



THE GREEN MOUNTAIN GEOLOGIST

QUARTERLY NEWSLETTER OF THE VERMONT GEOLOGICAL SOCIETY

FALL 1994 VOLUME 21 NUMBERS 3 & 4

*The Vermont Geological Society's
Fall Field Trip*

**Cretaceous Intrusions in the
Rutland Area**

Saturday October 15th

Leaders: J. Gregory and Nancy McHone

Annual Meeting and Banquet: Castleton State College

*Banquet Speaker: Ed Hasenohr
"A Geological Tour of Japan"*

TABLE OF CONTENTS

PRESIDENT'S LETTER.....	2
VICE PRESIDENTS LETTER.....	2
1994 FALL FIELD TRIP.....	4
FALL DINNER, ANNUAL MEETING, & KEYNOTE ADDRESS.....	5
GEOLOGISTS AND PROFESSIONAL REGISTRATION.....	6
DRINKING WATER UPDATE.....	8
VERMONT GEOLOGICAL SOCIETY.....	10
INDUSTRY AND COMMUNITY NEWS.....	13
SEMINARS, MEETINGS, and FIELD TRIPS.....	15
ABSENTEE BALLOT 1994.....	17

THE GREEN MOUNTAIN GEOLOGIST
VERMONT GEOLOGICAL SOCIETY
DEPARTMENT OF GEOLOGY
UNIVERSITY OF VERMONT
BURLINGTON, VERMONT 05405-0122

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PRESIDENT'S LETTER

9 September 1994

Dear Members,

This is my last letter to you and I hope I've influenced some of you to become more involved in the VGS than you may have been before. I've enjoyed tremendously my involvement with the VGS executive committee and others with whom I've worked during the last year. Thank you all for your help and devotion to the VGS.

As in any organization there is a core group of people who make things happen. Within the VGS core, I believe that Stephen Howe and Stephen Wright stand out for their commitment and devotion to our Society. They routinely make an extra effort for the VGS such that their contributions are too numerous to list. I wholeheartedly thank them.

Special thanks to Bruce Cox, Bill Norland and Anne Volmer (our Nominating Committee) for finding candidates for next year, to Kent Koptiuch for being a very active vice president involved in numerous functions, to Helen Mango for organizing this October's annual banquet, to Rolfe Stanley and Kent for coordinating the Research Grants Program this year, and to Lucy Harding for running the summer field trip.

Our continued health and vigor as a society depends on your involvement in VGS affairs. Commit to making our future bright. You won't regret it!

Sincerely,
Larry Gatto

VICE PRESIDENT'S LETTER

The Vermont Geological Society's twentieth year is fast coming to a close and I can't help but to reflect upon the success and growing strength of our organization. Through the dedicated efforts of many of our members, we've been able to put forth a number of excellent meetings and field trips. In addition, we have successfully reestablished a cooperative agreement with the New Hampshire Geological Society, and we've established a new working relationship with the Vermont/New Hampshire Chapter of the Soil and Water Conservation Society. As an environmental and groundwater geologist, I've especially enjoyed partaking in these events as it has allowed me to maintain a more solid relationship with academia, and with bedrock geology in particular.

That, in my mind, is one of the greatest benefits of an organization such as the VGS; scientists practicing in all facets of geological study have the opportunity to exchange thoughts and concepts on an equal basis. This can only enhance our appreciation for the width and scope of geology as a science.

We are fortunate to live in a state that is small enough to allow most of us to interact on a first name basis, yet still large enough to offer a wide variety of subjects for scientific study. Unlike other regions of this country, Vermont offers a rich diversity of igneous, metamorphic, sedimentary, surficial, and glacial geomorphology. No matter what aspect of the science one wishes to investigate, there is ample opportunity here for exploration.

I had the fortunate opportunity to present several talks to elementary school classes over the past year. I was, as usual, amazed at the eagerness and awe that young students express to grasp even the most technical concepts. The geologists of our future are in the schools now. We all should make it a point to provide them with the chance to "taste-test" the science. The occasional hour of our time invested in speaking, sample demonstration, or even leading a short field trip right on the school grounds, is always rewarding personally, and doubly rewarding to the students.

