

Greening



by Cliff Hauptman

At the top of the grassy rise that overlooks the playing fields, almost exactly where the construction trailer for the new building project stood last summer, a vegetable garden now grows. It was plotted, dug, and planted by a group of Seventh Graders who, an observer might conclude, spent all of their time hurling clumps of sod at each other and persecuting the most squeamish among them with exhumed earthworms. Yet, somehow, soil was exposed, stones were removed, seedlings were set in neat rows, signs were painted to identify each type of vegetable and herb, and a scarecrow of classic design was built and erected. That result serves as a metaphor for how eagerly Pike's sustainability initiative has been embraced by the entire Pike community, from students at every grade level to faculty, staff, parents, the administration, and the Board of Trustees.

Head of School Muddy Waters has long been sensitive to the vulnerability of our planet since his canoe-camping days as a youth in upstate New York. "We live in a world of limited resources," he says, "and I'm more concerned than ever, as I get older, about not just my children, but my grandchildren, and their grandchildren. I've always worried that America uses way more than its fair share of all the resources of the world. And I always think we have a much better chance of affecting change through teaching our children than by changing the mindset of some of us adults who have been around for a long time. I think they are our greatest hope."

The concept of sustainability, if not the actual term, has been a part of Pike for many years. Paper reuse and recycling, as well as a general orientation toward stewardship of the planet, have long been customary to Pike's culture. But as younger faculty, active in environmental sustainability, have joined the Pike community, even more attention has been focused on the subject, just as it has throughout the nation. The recent new construction, too, gave a significant boost to the formation of a sustainability initiative, as several Trustees took particular interest in seeing that state-of-the-art energy efficiency was a high priority.

The Seventh Grade garden, following the model set by the Lower and Middle Schools, which have been tending gardens for the last couple of years near the Lower School playground, is at once the most literal and, arguably, the least practical of



the extensive efforts toward making The Pike School a more environmentally responsible institution. The garden is, on the one hand, literally a "greening" of the campus, one that will produce edible food for the school. On the other hand, its potential impact on Pike's total food needs is negligible. The garden's real value is its ability to teach, by producing tangible, clear, and environmentally sound results directly from personal effort and commitment. You dig, you sweat, you get dirty, you have fun, you invest some time, you gain an appreciation of farming by experiencing where food actually comes from, and you end up with something worthwhile without exploiting any natural resources or harming the environment. And most importantly, you get intimately involved with the planet that is entrusted to your stewardship.

Gardens tend to do that for people, which is why Pike has switched from decorating its events with cut flowers to using replantable vegetation. At this year's Art Show, for example, Pike was adorned with potted plants whose blooms are especially apt to attract butterflies. After the event, Kindergarten and Fourth Grade students relocated the plants to



a special butterfly garden behind the Lower School. Similarly, the table decorations at this year's Faculty and Staff Appreciation Breakfast, hosted by the Pike Parents Association, were all pots of herbs for replanting in home gardens.

Although this type of activity indicates an innovative way of thinking about even the small details in any sustainability effort, Pike's initiative goes much further. As one of the top administrative goals this year, the sustainability initiative has been assigned to a large and enthusiastic committee of faculty, staff, and parents chaired by Tina Morris, Upper School math, science, and English teacher. Targeting the areas of Transportation/Parent Awareness, Education, Energy Use, Snack Policy, and Composting, five subcommittees met throughout the year to assess Pike's current standing in these sectors, set goals, determine cost estimates and timelines for accomplishing those goals, and get down to the business of accomplishing them.

As expected, some goals were already within reach at little or no cost to the school, while others require future budgeting and further research. Says Morris, "It's a constant compromise between, 'Well, we can do this because we're actually going to save money, or at least break even, if we do. But we can't do that, at least right now, even though we might like to, because it's going to cost us money, and we don't have it right now.'"

Mark Graziano, Pike's director of finance and operations agrees. There are some adjustments Pike has made that neither



save money nor cost extra. “You’re breaking even when it comes to cost, but are definitely greener when it comes to the environment,” he says. One change he offers, which exemplifies several others, is the use of battery-operated paper towel dispensers in the bathrooms. “You’re able to control how much comes out and how long it takes for it to come out again,” says Graziano. “Studies have shown that if kids can keep pulling, they will. But if they use this, and this much comes out, and you set it for thirty seconds before the next time it comes out, they’re going to be out the door by that point. Again, not a cost saving, but we’re greener.”

