

Alaska Center for Appropriate Technology NEWS

Volume 11, Number 1
March 2003

Published by the

Alaska Center for Appropriate Technology
P. O. Box 872020, Wasilla AK 99687
907-373-0909

by Mark Masteller, Executive Director

Our mission is to promote research and education for Alaskans in sustainable economic development.

Board of Directors: President - Harvey Bowers
alaska@agateinn.com
907-376-2294

Vice-President - Roger Rowell
rmrowell@facstaff.wisc.edu
608-231-1821

Treasurer - Joe LeBeau
joekathy@rogershsa.com
907-745-6419

Secretary - Art Eash
arteash@gci.net
907-344-4690

NATURAL STEP WORKSHOPS STIMULATE THINKING/NETWORKING

In early February we co-sponsored a keynote speech and two workshops related to the use of The Natural Step “framework” to stimulate discussions of both the basic principles of “sustainability” and how these principles can be applied to help shape our future. All events featured Darcy Hitchcock, who has a Portland-based business called AXIS Performance Advisors, Inc., and who conducts Natural Step workshops for the Oregon Natural Step Network. In Anchorage, as part of the annual Alaska Forum on the Environment, Darcy gave a keynote speech entitled “Sustainability – the path out of the conservation-development stalemate” and a day-long workshop entitled “Toward a sustainable Alaskan economy: what to do before the oil runs out.” In Fairbanks, the workshop was called “Applying the Natural Step framework.” We got a huge boost for the Fairbanks with a staff grant from the Alaska Conservation Foundation.

All three events focused on introducing people to a set of scientifically-based “principles” of what constitutes a sustainable system. These principles, largely credited to Karl-Henrik Robert (a Swedish cancer researcher), are based on natural laws like the Laws of Thermodynamics. Tired of the endless bickering associated with environmental and development issues, Robert developed four “System Conditions” that must be true for a system – be it a business or community or society – to be sustainable. He then helped develop The Natural Step program to disseminate this information.

Darcy Hitchcock did a great job outlining how the Natural Step framework can be used in a non-judgmental way to bring people from diverse backgrounds together to talk about the threats and opportunities facing their communities. She presented examples of system conditions and how some large companies are incorporating this thinking into their business strategies. In the workshops we explored these ideas in greater depth, and practiced applying these principles to situations faced by Alaskans in both urban and rural areas.

The four System Conditions for a sustainable society (or company, or life) are:

- 1) Nature must not be subjected to increasing concentrations of substances extracted from the earth's crust,
- 2) Nature must not be subjected to increasing concentrations of substances made by humans,
- 3) Nature must not be subjected to degradation by physical means, and,
- 4) Human needs must be met.

Typically, more explanation is needed to see how these principles can be applied. But as an example, system condition 1 is violated if more carbon is taken from the Earth’s crust than can be re-absorbed naturally. When we drill for and burn fossil fuels, we are taking carbon from the crust and “losing control” of it as molecular waste into the atmosphere. (After millions of years of evolution our atmosphere ended up with relatively little carbon - it’s mostly nitrogen and oxygen). System condition 2 deals with human-made chemicals not ever found occurring naturally in earth’s ecosystems.

One issue is quickly apparent – almost nothing we’re doing is ecologically sustainable! That’s why The Natural Step folks stress that getting back to sustainable systems is a JOURNEY; not an overnight switch. But we have the technology – the difficulty is developing the will and culture. Events like this help educate all of us on ways to deliver hopeful news. As one participant said: “it gets you thinking, and what we need are more people thinking.”

BIO-OIL FROM BIOMASS PRESENTATION

In early January we had two speakers discuss technologies to utilize oils found in “biomass” – in this case fish and wood. Peter Crimp, with the Alaska Energy Authority, described the efforts of Unisea, Inc., a seafood processing plant in Unalaska/Dutch Harbor, to use “waste” oil from Pollock as fuel for their diesel generators. Basically, they found that by using fish oil in a blend with diesel they could offset the import of 3 million gallons of diesel – which meant the fish oil was worth \$1.25/gallon, instead of being a waste product for which they had to pay to dispose.

Terry Brady, who has a company called Huskywood LLC, spoke about new technology, called fast pyrolysis, used to extract oils from wood fiber. One benefit of this is that, as a more concentrated energy source, liquids are easier to transport than wood products. This technology can be used on any plant fiber, including wood waste. In niche markets where wood waste is abundant, perhaps pyrolysis could be used to turn that waste into marketable materials.

We had good discussions following each presentation. Both uses of bio-oil are uses of materials formerly called “waste.” This is fundamental as we attempt to transition our human endeavors in line with natural systems, in which there is no waste. If you’d like contact information for Terry Brady or Peter Crimp, email me at m.masteller@acat.org.

EARLY WARNING! ANNUAL MEETING OCTOBER 11

Mark your calendars! We’re shooting for Saturday, October 11, 2003 for our annual member meeting. More details as they emerge, but one of my goals is to have more time for socializing than last year.

ACAT EXECUTIVE BOARD MET on MARCH 2

The ACAT Board of Directors and the executive director met March 2nd to discuss various issues including our near-term strategic plan and the state of our budget. Part of the discussion centered on how we wanted to best promote sustainable economic development, and indeed how best to define sustainable economic development as it relates to our organization’s role in promoting a transition toward ecologically sustainable economic activity. After discussing several definitions, the board approved the following definition:

“Sustainable development refers to the ability of industry to continue functioning into the indefinite future without being forced into decline through exhaustion of resources.”

