



# NEWSLETTER

## PROBUS CLUB VANCOUVER

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Clubs for retired and semi-retired professional and business persons, former executives and others

[www.probusvancouver.com](http://www.probusvancouver.com)

June 2012

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**Next Meeting:** June 12th, 2012

**Time:** 9:30 am

**Location:** H.R. MacMillan Planetarium and  
Space Centre, Lower Level

**Speaker:** John Carruthers, President of Enbridge  
Northern Gateway Pipelines.

**Topic:** "The Enbridge Pipeline"

### UPCOMING EVENTS

**Tuesday, June 19<sup>th</sup>**

Visit to UBC Wine  
Research Centre

## JOHN CARRUTHERS



John is President of Enbridge Northern Gateway Pipelines; a \$5.5 billion Project which involves construction of a twin pipeline system to export petroleum and import

condensate. The proposed pipeline will run from Bruderheim, Alberta to a new marine terminal in Kitimat, British Columbia. The system will export oil and import condensate.

Prior to leading Northern Gateway, John was Vice President of Gas Development at Enbridge, responsible for gas marketing, LNG, storage projects and Enbridge's interests in Aux Sable gas processing.

Prior to joining Enbridge, John was employed by BP Canada as Vice President of Alaska Canada Gas Pipeline with responsibility for Canadian and US Regulatory, Environment, Land and Public & Government Affairs aspects of the Project.

Prior to BP, John worked for TransCanada PipeLines as President of the publicly traded TC PipeLines LP and Vice President of Energy Transmission. John was on the Management Committee of various pipeline investments including Northern Border, Express, Foothills, TQM and Iroquois.

John has served on the boards of the not-for-profit Clean Water for Haiti, Calgary Children's Festival and Canucks Rugby Club. He is married with six children and enjoys spending family weekends in Fernie BC.

### **WELCOME NEW MEMBERS**

**Douglas Cucheron** –  
Chartered Accountant

**Douglas Graham** -  
Chartered Accountant

**Graham Wilson** - Finance

## Report of the May 8th Meeting

President **Don Newman** called the meeting to order at 10:00am, welcoming all attendees including guest speaker, Dr. Donald S Mavinic. **Brian Wasson** acted as secretary.

The President noted the passing of **Brice Macdougall**, first Honorary Life Member of our Probus club.

**Jack Zaleski** of the Membership Committee then introduced three new members (see Welcome New Members).

Past President **Bill Sexsmith** introduced the speaker, Dr. Donald S Mavinic (Biography in April Newsletter). His topic was: "A Green and Sustainable Solution to Global Phosphorus Depletion".

Dr. Mavinic opened his address by describing the importance to mankind of the element phosphorus. Phosphorus is essential for life. As phosphate, it is a component of DNA and as phospholipids that form all cell membranes. For these functions it has no substitute. It was first isolated from the distillation of urine by a German alchemist, Dr. Hennig Brand.

Phosphorus is not found free in nature, but is widely distributed, mainly as phosphates. One of its interesting features of this element is that phosphorus cannot be destroyed so that it can be perpetually recovered and recycled. The chief commercial uses of phosphorus compounds are fertilizers, detergents and pesticides. Phosphorus rich minerals are found in various places in the world. Exploitation takes place in Russia, China and Australia, South Africa and Jordan but 90% of the world's production comes from Morocco. Canada purchases its requirements from Morocco. Some countries such as India

are running out of phosphate rock. Some countries such as Russia are banning the sale of phosphate rock. Projections are that production will peak between 2030 and 2040. More significantly, demand will exceed supply between 2025 and 2030. Countries like Sweden and the Netherlands are setting standards for domestic phosphate recovery and reuse.

It is estimated that 80% of phosphates applied to agricultural land are wasted in runoff to ground water, producing a process called Eutrophication, a blooming of algae in lakes and streams that inhibits other marine life. An example in BC is the pollution of Shushwap Lake. Probably Canada's largest risk for phosphate concentration is the draining of a vast watershed into Lake Winnipeg. Canada is in the forefront of research into combating this problem and is coordinating its efforts with the US. A common step in reversing the risk was the prohibition of phosphates in detergents.

Dr. Mavinic has been involved in research for the recovery of phosphorus from waste water in effluent treatment plants. There is a crystalline waste which coats the insides of waste water pipes, an inorganic crystal, not a biosolid. Research for the recovery of this material was initiated by a grant to UBC from BC Hydro who wanted to find a way to regenerate marine life in sterile lakes and streambeds. UBC developed and patented the process and licensed operations for the recovery of 'struvite' to Ostara Nutrient Recovery Technologies Inc., who started off with a \$1,200,000 investment. Basically, the Pearl™ Process resolves struvite issues by a controlled chemical precipitation in a fluidized bed reactor that recovers the struvite in a form

of highly pure crystal pellets. The nutrient rich fed streams are mixed with magnesium chloride and sodium hydroxide and fed into the reactor where the size of the fertilizer pellets can be controlled. The first pilot installation was made in Edmonton in 2007. There are now five units in use. A Pearl reactor can produce 500 kg of product a day. The product is marketed as "Crystal Green", 5% nitrogen, 28% phosphorus, 10% magnesium, 0% potassium. It is sustainable, recoverable and slow release. It also creates greenhouse gas credits.

