

## December 2014 Green Living Segment

Last December I wrote about the fond memories I have of my childhood Christmas celebrations and what they meant to me. As noted, they embodied many of the most basic tenets of sustainability, and the traditions we carry forward from those early years stand up well in today's overwhelming nonsectarian pressure to commercialize the holidays. But before we focus on Christmas, Hanukkah, or any other seasonal celebration we need to be sure we have taken care of all of the chores and tasks that need to be completed before December 21<sup>st</sup> brings the winter solstice and we face the depths of winter.

Any home weatherization and HVAC maintenance that needs completed should be given priority. GreenEdge Supply and 84 Lumber are well stocked with all of your home weatherization and service needs. Before any seasonal purchases are made we should take time to gather those items we no longer need and be sure they get to Goodwill, the Salvation Army, Veterans organizations, shelters, food banks and other agencies dedicated to helping others, well in advance of the holidays. It's a great time to participate in ride sharing or carpooling with those who need errands run, and, for reasons too numerous to count, there is no better time to consider those who are shut in.

When we are ready to fully focus on the Holidays there is much we can do to green our efforts. This year I am sharing some green holiday ideas from *Eartheasy – Solutions for Sustainable Living* [http://eartheasy.com/give\\_sustainchristmas.htm](http://eartheasy.com/give_sustainchristmas.htm) who have some wonderful ways to spread some environmentally aware holiday cheer.

- *Look for locally made gifts.* Many gifts today come from all over the world, and the impact of transportation contributes significantly to greenhouse emissions and global warming. Local craft fairs and artisan shops are a good source for gifts that come without the added financial and environmental costs of transportation. Gifts made locally often have a story and local flavor which goes with the gift, since the artisan and the origin of the gift are known.
- *Choose gifts made from recycled sources.* Many individuals and small businesses have developed great products using recycled materials. Supporting these businesses helps reduce the waste stream while making the best use of available materials. Here are some examples for you to consider: [Gifts from recycled materials](#)
- *Give 'battery-free' gifts.* According to the EPA, about 40% of all battery sales occur during the holiday season. Discarded batteries are an environmental hazard. Even rechargeable batteries find their way into the waste stream eventually. Here are a few examples of gifts that have less of an impact on the environment: [Naturally-powered toys](#)
- *Avoid children's toys that promote violence.* I hesitate to weigh in on parenting issues, but I resist promoting anything that mimics violence in the world. The sheer number of video games for children based on violence is disturbing. Remember the theme of Christmas is "Peace on Earth". There are many toys and games that are fun, and nurture children's creativity and sense of active play. Here are some examples: [Educational toys and games](#)
- *'Re-gifting' is Okay.* People have strong feelings about the etiquette behind passing on a gift you do not want or need. To me, re-gifting makes sense. Of course, it needs to be done with care so as not to offend the original giver, but keeping a gift you don't need and will never use is wasteful, especially if it can truly help someone else. Christmas and Hanukkah are a great time to pass on all of those items.



Live trees are beautiful, and smell like Christmas!

- Use a real Christmas tree. Although plastic Christmas trees are reusable from year to year, real trees are the more sustainable choice. Plastic trees are made of petroleum products (PVC), and use up resources in both the manufacture and shipping. Artificial trees theoretically last forever, but research shows they are typically discarded when repeated use makes them less attractive. Discarded artificial trees end up in landfills, where their plastic content lasts forever.

Live trees are a renewable resource grown on tree farms. They are replanted regularly. Live trees contribute to good air quality while growing, and almost ninety percent are recycled into mulch when the Christmas season is over. Often live trees are locally grown, saving both transportation costs and added air pollution. Many communities have free chipping services for trees. The chips are used as mulch for municipal landscaping or sold at low cost to gardeners. Chips purchased at local garden centers or agricultural product outlets make excellent mulch for a number of landscaping needs.

Small, live potted trees can be used for years. If you buy a small tree in a large pot, you may be able to reuse the tree for 2-3 years without having to plant or re-pot the tree. If your tree becomes root-bound, you can replant in a larger pot for another several years' extended use. If you have the space, replanting the tree outdoors is a great option. If you choose to discard a live tree, be sure to chip and mulch it.

- Send homemade cards. Store-bought Christmas cards consume a huge amount of natural resources for a throwaway item. The amount of cards sold in the US during the holiday season would fill a football field 10 stories high, and requires the harvesting of nearly 300,000 trees.

Homemade cards may not be as professional, but they are more personal and just as appreciated. Making the cards is also a fun activity for the family during the weeks before Christmas, and can be a rich family traditions for all ages. Old calendars are a good place to start when making homemade cards, since the images are large, colorful and printed on heavy paper similar in weight to card stock. You can size the card to fit your envelopes, or have the card and message on one side and fold over to put the address on the other side. Staple at the bottom, and no envelope is needed.



Homemade Christmas Cards; environmentally and sentimentally the best!