To help define our focus in the huge arena of “sustainability,” we reiterated a goal to reach out primarily to the business community. In that light, we decided to develop a “life cycle assessment” manual – which is a tool that can help analyze uses of energy, material and capital in any industry – with an eye on the basic principles of sustainability and the challenges faced by Alaskan industries. Such a manual could be used to both introduce the ideas behind sustainable development, and to develop strategies tailored to particular sectors of the business community.

ALASKA 20/20 – ADD YOUR VOICE

Alaska 20/20 is an effort, originally started through the Alaska Humanities Forum, to bring Alaskans together to share their views about the type of Alaska we want to see in the future. Many organizations are now “partners” in the effort, and Alaska 20/20 has developed five draft “visions” – topic areas such as the economy, the natural environment, education – for which they are soliciting input. I urge you to visit their web site at www.alaska2020.org to make your comments. See how you can inject the principles of sustainability into the goals expressed under each vision! As most of us know, true sustainability doesn’t have a time frame (especially not one as short as 17 years), but we can still influence the process in positive ways. Developing sustainable systems is certainly a journey, rather than a destination, and there are many ways to encourage the transition to systems that encourage diverse and healthy economies, communities and cultures.

DEVELOPING PROJECTS AND EVENTS

“Concepts of Sustainability” summer course at Alaska Pacific University! Looks like everything has fallen in place for me (Mark) to teach this 8-week course at APU’s Kellogg campus near Palmer. Here’s APU’s synopsis:

Alaska Pacific University is holding a two month summer session on sustainability open to college students. The session will be a thematic learning experience emphasizing topics and projects related to sustainability, community, and individual/group dynamics. A group of students will live and work at the Kellogg Campus in Palmer taking 8-12 credits in June and July. Students will take Concepts of Sustainability and Individuality and Group Processes. Optional classes include a practicum in sustainability, rock climbing, swiftwater boating, and Art in the Barn. The students will live, learn, and play together sharing the rewards and challenges of a community living experience.

If you know students who may be interested, they can contact me (m.masteller@acat.org or 907-376-6275) or Paul Twardock (pault@alaskapacific.edu). Ellen VandeVisse, one of our members, will be teaching an APU organic gardening class in May also. Check it out!

Sustainability Conference – Conference planning has slowed around our other recent events, but not stopped! We are discussing several ideas including a speaker series (featuring Outside and Alaskan speakers) and possibly coordinating with a group called the Bioneers to satellite-link to speakers at their annual conference. This is one way ‘appropriate technology’ can be used to bring people together electronically, without the need for costly transportation. In past years, groups have organized local events around the same dates as the Bioneers conference, and “beamed” speakers like Paul Hawken in by satellite. Check out the Bioneers web site for more information at <http://www.bioneers.org>.

If you have ideas or comments about what kind of gathering YOU would like to see, please contact me at 907-376-6275 or m.masteller@acat.org.

OTHER NEWS OF INTEREST

The annual meeting of industry folks working on **Wind-Diesel “hybrid” electric generating systems** was held in Anchorage last September. It became clear to me that many Alaskans are recognized leaders in developing these technologies, especially in difficult conditions. If you’d like to view the Proceedings, go to:

http://www.eere.energy.gov/windpoweringamerica/wkshp_2002_wind_diesel.html

If you or anyone you know might be interested in a **timber-framing class**, the folks at the Black Rapids Roadhouse will conduct a timber-framing school this summer. Seven-day sessions run from June 2 to August 20. Check it out at

<http://www.blackrapids.org/student-letter.htm>

The address for the weekly e-newsletter from the U.S. Department of Energy's (DOE) Energy Efficiency and Renewable Energy Network (EREN) has changed from that published in our last newsletter. The new address is

<http://www.eere.energy.gov/>. This free newsletter gives updates on all sorts of alternative-energy-related developments.

RECOMMENDED READING

The Natural Step for Business and Dancing With The Tiger, both by Brian Nattrass and Mary Altomare, both describe how The Natural Step framework has been utilized by some large companies (Nike, IKEA, Starbucks, CH2M HILL) and one community (Whistler, B.C.) to incorporate aspects of sustainability into their organizations.

Yes! - a journal of positive futures. A lot of interesting reading in this magazine! Not strictly about sustainable development, but certainly related to sustainable futures. www.yesmagazine.org

Have you come across some uplifting and exciting reading? Write a short synopsis and we’ll put it in the newsletter!

YOUR MEMBERSHIP IS IMPORTANT!

Many of you have been with ACAT for a long time, and we continue to welcome new members. We try to keep our expenses down by limiting mail-outs, working out of the home, etc. But as with anything else, some bills are impossible to get away from! That's one reason why your membership is so important. Another is that it is certainly easier to attract project support – from the private sector, from agencies, from foundations – if they know we represent a large number of people. So spread the word about ACAT. I know there are many, many people out there who care about our economy AND our environment. Sometimes it takes a gentle nudge to make the connection between “sustainability” and the myriad issues people are concerned about, but often the connection becomes clear when presented in the larger context.

I'm pleased to say we have added many new members recently as a result of our speaker presentations on various aspects of sustainable development, and through members sponsoring new members. Let's keep our organization growing!

By the way, I notify members by email when their renewal is due. Don't think you're due just because I include this – it's in every newsletter.

Alaska Center for Appropriate Technology Membership Application

Name* _____

Address _____

City _____ State _____ ZIP _____

email _____ phone _____

Individual _____ \$25 New Member _____

Family _____ \$50 Renewal _____

Student/Senior _____ \$15

Corporate _____ \$100

Donation _____

Mail to: **ACAT**
P. O. Box 872020
Wasilla, AK 99687

Questions? Call Mark at 907-376-6275, or email to m.masteller@acat.org

* We do NOT share our mail or email lists without your specific permission