From the President

Do you teach climate change? It is a topic that spans disciplines in earth science education and is taught in many classes. Climate change comes up in physical and historical geology textbooks in the glaciers and ice ages chapters and it comes up in meteorology classes when climate is the topic. It comes up in the news media just about every day, usually referred to as global warming and couched in terms of climate change today and tomorrow. News articles tend to focus on how climate change affects, or is affected by, people. Most students have thus been exposed to the topic and may already have opinions about it. This exposure makes climate change an extended “teaching moment,” a rich opportunity to build from topical interest to deeper understanding of science.

How do you teach climate change? I once arranged for students to have in-class debates on topics such as global warming. Such activities tend to receive plaudits for being outside the box (i.e. not a lecture), student-directed, and so on. However, I found that, despite my efforts to format and direct the debates, the winning debate teams rarely resorted to science, logic, or verifiable evidence; instead, they resorted to rhetoric and appeals to emotion, and on that basis they usually won their audience over. Similar results were reported in a recent paper in the Journal of Geoscience Education1. What the authors of that paper and I have found is something that many philosophers and scientists have known at least since the time of Plato: in the public marketplace of ideas, sophistry can trump rigorous research, rhetoric can run circles around facts. In science, the real debates are the ones that happen in the pages of peer-reviewed journals, and I think most would agree that is the level to which we should direct student thinking.

My own awareness of climate change affecting the modern world began with learning about how greenhouse gases raise the temperature of the troposphere, and learning about Keeling’s measurements of tropospheric CO\textsubscript{2}, which showed a clear and accelerating increase. From those two facts, I could draw my own conclusions. I still start there when teaching about global warming, and have yet to see those facts challenged in scientific terms. I like to have classes download ice core data from Vostok\textsuperscript{2}, turn it into graphs of temperature vs. age and CO\textsubscript{2} vs. age, and compare the two graphs to see how they correlate. I also have students add more recent measurements of the amount of CO\textsubscript{2} in the atmosphere to the age-vs.-CO\textsubscript{2} graph, which plots at a much higher value than seen in the data for the previous 420,000 years.

Continued on Page 2
When I saw “An Inconvenient Truth,” I had mixed feelings about seeing Al Gore’s dramatic way of presenting similar data. The movie largely consists of Mr. Gore giving a lecture on global warming. His presentation is primarily based on what many climate change studies have been reporting, including an explanation of how greenhouse gas raises the temperature of the troposphere, and how burning fossil fuel raises the amount of greenhouse gas in the atmosphere, particularly CO₂. My ambivalence kicked in when, during his PowerPoint presentation, Mr. Gore gets on a hydraulic lift beside the slideshow screen, to be lifted up alongside the rise on the age-vs.-CO₂ graph to its present-day levels. He incorporates the same data my students graph into the most dramatic PowerPoint presentation I have ever seen. The juxtaposition of him being lifted up beside the rising redlined curve is a sophisticated rhetorical flourish.

Should we strive for this kind of lecturing? Yes and no. After all, we want to keep our students engaged and focused. Rhetorical flourishes have their uses, and on a more modest scale than Al Gore, many of us try to jazz up our lectures in various ways. However, when it comes to using classroom time to advocate for political, economic, or lifestyle change, my impression is that the answer is no for most of us. It derails our efforts to get at the facts, to use science to achieve the best possible measurements and explanations of reality. There is an old struggle in science and science education between being objective and using what can be verified, and the tendency to discount or discard facts or lines of inquiry that don’t support our preconceived notions. This struggle takes place within our minds, within our classes, and within our profession.

Given the power of rhetoric, I’m afraid the idea that objective science will always triumph is a dream that resides in the realm of Plato’s ideas, whereas we are people tangled up in the real world. I believe our goals as educators should be to stay balanced in our presentations of science, be advocates of research, and be open to where the research leads. Is this possible when teaching climate change?

Dr. Ralph Dawes
Wenatchee Valley College
Wenatchee, Washington

P.S. There seems to be something in the air! Read on for other articles related to climate change in this issue.