In this edition of the *GMG*, Jeff Hoffer has prepared a status report regarding the professional registration of geologists. I ask all of our members to take a few moments to (re)consider the concept, and to let us know whether this is a task that you would like the VGS to explore further. Until there is a nationally recognized registration program, implementation of a State-sanctioned program may be a viable alternative. I know that this issue has been explored by the VGS in the past, however, times have changed, and the number of practicing geologists in the state has grown dramatically in recent years. Please take a few moments to drop us a note and let us know what you think.

I have said it before, but I don't think it can be emphasized enough; the VGS is an organization for all of Vermont's geologists, and even a few ex-patriot geologists. Your continual input and contributions are what makes us a strong organization. I have tremendously enjoyed my work with the VGS over the past year, and I am looking forward to working with all of you in the coming year.

The VGS Fall field trip and annual banquet/meeting is fast upon us. Greg and Nancy McHone will be leading an excursion to view Cretaceous igneous intrusions in the Rutland area. If you caught their talk on the subject during last Winter's meeting, I am sure you'll be as interested as I am in attending. If you missed last Winter, here is your opportunity to join your fellow members and to exchange thoughts while enjoying the best of New England's foliage season. Look for details on the field trip and the annual banquet/meeting elsewhere in this edition. I hope to see you out there!

Respectfully,
Kent S. Koptiuch

1994 FALL FIELD TRIP

Cretaceous Intrusions in the Northern Taconic Mountains Region, Vermont

Saturday October 15th at 10 A.M.

Leaders

J. Gregory McHone and Nancy McHone

Meeting Place and Time

Meet at the Vermont Information kiosk in the parking lot of the Vermont Marble Company, Proctor, Vermont at 10 A.M.. From the north, drive south on Route 7 to Pittsford, then follow Route 3 southwest to Proctor. From southern/eastern/western approaches, turn north onto Route 3 off Business Route 4 between Rutland and West Rutland, then north to Proctor. The Vermont Marble Company is just across the bridge in the western part of the village. If there is sufficient interest from members in the Burlington area, a Geology Department van may be available for the trip and members can meet at the Perkins Geology Building. Call Stephen Wright if you are interested (656-4479).

Equipment and Background Information:

A lunch break will be made in the village of Castleton where lunch materials can be purchased. The background geology and field trip stops are all described in a field trip guide published in Volume 7 of *Vermont Geology*. Ordering information for this volume is given on the last page of this *GMG*. Steve Howe will also bring along copies that can be purchased by participants on the field trip.

Trip Description

The field trip itinerary will follow that outlined in the field guide to this trip. The first two stops will be in Proctor to observe both trachyte and monchiquite dikes. We will then head west to look at spessartite dikes in Castleton and near Lake Bomoseen. The trip then turns south a short distance to view the spessartite dike exposed in Lewis Creek flume and then back east along Route 4. We will next look at outcrops of trachyte and diabase dikes in South Clarendon, the Shrewsbury intrusive breccia, and will finish the trip at the Cuttingsville quartz syenite igneous complex.

FALL DINNER, ANNUAL MEETING, & KEYNOTE ADDRESS

**Great Hall of the Old Chapel, Castleton State College
Castleton, Vermont**

Directions

The Old Chapel is a white clapboard building with a little cupola located on Seminary Street. Seminary Street is the first left turn off Main Street (when coming from the east) for which there is a college sign. After taking the left turn off Main, the Old Chapel is about 300 m up the street on the left, set back from the road.

Dinner: 5:00–6:30 PM

We will have a dinner catered in the Old Chapel. The cost will be \$12 which includes pre-dinner munchies, dinner (salad, chicken or vegetarian lasagne, and bread), dessert, coffee and soda, seltzer, or cider. We will try to arrange a cash bar. You can pay for the dinner during or after the field trip. Please make checks out to the Vermont Geological Society and give them to Stephen Howe.

So that we can accurately inform the caterer of our number, **please call, write, or E-mail Steve Howe by Wednesday October 12** if you are planning on attending the dinner.

Steve Howe: (802-656-0388); showe@moose.uvm.edu

Business Meeting: Election of new officers: 6:30–7:00 PM

Following dinner we will have a brief business meeting to elect new officers. If you are unable to attend, please fill out the absentee ballot on the last page of this *GMG*.

A Geological Tour of Japan: Ed Hasenohr: 7:00–8:00 PM

Our guest speaker is Ed Hasenohr, an igneous petrologist who has recently returned from Japan where he was teaching. Ed will give us a tour of Japan emphasizing the volcanic history of the country. Please come and welcome Ed back to the U.S. and enjoy his presentation.

