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GEOSCIENTISTS NOVA SCOTIA

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GeoGazette

Winter 2015

Volume V Issue I

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Message from the President

The New Year has started off with a significant level of activity for the Association. Council has been very active initiating and supporting efforts to raise the profile of the Association and the profession within government, industry and to practitioners. Financially, a very solid year has been completed, and another responsible budget has been approved by Council.

The Mining Committee has been quickly engaged as the government moves forward with a review of the



Mineral Resources Act and regulations. The stakeholder review process is underway with tight deadlines for response. The Mining Committee is involved in a detailed review and has sought out further meetings with government representatives to engage in discussion and convey thoughts and points relating to our Profession and practice.

The new Geoscience Professions Act may also be moving forward on timelines parallel to the revised Mineral Resources Act, which would make sense given the obvious connect to a key area of practice for our members. There have been considerable efforts expended to date on the development of the new legislation, and the process now may see this act move to the next step. We are pleased to see this happening and this will require that we continue efforts on the regulations and bylaws.

Council has had to focus on national issues facing Geoscientists as a whole, and we have continued to provide honest opinions, thoughts and comments to Geoscientists Canada, in what we believe is in the best interest of our members.

I have appreciated the opportunity to serve as President for the year, and it is clear that another equally active year lies ahead. There is no doubt that both the business and regulatory climate has significantly changed since the beginning of 2014. As a relatively small organization, we are fortunate to remain very relevant and valuable to our members in the midst of such change. It goes without saying that this wouldn't be possible without those that volunteer and assist on Council and committees; I thank-you once again to all members and volunteers who are active and engaged on these matters.

Lastly, we look forward to seeing you at another successful, well-supported Annual General Meeting this February.

Scott McCarthy, P.Geo President APGNS

Mineral Resources Act Review

In 2011, Government committed to review the Mineral Resources Act as a priority in the Natural Resources Strategy. The Mineral Resources Act (the Act) is legislation that establishes the rights and obligations around the responsible development of Nova Scotia's geological resources. We have been tasked with drafting a new Act and corresponding regulations for consideration by the Legislature in the spring of 2015.



Improving Our Competitive Position Through Modern and Effective Legislation



For your reference, government released a discussion paper on December 17th in preparation for consultation on the Act. The discussion paper explores several key areas of the Act including land access, royalties, reclamation and bonding, and community engagement, although the complete Act and regulations are open for comment and review.

See http://novascotia.ca/natr/meb/legislation-review/

As you may know, the consultation period for the review of the Act opened on January 2. Consultation is open to input from the public, industry, NGOs and any other interested stakeholders. A separate process for consultation with the Mi'kmaq has been initiated. In addition, the Department is looking forward to hearing your thoughts and ideas on the new Act, and we invite you to participate in the consultation process. Please take a few minutes to read the discussion paper and provide input on or before February 2.

There are a couple of ways for you to provide input to the review process. You may submit your written comments on the Act in an e mail, or in a document attached to an e mail, to this address: Strat-PolPlanning@novascotia.ca. As stated in third paragraph, the focus of the review is on land access, royalties, reclamation and bonding, and community engagement, although the complete Act and regulations are open for comment and review, and we invite you contribute your thoughts on any aspect of the Act and regulations.

Alternatively, you may wish to complete the on line questionnaire.

Please go to:

http://novascotia.fluidsurveys.com/surveys/strategic-policy-and-planning/mineral-resources-act-public-consultation/

Please note that all contributions to the review process will be made public after the review process is complete.

Respectfully Submitted,

Donald T. James Ph.D., P.Geo. Executive Director Geoscience and Mines Branch Department of Natural Resources Page 3 GeoGazette

Recommendations to the Mineral Resources Act Review Panel

APGNS representatives met with the Mineral Resources Act review panel on January 23, 2015 to present a brief outlining the Association's position with respect to the review and revision of the Mineral Resources Act. The list of recommendations from the brief is presented below.

