

## Governor's Award Recipient Project Description

**Environmental Excellence in Pollution Prevention. Award recipients in this category implemented projects that reduced or eliminated the generation of pollutants and wastes at the source – before it was ever generated.**

**89 North Inc.**, of Burlington, is a wholly owned subsidiary of Chroma Technology Corp., which was founded in Vermont and has produced precision optical components for over 20 years. 89 North's principal products are high-powered light sources for biomedical applications, particularly, fluorescence microscopy. The light source for fluorescence microscopy is typically a mercury arc lamp with a short lifetime of about 200 hours. Such lamps contain about 150 milligrams of mercury. 89 North has successfully developed a mercury-free solid state light source, called the Heliophor, with an expected 50,000 hour life time – hence avoiding the purchase of numerous mercury lamps over the lifetime of the equipment, leading to significant user cost savings and mercury use reduction.

*Will Chris Baumann, Julie Martin, Henn Schet, Hugh Spahr, Mark LaPlante, Andrea Messer, Bob Gifford, and Tony Cote please come forward to accept the award.*

**Gadue's Dry Cleaning** has eight locations in Chittenden County and employs 50 people. Gadue's has long been a leader in the dry cleaning industry, reducing the environmental footprint of its business operations through the efforts of its President, Aline Stirling and her father, Mark Gadue. Gadue's is eliminating the use of the toxic dry cleaning solvent, perchloroethylene, by employing wet cleaning machines, and most recently, by finding an effective replacement for perc solvent, known as Solvon K4. Gadue's was chosen by a German chemical company to be the first beta test site in the world to test Solvon K4, a much more environmentally friendly solvent, and Gadue's has successfully developed procedures for its use that will facilitate its entry into the dry cleaning market..

*Will Aline Gadue Stirling, Mark Gadue, and Amanda Devino please come forward to accept the award.*

**Central Vermont Public Service Corporation** is Vermont's largest electrical utility with over 159,000 customers. CVPS owns and maintains 9500 miles of transmission and distribution line and maintains tens of thousands of acres of rights-of-way. In 2010, CVPS, through its Forestry Dept., became the first utility in the country to eliminate petroleum-based chainsaw bar and chain oil, replacing it with a new biodegradable oil made from animal fat that quickly biodegrades with bacterial action. In all, over 5000 gallons per year of petroleum release to the environment has been prevented. CVPS was also the first utility to feed electrical power into the grid, the first New England utility to operate a hybrid electric bucket truck, and the first in the world to offer renewable energy generated from cow manure.

*Will Duane Dickinson, Cindy Fowler, Jason Lyver, Terry Redfield, Bert Stewart, Jared Wilcox, and Erica Hewitt please come forward to accept the award.*

**Environmental Excellence in Resource Conservation. Award winning projects in this category conserved resources by minimizing resource consumption or by applying the strategies of reuse and recycling.**

**Advance Transit** is a private non-profit transit system that has been providing fare-free transportation in the Upper Valley of Vermont and New Hampshire for over 25 years, with over 800,000 passenger trips per year. Advance Transit facilities recently underwent a complete face lift with environmental considerations a top priority in renovation and new construction. Accomplishments include: LEED Silver Certification for the new construction; a rainwater reuse system for bus washing; a 31.5 kW rooftop photovoltaic system that was Vermont's first Feed-in Tariff solar project to go on line; a complete energy retrofit to the facility; and several new diesel hybrid electric buses that were added to the fleet. Not only does Advance Transit take single passenger vehicles off the road, it is a true leader in reducing the environmental footprint of its operations.

*Will Van Chestnut, Raymond Buskey, Chris Andreasson, Jim Tonkavich, Gary Daniels, and Brett Toftl please come forward to accept the award.*

**Green Mountain Power** serves 95,000 Vermont customers and represents another electrical utility that has been an environmental leader. Solar GMP is a project that has stimulated the market for commercial and residential solar energy projects, reducing GMP's need to purchase fossil fuel-derived energy, and shaves peak demand during high-demand hot summer days. Solar GMP works in conjunction with existing net metering programs where Vermonters generating renewable power feed surplus electrical energy back to the grid. Under Solar GMP, customers are paid at a rate above and beyond the 12-13 cent per KWH net metering benefit. The year prior to the Solar GMP initiative, there were 21 new solar projects with an average size of 4 KW. By the second full year of Solar GMP, that number had increased to 191 projects with an average size of 17.1 KW.

