

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

CARLETON UNIVERSITY, OTTAWA,  
24-25 OCTOBER 2013

Present: John Hanchar (MUN, chair), Altaf Arain (McMaster), Sharon Carr (Carleton), Maria Cioppa (Windsor), Marc Constantin (Laval), André Desrochers (Ottawa), Greg Dipple, Friday only (UBC), Ian Ferguson (Manitoba), John Greenough (UBC-Okanagan), Charles Henderson (Calgary), Pete Hollings (Lakehead), Becky Jamieson (Dalhousie), Jisuo Jin (Western), Pierre Jutras (St. Mary's), Jim Merriam (Saskatchewan), Al Mucci (McGill), Jeff Pollock (Mt. Royal), Russ Pysklywec (Toronto), Rob Raeside (Acadia/CCCESD), Ian Spooner (Acadia), Barry Warner (Waterloo).

**1. Welcome:** John Hanchar opened the meeting at 1 p.m.

**2. Finances**

J Greenough presented a summary of the finances, noting that this year has been a low-spending year:

**CCCESD Treasurer's Report 2012-2013**

Listed below are the transactions and the account status as of October 5, 2013.<sup>1</sup>

<u>Date</u>	<u>Comment</u>	<u>Amount</u>
October 15, 2012	Bank Balance at last meeting.	17974.10
October 19, 2012	Return of stale cheque.	-100.0
October 19, 2012	Return cheque service charge.	-5.00
November 14, 2012	Lolachers Catering last meeting.	-375.16
November 14, 2012	U. Ottawa catering at CCCESD	-395.63
December 6, 2012	Re-issued UBC O cheque	100.00
December 6, 2012	Deposit to cover service charge	5.00
March 21, 2013	Deposit 28 member cheques <sup>2</sup>	2800.00
May 5, 2013	Deposit 7 member cheques <sup>2</sup>	700.00
June 18, 2013	Deposit 1 member cheque <sup>2</sup>	100.00
October 5, 2013	Balance on October 5 <sup>1</sup>	20803.31

<sup>1</sup> There have been no transactions since October 5, 2013 that I know of.

<sup>2</sup> The attached spreadsheet lists those that paid the voluntary membership fees (\$100.00) this year for the 2012 year and compares contributions from the previous two years.

John D. Greenough  
Treasurer CCCESD

**3. Statistics**

R Raeside reviewed the annual statistics collection, noting that data from the CCCESD statistics were published in an article in *Geoscience Canada*. The 2013 collection will be initiated in December. The CCCESD-heads mailing list is now a web-based open mailing list that any list member should be able to post to. It should be accessible via [cccesdheads@acadiau.ca](mailto:cccesdheads@acadiau.ca). The heads + admin. assistants list at ([cccesdheadsandstaff@acadiau.ca](mailto:cccesdheadsandstaff@acadiau.ca)) remains moderated, but that can be set so that any member has full access upon request.

#### 4. News and Views from Departments

*See Departmental Notes document for submitted notes on departmental issues.*

UBC – increased enrolment in oceanography and environment science; two CRC appointments; approved a 10-year vision and hiring document; moved into new Earth Sciences building, and renovation of older buildings under way, with reorganization of research groups.

Mt Royal – reached a student limit based on faculty and space in the university; hoping for new faculty positions. With no graduate program, NSERC funding is difficult.

U of Calgary – over 700 majors, 200 graduate students, faculty complement of 30, has resulted in space issues, particularly research space with aging laboratories.

U Saskatchewan – two failed faculty searches, both re-advertised, campus-wide reviews under way, with good decanal support.

U Manitoba – undergoing faculty rearrangement, with uncertain outcome, possibly merging with Physical Geography and/or Environmental Science.

Lakehead – limited employment for graduates has resulted in higher graduate student numbers. Lost a chair position after two failed searches.

Western – university has changed its name from UWO to Western. Entrance averages of >86% has resulted in a heavy emphasis on pre-med programs, with few students aware of Earth Sciences.