Children's artwork is another good source for Christmas card pictures. The 'scribblings' of children can be interesting, fun and especially appropriate for the season. Parents and grandparents, aunts and uncles will probably appreciate a 'child-s art' card even more than a store-bought card. Making your own cards is easy if you have the material to work with. Today's smart phones and digital cameras make it easy to print family images, which, in turn, make it more fun to craft the cards.

Try to get in the habit of saving pieces of heavy paper (one good side) to use as the backing for your glued-on pictures. "Card stock" is the ideal weight, and even small pieces are worth saving.

There are lots of other ways to live green during the holidays. Google "greening the holidays" or visit our friends at *Eartheasy*. What I appreciate most is so many of them are genuinely fun and family oriented. Our parents taught us memories are more important than material things. Now I know greening our memories can make them even more special.

*Happy Holidays, everyone!*

### November 2014 Green Living Segment

#### Can you feel it?

In my October Green Living segment I mentioned how autumn is my favorite time of year. I grew up in western Pennsylvania and always reveled in the early stages of fall, among them comfortable, clear days, cool evenings, and beautiful fall colors. In October, winter is still in our peripheral vision, and we are more connected to our memories of summer than we are to the coming of winter.

November changes that, and I have always greeted November with mixed emotions. November anchors what is often referred to as the "shoulder season". Situated between the autumn equinox and the winter solstice, November can have a very mixed personality. Surprisingly warm days can transition to snow squalls over night as winter weather systems push further south. The Fall Classic is behind us, and winter sports are in full stride. Turning the clocks back gives us one fleeting extra hour of sleep, paid for with the forfeiture of daylight hours in the ensuing days of late fall. A primal urge to hibernate is lessened by the excitement and precious nostalgia of the upcoming Thanksgiving Holiday. Seasonal life cycles are evident to anyone who cares to look, and we need to celebrate them in the greenest way possible.

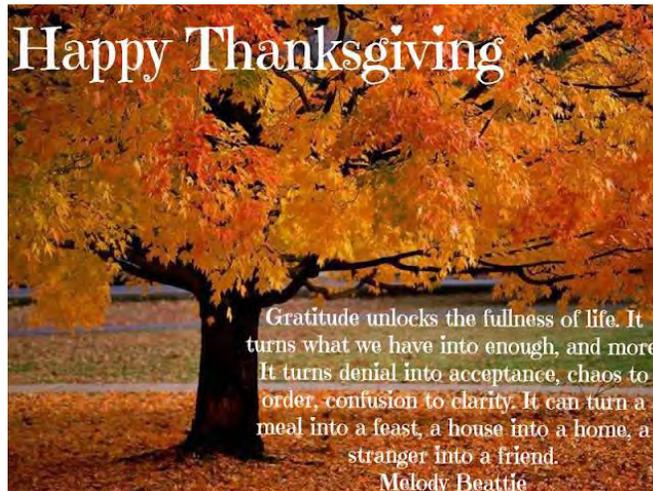
By November, most of my home winterization chores are complete. Winter garments take the place of my favorite fall jackets on the coat rack, and I take inventory of my "accessories," hats, gloves, boots, etc. It's a great time to assess what is really necessary and what still fits, as the rest should go to Goodwill, homeless shelters or some other charity as soon as possible. A good rule of thumb is that if something hasn't been worn in two years it is best given away. Many charities begin to advertise for such things when the Holiday Season arrives.

In addition to all of the household readiness chores discussed in my October blog, I add preparing your bike for winter riding. Modern day cycling apparel that is rain proof, breathable and wind resistant can make late fall and winter bike riding quite comfortable. Once I overcome my resistance to face the cold, I find riding in late fall and winter can be very enjoyable. Bike trails are often empty, and the benefits of no fee parking close to building entrances can be enjoyed year round. Like automobiles, bicycles need a winter tune up, lubrication and safety check. Many avid cyclists include changing to winter tires if their stock tires are not suitable for winter riding. The shortened daylight hours often means commuting to and from work in the dark, making proper bike or body mounted lights and reflectors, as well as reflective clothing, very

important. Always give yourself a little more time to commute to work in the dark, or in inclement weather. The personal and environmental benefits of cycling – physical fitness, stress relief, saving money and smaller carbon footprint – apply any time of year.

For many, November heralds the beginning of the Holiday season. Thanksgiving has always been my favorite holiday, mostly because it can be celebrated by anyone, regardless of race, creed or religion. It is probably the premier family gathering event, and often one where our friends and “extended family” members are likely to be present. And, like any social or cultural event, it is ripe with opportunities to be green.

More people travel to be with loved ones on Thanksgiving than any other holiday. Thus it is appropriate to scrutinize anything associated with travel if we want the Thanksgiving holiday to be green. Carpooling and traveling by train or (natural gas powered?) bus is a good start. Carpooling should start with family members and guests who live close by. Planning is usually simple, and has the extra benefit of having a designated driver available if needed. Judicious use of the car should extend to the increased need to shop and run an additional errands during the holidays. A little planning, including consideration of what trips are truly necessary and which can be eliminated, applies to everyday living, not just the holidays.



