

Professional Engineers  
and Geoscientists of BC  
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# Sustainability NOW

*If not now, when? If not us, who?*

*Newsletter of the Sustainability Initiative of the Association of the Professional Engineers and Geoscientists of BC*

## A Snapshot: What do APEGBC members think about Sustainability and Engineering & Geoscience Practice in BC?

By: Linda Bily, P.Eng., Conor Reynolds, P.Eng., Maggie Wojtarowicz, P.Eng.

A recent public opinion poll by McAllister Opinion Research reveals that more than ever, the Canadian public are concerned about the environment and sustainability. In fact 70% of those polled believe that Canada's "pollution laws" are inadequate, and the most frequently mentioned environmental concern is global warming. This is not a new trend. Last year, James Hoggan & Associates released the results of a large opinion poll on Sustainability. They found that 90% of the Canadians they surveyed "fear that over consumption of the world's natural resources threatens the health and welfare of our children", and that they care about "saving the planet".

So, Canadians think sustainability issues are important, but what do BC Engineers & Geoscientists think about sustainability, and more specifically, what initiatives do they think APEGBC should be working on?

The Sustainability Committee of APEGBC is currently completing an analysis of the results of a recently conducted survey. The main objectives of this survey were the following:

1) To get feedback from APEGBC members to help direct what initiatives APEGBC should be working on;

2) To find out what tools or initiatives members need to help them incorporate sustainability into their practice more; and,

3) To learn what members knew of APEGBC's activities related to sustainability and/or to inform them of these activities and related resources.

Upon initial analysis some common themes are appearing. While a more detailed report will be available in the near future, the Sustainability Committee wishes to share some of the survey highlights.

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Notably:

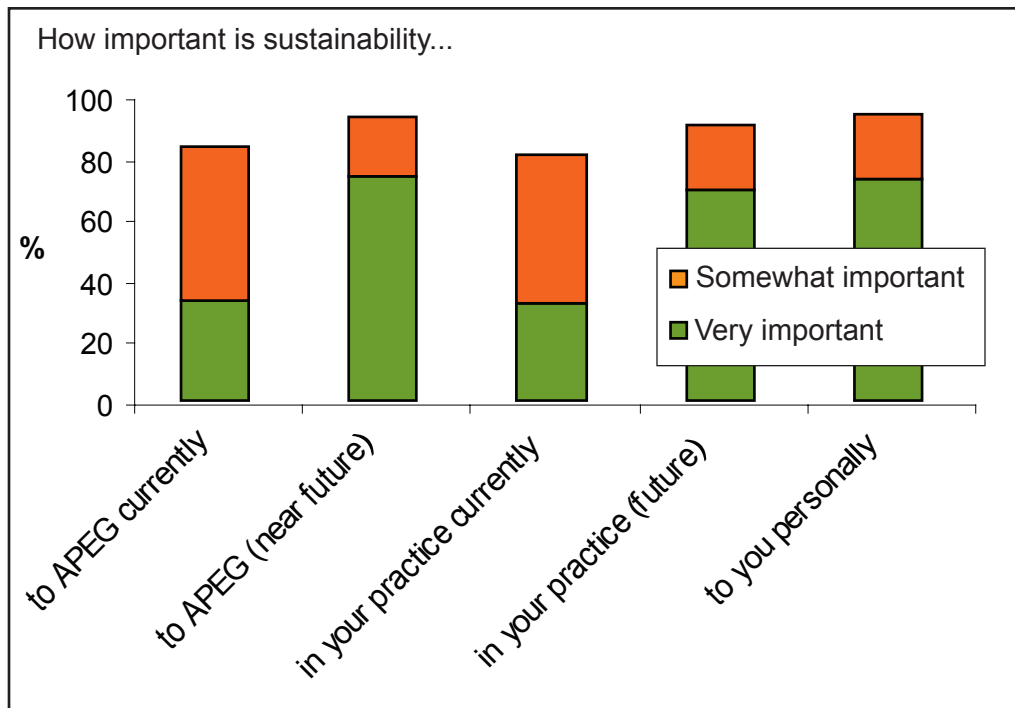
**Respondents indicated they had very little knowledge about the various Sustainability Committee activities.** This finding was insightful and will help APEG-BC direct its future activities with increased emphasis on communication of initiatives to members.

**Respondents very strongly believe that sustainability leadership should come from the various levels of government as well as from engineers & geoscientists.** Furthermore, the majority of respondents expressed their opinion that APEGBC should work with government to develop sustainability policies. In addition, respondents noted that lack of support

A full report on the results of the 2007 APEGBC survey on Sustainability in Engineering & Geoscience Practice in BC will be posted on the APEGBC website shortly.