GEOLOGISTS AND PROFESSIONAL REGISTRATION

Jefferson P. Hoffer
 Consulting Hydrogeologist
 P.O. Box 428 Waterbury, VT 05676
 (802) 244-5573

Geologists make decisions which impact public health, safety, and welfare. In Vermont, geologists are responsible for the siting and evaluation of potential waste disposal sites, the characterization and remediation of soil and groundwater contamination, mineral extraction projects, geotechnical evaluations, and the siting and management of water supply sources. We also provide technical advice or opinions to other professionals such as lawyers and engineers on a variety of issues and projects. Unlike other technical professions such as engineering or surveying, there is no registration requirement for geologists in the State of Vermont. Geologists practicing in Vermont, as well as the general public, may benefit from some type of registration, certification, or licensing program. These programs are typically designed to ensure to the public that practicing geologists meet a standard of qualifications, and adhere to a code of ethics. While no certification or registration program exists in Vermont, the Environmental Protection Rules do provide definitions for hydrogeologists performing work under various rules, including the following:

Hydrogeologist means a person with training or experience in bedrock geology, glacial geology, and groundwater hydrology sufficient to prepare adequately the hydrogeologic analyses required by these rules (Chapter 21, Water Supply Rule).

Hydrogeologist means an individual who has specialized training and experience in bedrock geology, glacial geology, geomorphology and groundwater hydrology, including well hydraulics and contaminant hydrogeology (Chapter 14, Indirect Discharge Rule).

The issue of professional registration or certification of geologists in Vermont has periodically been brought up for discussion, and these efforts have been reviewed in previous issues of the *Green Mountain Geologist*. The Spring 1974 *GMG* (vol. 1, No. 1) reviewed the efforts of the Association of Engineering Geologists to evaluate registration possibilities in the New England States. At that time, Maine had recently enacted their certification program for geologists. In the Winter 1985 *GMG* (Vol. 11, No. 4), Charles Ratté summarized the efforts of a 1981 V.G.S. professional committee's findings as follows:

1. It was not likely that the legislature would look kindly on yet another bill to establish a registration or certification of a professional discipline.
2. The records of the professional engineers or surveyors did not indicate an effective internal policing capability existed, thus the organizations functioned more as a professional society than as a watchdog over the quality of work performed in the state. It was concluded that it would be equally difficult to carry out disciplinary functions in a small group of registered geologists in Vermont.
3. There was little enthusiasm for voluntarily taking on the time-consuming task of formulating a registry law or administering such a law.

4. It was decided that individuals who felt the need to be professionally registered should be encouraged to join the American Institute of Professional Geologists (AIPG).

In a recent guest editorial in the Summer 1994 *GMG* (Vol. 21, No. 2), Kent S. Koptiuch discussed the growth of the environmental consulting field, which has resulted in an increase in the number of geologists practicing in Vermont. As a result, it may be worthwhile to re-examine the issue of professional registration or certification in Vermont. Many states currently have or are working on geologist registration or certification programs. The status of geologist registration for states in the Northeast is summarized below:

Connecticut	No registration, certification, or definition and no change reported.
Maine	Two part examination, 6-8 hour length, including regional knowledge, environmental geology, and a number of specialties. Specialty examples include hydrology, marine, sedimentation, and structure. Applicants take two of the specialties in the examination process. No specialty registration. More than 300 registrants.
Massachusetts	No registration, certification, or definition and no change reported.
New Hampshire	Proposed act to register geologists and other scientists practicing agronomy, pedology, and soil science. Certification based on resumé and formal exam. Includes reciprocity, exempts state and federal employees. In its present proposed format, this act is opposed by the geologic community and N.H. Department of Environmental Services. In study committee as of April 1, 1993.
New Jersey	No changes and no activity foreseen in near future. There is a certification program based on UST regulations that includes definition of qualified groundwater consultants.
New York	No registration, certification, or definition and no change reported.
Pennsylvania	Registration Act 151 was passed by the Pennsylvania legislature December 21, 1992. Joined with the Engineering Board of Registration as an amendment. Bill model for those who would consider a combined geologist-engineer board. Even though combined with engineering registration, geologists position retains basic concepts of the model law. Oil and gas exploration exempted.
Rhode Island	No registration, certification, or definition and no change reported.
Vermont	No registration, certification, or definition and no change reported.