Thanksgiving precipitates the busiest air travel days of the year. If one must travel by air, non-stop flights are preferred as they use less fuel per passenger mile. Coordinating flights with others headed for the same destination can potentially limit trips to and from the airport, enable shared costs, increase safety and make the experience more enjoyable.

Once everyone has gathered, we can concentrate on how to green the time we have together, starting with the traditional Thanksgiving meal. Here are some Thanksgiving related green living suggestions from our friends at Biofriendly Corporation <http://biofriendly.com/blog/green/tips-for-greening-your-thanksgiving/>

1) *Support your local growers, including yourself!* Thanksgiving is probably the singular most popular meal for enjoying your fall harvest. All of the hard work and dedication to your garden can be celebrated with those you love, and some you may not even know. There's something very special about homegrown vegetables in late November. After that, buying local produce, especially organic, has a myriad of environmental and local economic benefits. Opt for fresh food and avoid canned goods if possible. Lastly, try to limit food that is highly processed or which comes from far away.

2) *Cut down on food waste by making less food in the first place.* For many, Thanksgiving means tables heaped with all sorts of food, an image that symbolizes the holiday and our collective good fortune. But think about what happens *after* the big meal. Is there always a lot of food left over? Food should not be for decoration, but for sustenance. The goal is to celebrate our abundance without generating excessive waste. Be sure to plan for the distribution of leftovers, and keep those who are less fortunate in mind.

3) *Remember scented holiday candles can irritate asthmatics and others with chemical sensitivities.* Indoor air pollution is a problem most people are unaware of or ignore. Opt for more environmentally friendly candles made from beeswax or soy. Go online and research “non-toxic candles” before you add them to your holiday decor. Over the holidays, homes can get stuffy and dry. Air out your home naturally if possible. Opening the windows briefly and letting some fresh air in will help freshen your indoor air.

4) *Turn your thermostat down whenever you can.* Holiday baking, preparing meals and a house full of guests all generate additional warmth. Take advantage of this phenomenon to save energy.

5) *If you serve wine during the holidays, consider locally grown, eco-friendly wines.* The Internet is full of suppliers both local and afar. Plan ahead, do your research and enjoy the fact many organic wines are reasonably priced and readily

available.

6) *Green your holiday decorations.* Most of us enjoy decorating our home for the holidays, starting with Thanksgiving. Table decorations, center pieces, window and door decorations, wreaths and other items can all be made with recycled materials and non-toxic paints and adhesives. Involving children in what are essentially art projects with a holiday theme is a great way to foster traditions based on environmental stewardship. If you choose to purchase decorations, scrutinize them for recycled content and support local artists whenever possible.

Remember pumpkins used for decorations are food. Pumpkins carved for Halloween can be used in a variety of recipes. Pumpkin seeds can be dried, roasted and seasoned with sea salt. When they have been fully used, what has not been eaten should be composted.

7) *Take steps to reduce, reuse, and recycle over Thanksgiving and throughout the holiday season.* The holidays are busy times and the temptation to toss things as a convenient way to save time and energy leads to wasting things we might normally reuse. According to the EPA, the volume of U.S. household waste increases by 25 percent between Thanksgiving and New Year's. Stay vigilant and remind others to do the same.

8) *Be thankful.* Most of all, take time to contemplate everyone and everything we have to be thankful for, including the Earth. If possible, express your thanks with deeds as well as words. Random acts of kindness often cost nothing and can have a huge influence on someone's life, be they family, friends or total strangers.

Lastly, use the Thanksgiving holiday to foster family traditions that encourage environmental stewardship. Planting one tree with family and friends to "thank the Earth" may not seem significant, but small things matter. In one year, the average tree absorbs roughly 26 pounds of carbon dioxide and returns enough oxygen to supply a family of four. Your family will enjoy the memory, and the Earth will thank you for it.

### October 2014 Green Living Installment I love autumn!



I love autumn; it's my favorite time of year. Summer is great, and I get that, but autumn holds the special combination of clear, comfortable days, cool nights for sleeping and, of course, the glorious colors only nature can provide. I have fond memories of so many things associated with autumn; making a few dollars raking leaves, playing high school football, and later the annual returns to college and campus life during the fall. I remember how the regret I had for the daylight hours becoming shorter was offset by the pride and relief we shared at getting in the fall garden harvest, the seasonal canning and the anticipation of holidays soon to come. Too many great memories to count.

Looking back I am amazed how much of that time and those activities had the trappings of green living, and how many of those practices or habits still define what green living should include today. Each may be informed by where we live and where we are in life, but I would like to offer a few green living activities and opportunities appropriate for living in the temperate northeast region. Many may seem like simple maintenance chores, but the maintenance part and parcel to efficiency, longevity and insuring a good return on the investment our homes represent.

