

# SUSTAINABLE LABS WORKING GROUP (SLWG)

Notes from meeting January 12, 2017 2:00-3:30 pm, 3610 McTavish, Room 430

**Present:** Amelia Brinkerhoff, Graham Currie, Adam Finkelstein, Jerome Conraud (Acting Chair), Alexander Dow, Anne-Marie Durocher, Teodor Mocanu, Kathleen Ng, Sean Taylor

## ITEM 1. REVIEW AGENDA AND NOTES FROM PAST MEETING

No changes were made.

## ITEM 2. BUSINESS ARISING

### WORKING GROUP REPORTS

#### SUSTAINABLE LABS IN EHS CHECKLIST/GUIDE FOR RESEARCHERS

**Re. sustainability section in EHS checklist/guide for researchers.** Further to the last meeting, Teo provided more specific information about the additional section for to Guide intended to support the sustainability items on the EHS checklist, examples being:

- Green chemistry: Focus on four specific chemicals
- Resource efficiency: in addition to leaking faucets and running taps, municipal once-through cooling (which is also illegal)
- Sharing chemicals: whether this option was flagged in MyLab (thus encouraging PIs to take advantage)
- Energy efficiency: fume hoods (whether sash is up/down); freezer/fridge space use (opportunities to share unit with others if not fully utilized); freezers defrosted (visual inspection: ice <0.5" thick); equipment turned off when not in use (hot plates, shakers, cooling baths, etc.). Two or more incidences would be flagged.

**Re. regulatory issues:** Teo reiterated that only items on the regular EHS checklist would be considered for the pass/fail given that those were under legal requirements. That being said,

- **Once-through cooling:** this contravenes the City of Montreal bylaw, and the EHS visits could help elucidate which labs have these systems. Some vacuum pumps located in buildings will be replaced by Facilities, with work beginning on retrofits this year as well as part of current renovations. However, if these were purchased by a lab, the lab would need to purchase the replacements themselves.
  - A communiqué will be sent to the community advising that the enforcement deadline is January 2018. Building directors were already aware but degree of proactive response has been varied.
  - It is unlikely that municipal inspectors would be visiting the labs; however, fines range from \$200-1,000.

Jerome surmised that this would not be cheap, and Patrick estimated that this could cost at least \$8-10K per lab. Questions about this from Principal Investigators (PIs) should be referred to Utilities and Energy Management.

## VISION FOR SUSTAINABLE LABS AT MCGILL

Engage the University community; promote and recognize efforts to reduce material, water, and energy consumption while maximizing cost savings; improve safety and accessibility through optimizing operations, training and awareness.

Approved by the SLWG 30 January 2015

- **Handwashing soap:** new Canadian legislation is apparently<sup>1</sup> impending in 2018, therefore this item on the checklist could be removed in the future as the products in question would no longer be available on the market.

Re. communications: A memo about the checklist and guide would be sent from the OVPR&I [Office of the Vice-Principal (Research and Innovation)].

- Anne-Marie indicated that a draft memo had been reviewed by VP(R&I) Rosie Goldstein, and at her recommendation this could be co-signed by Alvin Shrier (Chair of the University Lab Safety Committee) and Vice-Principal (Administration and Finance) Yves Beauchamp (under whom sustainability and EHS resides). Christian and Wayne were to follow up with Alvin and the VPAF office with regards to this issue.
- Christian would be listed as the contact person for those who had questions about the guide.

Inspections of Medicine were to start at the end of January; the Safety Chairs had been advised earlier but an update would be sent. A total of 300-400 labs would be inspected using tablets and MyLab. Paper reports for the sustainability items would be sent to the Office of Sustainability pending completion of the MyLab module, the delay being attributed to the need to program for biosafety regulatory requirements.

Within two years, all labs should have gone through the inspection exercise, after which it could be determined what additional changes to the checklist could/should be made.

#### ACTIONS:

- JEROME would draft a text about once-through cooling for the guide and pre-inspection memo, as well as exploring alternative means of communication as relevant.
- CHRISTIAN would circulate updates to the checklist/guide.
- GRAHAM would send instructions re. freezers.

#### STUDENT TRAINING IN SUSTAINABLE LAB MANAGEMENT

Work was ongoing to identify appropriate projects, Alex for Engineering and Sean/Patrick for Science. The students were anxious to meet the administrative requirements of the SPF to ensure project success and demonstrating positive benefits to McGill, seeking potential partners with TAs and faculty.

- Materials and Chemical Engineering were on board, and more stakeholders were being sought.
- Sean would be speaking to Biochemistry, Biology and Chemistry, approaching TAs first to advise students how to implement sustainable labs training.
- Alex and Sean would be meeting with student groups in the coming week regarding potential collaboration.
- Otto Maas and Wong Engineering have a baseline from which efforts could be targeted to move forward.

The SPF application was found to be daunting, with students feeling that it could take more time to prepare than to execute the project. Regardless, February 2017 was the target date for submitting an application for less than \$5K, getting professors on board for implementation to prepare for launch in September 2017.