(The information in the above table was excerpted from American Association of State Geologists, Professional Affairs Committee, James H. Williams, Chairman, October, 1993.)

Those with an opinion regarding professional registration for geologists are encouraged to use the *GMG* as a forum to express their views. It may be appropriate for the VGS to conduct a poll of the Vermont geologic community to gauge its level of interest in professional registration.

DRINKING WATER UPDATE

K.S. Koptiuch

CLEAN WATER ACT REAUTHORIZATION [H.R.3948] has been fighting a long, upstream battle in congress. This is primarily due to the bill's non-specific language concerning groundwater. In addition, there is strong concern regarding the possibility of federal jurisdictional encroachment upon state and local governments. The National Ground Water Association's (NGWA's) Clean Water Act Task Force has been working with both the EPA and Congress to filter out some of the beaurocratic flotsam.

BACK ON THE FARM the Vermont Department of Agriculture has proposed new rules aimed at reducing farm related, non-point source pollution in Vermont's waterways. The rules will require farmers to alter their present manure disposal practices. Approximately one-half of Vermont's farmers will be affected. Manure will be stored, either in a structure or stacked in a field, through the winter and spread later in the spring after peak runoff has occurred. In addition, a vegetative buffer strip will be required separating agricultural lands from surface waters. Other requirements will include: prohibition of manure, fertilizer, and pesticide buildings within floodplains; a provision mandating physical incorporation of manure into the soil within 48 hours on lands subject to annual flooding; and cultivation practices in adherence with the soil loss tolerances calculated through the Universal Soil Loss Equation. The new rules are expected to be adopted in November or December; sounds like moosic to the ears!

THE STATE WATER QUALITY STANDARDS have recently been amended by the Water Resources Board (*effective August 1, 1994*). The new water quality standards give the Agency of Natural Resources (ANR) the authority to create "waste management zones" along surface waterways. The zones will effectively replace the former Class C rating on waterways. Class A waters are considered of *very high quality*, and Class B waters are of *high quality*. Waste management zones will be those areas designated for the permitted discharge of treated wastewaters. Under the new criteria, zones must be:

- Long enough to accommodate the discharge,
- Consistent with the state's anti-degradation policy, and
- Located so as to not result in "more than a negligible increased risk to public health" within, adjacent to, or downstream of the zone.

In addition, the waste management zones must not constitute a barrier to the passage or migration of fish or result in an undue adverse affect on fish, aquatic biota, or wildlife.

EPA's PROPOSED DISINFECTION BY-PRODUCTS RULES, part of the *Clean Water Act reauthorization*, could cost water utilities across the nation as much as \$1 billion during the first year of changeover. The rule change, aimed at protecting drinking water from disinfection by-products created through the natural interaction of haloacetic acids, bromate, chlorine, chloramine, chlorine dioxide, and ozone (common disinfection chemicals) with organic matter in target waters. By-products have been linked to kidney and liver damage, and to cancer. EPA's goal is to improve existing safeguards against disease-causing microorganisms, particularly *Cryptosporidium*. It is not likely that the proposed rules will go into effect for another five years while the EPA and water suppliers across the country conduct a \$50 million study of the impacts of the by-products.

THE NATIONAL GROUND WATER ASSOCIATION (NGWA), in a finding contrary to an EPA standing promulgated earlier this year, states that lead-bearing, brass cast components in private water well pumping systems are not a universal problem. After the EPA issued their warning in April, the NGWA stepped in to offer assistance in determining the validity of claims made by several partisan environmental organizations in California. The NGWA reviewed independent data sources from state government agencies and concluded that there is no cause for concern at this time.

Many industry experts have criticized EPA's reliance on a laboratory experiment that may have been biased and lacking in a satisfactory control study. The EPA is awaiting the results of additional independent field tests in Minnesota and Arkansas before making a final ruling, however, they have not as yet rescinded their previous recommendation that well owners with less-than-a-year old submersible pumps with brass parts use bottled drinking water until they test their drinking water for lead.

In May, the U.S. Senate passed the *Senate Safe Drinking Water Act (SDWA)*, S.2019. The legislation includes an amendment requiring the EPA to produce their own report that reviews all available data and information on the leaching of lead from water well pumps and water well system components. This would serve to counter any potential bias that may have been introduced in the initial studies. The House of Representatives has not yet acted on SDWA legislation.