1. *Put the garden to bed and prepare the property for winter.* October may seem a bit early to be concerned about the winter, but lingering warm weather and the passing daylight may make many chores more enjoyable in early fall than suffering through them in late November. Some of these tasks include:

- Get leaves and yard debris to where it will do the most good. As a young man it was my job (we all took turns) to rake our very considerable leaf bounty on top of the garden where it would spend the winter decomposing. In the spring it was tilled into the earth along with the organic kitchen waste that was added on a regular basis. This is in concert with final harvest activities and any other organic soil conditioning that is best done in the fall. Canning vegetables always produces a good collection of vegetable waste that should go right back on the garden.
  - Pay attention to what is going on in your local farmers markets. Now is when many local producers have some of the best produce in quantity. Support those who grow organically or evidence some other stewardship of the environment. It's also a good time to inquire about community supported agriculture and helping others to achieve the same goals, having a good idea of your own success and what you would like to add to your table.
  - Service any rain barrels or catchment vessels. Some rain barrels are designed to resist freezing and some are not. Once it is apparent no additional watering will be done it is wise to empty containers, open the drains and follow whatever winterization advice the manufacturer recommends. If you are uncertain what this might be, you can usually find the information online or get advice from a local lawn and garden center.
  - Store your hoses, close the inside of those supply line valves and open up outside spigots to prevent freeze damage. Perform whatever additional tasks necessary to protect other portions of irrigation systems.
  - If you have one, give the lawnmower blade housing one last scraping and add that to the compost. Gas powered mowers should be serviced as recommended. Be careful bringing anything into the basement that contains gasoline.
2. *Think about what your home may need to get through the winter.* As mentioned, it is better to do weatherization projects when the weather is still relatively mild than when it is much colder. When the furnace starts to cycle it is usually an indication we will no longer be opening the windows regularly for ventilation. Now is a good time to
- Install your storm windows, and pursue any window treatments you feel are necessary and cost effective. Don't forget the screen or storm door glass inserts that replace door screen panels in the winter. If you don't have storm windows, consider whether you can improve comfort by adding additional weatherization products.
  - Have your space conditioning equipment serviced. Replacement filters should be installed and washable, reusable filters should be cleaned in accordance with manufacturer's recommendations. Many service companies offer fall discounts for residential heating equipment services, but they can get busy. This is a great time to inquire about the addition of a programmable thermostat if you don't have one. Be sure the service includes inspecting the flues and other exhaust components associated with the furnace and water heater.
  - A pre-winter home inspection can also include freeing any debris from gutters and downspouts. Damage from winter freezing can be exacerbated if these are clogged. Ice accumulations can further damage these components if they are not working properly.
3. *Think about how best to stay comfortable.* Often it is the little things that mean a lot. Don't overlook the personal care and individual consideration that can better get us through the winter. These will vary with age and our metabolism, but each is simple and inexpensive.
- Consider changing from "cool cotton" to flannel bedding or other warmer fabrics. Warming where and how we sleep means we can turn down the thermostat and easily remain comfortable. Warm pajamas and an additional blanket will contribute to that goal.
  - Do a clothing inventory and make sure essential winter clothes are available. Dressing in layers is a good habit to foster. If you have winter clothes you are no longer wearing, now is the time to get them to those outlets so they can benefit others. There is no reason for anyone to be cold, especially children and the elderly.
  - Winter is a good time to add throw blankets to your favorite couch or chair. It may only be psychological, but they are a nice, cozy addition to our need to relax.
  - Celebrate the season with your hospitality. It seems warm cider or mulled wine is always enjoyable. Sharing a hot meal from the garden with family and friends as things get colder underscores the hard work and time invested in producing it. And, it is a great time to share memories of autumns passed.

Most of what I've written can be no cost / low cost family activities. If you drill down through these suggestions they are about recycling, composting, living without chemicals, eating nutritious food in which you have total control and confidence, reducing energy consumption and costs, and generally caring for each other; green living at its best. Should we do these things year round? Of course, but there is just something special about autumn. Now go swish through those leaves!

**September 2014 Green Living Installment**  
**School is in session!**



***School days, school days***  
***Dear old golden rule days...***

The end of summer and the advent of early fall is always marked by the return to school. In the US it is a ritual almost as old as the country itself. Clearly, the years we spend in school are the source of many of the most precious memories, trials and tribulations that make up our lives. The investment in time, energy and resources to educate our children and ourselves is difficult to quantify, and most of us are just grateful we are able to enjoy what Thomas Jefferson declared “the genius of Democracy;” public education.

Over the last thirty years I have been privileged to combine my practice as an architect specializing in sustainable design and construction with a parallel career as a college professor and green school advocate. I've chaired the US Green Building Council's LEED for Schools initiative and have been associated with green school activities in several countries, most notably as cofounder of the first Master of Science in Sustainable Systems in the US in 1990. Suffice it to say I have seen the green school movement grow from a few pioneer programs to the international green school movement it is today. One of the best things that has come from the green school movement is the realization we all have an opportunity to contribute in ways both great and small. In the best case, supporting the green school movement is one significant way to celebrate living green.