References


Outstanding Earth Science Teacher 2007- Nominate Today!
Davene Meehan, PNW NAGT OEST Coordinator

Make a pre-college teacher’s day--nominate them! Please get the word out to your school districts and get those Outstanding Earth Science Teachers (OEST) nominated!

Awards are given to middle school and high-school teachers. Eleven national finalists are selected, one from each NAGT regional section. The Pacific Northwest region covers Washington, Oregon, Alaska, Idaho, British Columbia, and the Yukon. Individuals may apply themselves or nominate a colleague for the award.

The prizes are incredible: a 10”x13” laser-engraved solid walnut plaque, a two-year complimentary membership in the NAGT, a three-year complimentary membership in the Geological Society of America (GSA), $500.00 in travel funds and $500.00 in classroom improvement funds, both from GSA (winners must request these two money awards), choice of a Dictionary of Geologic Terms or subscription to Geotimes, one-year subscriptions to Earth in Space and The Professional Geologist, one-year of membership in the National Earth Science Teachers Association (includes a one-year subscription to the Earth Scientist), a set of slides from the National Center for Atmospheric Research, a CD-ROM and poster from Joint Oceanographic Institutions/U.S. Science Advisory Committee, AND an assortment of publications from the United States Geological Survey.

The official nomination form can be downloaded at: http://nagt.org/files/nagt/OEST.pdf. Because we are all so busy these days, however, you can just email me a name and contact information. I will be happy to get those nominations flowing! The form can look overwhelming—remember the important information that needs to be given: teacher’s name, phone number, address, email, school name, a paragraph covering reasons for the nomination, the nominator’s information, and signature.

The deadline is April 1st! Get started NOW! State winners will be announced June 1st and section winners on September 1st. This is a great way to get the word out about our own organization, make contacts with other geoscience teachers, and find out what secondary teachers are doing in the classroom. I am excited and want LOTS of nominations! Send names or forms to djmeehan@galaxynet.com or Mrs. Davene Meehan, 423 Koontz Road.Oak Harbor, WA 98277.

Nominate, nominate, nominate!!!
Section Website--browsed lately??

Jenny Thomson, EWU

http://nagt.org/nagt/organization/northwest/index.html

The PNW Section website has undergone some changes this past year. To showcase our section meetings, I have added what I call "photojournals" with collections of photographs that I have taken during field trips. So far, I have pages devoted to the meetings held in Bellevue (2001), Wenatchee (2004) and Coos Bay (2005). I am clearly not the only photographer, so if you would like me to post your own pictures on our site (from meetings other than the three mentioned), please burn a CD-ROM with no more than 50 images and provide me with a very brief photo caption for each photograph that you submit. I'll do my best at getting new pages posted as necessary. Send the CD-ROM to Dr. Jenny Thomson, Dept. of Geology, Eastern Washington University, 130 SCI, Cheney, WA 99004. Please do not send digital photographs via the internet!

NAGT Dues Increase

The NAGT membership fee has increased from $35.00 annually to $45.00. Fees can now be paid online on the organization website (www.nagt.org). The direct link is:

https://www.aip.org/ecomm/nagt/

Congratulations PNW Authors!

Jenny Thomson, EWU

The November issue of the Journal of Geoscience Education has twelve papers, five of which were written by Pacific Northwest Section members or individuals whose institutions fall within the Pacific Northwest Section region. These include: A. Prakash (U. Fairbanks, p. 555-560); K. Lillquist (CWU, p. 561-571); M. Nicholl (UNLV) and M. Karnowski (U. Idaho, p. 578-583); A. Buddington (SCC, p. 584-587); and J. Thomson, J. Buchanan, and S. Schwab (all from EWU, p. 588-595). This just goes to show you that our section is active in the geoscience education community!