- The revised Mineral Resources Act and corresponding Regulations should recognize the mandate, role and authority of the Geoscience Profession Act to regulate geoscience practice and register geoscientists.
- 2) The revised Mineral Resources Act and corresponding Regulations should introduce the designation of a "Qualified Person" ("QP"). The Act should stipulate that technical reports regarding mineral exploration and development, i.e. assessment reports, must be prepared and submitted by or under the supervision of a Qualified Person (QP).
- 3) The Mineral Resources Act and corresponding Regulations should establish the necessary qualifications for the designation and acceptance of a Qualified Person (QP) using the example provided by the Nova Scotia Environment Contaminated Sites Regulations.
- 4) The revised Mineral Resources Act should enable Department of Natural Resources to continue to register individual prospectors and maintain a list of registered or licensed prospectors who are eligible to submit a prospector's statement regarding the mineral exploration and development work undertaken on their claim(s).
- 5) NSDNR should require that prospector's statements (i.e. a work report and statement of expenditures related to the mineral exploration and examination conducted on open ground or on the prospectors claim) should be prepared and submitted by a licensed prospector. (Note that the Geoscience Profession Act incorporates an exclusion from registration requirements for a prospector licensed by the NSDNR under the Mineral Resources Act.)
- 6) The revised Mineral Resources Act and corresponding Regulations should designate that a QP must:
 - a. have a valid "certificate of registration" or "license to practice" issued under the Geoscience Profession Act; or
 - b. have a valid "certificate of registration" or "license to practice" issued under the Engineering Profession Act; and
 - c. have at least 5 years of experience in mineral exploration, mine development, or operation or mineral project assessment or a combination of these, (to be confirmed at the request of the Department and in the manner required by the Department).
- 7) The revised Mineral Resources Act and corresponding Regulations should specify that an individual must not hold themselves out to be a "Qualified Person" unless they have the qualifications specified by the Act and Regulations.
- 8) The revised Mineral Resources Act and corresponding Regulations should require that the QP must have and maintain specified liability insurance coverage, with an indemnity limit of at least \$1,000,000 per claim and at least \$1,000,000 in the aggregate during the period of the insurance whenever the individual.
 - a. holds themself out as a Qualified Person (QP);
 - b. undertakes or supervises any work while acting as a Qualified Person (QP); or
 - c. makes a statement, declaration or certification while acting as a Qualified Person (QP).

MRA Recommendations (continued)

- 9) NSDNR should comply with the Geoscience Profession Act in current staffing as well as hiring and contracting professional geoscience services. Staff positions which are identified as geoscience positions should be designated as requiring a professional designation.
- 10) Staff members who are identified by the Department as geoscientists, should be encouraged to comply with the Geoscience Profession Act. The posting of staff positions should include a requirement that the applicant must be a registered professional or be eligible for, professional registration.
- 11) NSDNR should also consider the development of a "Geoscience Professional Practice" or "Best Practice / Standard" guideline document which would be applicable to the preparation and filing of mineral exploration and development technical reports.
- NSDNR Mineral Incentive Program (prospector grants, advanced project grants, and prospector marketing grants, etc.) must comply with the Geoscience Profession Act. The eligibility for submission of an application, the acceptance and any subsequent funding through the Mineral Incentive Program should include the provision that applicant(s) must be in compliance with all applicable Nova Scotia legislation, i.e. the applicant must be a registered or licensed prospector under the Mineral Resources Act or a registered professional geoscientist or a holder of a Certificate of Authorization issued under the Geoscience Profession Act.
- 13) The Minister of Natural Resources and Departmental staff should assist and support APGNS in the development, submission and guidance of the revised Geoscience Profession Act and the Geoscience Practice Regulations as they are presented for legislative review and approval.