*Will Robert Dostis, John Tedesco, Chris Cole, and David Morton please come forward to accept the award.*

**Heritage Aviation** located at Burlington International Airport provides aviation support services to locally based and international aircraft. Working with TruexCullins, an architectural design firm in Burlington, Heritage renovated a vacated 1954 hangar formerly occupied by the Vermont National Guard. Some of the more notable waste and energy attributes of this project include: 85% recycling of demolition waste; 20% recycled materials used in construction; state of the art insulating materials used throughout; internal and external LED lighting; and the installation of a 100 KW wind turbine, 25 KW solar photovoltaic array, and solar hot water system, supplying a significant portion of the facility's energy needs. 80 % of ground vehicles are zero emission electric powered. Stormwater management includes the largest green roof in

Vermont, designed to capture the first inch of rainfall, with excess rainwater directed to holding tanks for later use in irrigation; and the largest pervious parking lot in Vermont, designed to absorb all the rain in a 100-year storm. The building now boasts energy savings in excess of 38% that of a conventional building, and Heritage is on track to receive LEED silver certification.

*Will Greg Bean from Heritage Aviation, and Richard Deane, Sparky Milliken and David Epstein from TruexCullins please come forward to accept the award.*

**IBM's Facilities Manufacturing, Environment and Chemical Lab Team** set out to improve the environmental performance of its air pollution control technology in dry etching – one of the multiple complex processes in semiconductor manufacturing. Dry etching bombards silicon wafers with ions, typically using a plasma of reactive gases. Air pollutants in the form of gases and particulates are removed from the exhaust with ‘wet scrubbers’ that use water and chemicals to scrub out the pollutants. But the scrubbers in use were not ideal, as they often plugged with particulates and consumed excessive amounts of energy. Lab Team members designed an innovative U-Tube scrubber that resulted in many positive environmental benefits, including annual energy savings of 1.1 Million KWH, reduction in water use by 7 million gallons, and a significant reduction of air emissions.

*Will Thomas Jagielski, Bill Hill, David Crawford, Ron Bromley, Jonathan Pratt, Robert Jourdain, Joseph Comeau, and David Kost please come forward to accept the award.*

**IBM's Wastewater and Chemical Lab Team** was formed to reduce nitrate discharges from IBM's on-site wastewater treatment plant which discharges into the Winooski River. Nitrate is a chemical of concern due to its toxicity and its role as a plant nutrient in water bodies. Using an in-depth analytical process, the team was able to fine tune the steps in the wastewater treatment process to optimize nitrate removal, while not adversely affecting removal of other pollutants. These efforts resulted in an annual average reduction of 43,000 pounds of nitrate discharge to the river and 77,000 KWH of electricity savings per year.

*Will Tim Baechle, Eric Berliner, David Kost, Joseph Comeau, Lindsey Stahl, and Ruma Kohli please come forward to accept the award.*

**Mt Ascutney Hospital and Health Center** in Windsor has implemented a comprehensive sustainability program over the past 5 years. An all-volunteer team comprised of physicians, nurses, administrators, allied health professionals, as well as staff from environmental and nutritional services leads the effort. Accomplishments to date include: a 30% reduction in the generation of solid waste; a 10% decrease in energy use including the use of reflective roofing, outdoor LED lighting, and lighting retrofits; 90% use of environmentally preferable cleaning and office products; and elimination of chemical fertilizer use on the grounds together with a reduced mowing schedule. A reuse

system for sharps containers has diverted more than a ton of plastic from the landfill annually. Locally grown foods are served at the hospital.