Summer Field Opportunities

Jenny Thomson, EWU

Attention K-12 teachers (in-service or working toward a degree) or biology or geology students who are looking for a neat summer learning experience. Once again, Eastern Washington University's Thomson, Buchanan and Schwab (see JGE, v. 54, n. 5, p. 588-595) are offering a summer field course in geology and biology. This year's trip, "On the Trail of the Yellowstone Hotspot" goes from July 22 - 29 (tentative dates at the time of this writing, but likely). This eight-day field trip travels to Hagerman Fossil Beds and Craters of the Moon National Monuments, and Yellowstone National Park, for the purpose of examining the geology and biology of the Snake River Plain in southern Idaho. In this field class we will examine the volcanic geology in the wake of the Yellowstone hot spot as the North American plate moved westward during the last 20 million years. In addition, we will examine the vegetation of this geologically young landscape and discuss how limited soil development and long fire intervals, coupled with a semi-arid climate, shape plant communities. The biology of organisms that occupy extreme environments – extremophiles – will also be emphasized in relation to the geothermal features at Yellowstone N.P. For information call Drs. Buchanan and Thomson in the Dept. of Geology at (509)359-2286, or Dr. Schwab in the Dept. of Biology at (509)359-2339, or consult: http://www.geology.ewu.edu/dept/sumtrp07.htm. If the page isn't posted yet, keep checking back!

State by State

British Columbia, Yukon, Idaho, Oregon & Washington

Idaho

State Councilor: Shawn Willssey

NASA Space Grant. The deadline for applications for the NASA Space Grant Consortium K-12 Microgrant is March 15, 2007. This grant is affiliated with Idaho State University and provides limited funding up to $400 to K-12 educators for attending workshops, conferences or teacher training activities that provide opportunities for learning new techniques or methods for teaching math, aerospace, planetary science, astronomy, and other sciences relative to NASA's interests. For more information go to: http://geology.isu.edu/NASA/

PhD Program for Boise State. Boise State University now has a PhD program in Geology. BSU already offers a PhD in geophysics. For more information, contact Dr. Mark Schmitz, markschmitz@boisestate.edu, or (208)-426-5907.

Washington

State Councilors: Joe Hull & Jeff Tepper

Cordilleran GSA Free Workshop, May 4th, 2007, Bellingham. The Association of Engineering and Environmental Geologists (AEG) and the Association of Women Geologists (AWG) are hosting a free evening workshop at the upcoming Cordilleran GSA section meeting in Bellingham, WA, on May 4th, 6-8:00 pm. This informal session is focused on exposing students to careers in Engineering and Environmental geology. AEG members will present interesting case studies to give the attendees an idea of the type of work that engineering and environmental geologists do. Then we will have an informal discussion with practicing geologists describing their jobs. Geologists with variable years of experience will be available for Q&A to give attendees a real picture of these disciplines. Pizza and drinks will be provided by one of the regions top employers of engineering and environmental geologists. You do not have to register for the GSA meeting to attend this evening workshop (please notify in this event). For more information, contact Kathy Troost, 206-616-9769, ktroost@u.washington.edu, or go to the web page: http://www.geosociety.org/sectdiv/cord/07cdmtg.html#crs
Ice Age Floods: Trail Bill Ready for Presidential Signature
Shawn Willsey, College of Southern Idaho
Cassandra Strickland, Yakima Valley CC Grandview

On January 12th, 2007, U.S. Senator Maria Cantwell (D-WA) and Congressman Doc Hastings (R-WA) reintroduced legislation to establish an Ice Age Floods National Geologic Trail to the House and Senate. The “Trail bill”, which will create a network of touring routes and interpretive opportunities along the path of the Missoula Floods through parts of Montana, Idaho, Washington and Oregon, may finally become law later this year. The bill was originally passed last Fall (2006) by both the House and Senate, but was waylaid because the two versions differed.