Respectfully Submitted by the Mining Committee David C. Carter, P.Geo, FGC

Professional Development Opportunities

Selected professional development opportunities and conferences that are available:

IAH Atlantic Canada Webinar Series http://www.gwinsight.com/podcasts/

Atlantic Geosciences Society Colloquium—January 30-31, 2015, Mt. Allison University, Sackville, NB http://www.acadiau.ca/~raeside/ags2015/

Atlantic Flood Management Conference February 3rd, 2015, Truro, NS http://novascotia.ca/nse/afmc/

Science and History of Sable Island May 1-2, 2015, Halifax, NS http://sableislandfriends.ca/

CANQUA 2015, August 17—20th, St. John's, NL http://canqua2015.com/



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Nominations Report

A full slate of councilors and officers has been been nominated and/or confirmed for 2015. Nominations were called in November and closed on December 19th, 2015. Since only one candidate for each of the five open positions has been identified, an election, according the APGNS By-laws is not required. This report will be presented at the Annual General Meeting of the Association on February 19th, 2015 and the slate for 2015 will become official. The summary below shows the current Council, Nominated Council and terms of service. The terms noted below are for the calendar year but come into effect on the day of the AGM.

Current Council (2014)

Scott McCarthy, P.Geo. – President
Paul Batson, P.Geo. – Vice President
Jeff Parks, P.Geo., FGC – Past President
Rick Horne, P.Geo. – Councilor (term ending 2014)
Jennifer McDonald, P.Geo. – Councilor (term ending 2014)
Bev Smith, P.Geo., FGC – Councilor (term ending 2014)
Belinda Culgin, P.Geo. – Councilor (term ending 2015)
Mike MacDonald, P.Geo. – Councilor (term ending 2015)
Scott Morash, P.Geo. – Councilor (term ending 2015)

Nominated Council (2015)

Paul Batson, P.Geo. – President-elect
Jennifer McDonald, P.Geo. – Vice President-elect
Scott McCarthy, P.Geo. – Past President
Belinda Culgin, P.Geo. – Councilor (term ending 2015)
Mike MacDonald, P.Geo. – Councilor (term ending 2015)
Scott Morash, P.Geo. – Councilor (term ending 2015)
Mark King, P.Geo., FGC – Councilor-elect (term ending 2016)
Charles Schafer, P.Geo. – Councilor-elect (term ending 2016)
Robert (Bob) Stewart, P.Geo. – Councilor-elect (term ending 2016)
George Goad, P.Eng. FEC – Councilor-elect (term ending 2016)

On behalf of the Council and the Association I would like to thank Rick, Bev and Jennifer for their service to Geoscientists Nova Scotia as Councilors; and congratulate Paul, Jennifer, Mark, Charles, and Bob for accepting nominations to serve the various positions indicated on Council.

Our current Act allows for two persons who are not members of the Association or licensed to practice, who shall be appointed by the Governor in Council and hold office as prescribed by the by-laws (Ref Section 15c). It has been the intention of the Association for some time to have lay members on council and now that the new Act is before the government the timing is right to fulfill this obligation, thus the nominating committee with blessing of the Council has been proactive in seeking a qualified candidate. George Goad, P.Eng. FEC has been appointed to this position for a two year term. A second lay member will be sought out for an appointment beginning in 2016 so that there is always the same type of continuity that we now have with the change in Council members.

Biographies of our new President, Vice-President and Councilors-elect are provided on subsequent pages.

Respectfully Submitted

Jeff Parks P.Geo, FGC,

Chair, Nominations Committee

Biographies of Incoming Executive and Council

President-elect

Paul Batson, P.Geo. graduated from Dalhousie University with a BSc. Honours in Geology in 1974. Following graduation, Mr. Batson was recruited by Amoco Canada Petroleum Co. Ltd and worked for several organizations in the "oil patch" until 1982. He again returned to Halifax with his wife to take up a teaching position at what was then NSIT, teaching and developing a Petroleum Resources Technology program. The program was later retooled and transformed to focus on water issues and is now called, "Environmental Engineering Technology – Water Resources" at the Nova Scotia Community College, Dartmouth Waterfront Campus. While teaching at the college, Paul completed a part-time BEd degree (1995) and an MSc in Earth Sciences (1997), both at Dalhousie University. He recently retired as a faculty member after 32 years.