*Will Kevin Donovan, Ben Beves, John Frisbee, Michael Denmeade, Glen Thornton, Belinda Needham, and Joe Martuniuk please come forward to accept the award.*

**Omega Optical** designs and manufactures optical equipment for scientific uses, employing 140 people in Brattleboro. Omega's comprehensive reuse, recycling, and environmentally preferable purchasing program has a goal of zero waste by 2014, and Omega aspires to become a leader in corporate sustainability. Since 2005, starting with a comprehensive waste audit, solid waste has been reduced by over 50%. The list of materials diverted from the landfill is impressive and includes more difficult to recycle materials such as rubber gloves, CDs, styrofoam, packing materials, and desk accessories. A major focus of the program is reuse of materials. They offer materials to the community for reuse and participate in numerous materials exchanges that locate potential users of their waste materials. Omega collects hard-to-recycle materials from their employees' households, including plastic bags, cell phones, spent fluorescent lights, and packing peanuts. Omega's sustainable purchasing policy is working with vendors and others in the supply chain to assure that materials are sourced in an environmentally responsible manner.

*Will Peg Eaves please come forward to accept the award.*

**Vermont Agency of Transportation** has implemented a road weather information system throughout the state to provide vital information to road maintenance crews and the general public on pavement and weather conditions. The sensor systems can now be seen mounted on poles along the interstates and highways. These sensor systems can monitor the presence of sand, salt, ice, rain, and temperature and send this information remotely to VTrans which allows them to dispatch maintenance crews at the proper time to apply sand and salt, thus saving time, money, and fuel. The Agency estimates a 10% savings in maintenance costs. And the public has access to real time information about road conditions, further enhancing public safety.

*Will Robert White please come forward to accept the award.*

**Environmental Excellence in Land Use and Land Use Planning. Award winning projects in the category promote the sustainable use of our natural environment.**

**Vermont Woodlands Association** is an organization representing private forest landowners, with more than 1000 members. Its mission is to encourage sound forest use decisions, improve wildlife habitat, enhance clean air and water, provide recreational opportunities, promote timber management practices that optimize forest health, and communicate benefits of working forests to all Vermonters. The Association has conducted weekend Forestry School educational programs, one day workshops, and a Walk in the Woods program for general community education. The educational programs bring together County Foresters, Wildlife Biologists, and consulting foresters to

deliver quality educational programs on a broad range of topics such as wildlife management, timber harvesting, forest soils, and exotic invasive species. The Association also sponsors the VT Tree Farm Program to recognize Outstanding Tree Farmer of the Year. The educational programs of the Vermont Woodlands Association promote the sustainable management of a sector that contributes more than \$4 billion to the Vermont economy.

*Will Putnam Blodgett, Kathleen Wanner, Paul Harwood, Sam Miller, Mary Miller, Rich Turner, and David Paganelli please come forward to accept the award.*

**Environmental Excellence in Earth Stewardship and Resource Protection. Award winning projects in this category have provided ecosystem protection through measurable and direct benefits to air, soil, or water resources.**

**Jim Sabataseo** is the coordinator of Sustainable Rutland, a non-profit organization that grew out of a volunteer committee of Rutland's Creative Economy Initiative. Sustainable Rutland's mission is to promote environmental, economic, and cultural sustainability in the Rutland region through education, outreach and action. Project-specific work groups are developed as needed to carry out individual initiatives. Some of these initiatives include: Zero Waste Rutland to promote waste-free downtown events; Idle Free Rutland to reduce idling vehicles; School Gardens to promote locally grown food in schools; Bag the Bags to discourage use of plastic and other disposable bags; and a web site to promote local events as well as materials exchanges for local goods. Sustainable Rutland serves as a model to inspire other communities to establish sustainability initiatives.

*Will Jim Sabataseo please come forward to accept the award.*

**Marshall Webb** is a direct descendent of Shelburne Farms founder William Seward Webb and works on the Farm as its Special Projects Director. Faced ten years ago with an overabundant deer population that was severely impacting the forest understory at the Farm, Marshall explored options for bringing a balance back that would maintain healthy forest habitat. Through consultation with foresters and fish and wildlife biologists, he designed a controlled deer bow hunting program at Shelburne Farms. Though at first not accepted by everyone, the program is now widely accepted and the understory is regenerating as more healthy forest habitat.