The idea to tell the story of the Pleistocene Missoula Floods via a national geologic trail began as a primarily grass-roots effort by the Ice Age Floods Institute (IAFI) in the mid-90’s. A few brilliant visionaries and scores of natural science buffs, amateur and professional geologists and others from all areas of the community joined together in local IAFI chapters to develop goals, define projects and catalog flood features. Today the Trail prospectus includes the development of interpretive centers, signs and markers, and roadside exhibits/pullouts to educate the public about the catastrophic floods and their effect on Pacific Northwest landscape.

The Trail will be managed by the Ice Age Floods Institute, in partnership with the National Park Service and local state/city and tribal governments. For more information, please visit: http://www.iceagefloodsinstitute.org/trail.html

National Initiative Organizes Climate Change Discourse
Andy Buddington, Spokane Community College

“This is an opportunity for educators to take a leadership role, and catalyze a process which indeed will Focus the Nation around a non-partisan, reasoned, campus-led discussion about the scientific, economic, political, philosophic, aesthetic and moral dimensions of this essential 21st century issue.”

The Focus the Nation project is a national initiative that is attempting to create a national discourse on climate change science and issues. This bold educational initiative seeks to coordinate “teams of faculty, students, and staff at over a thousand colleges, universities, and high schools across the United States”, to participate in a day of discussion and educational activities addressing climate change issues.

This national event, slated for January 31st, 2008, will have political implications as well as educational. The FTN organizers are hoping to engage politicians (local, state, and federal) into the discussion and national dialogue. FTN is also hoping to get religious, civic, and business organizations involved.

Learn more about Focus The Nation and how you can get your college or school involved by going to the website: http://www.focusthenation.org/.

The time is now for serious climate change dialogue at all levels.
**YVCC Students Tackle Global Warming**
*Cassandra Strickland, Yakima Valley CC Grandview*

**Yakima Valley Community College** will be hosting a student-run symposium titled “Global Warming: An Investigation of the Science, Sociology and Politics of Global Warming.” Using an interdisciplinary approach, students from both the Grandview and Yakima campuses will explore not only the science and history of atmospheric warming, but also the effects this trend may have on society, especially Eastern Washington’s agriculturally-based, irrigation-dependent economy. Students will also examine how humans have created the current problem, and discuss the political nature of a global solution.

The timing for this symposium is fortuitous, considering recent events in Washington State public schools and the release of the latest Intergovernmental Panel on Climate Change (IPCC) report on February 2, 2007. In January, Federal Way Schools denied students the right to show the film “An Inconvenient Truth”, stating that district policy requires representation of both sides when concerning a controversial subject (see “Federal Way School District: Toto, Are We In Kansas?”).

Eisenhower H.S. in Yakima immediately followed suit by preventing the Environmental Club from showing the film (after school hours) until the instructional materials committee gave its approval (Yakima Herald-Republic, Jan. 24). Jack Irion, deputy superintendent of Yakima Public Schools, was quoted in an editorial (Yakima Herald-Republic, Jan. 28) as saying “We need to have folks review that film and if there is another side, have that presented. If what we are showing is an issue, we need to make sure we are reviewing both sides.”

These educational lapses in judgment attracted the attention of Chicago Sun-Times columnist Neil Steinberg, who summarized the outrage of the geoscience community effectively in his January 26th column:

“Howls of outrage by parents not intellectually kneecapped by faith caused the school board to reverse its decision Thursday. But this is still what we call a learning moment.”

“Religion has no place in public schools because there is no one true religion (sorry to break this to some of you). Rather, there are lots of religions, each of course the apple of God’s eye, and once one faith extracts the right to vet the science curriculum, fairness demands that another be allowed to rewrite history, while a third goes after math, and soon you don’t have education at all.”


The YVCC symposium, which is free and welcomes public participation, will take place on **Wednesday, February 28th, 2007, at 7:00 pm** in the Parker Room at the Deccio Higher Education Center (Yakima Campus, 12th and Arlington Avenues). In response to the recent aforementioned rash of scientific repression in Washington State, the film “An Inconvenient Truth” will be shown at YVCC on **Feb. 24th at 7:00 pm** and on the **25th at 1:00 pm**. For more information, please call Claire Carpenter at (509) 574-4866 or email ccarpenter@yvcc.edu.

