

Resources

Great Bay National Research Reserve

Great Bay Discovery Center
89 Depot Road, Greenland
Wednesday-Sunday, 10am - 4pm
www.greatbay.org

Portsmouth Farmers Market

1 Junkins Ave, Portsmouth
Saturdays, May 2-November 7, 8am - 1pm
www.seacoastgrowers.org

Portsmouth Recycling Center

Dept. of Public Works
680 Peverly Hill Road, Portsmouth
Tuesday, Wednesday, and Thursday, 8am - 1pm
Saturday 8am - noon
www.cityofportsmouth.com/publicworks

References

Rain Gardens

Vermont Rain Garden Manual *Gardening to Absorb the Storm*, from the University of Vermont Extension:
www.uvm.edu/%7Eseagrant/communications/filelibrary.html

Rain Barrels

www.uri.edu/ce/healthylandscapes/rainbsources

Stormwater Center

www.unh.edu/erg/cstev

Energy Conservation Methods and Measures

www.seacoastbiofuels.com/
www.energystar.gov/index.cfm?c=cfls.pr_cfls
www.howtocompost.org/
www.greenalliance.biz

Low Impact Development

www.lowimpactdevelopment.org



The Sustainability at Home Tour

Saturday, May 16, 2009
10AM - 2PM

This tour highlights homes and organizations in our area that are currently utilizing sustainable practices in building materials, energy use and conservation, and stormwater management practices. Home and business owners are showing increasing interest in sustainable practices for both the positive environmental benefits and because they know that these practices can save money.

Making the switch to a sustainable practice is best done when you are well informed about it—and what better way to get informed than by talking to your neighbors and friends who are utilizing these systems? We hope you find this tour interesting as well as fun, and that it helps you move to a more sustainable lifestyle.

Sincerely,
Steve Miller, Carol Renselaer, Bob Brisebois, & Judy Sabin
Portsmouth Sustainability Fair Home Tour Committee



Sustainable stormwater management practices benefit everyone. By mimicking natural hydrology and getting stormwater into the ground (by using rain gardens and porous pavements) or saving it for later use (with rain barrels) we help keep our surface and groundwater resources clean. Water resources are absolutely essential for life and clean water resources save tax dollars by reducing water treatment cost before use.

1. Rain Garden

Brandon Holben
21 Williams Ave, Kittery

Rain gardens are planted depressions in the land that capture stormwater run off from parking lots, roadways or buildings. The heavy metals, suspended solids and excess nutrients that pollute stormwater are filtered by the plants and soil, thereby improving water quality as the water slowly infiltrates into the soil. The stormwater then recharges the groundwater or is released into a waterway cleaner and cooler. In addition to performing an essential function of a healthy ecosystem, rain gardens can be designed to be a visual amenity for any property.

This rain garden uses native species of ferns and rushes that are drought and wet tolerant with the ability to thrive under various conditions. The system collects rainwater from building runoff as well as groundwater from two adjacent properties. Future expansion plans include the collection of additional building and driveway runoff water.

Brandon Holben, Architect, LEED AP
McHenry Architecture, 603.430.0274
www.mchenryarchitecture.com

2. Porous Pavement

Great Bay Discovery Center
89 Depot Road, Greenland

The Great Bay Discovery Center at Sandy Point is the Great Bay National Estuarine Research Reserve's education campus and a low impact development stormwater management demonstration site. The campus features four porous surface technologies, including the use of porous concrete, porous asphalt, Eco-stone and Aqua-brick surfaces for parking and walkways. The site also showcases a Rain Garden, Rain Barrel, and more.

Stop by the Center any day of the week for a self-guided tour from dawn to dusk. If you come by when the Discovery Center is open for visitors, (Wednesday-Sunday 10AM to 4PM), ask for a Stormwater Self-Guided Tour brochure. In addition, the Hugh Gregg Conservation Center has a **geothermal heating/cooling system** and utilizes a **waterless composting toilet system**.

FOOD PRODUCTION

Sustainable water is a key component for sustainable food production. Visit the next site to talk about growing and eating sustainable locally produced food.

3. Eating Local & Organic

Portsmouth Farmers Market

1 Junkins Ave, Portsmouth • 8am-1pm

Saturdays, 8am - 1pm, May 2 to November 7

Since 1977, the Seacoast Growers Association has provided the seacoast region of New Hampshire with a marketplace for fresh local produce, handcrafted goods, and homemade foods and beverages. As an organization, they believe that reliance on imported foods and crafts is unsustainable, potentially dangerous to the local economy, and negatively impacts the culture of the region. As such, they seek to provide consumers on the seacoast of New Hampshire with a marketplace for the best local goods available. Certified organic foods are available. Vendors must be located in Rockingham, Strafford, or York (Maine) counties, and are periodically audited by the organization to ensure that products sold at SGA markets are locally grown, raised, or crafted, and that they are of the highest quality.

ENERGY CONSERVATION

Sustainable energy production and energy conservation practices are critical to reducing the effects of anthropogenic climate change. Energy consumption and resultant pollution are arguably our greatest environmental challenge and everyone should make the effort to reduce their carbon footprint. Visit the following sites to see practical applications of efficient and sustainable energy uses.