Because the sustainability initiative is so important, Pike is eager to go as far as it can in cost-saving and break-even measures for the sake of being greener. And it is engaged in analyzing the payback outlooks of some much costlier investments in sustainability. But in today’s economy, as Graziano is fully aware, “there’s environmental sustainability and there’s financial sustainability.” So, while embracing the former wholeheartedly, Pike still has a responsibility to maintain the latter.

Nonetheless, the prodigious work done in the first year of this longterm effort produced a solid foundation for moving forward and some significant programs that have already gone into effect.

The 2008-2009 goals for the Sustainability Committee as a whole were to educate the community about the value and necessity of becoming a sustainable environment; investigate ways to become more sustainable in energy use, waste management, curriculum, and use of materials; put into actual practice the mantra, “Reduce, Reuse and Recycle;” and develop a three-year plan that will lead to Pike’s becoming a more sustainable school. To that common end, the individual subcommittees contributed their specific agendas.

Transportation and Parent Awareness

This subcommittee’s charge is to increase the awareness of Pike parents to our sustainability efforts and to enlist their participation and cooperation in areas where they have the most impact: pick-up and drop-off (transportation) and parent-run events. Thus, an anti-idling campaign went into effect early in the school year, which included signage in the pick-up lines and an anti-idling skit in conjunction with the Middle School Concert in the fall. Reminders in Pike Previews with a link to an Andover-wide anti-idling flyer informed parents of the need to turn off their engines while waiting in pick-up lines. Increased carpooling is a major goal, and upcoming plans for an online Pike directory

will provide parents with the ability to easily establish carpooling groups. Another transportation alternative currently being investigated is the development of a shuttle bus service in North Andover and Boxford. The subcommittee is also tabulating the results of their Pike Community Transportation Survey, which will provide baseline data on the habits, patterns, and attitudes of Pike families in regard to travel to and from school.

Recognizing the need to make parent events more sustainable, the subcommittee used last February’s International Supper, in cooperation with Pike’s Parents Association, which sponsors the event, to kickstart the

school’s composting effort (about which, later) and explore the use of compostable cups, dishes, and utensils. Employing cups made from corn products and cutlery from sugar products, the International Supper proved 85-percent compostable, suggesting routine feasibility for other Pike special events.

The subcommittee’s efforts to increase parent awareness also include weekly postings in Pike Previews of “Green Tips.” These informative tidbits also appear on Pike’s Web site within the “Sustainability Initiative” pages under “Pike at a Glance.”

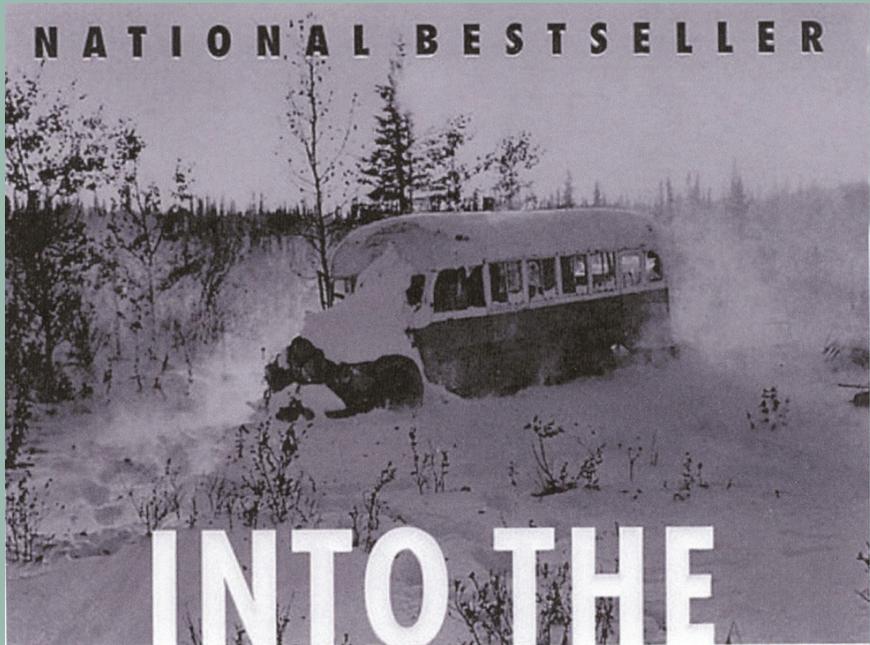


Education

This subcommittee's goals are to integrate sustainability into the Pike curriculum, both inside and outside the classroom, and to encourage professional development in sustainability. Its first step is to assess the extent to which sustainability is part of the current curriculum. The results of a preliminary, school-wide survey are being tabulated. The survey asked: what is sustainability, where is it in the curriculum in each division and grade level, and where is it being practiced outside of the classroom?