*Will Marshall Webb please come forward to accept the award.*

**Stowe Mountain Lodge** is a luxury hotel situated at the base of Mt. Mansfield. It is a Green Hotel in the Green Mountain State, an Audubon International Eco-rated Hotel and a Green Key Rated Hotel. The sheer scope and number of environmental initiatives at Stowe Mountain Lodge makes them stand out as a model of environmental sustainability in the hospitality sector. Over 80 environmental initiatives have been implemented within their first few years of operation. Initiatives include: developing comprehensive environmentally preferable purchasing policies for food, cleaning supplies, and office paper; achieving 84% solid waste diversion from the landfill, including food waste

composting; integrating comprehensive guest education programs and staff training, outdoor education programs, and state of the art energy management systems, to name but a few of the many initiatives.

*Will Audre P. Bleiz, John Schmee, and Kerry Miller please come forward to accept the award.*

**Environmental Excellence in Environmental Justice and Sustainability. Award winning projects in this category promote greater environmental and economic justice or a sustainable future.**

The **Vermont Assistive Technology Program** is housed within Voc Rehab Vermont. The Vermont Assistive Technology Reuse Project provides an invaluable opportunity for Vermonters to exchange used assistive technology, durable medical equipment and adaptive vehicles – keeping waste out of landfills and putting medical equipment into the hands of people who need it at low or no cost. In addition to facilitating the reuse of Medicaid purchased equipment, the program administers getATstuff.com, a forum for medical device exchanges across New England. There is also a Vermont Assistive Technology School Swap in which many school districts participate. The Program was recently recognized nationally for its high equipment exchange rate.

*Will Sharon Alderman, Amber Fulcher, and Holly Brooks please come forward to accept the award.*

**Environmental Excellence in Education and Outreach. Award winning projects in this category informed and educated others about environmentally responsible practices or empowered citizens to enhance the quality of the environment for local, regional, or global communities.**

**Grafton Elementary School** is a small rural school serving about 75 students. As part of their work studying Vermont history and government, Deborah Noe's fourth and fifth grade class researched and wrote a proposal to ban the use of plastic shopping bags in Vermont. The class met with local legislators and presented their proposal at the State House. Students also worked in the after school Take the Lead program and with the Nature Museum at Grafton to collect 2,663 plastic shopping bags (equal to the number used in the U.S. each second) and strung them around the village as part of an environmental awareness initiative. They also designed and marketed reusable shopping bags which were sold by local merchants. This unique project gave the students a hands-on, real world opportunity see what it takes to bring about environmental change while learning about history and government.

*Will Sarah Rogers, Dominic Squiers, Adam Culver, Mariah Lique, Lain Stevens, Sean Griffin, Gary Gay, and Colby Record please come forward to accept the award.*

**Mad River Glen Ski Area, now known as Mad River Glen Cooperative** owns and manages nearly 700 acres on General Stark Mountain. For 15 years, the Cooperative's

Naturalist Program has provided a year-round educational program on the ecology and conservation of the fragile alpine environment. Programs include an evening naturalist series, school educational programs, a week-long program for disadvantaged youth, and a Summer Adventure Camp. A year-round nature center and interpretive displays are available to skiers and hikers. Over 11,000 people have participated in the Naturalist Programs since 1996. Mad River also has committed to numerous other environmental initiatives, including purchase of carbon offsets to fund methane digesters installed on Vermont dairy farms and offers a program for skiers to offset emissions generated by commuting to and from the ski area. A new electric motor drive on the mountain's single chair will significantly reduce their carbon footprint. Mad River Glen is a model in the ski industry for sustainability and public environmental education.

