

**COUNCIL OF CHAIRS OF CANADIAN EARTH SCIENCE DEPARTMENTS  
CCCESD**

UNIVERSITY OF OTTAWA, 080 GENDRON HALL  
24-25 OCTOBER 2012

Present: John Hanchar (MUN, chair), André Desrochers (Ottawa), Greg Dipple (UBC), Carolyn Eyles (McMaster), Ian Ferguson (Manitoba), Michael Higgins, (UQàC), Pete Hollings (Lakehead), Jean Hutchinson (Queen's – Wednesday only), Andrew Hynes (McGill), Becky Jamieson (Dalhousie), Stephen Johnston (Victoria), Pierre Jutras (St. Mary's), Francine McCarthy (Brock), Jim Merriam (Saskatchewan), Russ Pysklywec (Toronto), Hairuo Qing (Regina), Rob Raeside (Acadia), Claire Samson (Carleton), Iain Samson (Thursday only), Cliff Shaw (UNB), Nancy Van Wagoner (Thompson Rivers), Barry Warner (Waterloo)

Visitor: Elisabeth Kosters (CFES, Thursday morning)

**1. Welcome:** John Hanchar opened the meeting.

**2. News and Views from Departments**

A summary of departmental reports was provided, and is posted on the website. Some challenges reported:

MUN losing faculty to petroleum industry, focusing on renewing equipment;

Ottawa hired 2 faculty and will be moving into a new building;

Regina hired 2 faculty, has relocated lab space;

Victoria has financial issues, losing support staff and faculty threatening the u/g program, 1<sup>st</sup> & 2<sup>nd</sup> labs self-marking;

McMaster finding search for chair difficult, looking at modular first year courses;

Queen's is facing rising numbers while losing faculty, using endowment funding for field schools, and donated funds for TAs;

Lakehead has rising numbers and has been able to replace retiring faculty;

Brock reported stable trends;

Saskatchewan added one chair in geochemistry and received an endowment to add another position, is undertaking curriculum mapping;

UBC-Vancouver taken possession of new \$75M Earth Sciences building to house half the department and is renovating old space, fund-raising for field school, hiring at instructor level;

McGill noticed a drop in intake because of the CEGEP disruption, is hiring;

Toronto restructuring under the name "Earth Sciences" with faculty permitted to change appointments, department is enlarging from ~13 to ~21 faculty as a result, strain on teaching resources, infrastructure and space;

Waterloo has grown by 4.5 positions, but still has vacancy and retirements that will not likely be replaced, moving toward activity-based budgeting;

Manitoba has seen consolidation of positions with growth by chairs, is considering faculty realignment, preparing for GACMAC 2014;

St. Mary's experienced 60-100% enrolment increase and hopes for faculty increase;

Thompson Rivers is moving toward establishing a full geology program involving partnerships with other universities;

UNB reports 30% increase in students through increased visibility, shots of endowment funding for equipment and facility improvement, experiencing issues with CEAB on accreditation of Geological Engineering;

Dalhousie recently reviewed (105 recommendations!), has quality, quantity and dispersal of space problems, significant enrolment increase, major revamp of field school program, concerned about funding of grad students;

UQuebec à Chicoutimi has increased professoriate from 8 to 10, noticing large increases in enrolments from France (graduate and undergrad);  
Acadia trying to recovering from financial crisis, shows substantial enrolment increase, field programs topped out, seeing success in transfer students;  
Carleton is stable in faculty and growing slowly in students, will be adding floors to one wing, experiencing a new quality assurance program.

### **3. Visit from the Geological Survey of Canada**

Louise Laverdure, director of the Calgary branch of GSC provided an overview of GSC activities. She noted difficulties in staffing, gave an overview of the GSC structure and expressed a desire to continue to work closely with universities. New development: GSC is embarking on a strategic plan (“GSC at 175”). GSC now has 490 staff (about one-third of the numbers of the 1980s), but a large cadre of emeritus and visiting scientists.

Main themes of activity are: encouraging sustainable development of the North, TGI and GEM, Clean and Healthy Environment, Geohazards programs, and Canadian Hazards Information System.