VERMONT GEOLOGICAL SOCIETY BUSINESS AND NEWS

New Members

Although no new members have joined the VGS since the Summer GMG was published, two applications are awaiting approval by the Executive Committee at our Annual Meeting on October 15th.

Treasurer's Report

As of September 29, 1994, the Society's membership stands at 136 members. Several institutional members have recently renewed their membership. Our financial condition remains excellent, with our income from dues and sales of *Vermont Geology* slightly exceeding our expenses of the publication and mailing of the GMG and our support of the Student Research Grant program. Continued tight cost controls will insure that this balance persists. I anticipate no increase in dues for 1995, despite rising postal costs, and will make a recommendation to the Executive Committee at the Annual Meeting to that effect. I will also recommend to the Executive Committee that the VGS maintain its current level of support for the Student Research Grant. It is my opinion that increases in expenses over the next year can be met by attracting new members and stimulating sales of *Vermont Geology*, and I will suggest to the Executive Committee that we promote the Society vigorously at the Northeastern Section Meeting of the Geological Society of America at Cromwell, Connecticut in March, 1995.

I anticipate that dues statements for 1995 will be mailed to all members slightly earlier this year, in mid-December, so as to take advantage of the lower postal rates. This will also have the added benefit of firming up our membership roll before the publication of the Winter GMG.

As always, I welcome comments and suggestions concerning the financial condition of the Society from all members.

Respectfully submitted,
Stephen S. Howe

Member News

Jeff Hoffer, consulting hydrogeologist, has recently hired Timothy Schmalz as a project geologist in his Waterbury office. Hoffer provides services in groundwater supply development and groundwater contamination investigation. Schmalz has recently moved to Vermont from State College, Pennsylvania where he was employed as a project geologist for Nittany Geoscience. Schmalz received his B.A. in geology from Colgate in 1991.

Executive Committee Minutes: July 9, 1994¹

The Executive Committee of the Vermont Geological Society was called to order at 12:30 p.m. on July 9, 1994 at the Crown Point, New York Historic Site. Members present were Larry Gatto, Kent Koptiuch, Steve Howe, Nancy Keller, Helen Mango, Shelley Snyder, and Stephen Wright.

Treasurer's Report: Steve Howe reported a balance of \$2,936.24 in the VGS bank account. No new members have joined the Society since the last Executive Committee meeting. Dues statements for 1995 will be mailed to members by December to take advantage of the \$0.29 postage rate.

Membership Directory: The membership directory has been completed and mailed. Members should have received the directory by late June or early July as a mailing separate from the GMG. The Executive Committee decided to update this directory annually and to include any new member information in the GMG on an as-needed basis.

Reciprocal Agreements: Stephen Wright reported that he is awaiting a message regarding the status of the reciprocal agreement with the New Hampshire Geological Society. Kent Koptiuch brought it to our attention that the Soil and Water Conservation Society (SWCS) is looking to expand its contacts with other related professional associations. The Executive Committee supported the idea of extending a reciprocal agreement with the SWCS and requested that Kent pursue this matter further.

Publications/Editorial Committee: Kent Koptiuch's contribution as guest editor of the Summer 1994 GMG were recognized and praised. Kent has agreed to continue to volunteer his help in publishing future GMGs.

Discussion also centered around the question of increasing the page size of the GMG, as it would allow more layout options. It was agreed that the current size is a likeable and recognizable trait of the GMG, and that no change would be made. It was also agreed that, should any changes to the size of the GMG be made in the future, those changes should be made at the beginning of a new volume year for the convenience of library binderies.

Steve Howe brought it to the attention of the Executive Committee that the quality of the last printing of the GMG had declined and recommended that other print shops be investigated.

In anticipation of the Fall field trip, the Executive Committee supported Stephen Wright's suggestion that a post card announcing the event be mailed to VGS members in late August. If the Fall field trip is not announced until the GMG is published in late September, members may not have the lead time necessary to plan their participation.

Steve Howe also mentioned that he had received information that the focus of the June 1996 Rocks and Minerals magazine would be on Vermont, and

¹July 20, 1994 [with minor additions in brackets made on July 21, 1994 by Steve Howe].

that the VGS may want to solicit its membership regarding contributions to that issue. More information regarding this topic will be made available at the next Executive Committee meeting. [Initial contact with Sue Hadden, VGS member and our liaison for this special issue, indicated that the manuscript situation for the issue was set, but that advertising space was still available.]