School shopping is a tradition closely associated with the beginning of the school year. It is the first place to consider ways to be both environmentally and socially conscience. I was taught from a young age that our actions speak louder than words, and it is always best to lead and learn by example. Shopping for school necessities, clothing and supplies presents a myriad of opportunities for decisions and gestures that are themselves learning opportunities. As one of nine children in a blue-collar family, and later as a single parent who raised two children, my lessons are as fresh today as they were years ago. Here are a few of my favorites:

**School Clothes.** The excitement of new clothes is a fun part of going back to school. However, it's best to keep a perspective on being able to purchase new clothes, and have a sensitivity to many who may not have the same where with all. It's good to remember many people rely on the generosity of community organizations and thrift shops for school clothes. Kids grow up fast, and those things that cannot be shared with other family members are best past on to those in need. My mantra is, “If you haven't worn it in the last two years, why is it in your closet?” It is good to assess how many clothes one does *not* need, and get them to the charitable

organization of your choice. The one most convenient to me is Goodwill, which I support. I think they do a great job of recycling clothes and a number of household goods that otherwise might be wasted. I have also donated men's clothes to a store that supports women shelters. Homeless shelters and veteran's organizations are also good options for cleaning out your closet. Early fall is a beautiful time of year, but winter is right around the corner. If your school shopping includes a new coat(s), consider clothing drives like Project Bundle Up, which specializes in providing winter coats, boots and gloves to the needy.

Another consideration is purchasing "eco-clothing." If you Google "eco-clothing" you will find a number of retailers on line who specialize in everything from fair trade and social equity practices, to natural, renewable fabrics and chemical free manufacturing processes. And, if you are confident in your clothing sizes and their return policies, purchasing on line saves the time, energy and fuel associated with driving from store to store. And, that time can be better spent with your children doing back to school activities. For instance,

**Back to school projects.** It's amazing to me how many (expensive) back to school items are scattered all over the house, seldom used and usually forgotten. Our fixation with always "buying new" is not always the best environmental option. A child's reaction to using these items may range from mild disappointment to outright refusal to use them, so the whole approach needs to be fun and / or one of reward. The psychology of this needs to be age appropriate, but it can be done. You can,

- Stage a scavenger hunt to see who can round up the most pencils, pens, erasers, markers, rulers, etc. Scrutinize them for which are the least toxic, and reward everyone for the effort. Flesh out the collection with an essential or two that might be missing, and don't forget a small pencil sharpener. Often half used pads of ruled paper, loose sheets, note cards, construction paper and similar materials can be found. These items may be less in demand in the computer age, but there is no reason to discard them. The same goes for staplers, tape, glue, scissors, clips and anything else than can be reused or used up before buying new.
- Have a contest to see who can personalize an existing three ring binder or course organizer. These are usually in the home or available at discount prices from thrift shops. It is a great way to jump-start the creative process, as well as show some school spirit by using school colors, drawings of the school mascot, fun stickers and favorite pictures of teachers, family and friends. The latter is a constant reminder the children are loved, and no matter how "scary" school might be, it's nice to have a photo or message from Mom and Dad saying how proud you are of your child. Be sure to include a secure place for contact information, phone numbers and medical network information. I've noted some binders have these things, but many do not. If binders are purchased new, I suggest those made of reinforced cardboard. These are usually made of recycled materials and can be recycled again when they reach the end of their useful life.

**Green the Essentials.** There are lots of things associated with back to school that are in the American lexicon of "must have" items. Each has environmental implications that should be considered. For example,

- Book bags or totes seem to be indispensable. Many of these familiar items are durable and last a long time; a good thing given how much they cost. So, the first gesture might be to pass them on to other family members. Another is to share with other family members or friends. If a book bag or tote has run its course in the family, remember, there are other school children who would love to have it. Let it go the way of those clothes you no longer need, but do not discard them.
- If you purchase a new book bag, investigate those that are eco-friendly. Like almost every other commodity, eco-friendly book bags and totes are available. <http://inhabitat.com/top-6-eco-friendly-bookbags-to-carry-back-to-class/feed-haiti-japan-bag/?extend=1> Children can identify with the myriad of causes the manufacturer's support, from fair trade to saving the rain forests and endangered species. Each of these is a lesson in itself, and an effective way to build self-esteem and a sense of environmental awareness in the student.
- Computers, smart-phones and other electronic gadgets have saturated the school environment and educational delivery process. If the school provides any of these, parents have an obligation to inquire

about their energy efficiency, procurement policies and what happens to them once the contracts have run their course. At the very least, each should be Energy Star rated and, if possible, powered by rechargeable batteries. The same criteria go for those we purchase ourselves. It should be noted that several book bags now come equipped with solar powered battery chargers, or ports for charging cell phones, calculators, iPads and similar devices. These are expensive, but can be used for years by lots of different family members or friends.