GEM (territories only) will conclude in March 2014, hoping for a five-year renewal at \$100M funding. TGI-4 continues across all of Canada, \$25M over 5 years, started in 2011 and has a focus on HQP – 75 students to be involved. New Energy Supply Program was launched in April 2013 – a five-year program with a focus on frontier basins, partly driven by UNCLOS and DFO requirements; shale-hosted petroleum project; strengthening the energy geoscience–policy interface (still identifying parties involved).

Clean and Healthy Environment involves groundwater geoscience (assessment of 30 key aquifers), environmental geoscience (focusing on bituminous sands and metal mining), and legislative areas.

Safe and Secure Canada involves a public safety geoscience (hazards) research program with the Canadian Hazard Information Service focusing on earthquakes and space weather.

GSC aims to work across the board with provinces, territories, universities, industry to ensure it maintains “geoscientific information and research, with world-class expertise focusing on geoscience surveys, sustainable development of Canada’s resources, environmental protections, and technology innovation.”

### **4. Italian Earthquake Prediction court case**

It was agreed to write a statement in support of the Italian scientists and to forward the concern of the academic geoscience community to CFES with a request to do likewise, with copy to national newspaper. Cliff Shaw agreed to draft a letter.

### **5. Financial and Statistical Reports and Appointment of Treasurer and Secretary**

R Raeside presented the financial report for J Greenough who was unable to attend. The report was accepted as provided (with date corrected in title).

R Raeside reviewed the statistical report. He also noted that this would be his final meeting as department head from Acadia. Add geological engineering program data back to 2002 from Saskatchewan, Waterloo and Toronto.

Francine McCarthy moved, A Hynes seconded, that if necessary R Raeside be subsidized by CCCESD to arrange and attend the annual meeting as secretary. Carried.

J Hanchar, G Pratt, and C Shaw will continue into the second year of their terms as regional representatives. R Thierren steps down as Quebec representative and M Sharp steps down as Western representative.

R Jamieson nominated and C Shaw seconded the nomination of J Greenough as treasurer. Carried.

I Samson nominated and F McCarthy seconded the nomination of R Raeside as secretary. Carried.

----- dinner at Johnny Farina’s -----

## 6. Visit from Robert Davidson, VP Programs and Planning, CFI

R Davidson gave a presentation on CFI operations. CFI constantly strives to balance the use of funds as capital funds versus operational funds. It also works both with the health sector and SSHRC. He explained how the current budget (2009 allocation) is being rolled out, with all competitions launched, and most funds awarded. The Major Science Initiative Fund (MSI) was allocated March 2012 with \$180M committed. Leading Edge and New Initiatives Fund (LENI) competition will be concluded in November. The Leaders Opportunity Fund (LOF) for infrastructure has been allocated \$140M for 2012-14 and is on track. College-Industry Innovation Fund was allocated \$25M to assist with business innovation in colleges and will be used up by March 2013. MSI and LOF have a 50/50 split between operational and capital funds. The aim is to change the manner in which major facilities are managed and governed in order to maximize their unique capabilities with more rigorous management (“they are not labs”). The LENI competition was designed to renovate current space – he noted that institutions were less ambitious in the use of this fund. This competition may need to be redesigned.

Secondly, looking at the 2012 budget, the use will be discussed with Industry Canada in a funding agreement that will have fairly strict limits. This funding is announced as supporting “core activities” (MSI, LENI). Discussions are going on to align the use with the needs of the granting agencies. The Board adopted a road map with a focus on excellence across the full spectrum (this represents a shift in emphasis), core and shared facilities, projects involving inter-institutional collaborations and shared resources, and robust operational plans. CFI will be challenging the demands from universities for operational plans and costs. The LOF will favour core facilities that involve sharing. One aim will be to research how to make the use of the LOF more strategic – short term awards do not align well with other funding on 5-year cycles, for example. Timelines indicate strategic discussions with industry to be complete early in 2013.

Finally, looking to the future, in the short term, CFI will go to Government to request more money. It will request a top-up to enable institutions to have a longer planning horizon in the LOF than the current two-year horizon and will ask for \$400M in the LE/NI. In the longer term, the request will be for sustained multi-year funding (input of money has been erratic over the past 8 years), with an aim to hold competitions every two years. The intent is to provide funds to sustain major research facilities that serve researchers from across the country over the longer term. A second front will be in cyber-infrastructure, last significantly funded in 2006. This can involve buying machines although that is less favoured.