The privatized waste control operators in Portland, Oregon have embraced the Crystal Green concept. There are now three units in operation with a planned increase to seven. They estimate the payback on these investments to be four years. The market for Crystal Green is wide; agriculture, stream bed rehabilitation and by far the fastest growing market segment is lithium phosphate batteries. A related area of research is taking place at the UBC Dairy Farm at Agassiz.

It is a known fact that a cow produces 15 times the urine output of a human day after day. UBC has a herd of 540 cows. Dr Mavanic mentioned that New Zealand is making a major shift out of sheep raising to dairy farming with phosphate recovery as one of its objectives. There is the potential of harnessing the dairy industry in the Fraser Valley for this purpose.

Dr Mavanic concluded with the recommendations that: Canada mandate a national policy for phosphate recovery as some European countries have done and implement the Canadian Environmental Quality Guidelines in these areas.

**Tony Weall** thanked the speaker for his informative presentation, referring to his own 1962 thesis examining similar areas.

## PRESIDENT'S MESSAGE



This month's Message will acknowledge ROY WILLIAMS and DON CODVILLE for their quality contributions to

our Club over many years.

ROY WILLIAMS joined Our Club in September 1997. In 1999/2000 he served as President and in September 2001 Roy was appointed Editor of our Newsletter, a position he continues to handle in an exemplary manner to the present day. Roy has arranged for the audiovisual needs of our speakers for many years. In September 2008 Roy was made an Honourary Life Member of our Club for his outstanding service as Newsletter Editor.

DON CODVILLE joined our Club in September 1998. In 2001 Don joined the Visits and Entertainment group, now called the Activities Committee where his creativity, contacts and hard work have contributed for over a decade to our excellent Activities program. In 2001 Don and Doug Lambert organized a trip to the Fort McMurray Oil Sands. Don has organized the following activities: Boeing Museum of Flight (2005), Britannia Mine and Squamish Railway Museum (2005) Peak to Peak Gondola and Luncheon, Whistler (2009), Boeing Plant, Everett Washington (2010), Britannia Mine Museum (2011) and this September's Behind the Scenes Tour at the Vancouver Aquarium.

The next time you see ROY or DON thank them for their years of dedicated service to the Club.



**MEMBERS SERVICES COMMITTEE**



The Member Services Committee is responsible for securing Greeters, Cashiers and Past President Greeters for each Probuss meeting. Have you ever wondered how this is done?

Well, it is accomplished by phone by members of the Member Services Committee who have found our membership very willing to help in these capacities. The names of the "Team" are announced in the Newsletter providing a reminder to those scheduled for duty. In addition, "Team" members are phoned a day or two before the meeting.

Cashiers for the \$5 parking fee are provided with a float (because many members bring \$20 bills) as well as extra parking passes for newcomers and replacements for lost passes. The parking money is passed along to The House Committee which ensures that the Treasurer pays it to EasyPark.

The Member Services Desk at each meeting provides "print your own" name tags for guests and extra forms for new member applications as well as a source for handling members questions and solving problems. Also, new members who are being introduced at a meeting leave their dues checks at the Member Services Desk. Handouts, brochures, questionnaires and other announcements usually reside at the "Desk".

Tony Weall and Tony Wooster are members of this small committee.

**Jon Collins – Member Services Chair**

**MEMBERSHIP SERVICES TEAM**

- Greeters - **Graham Clay, Tom Laing**
- Cashiers - **Jack Grant, Tom McCusker**
- Past President Greeter - **Don Farquhar**
- Member Services Desk - **Jon Collins**

**UBC WINE RESEARCH CENTRE EVENT**

**Tuesday, June 19<sup>TH</sup> - 9:00am To 1:00pm**  
**The Food, Nutrition and Health Building UBC**  
**2205 East Mall**  
**(Building Just South of the UBC Bookstore)**

**MEMBERS ONLY – \$40 PER PERSON**  
**ONLY A FEW PLACES LEFT!**

**You are not registered until payment is received**  
**The Wine Research Centre at the University of British Columbia, now 10 years old is one of the best-equipped research facilities in the world .**

**9.00 am** - Coffee and Pastries in the Building Foyer followed by: a talk and question period; a grouped guided tour of the wine library and research labs and lunch with wine tasting led by Dr. van Vuuren at noon.

**YOU MAY REGISTER:**

- 1) At Probuss monthly meeting at the Activity Desk
- 2) Pay on-line at Probuss website using Pay Pal
- 3) Mail registration form and payment (\$40 per person) To: Bill Robertson 3711 Puget Drive, Vancouver, B.C.V6L 2T8

e-mail: robertsonwd@hotmail.com  
Deadline for registration: June 12th  
Cancellation Deadline June 12th

**Make Cheque Payable to: Probuss Club Vancouver**

**I Plan to attend:**

**Name:** \_\_\_\_\_

**Phone Number:** \_\_\_\_\_

**E-mail:** \_\_\_\_\_