McAllister Opinion Research, 2007, "Increasing Majority Call Canada's Pollution Laws Inadequate", available at [http://www.globescan.com/news\\_archives/em07\\_pr/](http://www.globescan.com/news_archives/em07_pr/)  
James Hoggan & Associates, 2006, "What Canadians think about Sustainability - the word, the concept, the values", available at <http://www.hoggan.com/sustainability.html>.

6% of APEG members (1,434 out of approximately 24,000) gave feedback to the SC through this survey.



**Seven out of ten respondents said that sustainability is very important to them personally.** The survey asked respondents how important sustainability was to them personally, to their practice, and to APEGBC - now and in the future. As can be seen from the plot above, sustainability is viewed as being more important to respondents personally than professionally. Regarding our governing body, while only 30% viewed sustainability as being very important to APEGBC currently, over 70% sees sustainability becoming very important to APEGBC in the near future.

**The majority of respondents noted that climate change impacts and pollution ("contamination of air, water and land") are considered the greatest problems.** The survey asked members what they think are the most important challenges facing society and the environment at present and about 60% of all respondents noted that climate change impacts and pollution ("contamination of air, water and land") are considered the greatest problems. This aligns closely with the opinion of the general public. Related, over 40% of respondents cited "willingness of people to change their behaviour/lifestyle" as a significant challenge.

from clients to implement sustainability principles is just as much of a barrier as lack of government regulations.

**Respondents indicated that they needed APEGBC's support to help educate the public and clients in order to help them integrate sustainability considerations into their practice.** Respondents also indicated that APEGBC could help by

Canadians think sustainability issues are important

providing members with more information resources and access to training related to sustainability in engineering and geoscience practice.

# The Sustainability Committee recently interviewed APEGBC President Janet Benjamin P.Eng. regarding her understanding of sustainability, and how it relates to the professions of Engineering and Geoscience.



Janet Benjamin –  
APEGBC President

## How do you define sustainability?

Sustainability is a holistic approach that allows consumption benefits now without depleting long-term resources. This means that future generations would be able to enjoy the same resources. It's really about smart management

## What challenges and opportunities does sustainability represent to the professions of Engineering and Geoscience?

At first glance it would seem that challenges could relate to the possible perceived impact of some engineering and geoscience activities, such as forestry and mining, on the future generations. I believe, however, that this is better seen as an opportunity. As I mentioned in my election statement, our professions are uniquely positioned to put technology in context. This means that we can evaluate the broader picture, including the all externalities- environment, economic, social- on a life cycle basis. In this way, we

can fulfill our duty to promote the well-being of society by finding the best overall solutions. As such, sustainability is central to our activities as professional engineers and geoscientists

## What role should APEGBC play in meeting the challenges and opportunities represented by sustainability?

APEGBC messaging should describe members as the group who are committed to sustainability and the best able to lead it. Our courses and philosophy should reinforce the incorporation all of externalities, mentioned earlier, into decision-making.

APEGBC should encourage members to keep sustainability foremost in their projects. In my own practice, for example, I co-founded Power Smart Inc., I am one of the 20 members of the National Round Table on the Environment and the Economy (which seeks the sustainable "sweet spot" where both flourish) and I am currently working on plug-in hybrid electric vehicles. I drive a hybrid car. APEGBC should encourage sustainability practices in members' work and personal lives.

The outcome we want is for society to look to APEGBC members first when deciding the best approach to solving problems, as well as providing the technical solution. That way society will get the solution that "fits": holistically, now and for the future. We will "build in" sustainability.

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*"Sustainability is central to our activities as professional engineers and geoscientists"*

# **A conversation with APEGBC Past President Timothy Smith, P. Geo., Eng.L, on current sustainability challenges and solutions.**

1. You have indicated that, as engineers and geoscientists, our responsibilities to the public are the first priority for the professions; that public safety and welfare and the protection of the environment are paramount. How does this translate to the concept of sustainability?

**When we talk about protecting the public, it is not just about today but applies to the future as well. Decisions made today affect us in the future and decisions respecting the environment affect us all. An unhealthy environment can lead to an unhealthy public.**

2. Sustainability has become a buzzword and it seems everyone has their own personal definition that resonates personally with them. What is your definition of “sustainability”? What does this word mean to you on a personal level and on a professional level?

**A colleague recently reminded me of the traditional first nations view of considering the impact seven generations down the line. Is it really harming the planet? Are we doing the best that we can do? The Exxon Valdez was an example where Exxon spent half the money fighting the legal battle rather than cleaning up the spill. Engineers and geoscientists do work that impacts the planet so we need to be cognizant of that. We will make an impact; there is no question of that. We should try to make the footprint as light as possible. We want future generations to flourish.**

3. There is much discussion at the moment about human impacts on the environment, and how this affects the health and well-being of people as well as ecosystems, now and in the future. What opportunities and challenges does this public focus present for the engineering and geoscience professions?