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**Federal Way School District: Toto, Are We In Kansas?**
*Andy Buddington, Spokane Community College*

A recent brouhaha in Federal Way, Washington, reminds me more of school district policy decisions being made in Kansas rather than western Washington. As reported in the Seattle Post-Intelligencer on Thursday, January 11, the Federal Way School District banned the showing of the documentary “An Inconvenient Truth” in classrooms. This administrative action followed an email complaint to the School Board from the father of a student. The parent, Frosty Hardison, stated: “condoms don’t belong in school, and neither does Al Gore.” It seems that Frosty has more than just a gripe with such “conspiracy” theories as global warming. But don’t let his name bias you. Hardison, a parent of seven, declared his belief that the Earth is 14,000 years old and “the information being presented is a very cockeyed view of what the truth is.” Hardison says that his interpretation of The Bible proves “that in end times everything will burn up, but that perspective isn’t in the DVD.” Hardison’s wife also opposes showing of the movie because it is so anti-American. She believes that anything that claims that America is “…creating the rotten ruin of the world…” shouldn’t be shown in the schools that taxpayers fund.

Well, that was enough for the Federal Way school board to immediately put the kibosh on any future dissemination of global warming heresy by the showing of the documentary. The board intervened to prevent the viewing (by students who don’t know any better) of such biased and unsupported claims of global warming. Board members approved a policy that states that if teachers in their district want to show the documentary, they must provide a “credible, legitimate opposing view…” Is there one? Well, I guess then “An Inconvenient Truth” won’t be showing anytime soon in the Federal Way schools. The board President Ed Barney was quoted as saying “What is purported in this movie is, This is what is happening. Period. That is fact.” He then stated, “If they think driving around in cars is going to kill us all, that’s fine, that’s their choice.” Huh? This is coming from the president of an urban area school board in Western Washington, land of the liberal thinkers? Now, if it were Kansas, it would make more sense to me. The really amazing thing is that this dramatic move by the school board is the response to the complaints from one person (well, okay, two if you count Frosty’s wife). Wow! Wouldn’t it be great if all school districts were to shape up that easily?

I guess the silver lining to this lesson on absurdity is that several Federal Way students interviewed said they were in favor of watching the film. One student said, “Watching a movie doesn’t mean that you have to believe everything you see in it.” Another student commented that this movie “is a really great way to open people’s eyes.” As old Art Linkletter used to say, “Kids say the darndest things.” Agreed. And so do parents and school board presidents.
MEETINGS & WORKSHOPS

MEET US IN PORTLAND! June 2007
Annual PNW NAGT Section Meeting

Are you excited yet about this year’s meeting? Your
newsletter editor is! Read on to see what the Oregon folks
have planned for us!

When: June 19 – 22, 2007
Where: Portland State University

Schedule:

Tues.  – Field Trip to Elliott Glacier, Mt. Hood led by
Andrew Fountain and Frank Granshaw.
  – Field Trip to Columbia Gorge led by Mike
Cummings – new inquiry based field trip
  approach (if too much snow on Mt. Hood).

Wed.  – Field Trip of Portland area with latest ideas on
geology of the area led by Scott Burns and
Martin Streck.

Thurs.  – Meetings and Talks – Cramer Hall, Portland
State University.

Fri.  – Field trip to study the Terroir of the Wine
Country of the Northern Willamette Valley –
relationship of geology to soils to wine with wine
tasting – led by Scott Burns.

Accommodations – University Place Inn, Portland State
University ($69/night – not bad for downtown Portland).

Meetings and Talks (Thursday)

Morning invited talks
Anne Trehu (OSU) – Pacific Northwest earthquake
seismology
Seth Moran (USGS CVO) – Mt. St. Helens
  Volcanoseismology
Bob Butler (UoP)
Tim Melbourne (CWU) – Earthscopes Plate Boundary
Observatory Experiment and
  applications of GPS to PNW
  active tectonics (tentative).