- The beginning of the school year is a good time to wean students off disposable bottled water in favor of personal water containers. The vast majority of the American water supply is perfectly safe for drinking, including the water in schools. Bottled water is an expensive option that is not environmentally friendly; quite the opposite. Reallocate the money spent on bottled water for more eco-friendly ideas, or use it as an incentive to encourage this important gesture in your children.

This segment of Green Living has just scratched the surface of what we can do to have going to school be a green living experience. Others ideas are more controversial, or a function of where we live. One of the best things we can do is ride a bus, a bicycle or walk to school. Yet, the increase in chauffeuring children to school in single occupancy vehicles continues to rise. Some studies cite estimates in many areas up to twenty percent of the rush hour traffic can be attributed to parents driving their children to school, or school age students driving themselves. <http://greatergreaterwashington.org/post/11443/reducing-school-traffic-would-help-rush-hour-congestion/> In many school districts this has been aggravated due to the elimination of after school activity buses, something I rode on a regular basis. A sad corollary to this practice is the attendant rise in teens involved in traffic accidents on school days, many of which are alcohol related or exacerbated by texting while driving. [http://www.cdc.gov/motorvehiclesafety/teen\\_drivers/teendrivers\\_factsheet.html](http://www.cdc.gov/motorvehiclesafety/teen_drivers/teendrivers_factsheet.html) Parents need to take a hard look at whether the status and convenience of driving to school is the best option for the student, the community or the planet.

Our school years should be some of the best years of our lives. Experiencing them as an extension of our dedication to green living can make them healthier, happier and all the more memorable.

### **August 2014 Green Living Installment Stay Cool!**

Late July and August are the “dog days” of summer. I’m not one to complain about the heat, as I would much rather dress lighter, have a cool drink and relax as best I can than suffer the freezing conditions we have weathered the last couple of winters in western Pennsylvania. When things get really hot, I can always go swimming somewhere. Living seven years in South Florida did a lot to cement that preference. And, while I understand the traditions that surround summer vacations, and the family dynamics and logistics that make *summer* vacations necessary, I have always advocated for short vacations in tropical places in the middle of cold winters, just for the psychological lift they provide.

One goal of living green is to remain comfortable, productive and content wherever we are under any circumstances, any time of year, in the most cost effective and environmentally sound ways possible. Since most of us can’t vacation all the time, that means starting with our homes. The priorities we assign these goals will vary with whether we are elderly, retired and spend most of our time in our homes, or if we are active, leading more transient lifestyles and rarely find ourselves there. In either case, this month I offer some tips on how to stay cool and enjoy our homes on those hot summer days and nights, starting with non-mechanical, passive approaches to comfort.

My strategies start with assessing our homes’ strengths and weaknesses when it comes to keeping us comfortable, beginning with our yards if we have one. If you live in a “light mass” framed home that does not have good natural ventilation, you may find the interior of the home heats up quickly, in step with outside temperatures. By the end of the day, after sunset, it is quite common to have outside spaces that are much cooler than the inside of the home, especially if they benefit from the breeze. I have fond memories of sleeping outside on a second floor exterior porch. It was a popular place for my siblings and me as it was much cooler than inside, we were literally in the treetops, and the night sky treated us to the moon and stars. Summer rains were a special

treat. Simply stated it was great fun, lasting until it became too cold to be out there. Air conditioning has largely put an end to spending time outdoors any time of the day, and porches are no longer the social focus they used to be in our neighborhoods, but we still talk about that porch.



The old homestead under renovation.  
'Sure glad they are keeping the sleeping porch!

If being outside comfortably and safely is not an option, we need to take stock of our homes and what we can do to make them comfortable in the summer. Clearly, newer homes with high performance Low-E windows and fully insulated walls and roofs will need the following ideas less than an older home that have not been weatherized. Ideas include:

- *Landscaping our homes for energy efficiency.* We have written about the role of shade trees, trellis and other natural approaches to providing shade. These strategies are well documented in numerous sources, and carry the added potential for providing food.
- *Exterior shading devices for windows.* These are typically made of shading screen material stretched over 1"x2" slats, or the equivalent. The shade screens are then attached to the exterior of the window. Mounting shade screens on the outside is the most effective way to keep the house cool, but is only practical if the windows are double hung or sliders; it will not work with outward acting casement or awning windows. They are best installed in late spring, when the home begins to be uncomfortable, and removed in the fall when the heating equipment begins to cycle. 84 Lumber carries everything you need to build these simple devices. Contact us if you need assistance.
- *Permanent architectural shading elements.* These are permanent additions to the home in the form of tuned overhangs; horizontal soffits or other architectural modifications designed to keep direct solar gain out of the home. Designing permanent solar shading devices requires knowledge of solar geometry and an understanding of how to optimize their application for each orientation. Effectively shading south windows is different than what is needed to shade east and west windows. If your home does not have these features you may need the assistance of a designer or help from a GreenEdge Supply staff person.
- *Interior shades, blinds and curtains.* Once the sun's heat enters the home, interior shades and curtains are compromised, but are better than unimpeded direct solar gain. Priority should be given to shading the west and south windows. Keep them closed during the day, especially if rooms aren't occupied and you don't need the natural daylight.
- *Open and close the home with the rhythm of the day.* It seems counter-intuitive, but it may be best to keep a home's doors and windows closed during hot, humid days, and open as much as possible during the evening and night. Your home's interior temperatures will vary depending on whether your home is light mass, wood frame construction or a heavier brick or masonry structure. The quality of the windows and the amount of insulation will also influence whether this strategy is effective.
- *Be conscious of interior heat sources and minimize their impact on comfort.* Lights, computers,