Once that information is in hand, further steps include identifying gaps in the curriculum; coordinating with division heads in order to have time to discuss survey results with faculty; creating a continuous strand of sustainability throughout the curriculum at each grade level; identifying extra-curricular avenues for sustainability; and developing professional development proposals for speakers, readings, and directed projects. In the meantime, however, members of the subcommittee have helped with our incipient collaborations with other schools, represented Pike at regional sustainability conferences, and promoted garden projects and other sustainability events in all divisions.

Two teachers in the Upper School English department have received a curriculum grant for the summer to look into how to incorporate nonfiction books about sustainability into the English curriculum and how to use the sustainability strand in one of the books they already read, which is Jon Krakauer's *Out of the Wild*. "If you look at that book from a sustainability point of view," says Morris, "it opens up a discussion about materialism. It's all about 'What can you live without? What do you really need?' And we never explored that angle with the students. We always looked at it as an identity crisis."



INTO THE WILD

In April 1992

a young man from a well-to-do family hitchhiked to Alaska and walked alone into the wilderness north of Mt. McKinley. His name was Christopher Johnson McCandless. He had given \$25,000 in savings to charity, abandoned his car and most of his possessions, burned all the cash in his wallet, and invented a new life for himself. Four months later, his decomposed body was found by a moose hunter...

J O N K R A K A U E R

Energy

The main initiatives of this subcommittee are to compile baseline information on propane, oil, and electric use; implement an energy audit to evaluate the efficiency of current practices and identify potential savings measures; explore alternative energy providers and sources; and examine bus transportation practices for field trips and sports events. All of these initiatives require extended spans of time in order to acquire reliable data, and many of the actions to be taken as a result of those findings will no doubt incur significant costs in the improvement of energy systems in Pike facilities. In the meantime, however, the subcommittee has identified sources of free energy audits, is gathering baseline data, has learned that Yale's School of Management

can provide interns for energy-use research, and is working with the Building Committee of Pike's Board of Trustees to prioritize energy upgrades.

Pike's new building, The Dahod Center for Community and Creative Learning, is a virtual exhibition of energy-saving technologies. There are dual-flush toilets allowing more or less water use; low-flow aerators on faucets to further reduce water use; heating, ventilation, and air conditioning (HVAC) equipment that uses ozone-friendly hydrofluorocarbons that contain no chlorine; energy recovery wheels that reuse heat energy exhausted from the building; an occupancy-controlled ventilation system in the theater, which

automatically cuts energy use when no one is present; energy efficient lights in hallways and community areas that automatically shut themselves off when no motion is detected; and more. Energy usage in the new building is so efficient, in fact, that although the construction added 30,000 square feet to Pike's footprint, energy costs per square foot of the entire 90,000 square-foot school have gone down. All of those new systems represent potential upgrade aspirations for the older areas of Pike, and the subcommittee will be exploring the costs and savings of making those kinds of changes. They will make an ongoing exploration of alternate energy sources, as well.

Snack Policy

Belying its name somewhat, the subcommittee exploring ways for Pike to reduce the amount of packaging in snack foods is also looking at lunchtime items such as individual packets of ketchup, mustard, mayonnaise, and relish, as well as other food-related, individual packaging.

The subcommittee has already implemented a bulk-snack policy in the Lower and Middle Schools and will be working to get the Upper School in step in the fall. Key to the success of that strategy is the coordination of all the divisions so that snack foods can be ordered in bulk, rather than in individual packages. Headway has also been made in the Dining Room where larger containers of ketchup are taking the place of single-serving packets.

While the financial and environmental gains of buying snack items in bulk are clear, storage for bulk purchases becomes a concern, as does the dispensing of the foods, themselves. The subcommittee is in the process of investigating the efficacy of wall bins, as well as seeking new, local sources of snack foods. They are also promoting the policy of washing and reusing cups for snack, rather than discarding hundreds of paper or plastic cups each week. The Lower School, for one, has completely adopted this policy, serving snack and then returning the plastic cups to the kitchen for washing each day.



Composting

Beginning this year, a composting program to reduce kitchen and snack waste has been implemented by this subcommittee, thereby accomplishing its main objective. After researching composting options, the subcommittee found that by composting food wastes and other compostable materials, Pike could forego an entire dumpster, saving nearly \$4,000 in waste removal. The school has introduced a system whereby a bin is placed in the kitchen during prep time to receive prep excess, such as fruit rinds and meat trimmings. During lunch hours, another bin—a 64-gallon tote—is wheeled into the Dining Room where student and teacher monitors oversee the proper disposition of lunch waste as students return their trays for washing. Milk cartons, napkins, wax-covered cups, and all foods go into the compost tote, which join with the contents of the kitchen's prep bin. Straws, plastic cups, cup lids, potato chip bags, aluminum cans, plastic water bottles and caps, Styrofoam cups, and the like go into a different tote

for disposal as garbage. The process provides an opportunity for the entire Pike community to think more responsibly about our food and the waste we generate. It also sparks frequent stimulating conversations about what is compostable or biodegradable and what is not.

