construction of extensive drainage features for populous communities - have fundamentally altered water, energy and carbon cycles while provoking the largest restoration program in the world. This workshop will exchange scientific ideas regarding the historic, current and future condition of Everglade's water, energy and carbon cycles - including possible management actions to improve ecosystem services, resiliency, and recreational wilderness experiences.

Topics will include:
(1) Atmospheric exchanges of greenhouse gases measured with soil gas-traps and eddy-covariance methods;
(2) regional-scale remotely-sensed carbon uptake rates;
(3) Lateral hydrologic fluxes of dissolved/particulate organic/inorganic carbon within key drainage features;
(4) The role of fire, hydro-period and hurricanes in long-term net radiative forcing;
(5) Geologic and geophysical delineation of peat soil thickness and historic changes in thickness; and
(6) Soil oxidation/preservation strategies such as hydration and flooding.

Lessons learned from similar wetlands studies are welcomed for discussion of possible transfer-value to the greater Everglades. Finally, location-based working groups (headwaters, central, and southern Everglades) will be assembled to discuss scientific posters and identify emerging issues and priorities for future study.

Workshop Benefits: At the conclusion of the workshop, attendees will have a better understanding of the historic, current and future state of water, energy and carbon cycles within the Greater Everglades. Workshop findings will be used to identify emerging issues and research priorities.