4. Green Business Practices

Tim Gaudreau Studios

209 Jones Avenue, Portsmouth

The goal of this business is that all processes, from fabrication to fulfillment, will be the most sustainable and have the lowest impact possible. This commitment to sustainability has been in place for over a decade and guided the business's early adoption of digital technologies. A sustainable lifestyle and business model means many things, including considerate choices in raw materials to reduce VOC's, hazardous chemicals, packaging, and pollution. A few highlights of their efforts: An old barn was re-purposed into a green studio, reducing a daily commute to 0. This studio was designed to reduce energy consumption and the carbon footprint of the business; it is heated from wood pellet biomass and passive solar from windows, thermal mass and air heaters. All work stations are task-focused and lit by compact fluorescents, and the majority of waste is composted. In addition, onsite green home lifestyle practices include vehicles that run on 100% soybean oil/biodiesel and get nearly 50 mpg, and growing the majority of their food. For more information, visit www.Timgaudreau.com.

5. Green Construction

The Portsmouth Public Library

175 Parrot Avenue, Portsmouth

In December 2006, the city opened the doors of this new state-of-the-art facility. This building achieved silver certification under the US Green Building Council's Leadership in Energy and Environmental Design (LEED) program. It was the first municipal building in New Hampshire to receive LEED certification, and one of the first in New England. The building achieved high marks from the USGBC for environmentally responsible construction with reduced energy consumption, use of local materials and use of recycled materials. In addition, the library rated highly in the "healthy to occupy" portions of LEED with an abundance of natural light and views, and with materials emitting no noxious gases. The 39,000 square foot building now operates with attention to the health of the environment by recycling, temperature control, water usage control, and the use of non-polluting cleaning products.

TOUR THE BUILDING: Check in at the Circulation or Welcome Desks for a self-guided tour brochure.

EXHIBIT: Visit the Sustainable Art Exhibit.

SPECIAL PRESENTATION:

Seacoast Area Regional Energy Initiative (SEAREI)

9:15AM, 10:00AM, and 10:45AM in the Levenson Room

SEAREI is a start-up, not-for-profit Community Energy Raiser organization providing network opportunities for renewal energy installations. Learn about how you can become a part of the New England tradition of neighbor-helping-neighbor and install a solar hot water system for low cost in your home. The program includes a short film on Energy Raisers and a primer on solar hot water systems, a short presentation from SEAREI organizers, and questions and answers to help you learn more about SEAREI.

6. Passive Energy Home

Heather Parker

101 Mill Pond Way, Portsmouth

This new house in Portsmouth was built with materials chosen to reduced resource use and it was designed to reduce the carbon footprint. It is a highly insulated, airtight house, designed to store both passive and active solar energy. The house should qualify as a Passive House, using only 15 kWh of heat energy, per square meter, per year. The owners are just beginning to keep records but anecdotal info from the winter suggests it will qualify, as it used only 50 gallons of propane. That translates into an annual heating bill of a couple hundred dollars a year.

7. Zero Net Energy Home

Cheryl Parker and Marc Batchelder

35 Lawrence Street, Portsmouth

Please park directly in front of the home or on Middle Street. Do not park in driveways or on lawns.

This home is registered under LEED for homes with the goal of obtaining a platinum level certification. Upon completion, the home will be net zero energy, meaning that over the course of a year it will produce as much energy as it uses. Contributing to this is a passive solar design, a 3.1 kilowatt solar array, a solar

hot water system, and a very well insulated shell. Each material used in the construction of this 1,350 sq.ft. home was considered in terms of its location of manufacture, sustainability, and chemical content, as well as researching the best installation practices. The result is an energy efficient, durable, healthy home that is comfortable and fits in with the historic feel of Portsmouth. Design and engineering: Cheryl Parker and Marc Batchelder; general contractor: Little Green Homes.

8. Green Home Retrofit

Mary and Glen Philbrook

38 Love Lane, Kittery

The home is an 1875 farmhouse-style New Englander that has been retrofitted with an open loop geothermal heating system. Originally heated with an oil furnace and forced hot water radiators, the home now has air ducts to take advantage of the geothermal heat pump's air conditioning capabilities as well as heating. There are two wells that were recently drilled to supply water to and from the system. A combination of blown-in cellular insulation in the walls and attic of the house, as well as open cell foam in the basement, has recently been added to make the heating system more efficient.

WASTE TREATMENT

9. Waste Treatment

Department of Public Works

Peeverly Hill Road, Portsmouth

Portsmouth has an excellent and ever-improving recycling center that offers citizens great environmental options for recycling their waste, and saves thousands in tax dollars. In addition to their regular recycling, brush dump, and waste disposal operations, May 16th is the City's Household Hazardous Waste Collection Day for residents of Portsmouth, Greenland and Newington (proof of residency required). Bring your unwanted household chemicals to Portsmouth's Dept of Public Works for safe disposal and see how the city deals with hazardous waste.

NOTE: There will be a special, one time only Behind-the-Scenes Tour at 11pm. Space is limited, and you must register in advance at the Tour Booth at the Sustainability Fair.