Windsor – first year enrolment is fairly flat, now heavily emphasizing Environmental Science with new courses (Environmental Monitoring and Assessment), second year enrolment is healthy, with restricted enrolment; graduate scholarship procedures modified, cuts to international student scholarships, resulting in more funds demanded of the supervisors; B.Env.Studies program very strong.

Waterloo – undergraduate numbers are strong, graduate numbers are increasing with new faculty; replaced microscope fleet; RBC funding for graduate students in water program; university focusing on new strategic plan with major research emphasis focus on water; moving toward activity-based budgeting; revising teaching schedules in order to optimize space and resources; new science teaching complex under construction; new aquatic facility to house aquatic researchers being built; faculty searches under way – stratigrapher/sedimentologist, solid earth geologist/economic geologist, new chair; 2+2 program with 18 universities in China very successful.

McMaster – new director, new research chair in structural/petroleum geology; restructuring of courses in a joint stream with biology/geology resulted in increase in student numbers; graduate enrolment on target; undertaking an Institutional Quality Assurance review.

Toronto – in midst of a “soft merger”, growth from 13 to 20 faculty members; space is becoming an issue; increasing enrolment has resulted in good relations with administration.

Carleton – modest increase in enrolment; graduate program dropped because of recent retirements and new hires, and expecting to rise again; undertaking a quality assurance exercise; graduate scholarships being allocated by department; difficulty in recruiting high quality domestic PhD students.

Ottawa – involved in a co-management process with Biology; existing building being closed for renovation, labs and some graduate student moving into a new building; remainder of dept will occupy temporary space, then to a new building. The department will be spread out for the next 5 years.

McGill – student numbers flat, unable to afford international MSc students, large donation provides funds for international PhD students; three new hires, two of which are spousal hires; substantial budget cut resulted in early retirement initiatives.

Laval – hired two professors using industrial funding; enrolment is strong; petrography lab was refitted with 21 microscopes using industrial funding; aging research instruments.

UNB – significant growth in second year; growth in part result of development of museum space that brings in external visitors; faculty replacement has been difficult for many years.

Acadia – robust student numbers in Earth and Environmental Science are a challenge; merge of units has been successful; university reached an enrolment cap.

Dalhousie – enrolment doubled in second-year classes in two years; ocean sciences and environmental science require intro Geology courses, and result in some students changing majors; major revamp of field school program; all positions since 1986 are CRCs, UFAs, instructor replacements, etc., anticipate 2 professorial and 1 instructor retirement.

St. Mary's – student numbers are holding at levels that stretch resources; concern about limited reading and writing counting skills among incoming students; introduced a P.Geo.-preparatory stream.

Memorial – 2 CRC-2 positions nearing end of term with uncertain futures; two failed searches for petroleum geology; filled two positions; oil company funding has yield over \$6M for educational purposes; starting a Centre for Material Science and Engineering.

A question asked about what is the take-home pay (after deduction of fees, etc.) for graduate students. Payments were in the range of \$1000-1250 a month, or \$16K to 23K a year. About half the schools reimburse tuition fees.

## 5. Visit from NSERC

*The ppt file presented is available at [http://cccesd.acadiau.ca/CCCESD\\_2013.ppt](http://cccesd.acadiau.ca/CCCESD_2013.ppt).*

Dave Bowen (Team Leader, Mathematical, Environmental and Physical Sciences Division), Liz Boston (Director, Mathematical, Environmental and Physical Sciences Division), Tiffany Lancaster, Program Officer, Mathematical, Environmental and Physical Sciences Division, and Kenn Rankine (Program Officer, Mathematical, Environmental and Physical Sciences Division) attended the meeting. In his presentation, D Bowen reported:

- no cuts in 2013 year, but no increase either
- RTI moved to a smaller quota-based competition
- Climate Change and Atmospheric Research – seven successful groups announced in February
- Northern Research Supplements – budget increasing annually to 2014
- Discovery Grants program evaluation received by NSERC, international review committee findings to be released in early 2014
- Discovery Grants: allocation among 12 evaluation groups – expert panel report produced in 2012, with implications in 2016 or 2017.
- harmonized approach to open access to publications arising from NSERC, SSHRC, CIHR-supported work – input requested. At this point, access to publications only; access to data not (yet) required.
- 2013 DG results: early career researchers success rate 60%; established researchers (renewals) success rate 76%; established researchers (not holding grant) success rate 30%.
- Geosciences DG results in 2013- Applications: 34 ECR, 152 renewals, 84 ER (others), success rates 41%, 63%, 30%, respectively. Average grants \$24.1K, \$39.6 K, \$30.9 K.
- 2013 was the final cohort to move into the new DG system.
- emphasized the importance of the “Merit of the proposal” rubric – essential to explain what is being proposed to be done and the quality of HQP.
- RTI 2013 competition: 88 applications in Geosciences, 17 awards, total \$728K.
- Discovery Accelerator Supplements – 125 awarded, quota of 15 awards in Geosciences. This number is based in part on targeted areas (energy, natural resources, environment) with a large fraction going to Geosciences.
- CCV introduced this year; notice of intent now absolutely mandatory on 1 August. Some universities are starting to use the CCV for other university purposes.
- 2014 budget: the case is being made to make discovery research a priority.
- request for stories of major success stories arising from Discovery Grant funding.

## 6. Visit from the Geological Survey of Canada

Bernard Vigneault, director of the Central Branch of GSC, provided an overview of GSC activities:

- new directors in Quebec and Central branches
- mission: “Provision of Public Good Geoscience” – a public good is something that the free market tends not to provide on its own, to society’s detriment. This should be non-rival in consumption, non-excludable, negligible marginal cost of production, filling gaps associated with market failure.
- Current programs involve northern development, geoscience, green mining, energy & technology innovation, open government
- Key program areas on 5-year cycles are classified in three areas: Innovate for Competitiveness and Environmental Performance, Leverage S&T knowledge for safety and security risk management; Unlocking resource potential through responsible development.
- Environmental Geoscience (2009-2014) managed by GSC Quebec with new project on carbon capture and storage and a project on shale gas, fingerprinting oil sands output
- Groundwater Geoscience (2009-2014) managed by GSC Quebec characterizes aquifers across Canada
- Public Safety Geoscience (2009-2014) managed by GSC Pacific, aims to reduce the risks from natural hazards to population and critical infrastructure.
- Geoscience for New Energy Supply (new program, managed by Calgary) transitioning from geothermal, gas hydrate, East Coast offshore projects.
- UNCLOS will be completed in 2013.
- GeoMapping for Energy and Minerals (GEM) was renewed and represents the main focus of GSC activities, aiming to complete mapping of the North over 7 years (55% of the area). Effort has shifted from “systematic mapping” to “smart mapping” in 6 project-regions (Baffin, Rae, Mackenzie, Western Cordillera, Hudson-Ungava, Western Arctic).
- Climate Change Adaptation program and Climate Change-Earth Science program.

Mike Villeneuve, Program Manager for TGI-4 (Geoscience knowledge to support enhanced effectiveness of deep exploration) reported that this program is due for completion (“sunsetting”) in the current phase. He emphasized:

- moving into write-up phase
- focused on deep exploration and processes of ore systems
- training and mentoring of students
- integrating knowledge across sites, therefore not geographically limited.

Collaboration is required across four areas: provincial/territorial surveys through the IGA (Intergovernmental Geoscience Accord), GSC, industry & industry associations, and academia. The role with respect to academia is to augment science expertise and to provide student training. Specific mechanisms involve student programs, adjunct professor agreements and grants and contributions:

- Federal Student Experience Work Program (FSWEP) is government-wide, where students are randomly selected, with experience not a factor.
- Research Affiliates Program (RAP) has job postings and seeks students with appropriate experience, and is being increasingly used (via jobs.gc.ca)
- RAP bursary requires co-supervision with a GSC researcher, at \$17300/a MSc, \$21000/a PhD, no other government top-up permitted.