Twice weekly, the compostable material, which is stored outside in four totes, is hauled by New England Solid Waste Consultants to Brick Ends Farm in South Hamilton, where it is turned into topsoil and fertilizer. This innovation is not only environmentally responsible and sustainable, but it also saves the school money. Snack wastes are similarly collected, but there are plans afoot to keep the relatively simple snack waste at Pike to be used for educational composting projects and, ultimately, fertilizer for the gardens.

Not cost effective, as yet, is the complete replacement of plastic plates and utensils at special events with compostable ones.

The Sustainability Committee is working towards finding less expensive routes by collaborating with other schools in buying the compostable items and solving the storage issues. As mentioned earlier, the International Supper served as a trial for some of these items, and it is expected that they will continue to be used to some extent, especially when a number of events occur close together, so that bulk purchasing can reduce the cost.

The subcommittee is also campaigning to eliminate the use of bottled water at school events. Students have largely embraced the fact that our tap water and the water in the drinking fountains at school is of a high quality, perhaps even more so than bottled water from unknown sources. “Last year,” says Morris, “if you looked at the lockers of my students, you would have seen plastic bottles lined up. Almost none of these kids now brings bottled water.”



Student Groups

Although students in all grades are now involved, intentionally or not, in Pike's sustainability initiative, there are two student groups, both in Upper School, that are actively engaged in sustainability projects.

All members of the Ninth Grade participate in, and are responsible for, the school-wide recycling effort. Not only do the Ninth Graders collect and oversee the recycling of all paper and plastic waste, but they have also taken on the recycling of most cardboard waste in a new arrangement with a recycler this year. They also strive to educate the Pike community about the importance of recycling, while promoting reuse and reduction, as well.

Pike's other "green" student group in Upper School is Big Green, comprising some thirty students who meet every week to work on sustainability projects. Its main initiatives are education and public awareness; monitoring energy use in the school; planning sustainability events, such as Earth Day activities; removing trash from Pike's woods; engaging in environmental projects, such as self-sustaining greenhouses and solar-powered

cars; and competing in competitions, such as the Green Cup Challenge.

Now in its fourth year and attracting 150 schools, the Green Cup Challenge, held by the Green Schools Alliance is, according to its Web site, "the first and only national student-driven, interschool energy challenge that builds awareness about climate change and the environment, educates the community about the importance of resource conservation, and encourages the participation of the entire campus. The Green Cup Challenge™ invites schools to measure and reduce campus electricity use and related GHG emissions, as well as waste and water." Although complicated by the new building this year, Pike's energy reduction from last year was calculated to be in the neighborhood of seventeen percent. More importantly, though, Pike now has a baseline measurement from which to monitor future energy use. In addition, the Seventh Grade science classes have been collecting data on the temperature of the rooms in Farnsworth, information that will help the maintenance staff and Facilities Committee in their endeavor to make that building more energy efficient.



Onward

In its first year of operation, Pike's sustainability initiative has made impressive strides, thanks to the dedication and energy of Tina Morris, her dedicated and hardworking subcommittee heads and committee members, and the Pike community at large. More strides are expected. Subcommittees will be restructured as their goals are reached or revised. Goals yet to be achieved, in addition to those already mentioned, include switching to recycled paper for all of Pike's copiers and printers; increasing the number of Pike publications that will exist only online; exploring water as well as energy conservation options; increasing collaboration with other regional schools; seeking Trustee representation on the committee; staging 100-percent sustainable special events; shifting to green cleaning supplies, landscaping methods, etc.; and continuing to increase education and public awareness about the importance and practice of sustainability.

The Pike community should be justifiably proud of its efforts and its commitment. Although Pike's peer schools can all claim, to varying degrees, environmental awareness, Waters feels that "because we may, historically, have done more than our peers, and because of the real energy of the committee in this first year, I think we've gotten a jump on many of our peer schools." He points out, however, that collaboration, rather than competition, is Pike's goal. As is the case with our composting, it is Pike's partnering with Phillips Academy in the cost of hauling that makes it more affordable for both schools. As collaboratives form, and expensive individual projects become affordable communally, sustainability's appeal will spread, and efforts will accelerate. And Pike will have yet more progress to report next year. 🌱