



Air & Waste Management
A S S O C I A T I O N

**Vancouver
 Island
 Chapter**

Tuesday, March 21, 2006

***** Ambrosia Catering *****

638 Fisgard Street, Victoria, BC

11:30am - 1:30pm

**"Uncovering the Earth's Natural Climate History from Maine Sediments and
 Glacial Ice: Keys to Our Possible Future"**

Dr. Audrey Dallimore

Geological Survey of Canada-Pacific, Natural Resources Canada

Important insights into climate change and extreme storm events are found in the geologic records of western Canada. Geoscientists at the Geological Survey of Canada are working to uncover secrets hidden in marine sediments contained in B.C. coastal fjords and among the ice fields of the St. Elias Mountains in the Yukon, which will provide new insights into past and present climate changes. This new research can help communities, planners, businesses and policy-makers to prepare for a changing future climate system

Our general understanding of the climate system is based on super-computer global circulation models, which are keyed to measurements of our climate and weather systems recorded in about the past 100 years. However, this short duration has not witnessed the full range of Earth's climatic variability and it includes human-caused disturbances to the natural climate system. Therefore the input of geoscientists studying the Earth's natural climate variability is vital to accurately placing 20th and 21st century climate in historical context, evaluating the significance of future changes in climate, and analyzing uncertainties in the projection of climate change.

Our recent research on coastal B.C. ocean sediments shows that extreme and abrupt climate changes are now occurring along the B.C. coast. Some of these changes are natural, for example, we believe extreme storm events, such as the strongest wind storm in 30 years which hit south coastal B.C. on Feb 3, 2006 causing damage to properties, dykes and power outages to 100,000, will occur more frequently in the coming decades and may in fact become the norm.

Other climate and atmospheric changes are clearly human-induced and for example, geologic research can place modern trends in global air pollution in their historical context, by defining natural or pre-industrial levels of pollutants, and how these vary with a changing climate. A 173 meter glacial ice core recovered from the summit of Canada's highest peak, Mount Logan, by Geological Survey of Canada scientists, shows that airborne metal pollution from Asia reaching western Canada increased markedly in the mid-1970's, possibly due to changing patterns of wind circulation. The interplay between pollution and the effects of climate change are vital to policy-makers, industries and Canadian communities, and results of new geologic research can help point the way forward in a rapidly changing environment.

Luncheon Details

- \$10** - paid up AWMA members (Intl)
- \$20** - non-members
- \$10** - students

****Cash or cheque only****

Lunch and coffee will be served at noon. Vegetarian lunches are available when arranged at time of RSVP

Parking: Pay parking is available at the City Parkade right across the street or at numerous lots along Fisgard and in the area.

RSVP: Donna Grant @ 360-3256 or E-mail: dgrant@crd.bc.ca before **3:00pm on Friday, March 17, 2006.**

Cancellation Policy

Cancellations will be accepted at no charge up until 3:00pm on the Friday prior to the luncheon by contacting Donna Grant.

Regrettably, cancellations made after this time will be subject to a \$25 service charge, as the Chapter is billed regardless of late cancellations. This will be invoiced and is requested to be paid prior to attending future luncheons.