**We are leaders in problem solving. We can understand the problem and provide solutions. The opportunities are there for engineers and geoscientists to flourish.**

**If we don't step up, how will the public view us? Will we continue to have the exclusive right to practice? The public wants us to come up with more than a standard design. Will we step up or will we argue about the science?**

4. Engineers and geoscientists clearly play an important role in determining how society impacts the world, and it can be argued that we best understand the different technological options that are available to solve problems and implement change. What role should APEGBC play with regard to government policy and regulation making? Should APEGBC be more active in defining what engineers can and should do with respect to a more environmentally sustainable future?

**APEG plays an advisory role with government. We don't want to get into the role of arguing with government. Government has defined the problem with greenhouse gas targets. We can present a balanced opinion based on good science but we should be helping them find solutions. We can also bring issues forward and identify where the gaps are, as an example, with slope hazards. Do we see something that is not being addressed that should be?**

5. There has been some debate about whether engineers and geoscientists should focus on mitigating or adapting to climate change impacts. What are your thoughts on where the focus should be?

**You can't separate them. You really have to do both. If you just adapt, it will become prohibitive, cost-wise, and it would be just treating the symptom rather than the cause.**

6. In the fall of 2006 you were selected as a spokesperson for the Climate Project and joined 1000 scientists, corporate leaders and environmentalists in Nashville. This project is based on the material Al Gore developed for his “Inconvenient Truth” presentation. What motivated you to join this project? What was this experience like? What was the most important learning or revelation you took away from this event?

**I live in the Sea to Sky corridor and have watched the decline in glaciers. We are in an interglacial period but it is accelerated. When I watched the movie, “Inconvenient Truth”, I saw there was some propaganda but also lots of good science.**

**On the Climate Project I was surrounded by some impressive people who were very passionate. The experience was awe-inspiring. The message I took away is that you can make a difference.**

7. How do you respond to those who are not as convinced of the science around climate change as you are?

**I don't want to argue the science. You can believe we are affecting climate change or not but can't argue that climate change isn't happening. IPCC saw a high probability we are affecting climate but even they don't say it's definitive. Do the cost/benefit analysis. We are problem solvers. This is an economic opportunity and it is sailing right by us. We can focus on that or we can spend our time arguing about the science.**

8. As you travel around the province this year in your role as APEGBC President, what feedback are you receiving from APEGBC members about the direction APEGBC has taken or should take on the sustainability front?

*In my visits I have been talking specifically about climate change. I am encouraged by the younger to mid-professional members where I am preaching to the converted. They are on board. Some older members are another issue. However, the vast majority of our members want to do more. The time is right.*

9. What role do you see for Council and for the Sustainability Committee in integrating sustainability principles into APEGBC's operations and mandate?

*Council has been reinvigorated with respect to sustainability. Council passed a motion on using the Triple Bottom Line approach on select operations and policy decisions.*

*The Sustainability Committee's role is to help with awareness. The Sustainability Committee is on the front lines and can advise. A member of the Sustainability Committee should sit on the audit committee, as an example.*

10. Will there be an ongoing need for a Sustainability Committee at APEGBC in ten years?

*I see it not as a committee but as a Division. Committees get unwieldy over a certain size and there are too many people who want to participate. As a Division we could bring in a lot more people. You could have your own AGM but still be accountable.*

*The way to engrain sustainability is to get more people involved. Bring more people to the table.*

11. We understand that you were not always as enthusiastic about the notion of incorporating sustainability concepts into the practice of engineering and geoscience. Was there a watershed moment for you that changed your perspective on this?

*It was more the idea of the proposed Sustainability Management System delivery mechanism that I had a problem with. I believed in the concept but not the delivery mechanism. I have come to realize that you need a champion for an issue like this.*

12. In your professional geoscience work in the field and in your personal leisure time outdoors activities, what are the effects of climate change that have made the biggest impact on your thinking?

*I think it is finding beautiful glacial lakes and going back later to find they're much bigger. It's the visual impact.*

13. What steps should an engineer or geoscientist take to ensure that their practice incorporates APEGBC's Sustainability Guidelines?

*Continually raise your awareness by reading, attending conferences, discussing it with others. Start pushing the client to look at other options. Speak up, be brave. Look for the economic opportunity.*

14. What changes have you implemented in your professional life since becoming president? What changes have you implemented in your personal life?

*I really value this professional time as president. As Tim Smith, President, there is a chance to make a difference and to raise awareness. I hope that I have inspired debate.*

15. Do you have any favorite books or websites that you would recommend for anyone who wanted to learn more about sustainability and/or climate change?

*The Weather Makers by Tim Flannery talks about the broader geological time scale. It is well written without the propaganda.*

*Golfing with God is another favorite. It is a humorous book about spiritual sustainability. It's not as religious as it sounds.*



## Sustainability Now

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