*Will Sean and Karen Lawson please come forward to accept the award.*

**Marion Cross School** in Norwich has an enrollment of 311 students. In 1998, the school created the LEEEP Program – *Learning about the Environment through Experiential Education Projects*. This interdisciplinary program supports classroom teachers in the implementation of curricula and in service learning projects, through the efforts of LEEEP director, Lindsay Putnam. Each grade level studies a particular environmental habitat, then provides direct student experiences with these habitats through learning projects – like applying math skills to calculate cordwood volumes and sustainable harvest amounts. Each grade level also does a stewardship or community service project related to their habitat. Projects have included: removing invasive species from town natural areas; conducting riparian restoration projects along the White River; creating a vernal pool inventory and publishing a guide book; planting a school vegetable garden and many more. The Norwich community's commitment to funding an environmental education curriculum coordinator has allowed the LEEEP program to mature into a model program of environmental education and citizenship.

*Will Ruth Hall and Beth Haney please come forward to accept the award.*

**The SolarFest Renewable Energy Festival** began 17 years ago to establish and sustain on an annual basis a festival showcasing the possibilities of solar power. Each July, its mission – to blend art, education, and outreach to inspire conservation, promote renewable energy, and support sustainable communities – comes to life when thousands of people from around Vermont and the Northeast gather to experience three days of music, coupled with more than 75 workshops on the topics of renewable energy, green building, and sustainable agriculture, including workshops geared toward young people. There were over 6000 attendees at the 2010 festival. We wish them continued success at this year's festival, scheduled for July 15-17<sup>th</sup> in Tinmouth.

*Will Patty and Matt Kenyon, Melody and Marshall Squier, Wendy and Jeff Skelskie, Steve, Adam and Sarah Goldsmith, Kevin Kiefaber, and Kiah Laramie please come forward to accept the award.*

**Virginia Barlow and Stephen Long**, neighbors in Corinth, partnered in 1994 to start a forestry magazine called Vermont Woodlands. With an initial circulation of less than 1000, the magazine's circulation grew to 13,000, and in 1999 became *Northern Woodlands*, serving all of New England and New York. Northern Woodlands has been a leading voice in advancing the concept that a working landscape and ecological integrity are goals not necessarily in opposition, providing landowners with the tools to manage their woodlots for wood products without compromising the ecosystem services these forests provide, including clean air, clean water and diverse habitat for wildlife. Virginia and Stephen have also developed an educational program for middle and high school students known as Woodlands Goes to Schools, reaching upwards of 5000 students each year.

*Will Virginia Barlow and Stephen Long please come forward to accept the award.*

**The Keewaydin Environmental Education Center** in Salisbury is the oldest and longest running environmental education center in the State of Vermont. The Center hosts school groups, grades 4-8, in 4 and 5 day residential programs. Through investigative and experiential learning in natural science, local history, human impact, and land use, students gain an appreciation of the natural world that encourages them to make decisions which will benefit their communities and the environment. Since 1973, Keewaydin has served 40 schools and an estimated 20,000 students. Interestingly, there are probably many in this room, parents, students, and teachers, who can attest to the unique, wonderful, and memorable learning experience offered by Keewaydin.

*Will Tim Tadlock please come forward to accept the award.*

**Youth Environmental Citizenship Award for projects accomplished by young people that achieve significant positive environmental results.**

**The ECHO E-Team** at the ECHO Lake Aquarium and Science Center in Burlington provides middle and high school-aged students and teachers with a unique opportunity to expand their environmental literacy and knowledge about the Lake Champlain Basin, learn how to be more effective educators, and provide educational opportunities for low-income communities. E-Team members participate in a 2-hour weekly training session, a 4-hour exhibit interpreter shift during the weekend, and additional hours after school and in the evenings. They are paid a stipend of \$20 per week, and many E-team members exceed their time commitment. E-team members reach out to the community by providing one-hour environmental education programs at after school programs and evening community programs that primarily serve low-income neighborhoods. The ECHO E-Team is a model for community engagement and environmental education.

*Will Molly Loomis, Kirsten Brewer, Taylor Sanders, Shepherd Lantz, Cesar Hammond, Joyce Pan, Meiling Chau, and Thomas Elston please come forward to accept the award.*