Paul has served on various professional society boards and committees over the years, including: CSPG National Liaison Committee, AGS EdGeo Committee, CIM

Petroleum Society, Halifax Section Board of Directors; and, presently serves on the Alumni Association board of directors for the Halifax Grammar School. Paul has been a volunteer Scout leader for the past sixteen plus years and has helped to train new leaders. In his current roll as Area Support Scouter, he is responsible for supporting the leadership teams of the Scout Troops within his Area. He is also a certified First Aid and flat water canoe instructor. Paul has served APGNS as Council member, and currently as Treasurer and Vice President. He is a

member of the Executive Committee and Chairs the Finance Committee.

Vice-President-elect

Jennifer McDonald, P.Geo. is a Hydrogeologist with 15 years of experience. She holds a Bachelor of Technology Degree in Environmental Studies from Cape Breton University and a Masters of Science, with a specialization in Hydrogeology, from University of Toronto. Jennifer has been a member APGNS since 2010, first as a Member-in-Training, then obtaining full membership in 2011. She joined APGNS Council in 2013 as a Councilor and Secretary and is also a member of the Professional Development Committee.



Mark King, Ph.D., P.Geo.,FGC is a hydrogeologist specializing in the interpretation and remediation of contaminants in groundwater, as well as the assessment of mineral resources in subsurface brines. He has been a member of APGNS since 2002 and has served on the association Admissions Board for 10 years

He has a PhD in Hydrogeology from the University of Waterloo, where his research involved study of a dissolved phase PAH plume from coal tar (see Journal of Contaminant Hydrology, Volume 39, Issue 3-4). His MASc, is from the Technical University of NS, where he did research on acid generation and drainage from the Halifax Formation (see the Canadian Water Resources Journal, Volume 15, Number 4). Mark graduated with a BSc in Geology from Dalhousie University in 1982.

Mark has worked in groundwater research and consulting for 27 years, starting his career as a Research Associate at the Centre for Water Resources Studies (Technical University of NS). Subsequently, he joined Jacques Whitford where he eventually became a senior Project Manager, before leaving to do a PhD at Waterloo. Mark started Groundwater Insight Inc. (GWI) 17 years ago and, with GWI, he has provided hydrogeological expertise on more than 100 large projects across North America and, more recently, in South America.





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Biographies (Continued)

Charles Schafer, Ph.D., P.Geo. arrived in Canada in February 1967 to begin a long research career at the newly created Marine Geology Section, Geological Survey of Canada located at the Bedford Institute of Oceanography. He completed his Ph.D. in 1969 (Marine Geology and Environmental Micropaleontology) and went on to work in a broad range of marine environments scattered throughout Atlantic Canada, eastern Quebec and the eastern Arctic. He has served as a project manager, program manager and as chief scientist on more than 15 GSC coastal and offshore marine geology surveys. His early research at BIO focused on marine pollution impact mapping and modeling using Foraminifera as proxy indicators of seafloor conditions but has more recently transitioned to studies of climate/hydrologic cycle linkages using textural "signals" archived in sediment cores in his capacity as an emeritus research scientist at the Geological Survey of Canada – Atlantic.



Following his retirement in 1995, Charles established a small consultancy business (Eco-Management & Trading) that offers scientific and editorial services to clients. He also became involved in several volunteer activities (e.g., Public Representative on the Nova Scotia Police Review Board and on the Discipline Committee of the Nova Scotia Barrister's Society, member on an ENS Environmental Review Panel for a proposed LNG terminal) including a term (2002 -2005) as a member of the APGNS Council. Charles is committed to ensuring that APGNS members continue to reflect the highest professional and ethical standards, and looks forward to participating in initiatives that will continue to promote the growth and diversity of services that APGNS members have come to expect from their Association

Robert (Bob) Stewart, P.Geo. began geological mapping in northern New Brunswick for the provincial government in 1973 and has been involved in field work ever since. A BSc Honours degree in Geology from Mount Allison University in 1975 and a MSc degree in Geology from Carleton University in 1979 were the solid academic foundation for a long mineral exploration career. Application of an integrated multi-disciplinary approach using petrology, geochemistry, geophysics, remote sensing and economic geology resulted in advancing exploration projects across Canada, Asia and Africa.