televisions, office equipment, ranges, ovens and major appliances all generate heat. Taking shorter, warm showers and venting bathrooms effectively reduces interior heat and humidity. Doing cold water washes also helps. Cooking outdoors, in the tradition of homes with summer kitchens, is a very effective way to keep your home cooler. Enjoying meals outside adds to the celebration of summer, especially when we invite family, friends and neighbors.

Once you have evaluated the potential for passively cooling your home you can move on to low-tech mechanical cooling devices. The first thing to consider is how much cooling is needed, when is it needed and what is the greenest, least expensive way to provide comfort. It's important to remember that it is you who needs cooling, not every space in the house. Some cost effective ideas include:

- *Personal fans.* These are very small, portable, personal cooling devices designed for small task, close proximity cooling. Many are battery powered, but some can operate off regular electricity or your computer's USB port. Small, personal coolers can be the difference between comfort and sweating through the day at your desk.
- *Small area fans.* Freestanding floor models are designed to cool in near proximity, no matter the activity. They can oscillate to cool multiple occupants in a space and have multiple speeds. They are light and portable enough to be moved from room to room; a good choice for simple cooling needs.
- *Ceiling fans.* Ceiling fans and combination fan and light fixtures are popular home cooling choices. Most feature multiple fan speeds, and have the option to operate the light and fan separately. I cool my house exclusively with Energy Star rated ceiling fans and am very satisfied with their performance. Like all fans, they cool the occupant and not the room, so they should be off when the room is not occupied.
- *Room air conditioners.* Most room air conditioners are designed to fit in windows. However, several manufactures now make free standing room air conditioners that do not need to be installed in a window. Each should be sized correctly for the room in question, and should be Energy Star rated to ensure efficient operation. Many people choose to cool their bedrooms to ensure a good night's sleep. Additional rooms can be cooled as needed. Remember, room air conditioners cool a room quickly, and therefore should not be operated when the room is unoccupied.

Lastly, if we choose to cool our homes with conventional whole house air conditioning systems we need to be sure they are sized, installed and maintained properly. A comfortable house begins with mechanical cooling systems that don't work any harder or longer than necessary. In addition to the passive strategies listed above I suggest the following.

- *Make sure your attic is cool.* The cooler your attic, the cooler your home. This is done using effective ridge and soffit vents that are clear, unencumbered and sized properly. 84 Lumber carries these items and can help with installation if your home doesn't have them.
- *Consider attic fans, or whole house fans.* 84 Lumber and GreenEdge Supply carry a full line of attic fans, including some that are solar powered. These are very effective at keeping your attic cool. Whole house fans located in the attic can be configured to ventilate the entire home.
- *Be sure your conventional air conditioning equipment is sized properly and maintained regularly to ensure the maximum efficiency.* The indoor and outdoor components should be inspected at least once a year to be sure they are clean, fully charged and unobstructed. Filters should be cleaned on an as needed basis, not seasonally, but in response to when they become soiled. The main air-conditioning system components must be serviced professionally, but homeowners can change filters easily. Consider maintenance plans supported by factory warranties. Many residential AC companies will negotiate the fees associated with your system's maintenance.
- *Use your AC only as needed, when needed.* Properly sized, well-maintained AC systems can cool a home quickly and efficiently. Programmable thermostats should have "On, Off, Vent, Cool" settings with setback and / or integral timers to enable scheduling when the AC is on and at what temperature over the course of a day. Set the interior temperature as high as tolerable and use AC only when necessary to save the most energy and money.

Conventional AC systems give us the luxury of comfort on demand. They are not as green as passive cooling options, but may be a medical necessity for the elderly or others whose health requires reliable temperature and humidity control. However, they cannot provide the tranquility, beauty and memories that come from one summer night on the porch, floating in the tree tops, breathing fresh air, watching the moon and stars come out after the rain ends. It doesn't get any greener than that.

### July 2014 Green Living Installment Take a Green Vacation!

In the June installment of Green Living I wrote about the importance of family vacations and their role in living green. I found myself reflecting on the fact our parents were not able to treat me and my eight siblings to elaborate vacations, or even trips to nearby vacation venues. We were left to our own devices to enjoy our summers, although several of us were fortunate enough to be invited along on vacations by friends and neighbors that I still fondly remember and am grateful for.