More to confirm…

Lunch in the Park at PSU

Afternoon – Volunteered talks and posters.

Evening – Dinner, wine-tasting, beer-tasting at Simon
  Benson House, PSU.

Fifteen local instructors have participated on this dynamic
committee—they hope to put together a super conference –
lots of geology, learning and fun! Frank Granshaw (PCC and
PSU) has secured commitments from a sponsor for four
scholarships for high school teachers! Further details,
including field trip specifics and meeting-day updates, will be
announced in the Spring 2007 newsletter. If you have
questions, or would like to submit an idea for a talk or poster,
please contact Scott Burns, PSU Geology, 503-725-3389 or
burnss@pdx.edu. We hope to see you in Portland this
summer!

Landslide in Portland, 2006. An apartment house, built on a site
which geologists recommended against, began moving when the old
landslide reactivated. Oregon City, Oregon. Photo by S. Burns.

2006 GSA, Philadelphia, PA
Eric Cheney, University of Washington

The 2006 annual meeting of GSA was held in Philadelphia
and as usual, there were way more sessions and talks than one
person could possibly attend over the four day conference.
One session in particular, sponsored by NAGT (along with the
GSA Division of Geoscience Education, GSA Division of
Geology and Society, and the Society of Economic
Geologists) was titled Addressing Present and Future Energy,
Mineral, and Water Issues in the Classroom: The Need to
Prepare Both Educated Citizens and Geoscientists. The
session included twelve papers with four invited papers from
industry ‘experts’. The session emphasis was three-fold. The
first topic focus was on the dramatic changes that the resource
industries are presently undergoing as a result of globalization
along with the emergence (and resource demands) of major
economies of scale. The second focus dealt with present and
future workforce needs of industry regarding trained and
competent geoscientists. The third focus dealt with teaching
resources to the whole and not just to science majors with a
goal of developing and understanding global responsibility in
regards to resource issues.

Several major messages emerged from this session including
the fact that presently, United States universities are not
training enough students for the resource-related industries,
and that they are not training them properly for the future
challenges that industry will ultimately encounter. Another
important message was that today’s students need to be
globally aware of resource issues including topics such as
geopolitics, economics, and environmental and social
responsibilities. The final key message was that we need to
consider that the majority of students taking earth sciences are
not majors yet need to be aware of these diverse issues so they
can become responsible, educated global citizens.

To view PDF’s of the individual papers presented, go to:
http://users.scc.spokane.edu/ABuddington/GSA2006.htm
For abstracts of the papers presented, visit:
MEETINGS & WORKSHOPS

A Look towards the 2007 NAGT PNW Section Meeting…and BEYOND!
Ron Metzger, Southwestern Oregon Community College


The 2007 Pacific Northwest Section NAGT meeting is scheduled for Portland, Oregon from June 19 to 22, 2007. Thanks are due to the organizing group that will provide another exceptional meeting for our membership.

Now, where you all come in. During the Bellingham meeting last summer several people volunteered to ask, suggest, request, beg, cajole, and possibly kidnap a host or hosts for the 2008 field meeting.

As a group, discussion focused on the fact that maybe there wasn’t sufficient interest to maintain a yearly sectional meeting and that we should consider going to an every other year schedule. The overall feeling was that the sectional meeting was an important event that should continue as an ANNUAL meeting. Well, we’re getting up against the wall again. For 2007 Bob Christman bailed us out at the 11th hour. During the Bellingham meeting we convinced some of the Portland crew to host. It’s time to call in those markers and get the 2008 meeting location set prior to congregating in Portland. Heck, in the optimistically naive Metzger way, if you know someone that might step forward for 2009 get them corralled as well. When you look at the suggestions from National, they figure that two years advance planning is needed.