Geological Education Committee: Shelley Snyder reported that she is still in pursuit of a booth at the Vermont Education Association's convention in October, 1994. Nancy Keller suggested that the Vermont Science Teachers Association be contacted and that perhaps the VGS could share their space. A teacher handbook and resource list regarding Vermont geology was discussed. No progress to date has been made. It was suggested that the VGS could put together kits that would support teachers and students in the study of geology.

VGS Research Grants: After reviewing the May 1994 grant proposals, Kent suggested that both he and Rolfe Stanley had felt that the guidelines for the student research grant include a recommendation that figures, maps, cross sections, and other graphic information be supplied with each proposal. Two grants, totalling \$500.00, were awarded.

Fall Field Trip/Banquet/Annual Meeting/Guest Speaker: The date for the Fall field trip and meeting has been changed due to conflicts with NEIGC. Other possible dates included October 1st or 15th [As of July 21, 1994, the most likely date appears to be October 15th]. Greg and Nancy McHone have agreed to lead a trip in the Rutland area to look at Cretaceous igneous intrusions. Helen Mango is making arrangements at Castleton State College for hosting the banquet and presentation. Final decisions regarding dates and logistics will be made by late August. A guest speaker for this event has not yet been found.

Constitution and Bylaw Changes: Changes to the constitution and bylaws are on hold until Steve Howe and Shelley Snyder have had an opportunity to review them. The proposed changes will be circulated among members of the Executive Committee before publication in the *GMG* and their final acceptance, by vote, by the VGS membership.

Nominating Committee: The Nominating Committee will report their nominations to Larry Gatto by August 19th.

Next Meeting: The Executive Committee will meet following the Fall field trip and dinner as part of the Annual Meeting.

Meeting adjourned at 2:00 p.m.

Respectfully submitted,
Nancy Keller

INDUSTRY AND COMMUNITY NEWS

THE INTERNAL REVENUE SERVICE recently ruled (*Revenue Ruling 94-38*) that cleanup costs for remediating contaminated soils and groundwater can be deducted as a business expense (*Internal Revenue Code, Section 162*). The ruling applies to ongoing treatment expenses and not to the cost of installing the remedial system itself. Remedial systems are considered a capital expense; therefore, these costs can be depreciated over the useful life of the system.

STELLA FOODS EAST INC. and the Town of Hinesburg have been under the thumb of the EPA for alleged violations of the Clean Water Act. EPA claims that Stella Foods was discharging pollutants in concentrations exceeding their National Pollutant Discharge Elimination System (NPDES) permit. Hinesburg Town is faced with the same charge. Stella Foods is facing potential penalties of \$125,000.00, while the Town is looking at penalties in the \$15,000.00 range.

THE ABENAKI NATION OF VERMONT recently received a \$7,500.00 grant from the EPA to create the Missisquoi River Keeper Program. The program will endeavor to cleanup and manage the Missisquoi's ecosystem.

THE LAKE CHAMPLAIN BASIN PROGRAM will be unveiling its draft environmental management plan "*Opportunities for Action*" for public comment sometime this fall. The final plan, incorporating an economic impact analysis and public input is expected in 1995. The program's goal is to recommend strategies aimed at promoting a healthier Lake Champlain through: nutrient input reduction; management of non-point source pollution; prevention of toxic substance introductions; wetlands protection; and management of foreign, nuisance aquatic vegetation.

MAINE'S WETLANDS are the focus of a regulatory conflict between the EPA, the Army Corps of Engineers, and the Maine Department of Environmental Protection (DEP). A number of Maine business groups under the banner of the *Maine Alliance* and the *Maine Chamber of Commerce* have called for DEP to assume jurisdiction of all state wetlands; the EPA has stated in the past that this is permissible if state level regulations are comparable to federal laws, *i.e.* the Clean Water Act. The proposal is aimed at reducing interagency redundancy in wetlands reviews. The *Natural Resource Council of Maine* has urged caution in consideration of the proposal due to the potential added cost burden to Maine's already stressed DEP budget.

OUTBOARD BOAT MOTORS have been targeted by the EPA as a primary threat to atmospheric and surface water quality. In a report released this Summer, the EPA claims that outboards contribute more than 19% of the hydrocarbons released into the atmosphere. In addition, the report implicates these same motors in the release of somewhere between 150 million and 420 million gallons of unburned fuel annually.