In discussion:

- Concerning collaboration with granting agencies: some success with CIHR, still deciding how to maximize and fully exploit data to inform. Initiatives generally involve long term planning, which is difficult for the granting agencies.
- Concerning RTI program, will CFI work at that scale? A: LOF exists to some extent (85% success rate). CCCESD noted challenges have been experienced obtaining the matching funds.
- Concerning discounts in CFI applications – this is still under discussion. CFI is concerned that prices for equipment are inflated by manufacturers. Aim is to ensure instrumentation is owned by the universities, and that universities must pay part of it. This is difficult in the general cash-strapped environment in most universities.
- Concerning CFI position of regional (as opposed to national) facilities: in 2009 competition, regional facilities were encouraged. CFI looks positively on inter-institutional facilities; requires a critical mass, viable operational plan with user fees, but 40/60 split still stands. CFI noted that the 40/60 split is not working well for operational components. Outside users should be encouraged – aim to have facilities running 24/7. Input is requested from the universities.

- Concern that provincial bureaucracy is becoming more challenging and provincial funding is the slowest or most difficult component to obtain: CFI emphasized a desire to KISS, and will be reviewing rules to ensure projects advance.

In conclusion, CFI expressed optimism for ongoing operations, but noted that institutions are asking for many smaller projects, which may be a sign they are less ambitious.

## 7. Visit from NSERC

Dave Bowen (Team Leader, Research Grants), Anne-Marie Thompson (Geosciences Evaluation Group Director), Tiffany Lancaster, Program Officer, Life Sciences and Geosciences Division, and Kenn Rankine (Program Officer, Life Sciences and Geosciences Division) attended the meeting. In his presentation, D Bowen reported (PPT file posted at <http://cccesd.acadiou.ca/2012-NSERC.ppt>):

- Discovery Frontiers is an attempt to create a mechanism to fund large initiatives. Launched in 2010, the first award was made to researchers at Laval with a focus on Northern Earth Systems. NSERC is currently working on a theme for the next call, which will probably be in the area of “big data”, with the intent to release the details in December or January.
- Climate Change and Atmospheric Research initiative: launched in spring 2012, around 50 LOIs received, 24 invited to proceed, with applications now at referees, and decision in January. NSERC expects to fund 7-12 projects. There will not be any site visits, but responses to external referees’ comments will be allowed.
- Northern Research Supplements program is evolving with the downsizing of the Northern Research Chairs program. The value has more than doubled, 92 awards made, base level \$15k, to undercut high costs of work in the North. Extra funds are available for extra interaction with northern communities.
- Impact of 2012 budget: \$15M has been taken out of the overall budget this year, \$30M next year, to be reallocated to targeted programs. This has resulted in a moratorium on the Major Resources Support program and the RTI (Research Tools and Instruments grant) program. Concerning the RTI, based on consultation with recipients, it was seen there is a preference for NSERC to maintain a smaller scale competition. The details are still being worked out, but it seems RTI will evolve into a quota-based program, downsizing from \$25-35M to \$6-10M by 2014. Details will be released early in 2013. How the quota will be determined is to be worked out in November, but will involve ranking by universities.
- There has been for the first time in 12 years a decrease in the overall NSERC budget.
- Discovery Grant results show a strong emphasis in favour of early career researchers (ECR), with each such researcher getting a \$5k supplement in the first granting cycle. This year’s competition is the final year for the introduction of the new DG system, and following the conclusion of the competition, there will be consideration of the overall impact of the new system.
- Overall success rate = 62%; ECR success rate 54%; ECR average \$30526, up \$9500, mostly because of the \$5k supplements. Established researchers success rate = 66%, average grant \$36240. Funding extended to bin J (“strong-strong-strong”), which is also the largest bin. ECRs were funded to bin K (“strong-strong-moderate”). Bin A (“exceptional- exceptional- exceptional”) limit was \$128,000, but no award in Geosciences was in bin A last year.
- Emphasized the three components, excellence of researcher, merit of proposal, contribution to HQP; decisions that lowered grants for established researchers most often failed in the merit of proposal section.
- EG committee membership is of researchers who reach the “very strong” category of excellence of researcher. NSERC acknowledged difficulty obtaining committee members.
- In response to a question about the success of appeals, D Bowen noted that in Geoscience last year two appeals out of 11 were successful.