We all have hectic schedules, I know this hits in the middle of the term, but if we are going to continue a strong tradition of sectional meetings, we need some folks to step forward. Since 1999 hosts have ranged from single person departments to the consortium of Portland in 2007—what we need is someone or a group willing to take the plunge. Speaking from experience, hosting the meeting was an intense but incredibly gratifying experience. We had some folks that were going to try and get us into Idaho or eastern Oregon or ???. Now’s the time to make those calls or emails. If you have a lead or volunteer let me know at: rmetzger@socc.edu. Let’s get a location for 2008 to announce in the Spring newsletter. The annual meeting has been one of the constants in this organization for the past nine years; it’s time to make travel plans for the ninth and get a location for the tenth.

A Rural Geology Lecture Series
Ron Metzger, Southwestern Oregon Community College

In the fall of 1996 my wife Kathy and I left the comfort of eleven years in the Midwest and headed out to the edge of the world—Coos Bay, Oregon. Those of you who attended the 2005 meeting recognize this isn’t too much of an exaggeration. Well, as a former city kid who had decelerated in the Midwest, I settled in and started learning a bit of the local geology (operative word is started). It took two or three years, but I finally hit a comfort zone where I could invite some guest lecturers in and not feel totally out of place if they asked me a question about local geology.

After a number of these sporadic invites, usually three to five a year, I remember listening at a couple meetings to Andy Buddington discussing the lecture series that he had generated in Spokane. Not that he needs an extra pat on the back, but that was just one more piece to the dynamo that Andy was to this organization, his department and all. It took a few more years, as a procrastinator (just ask Cassie when I get things in for newsletters), but somehow things started to fall together out here. I’m not sure how or when, but I ended up emulating Andy’s lecture series. I think that we probably do a number of similar things—securing sponsorship funds, inviting some top speakers, promoting science, and likely some aspects that are unique to each of us.

Over the years a few things have stood out. First and foremost the number of individuals (I’m guessing a few are reading this) who were willing to travel out of their way to talk about the subject they hold dear for little or no financial compensation…other than a stay at the ‘Metzger B & B’, some home-cooked meals, a nice glass of wine and good company. It’s great to have funding to at least have the potential to provide honoraria and travel, but still, I am amazed at the geologists that will arrive on your doorstep anyway.

Thanks Andy! With your inspiration, I have been slowly expanding my invitations to guest speakers over the years. The connections I’ve made over the years at the sectional meetings have provided contacts, ideas and the knowledge that these things can be done. I think that’s one of the greatest arguments for maintaining an annual section meeting. As a single person department, it allows me to host geologists of varied backgrounds and keep up on what’s going on. It allows me to see that some of the academic issues that I observe at a rural community college aren’t very different from those at graduate degree granting institutions. The end result is the college benefits, my students benefit, my community benefits, and I benefit. Who could ask for anything more?

★★Pacific NW Section NAGT Website★★
http://nagt.org/nagt/organization/northwest/index.html
ANNOUNCING
Dorothy LaLonde Stout

NAGT PROFESSIONAL DEVELOPMENT GRANTS

In honor of Dottie Stout’s outstanding work and lifelong dedication to Earth science Education, NAGT will award three grants in support of the following activities:

- Participation in Earth science classes or workshops
- Attendance at professional scientific or science education meetings
- Participation in Earth science field trips
- Purchase of Earth science materials for classroom use

One grant of $500 will be awarded to a Community College Faculty
One grant of $500 will be awarded to a Community College Student
One grant of $500 will be awarded to a K-12 Educator

Eligibility: Community College Faculty and K-12 teachers who teach one or more Earth science courses and Community College students actively pursuing a career in the Earth sciences are encouraged to apply for these awards.

Application Process: Interested applicants are asked to submit a 1-2 page proposal describing how the grant will be used to support their professional growth in, or classroom teaching of Earth science.

Applications must be received by April 1 with awards being made by April 15th. Please include your name, address, telephone, and email along with your proposal and send all materials to:

Dottie Stout Professional Development Grants
The National Association of Geoscience Teachers
P.O. Box 5443
Bellingham, Washington 98227-5443