Bob has been based in Nova Scotia since 1998 and has been continuously registered with APGNS since 2001. He has previously served a two-year term on Council for APGNS. Bob is currently Chief Geologist for North American Palladium Limited's Exploration Division.

George Goad, P.Eng. FEC has thirty years consulting engineering experience starting from a design engineer with his career progressing to the role as a senior design specialist and project manager. Mr. Goad is presently the senior engineer in Dillon's Halifax office with a responsibility for technical input and review, and the ongoing of developing and management of engineering projects in the region. In addition to his technical duties, George has regularly served as a member and chair on a number of committees at Engineers Nova Scotia including Act Enforcement, Public Relations and Professional Practice. He currently is the chair for the Discipline Committee as appointed by APENS council. He is also an active participant in Engineers Nova Scotia Mentoring Program.

He is frequently requested to provide commentary to APENS on documents from government and national organizations that involve the practice of engineering in Nova Scotia.

In recognition of his activities with ENS, he was the recipient of the J.D. Fraser Service Award in 2011 and was made a Fellow of Engineers Canada in 2012.





Executive Director and Registrar's Report

The Register as of December 31, 2014 is shown in the table below. This shows a marked increase in registrations since the last time these numbers were reported here. As of January 26, 2015, this writing, approximately 70% of members have paid their 2015 professional registration fees, 60% of MIT fees have been paid and 54% of corporate fees have been paid. Please note that on January 31, 2015, a late fee will be applied to overdue accounts.

The e-payment system through the secure link on the website has received overwhelming support from the members. We contracted a new service provider in late 2014 and we continue to work with them to make the process more user-friendly. We have also set up the system to accept payment for the Annual General Meeting.

The AGM will be held on Thursday February 19, 2015 at the Dalhousie University Club. It will be a luncheon event with the business meeting, a guest speaker and a continuing professional development event. Details are provided elsewhere in this newsletter and we encourage you to attend. Please RSVP as soon as possible so we can confirm the lunch requirements.

The revised **Geoscience Profession Act** and **Geoscience Practice Regulations** were submitted to the NS Department of Natural Resources and then forwarded to the Department of Justice. It was hoped that this would make it to the spring sitting of the Legislature however the review and revision of the **Minerals Resources Act** may delay this. APGNS was identified as a "stakeholder" for the MRA review and we presented a briefing note on the subject. A summary of the recommendations is included in this newsletter.

APGNS has been working with the Geoscientists Canada, Standards Board on the development of an "Entry-to-Practice Competency Profile". This is being reviewed by the Council and the Admissions Board and may be a valuable tool in assessing new applications. The Standards Board is also working on a "Prior Learning Assessment and Recognition" project that may assist in evaluating and assessing more senior practitioners.

There are opportunities for members to get involved with various Boards and Committees. The Executive and Council have recognized that it is important for the Association to incorporate succession planning into these groups so that they continue to function with new ideas and an Association memory. Please contact a Council Board or Committee member or the Registrar if you are interested in getting involved. It has been noted that this Association "punches well above our weight class" based on the dedicated and competent volunteers who are the heart of the Association.