GOVERNOR DEAN NAMES EWING AS E-BOARD CHAIR

Beginning December 31, 1994, John Ewing, former Bank of Vermont president, will assume the chair position of Vermont's Environmental Board. Ewing has been a member of the board for several months. He is past chairperson of the Chittenden County district environmental commission. Ewing will replace acting chairperson Arthur Gibb. Gibb will remain on the board.

SEMINARS, MEETINGS, AND FIELD TRIPS

October 8-9: **New York State Geological Association Annual Meeting** with Field Trips, Rochester University, Rochester, New York.

October 15: **Vermont Geological Society Fall Field Trip and Annual Meeting** with Greg and Nancy McHone: *Cretaceous Intrusions in the Rutland area*. See this issue of the *Green Mountain Geologist* for details.

October 16-18: **Ninth Annual Conference on Hydrogeology and Engineering Geology of Karst Terranes**, Nashville, Tennessee. For information contact: James F. Quinlan, Box 110539, Nashville, TN 37222. (615) 833-4324.

October 17-20: **Ninth Annual Conference on Contaminated Soils**, Amherst, Massachusetts. For details contact Paul Kostecki, Environmental Health & Sciences, N344 Morrill, University of Massachusetts, Amherst, MA 01003. (413) 545-2934, fax (413) 545-4692.

October 17: **University of Vermont Fall Seminar Series** (4 P.M.): *"Icebergs, Shell and Raised Beaches: Gaging the Retreat of Late Wisconsin Ice from the Puget Lowlands, Washington"* Dr. David Dethier, Williams College.

October 23-27: **Geological Society of America Annual Meeting**, Seattle, Washington. A complete description of the meeting is contained in the June 1994 issue of *GSA Today*. Contact the GSA Meetings Department for additional details (1-800-472-1988).

October 31-November 3: **International Hazardous Materials Spills Conference**, Buffalo, New York. Contact Sarah Bauer at (202) 260-8247 for information and Angela Moody at (703) 442-9824 for registration.

November 7: **University of Vermont Fall Seminar Series** (4 P.M.): *"The Age of Blueschists on the Seward Peninsula, Alaska: Hazards of Dating Under Pressure"* Dr. Kimberly Hannula, Middlebury College.

March 20-22, 1995: **Northeastern Section Meeting, Geological Society of America**, Radisson Hotel, Hartford, CT. For details call the GSA Meetings Department at 1-800-472-1988.

April 2-5, 1995: **Fifth Multidisciplinary Conference on Sinkholes and the Engineering and Environmental Impacts of Karst**, Gatlinburg, TN. Contact P.E. LaMoreaux & Associates, Inc., Box 4412, Oak Ridge, TN 37831-4412.

ABSENTEE BALLOT: 1994
Vermont Geological Society

Officers:

President	Kent Koptiuch	_____ _____
Vice-President	Ron Parker	_____ _____
Secretary	Nancy Keller	_____ _____
Treasurer	Stephen Howe	_____ _____

Board of Directors (2-year term):

Bruce Cox	_____ _____
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If you will not be attending the VGS Annual Meeting in Burlington, please complete this ballot and return it in an envelope marked with the word "BALLOT" in the lower left hand corner and your name and address in the upper left hand corner to:

Stephen Howe, Treasurer
Department of Geology
University of Vermont
Burlington, VT 05405

To be counted, this ballot must be received by October 14, 1994.

Vermont Geology

Volume 7
"Field Trip Guidebook Number 3"

Editor: Stephen F. Wright

Contents

**Cretaceous Intrusions in the Northern Taconic Mountains Region,
Vermont**

J. Gregory McHone & Nancy W. McHone

**Depositional Environments in the Mid-Ordovician Section at Crown
Point, New York**

Brewster Baldwin & Lucy E. Harding

The Altona Flat Rock Jack Pine Barrens, Altona, New York

David A. Franzi & Kenneth B. Adams

The Champlain Thrust Fault, Lone Rock Point, Burlington, Vermont

Rolfe S. Stanley

Stratigraphy of the Cambrian Platform in Northwestern Vermont

Charlotte J. Mehtens

Price: \$8.00 (members), \$10.00 (non-members)

Pick up a copy at this year's fall field trip!

Mail orders with payment to: Stephen Howe, Treasurer
Department of Geology
University of Vermont
Burlington, VT 05405
