



## **First International Greenhouse Gas Measurement Symposium** **March 22-24, 2009 • San Francisco, CA**

Presented by A&WMA (Air and Waste Management Association)  
in cooperation with the EPA (Environmental Protection Agency)

### **POSITION STATEMENT**

Reducing anthropogenic greenhouse gas emissions (GHG) sufficient to mitigate harmful climate change is one of the greatest challenges of our time. Accurate measurements and comprehensive monitoring programs will be essential for quantifying the effectiveness of current and future GHG emissions management strategies. More importantly, trustworthy, internationally-accepted measurement and monitoring systems will be critical for assuring compliance with future global climate policy.

This conference will initiate discussion of the state of the science in GHG measurement and monitoring, and begin identifying the technological needs for accurate and comprehensive local, regional, national, and international monitoring systems. All stakeholders are encouraged to participate in this conference, including government regulators and policy planners (local, state, national, and international), measurement technologists, operators of and investors in sources and sinks, and carbon credit trading bodies.

Until now, greenhouse gas assessments have been the focus of two very different groups. Climate scientists have performed quantitative and objective measurement of atmospheric and local GHG levels to use this data in increasingly sophisticated and detailed models that explain some observable aspects of climate change. In contrast, GHG reduction efforts through treaties, nascent regulations, voluntary reductions, and emerging cap and trade schemes have assessed GHG emissions through an audit process based on a subjective philosophy of “account and extrapolate.” The long-term success of these GHG management efforts will ultimately depend upon the adoption of a defensible, scientifically consistent and rigorous method to account for GHG emissions. The defensibility of this accounting method will depend upon universally accepted measurement methods and standards. To this end, “account and extrapolate” must give way to “measure and monitor.” Indeed, without objective measurement, cap and trade is likely doomed to failure due to lack of widespread confidence in its accuracy, in spite of all stakeholders’ best intentions.

Emissions monitoring will be required for individual enterprises, such as landfills, power plants, manufacturing facilities, and more diffuse, “area” sources. Total flux measurements will be needed at international, national, regional, county, and local scales. Given the variety of pertinent GHG sources, the reference measurement methods employed will likely encompass a wide array of techniques. Presentations on state-of-the-art measurement methods and their application will inform the central discussion of potential best practices for current and future GHG management efforts.

The goal conference of this conference is to begin the process of defining the scope of the technical problem of monitoring GHG emissions at multiple spatial scales, and to discuss how these measurements should be performed.

Technical program co-chairs:

Ram Hashmonay: [rhashmonay@arcadis-us.com](mailto:rhashmonay@arcadis-us.com)

Eben Thoma: [thoma.eben@epa.gov](mailto:thoma.eben@epa.gov)

Jeff Ryan: [ryan.jeff@epa.gov](mailto:ryan.jeff@epa.gov)

Brooke Hemming: [hemming.brooke@epa.gov](mailto:hemming.brooke@epa.gov)

A professional development course is planned in conjunction with the conference on Sunday, March 22, 2009 (8:00 a.m. - 5:00 p.m.):

AIR-130: Emission Measurement Techniques for Greenhouse Gases (GHGs) from Area and Fugitive Sources

Instructors: Dr. Ram A. Hashmonay, ARCADIS, and Dr. Eric Crosson, Picarro