For more information, question or comments, please contact registrar@geoscientistsns.ca or you can reach me directly at 902-420-9928

David C. Carter, P.Geo, FGC. Executive Director and Registrar

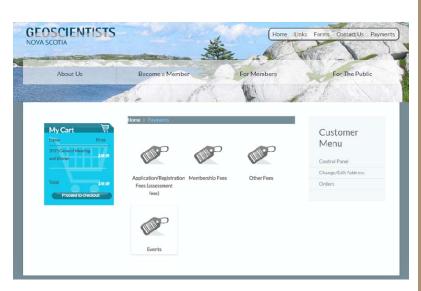
Registration	P.Geo	License to Practice (LTP)	Member-in- Training	Student	Certificate of Authorization
Total	187	8	20	18	50

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APGNS Online Payment Tool

The website committee is continuing to update and improve the Association's website, and we're grateful for all of the feedback that we have received (please keep it coming!). The payment tool on the new site is now structured like most web-based shopping sites. Each item is listed separately and can be added to a shopping cart with one click – you can even register and pay for the upcoming General Meeting and Luncheon on February 19 (find it under Payments > Events). Taxes are calculated automatically and included in the charge to your credit card bill, and your official receipt will be mailed to you by the registrar. Here is a brief description of the process if you are new to the tool:

- Add the desired items to your cart by clicking "Add to cart".
- When you are ready to pay, click "Proceed to Checkout" under "My Cart".
- 3. This will bring you to a login screen.
 - If you have made a payment using the new site before, simply enter your username and password and click "Login", then skip to step 8.
 - If this is your first payment, you will need to enter your information and click "Register".



- 4. The website will automatically send you an email with an activation link. You should receive the email within about 5 minutes of registering.
- 5. Open the email and click the activation link. This will open the APGNS website and show a pop-up message to let you know that your Account has been successfully activated.
 - If you activate your account as soon as the email is received, the "My cart" section should still show the item that you need to pay for.
- 6. Click "Proceed to Checkout" again.
- 7. Log-in from the left-hand dialogue box with your username and password.
- 8. The site will ask you to confirm your Billing Address and if you would like to use the Billing address for the Shipping Address.
 - Check the box marked "Please accept the Terms and Conditions before proceeding".
 - Click "Next".
- 9. You will proceed to the Payment screen where you will need to enter your payment information and click "Finish".
- 10. The website will provide you with a "Thank you for your purchase" message.
- 11. The website will automatically send you an email to let you know that your order was created, and a second email indicating whether your order was confirmed. The first email should arrive within 5 minutes of completing the purchase.
- 12. Your confirmation email will contain a link that you can click to review your payments, where you will be able to print if desired. The system generates a receipt and you must request a receipt from APGNS if needed for official purposes.

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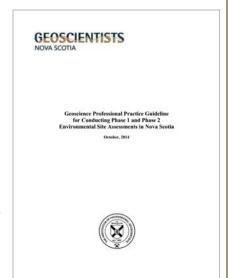
Geoscience Professional Practice Guideline

A Geoscience Professional Practice Guideline for Conducting Phase I and Phase 2 Environmental Site Assessments in Nova Scotia was released in October 2014:

www.geoscientistsns.ca/index.php/for-members/practice-standards

The document was produced by Geoscientists Nova Scotia for Nova Scotia Environment and provides a technical and operational practice guideline for professionals in conducting an environmental site assessment (ESA) in the province. It is intended to develop and maintain a consistent standard of practice to protect the public and articulate a common level of expectation rather than a prescriptive or all-encompassing of environmental site assessment methodology or equipment or procedures.

The guideline should form the basis for competent professional practice and for the evaluation and application of new practices.



Notice of Annual General Meeting

<u>All members</u> of Geoscientists Nova Scotia are requested to attend the Annual General Meeting of the Association

Thursday, February 19, 2015

11:00 am to 12:00 pm

Great Hall, Dalhousie University Club

A luncheon will follow the AGM with guest speaker Barrie Clarke, Ph.D., presenting his research on the source rock for Titanic tombstones.

Several activities are planned for the day

Annual General Meeting 11:00 am to 12:00 pm

Luncheon and Guest Speaker 12:00 to 1:45 pm

Continuing Professional Development 1:45 to 2:00 pm

and Competency Assurance Program

A Primer on Unconventional Gas in Nova 2:00 to 4:00 pm Scotia discovery, development and delivery

Details will be sent out by email