Adjunct professor agreements are actively encouraged by GSC, but they cannot be compensated for such activities.

Class Grants and Contributions program is to encourage the research, development, management and promotion of activities that will contribute to departmental objectives. These can be awarded to individuals, organizations, universities, provinces, regional governments, etc.

## 5. Presentation by Geoscientists Canada

Bruce Broster, Chair of Canadian Geoscience Standards Board, gave an overview of GC activities:

- “General Knowledge Expectations” (booklet) is widely used
- Currently circa 13,000 registered professionals
- Credential Assessment program for recognition of foreign credentials is currently under way, with four components: competency profile, collective approach to academic gaps, centralized admission functions (now abandoned), and ITG diagnostic study. The competency-based approach is used for clarity, transparency, objectivity, and defensibility. Competencies are being developed by a Subject Matter Experts team in 2013, with consultation with key organizations expected in Jan-May 2014, and final report in June 2014.

## 6. Teaching load distributions

André Desrochers offered to compile a comparative analysis of teaching loads. Issues arise concerning lab instruction, chat groups and tutorials, student supervision, administrative responsibilities, minimum class sizes.

## 7. Internal Competitions for prestigious scholarships

Upon a request for information about how internal competitions for prestigious scholarships are run, comments indicated solutions included internal university committees, some done by call for nominations, some by appointment by dean, division by faculty and selection within the faculty, permanent or *ad hoc* selection committees.

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

R Davidson gave a presentation on CFI operations, requesting input from the CCCESD.

- a) Competition for 2015 Innovation Fund is about to be launched. The New Initiatives Fund (for new projects at an institution) and the Leading Edge Fund (for mature projects) were predecessors. He emphasized that as administrators CFI has had difficulties in administering the fine details of science, and the 2015IF will avoid them. Key features are:
  - \$325M, including top-up of Infrastructure Operating Fund;
  - three over-arching objectives: strive for global leadership and influence; forge and foster productive partnerships between institution, sectors and disciplines where appropriate and adds to the science; the institution remains committed to sharing resources, and finally, evidence that applicants have considered how they would address the translational work.
  - aim for success rate of 35%
  - computational resources may be included if required for the project
  - three-step review process will involve expert committees and multi-disciplinary assessment committees which will review the extent to which the applications meet the over-arching objectives
  - Planning to launch in November; NOI in March, applications in late May, decisions by March 2015.
- b) John Evans Leaders Fund (was Leaders Opportunity Fund) – institutions will be advised of how much they have in this envelope in November. Fund will continue as usual, but now over a three-year period instead of two years. Concern that institutions do not spend this money – it is important that money is being retained unspent for unspecified purposes. Application for use of funds will be more frequent.
- c) Anticipate approval for Major Science Initiative Fund – a first incursion into funding operation and maintenance of very large equipment and operations, e.g., CompuCanada, Neptune, CLS, Sno-lab, etc. A special competition is planned, for operational costs in excess of \$500K, to provide support for 3 years for 40% of the project. \$25 M to be committed. Intent is to take to CFI Board in June.

- d) Budget 2014 is being prepared, currently in consultation, asking for stable and predictable funding over a 5-year period, at \$2B, which is in line with past practice.
- e) CFI will be launching a new facility directory, listing facilities in which CFI has invested that are open for business. It is currently populated with around 300 facilities.

**9. CFES activities**

John Hanchar reported that CFES has not met since last fall, but will meet in November under the leadership of Scott Swinden. J Hanchar will attend.

**10. Executive Changes**

It was agreed to continue with the current executive. Thanks were expressed to Sharon Carr for hosting the group. The meeting next year will be held at the University of Ottawa.

**Adjournment**

Meeting adjourned at 3.30 p.m.