- In response to a question about how CCCESD can assist, D Bowen noted that following the final year of the introduction of the new system, NSERC will undertake a review of the results. He emphasized that the first cohort in the new system will not be subject to the results of the review. The review should be completed in 2014.
- A new allocations process is coming up – a survey will be coming out this year asking about the quality of, and capacity for, research in universities. It will be done externally by the Canadian Council of Academies (see <http://www.scienceadvice.ca/en/assessments/completed/science-tech.aspx>). Any new allocation will be in effect for the 2014 competition.
- In response to a question about external referees, the visitors emphasized that NSERC attempts to find three external reviewers for all applications, but acknowledges that does not always happen. They have approached up to over 20 people for the reviews of some proposals, and in reviewing the statistics noted that last year in Geosciences, one proposal received no reviews, and most received two reviews. Any unreviewed proposal has to be evaluated purely by the Evaluation Group.
- There were 25 Discovery Grant Accelerator supplements in Geoscience.
- Overall in NSERC the number of grant holders has gone down from about 10300 to 9800 over the past four years.

## 8. Visit from Geoscientists Canada

Greg Finn, past president of Geoscientists Canada joined the meeting. His presentation is posted at <http://cccesd.acadiau.ca/2012-GC.ppt>. He outlined the provincial and territorial statutes that uphold the operations of GC, and reported that nearly 12000 registered professionals are included in the public register, of which 9500 are full practicing professionals. GC maintains a staffed (Oliver Bonham) office in Vancouver. Bruce Broster is the chair of the Canadian Geoscience Standards Board.

G Finn emphasized the following aspects:

- Geoscience Knowledge and Experience Requirements document is fundamental. It is based on a typical Canadian 4-year BSc degree requirements, and is being used internationally as a guide in the USA, South Africa, Australia and the UK.
- GC is seeing an increasing number of international applications, demonstrating that the Canadian standard is increasingly being used as the expected knowledge and experience level overseas. Non-Canadian university programs are assessed in collaboration with the World Education Services in Toronto.
- A new initiative has been to provide admissions support tool, including competency profiles, addressing gaps, centralized admissions procedures, and diagnostic reports. Competency requires four years of work experience with progression in experience in it.

## 9. Visit from CFES

Elisabeth Kusters, executive manager of CFES, provided an overview of CFES projects (posted at <http://cccesd.acadiau.ca/2012-CFES.pptx>:

- CFES has adopted a new logo
- The bid to host the IGC in 2020 went to India. It has yet to be decided if Canada will try for a 2024 bid; considerable support was expressed by CCCESD members maintain the momentum.
- CanGeoRef now stands at 210,000 references; uptake has been less than expected (more details at <http://cccesd.acadiau.ca/2012-CanGeoRef.ppt>).
- Nominations for the mentorship medal are sought.
- Last Four Billion Years book is nearing completion.
- CFES also maintains a careers website, runs the Geoparks program, and maintains links with AGI, PAGSE and SMCC.
- E Kusters will retire as executive manager following the CFES October meetings in Ottawa.
- Incoming president of CFES, Doug Uffen provided a presidential perspective (posted at <http://cccesd.acadiau.ca/2012-CFES-Uffen.ppt>) .

#### **10. Decision concerning appointment of Board Member to CFES**

Prior to the meeting, an exceptional request was received by all member organizations in CFES to appoint S Johnston (UVictoria) as a Board Member of CFES. In presenting the exceptional request, past president of CFES, B Mercer noted error in procedure, not providing time for a call for nominations. Other Board members of CFES will also resign at/after October meetings, and the call for nominations has been extended until 15 December. It was agreed that CCCESD would support the nomination of S Johnston under the exceptional circumstances.

#### **11. Executive Changes**

Nancy VanWagoner offered to sit as the Western representative. Acclaimed.  
The Quebec representative position awaits a nomination.

#### **Adjournment**

Meeting adjourned at 3.40 p.m.