#### LAB WASTE MANAGEMENT

Lab plastic collection was taking place biweekly at the Goodman Cancer Research Center and data from the sorting plan regarding plastic characterization should be received in the next few weeks.

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<sup>1</sup> Editor's note: unable to find any reference online besides the [FDA regulation](#), which comes into effect in September 2017.

Re. the Waste Reduction and Diversion Task-Force (WRDTF):

- responses to the Notice of Information (NOI) were being compiled
- a student intern position was posted on CAPS, social media and the MOOS website
- University stakeholders' responsibilities regarding waste reduction and diversion were being established

## VISION2020

### PROGRESS REPORT 2014-2016

Kathleen presented the proposed text for the Vision2020 Progress Report 2014-2016 regarding the deliverables of the SLWG. No comments/additions were made by the group.

### PROPOSED ACTIONS FOR 2017-2020

Amelia showed the [Vision2020 video](#) to the group as a backgrounder, providing an update regarding the process to date, then brought forward a few of the suggestions received from the Action Team Meetings for actions to be included in the next iteration of the next Sustainability and Climate Change Action Plan 2017-2020. It was intended for actions requiring collaboration with different units and requiring higher-level buy-in to be included in the plan, rather than a series of more localized actions.

A summary of the ensuing discussion:

- Proposal of McGill going carbon neutral and improving its [STARS<sup>2</sup> rating](#)
  - Jerome provided a brief overview of McGill's GHG inventory
    - McGill produced approximately 50K tonnes of CO<sub>2</sub>E in 2015.
      - This is relatively high for Quebec due to our research intensity – only INRS exceeds McGill due to their sole focus on research.
      - This is insignificant compared to some American universities that use coal / do on-campus generation.
    - Research drives our energy consumption
    - There is no research ongoing in our greystones
    - There is a limit to what is possible with energy efficiency initiatives. Once the low-hanging fruit is picked, more costly measures like renewals or offsetting/alternatives would be required.
      - Unlike the US, payback is poor in Quebec on renewables, thus requiring senior administration approval for such projects
  - Proposed ideas for the Research category:
    - Improving communication about our sustainability research
    - Exploring opportunities to include sustainability in approval of research projects by the OVPR&I
    - Moving forward with the Sustainability Sciences and Technologies Initiative (SSTI)
    - Exploring SLWG ideas on implementation of the new strategy (ex. the training initiative)

On the subject of training, a substantive discussion arose about the need for curriculum reform for sustainability.

- Curriculum overhaul would be required to adapt to changing technologies in lab operations in addition to meeting current needs (ex. proper waste sorting).
- Alex mentioned that APC was looking more strategically at the program level, with the SCTP taking care of the technical details.

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<sup>2</sup> The Association for the Advancement of Sustainability in Higher Education (AASHE)'s Sustainability Tracking, Assessment and Rating System (STARS)

- There were many challenges to curriculum reform:
  - In Canada, the two federal granting agencies do not fund curriculum overhaul unless curriculum research is the subject of the study (considered as humanities research)– constitutionally, the feds can fund research and the provinces fund education vs. the NSF in the US would fund everything;
  - changes in accredited programs like Medicine and Engineering as slow as these could impact accreditation, thus curriculum overhaul is only done when accreditation is on the table; and
  - faculties' and Deans' buy-in would thus be required in to allow professors dedicated time to do course redesign.

In the short term, Patrick recommended that a more flexible approach could be taken, ex. making substitutions in the existing curriculum instead of a complete redevelopment of the curriculum. This would require individual changes by individual professors for individual courses, but a couple of students could be assigned to ensure that alternative procedures function as intended.

An idea for Vision2020, then, was for McGill to provide funding to do curriculum reform for sustainability.

**ACTION:**

- EVERYONE was invited to contact AMELIA BRINKERHOFF or use the [online form](#) to submit any additional ideas.

**CAPITAL ASSET MANAGEMENT PROJECT UPDATE**

Financial Services has started Tracking and Tagging Incoming Research Equipment with an initial value of 10K and above. A memo is going out to the community in the next few days advising of the initiative.

Kathleen would be meeting with Stephanie to draft a needs assessment for potential collaboration with Quebec universities on a supplier for furniture and asset deployment. Adam was looking for 40 new chairs, and would contact Virginie St-Pierre about it; the question arose as to whether a LISTSERV for furniture redeployment could be used as an interim solution, as the one for IT equipment was functioning extremely well.

**ITEM 3. NEW BUSINESS**

**BRAINSTORMING SUSTAINABLE LAB AWARD**

[adjourned to next meeting]

**OVERHAULING SLWG PROCEDURES/COMMUNICATIONS**

[adjourned to next meeting]

**ITEM 4. OTHER BUSINESS**

**Catalyst awards.** Some categories had been combined this year (Research with Education and Connectivity with Administration & Governance). The faculty/staff awards category had also been restored. All were invited to submit nominations and register to participate at the event.

**New hire.** Chelsea Cavanagh would be taking Maureen's position at the OVPR&I.