Later on I was determined to have my two children enjoy vacations, however simple they might be. We have been very fortunate to experience places like the Cape Hatteras National Seashore, Yellowstone, Everglades National Park, and the Acadia National Park in addition to numerous State Parks and Historic sites. We were also fortunate to experience Playa de Carma, Mexico and the ruins of Tikal in Guatemala. These were significant, as I know seeing how people in other countries live, especially children, made a deep and lasting impression on all of us. Each has contributed to enriching our lives and shared memories, and I cannot think of a vacation experience I wouldn't enjoy doing again. Because July is a major vacation month I thought I would contribute one more entry to vacations and what they mean to me.

After one excursion to Assateague Island National Seashore many, many years ago, my then ten-year old daughter queried me about why some of the wild horses we had seen while riding bikes north of Corolla earlier in the day were in town eating out of garbage cans. Her question was jarringly straightforward. "Dad, if they are wild, what are they doing here, and why are they eating garbage?" The college professor in me wanted to launch into a lecture on sprawl and the greed that is the basis for thoughtless development, but in truth I couldn't come up with a good answer for a child who intuitively knew something was wrong. Instead I started thinking about how in the years we had been visiting the Outer Banks, much of what we enjoyed for years was being paved over at an alarming rate. Given the unique ecology of the barrier islands, and their equally unique natural beauty, it begged the question, *what was the house we were staying in doing there?*

The delicate balance between access to our national parks and the preservation of what makes them national treasures is the responsibility of the National Park Service (NPS) and the Department of the Interior. My work as an architect specializing in sustainable design has kept me interested in how the ongoing pressure to access and develop park lands, mostly by the oil, mining and timber industries, has been held at bay in part by those who understand how critical that balance is. But their job is not getting any easier.

Given their sheer size and vast wilderness resources, National Parks are feeling the brunt of the changing climate. **Extreme flooding, serious drought, wildfires and glacial melt** is taken very seriously by the NPS. They are growing as a voice for climate change education and activism and are leading the way with green technology and infrastructure. The millions of visitors to our National Parks need to be accommodated in facilities that minimize the impact of the built environment and human needs on the natural world. And, these impacts can be profound. For instance, thousands of snowmobiles access Yellowstone National Park from the town of West Yellowstone every day during the peak winter season. In the past this resulted in a blue smog haze that settled into the park on calm days. Collisions with bison and other wildlife are common, and the smell was discernable for miles. The conversion to four-stroke, more fuel-efficient snowmobile engines has helped, but the noise pollution caused by this very popular past time goes on.

On Earth Day of 2012 the NPS issued the *Green Parks Plan (GPP)*, a comprehensive directive for change that emphasizes engaging visitors and communities in initiatives that mitigate climate change and educate about sustainability.

[http://www.sierraclub.org/sierra/green-life/2014/05/not-your-grandparents-road-trip-5-green-reasons-visit-national-parks?src=link1&utm\\_source=greenlife&utm\\_medium=email&utm\\_campaign=newsletter](http://www.sierraclub.org/sierra/green-life/2014/05/not-your-grandparents-road-trip-5-green-reasons-visit-national-parks?src=link1&utm_source=greenlife&utm_medium=email&utm_campaign=newsletter)

In the years since the plan was issued, the National Parks have made impressive progress. Ninety-two percent of construction waste is diverted from landfills and greenhouse gas emissions are down thirteen percent. Here are five clean, green examples of what the National Park Service has accomplished:

- 1.) The **Pinnacles National Park** West Side Visitors Center received a Platinum LEED certification (the highest available) for energy and water saving features. The building was even constructed using photovoltaic power sources.



Pinnacles National Park West Side Visitors Center

2.) At [Sequoia and Kings Canyon National Parks](#), you can now ride through the forest in alternative fuel buses. The surrounding communities partnered with park services to implement hybrid and electric buses for touring the parks. Thirteen other parks have also received grants from the Department of Energy's [Clean Cities Program](#) to make the switch from diesel vehicles to electric and hybrid technologies.



Hybrid, alternative fuel tourist bus

3.) Sequoia and Kings Canyon National Parks also implemented illuminating park attractions with solar power. The famous [Crystal Cave](#) is now completely lit by solar powered lights, which significantly lower energy consumption.

4.) On the East Coast, [Assateague Island National Seashore](#) is using solar power to light the bathrooms, convenience store, campground office, ranger station, and parking lot. I'm not sure what this means to the endangered wild horses, but at least it respects the land that has been developed.

5.) In [Lake Mead National Recreation Area](#), the [Cottonwood Cove Marina Building](#) on Lake Mohave is the first ever LEED certified floating building. It is highly energy efficient and sustainably constructed.



Floating LEED Certified Cottonwood Cove Marina Building

Jeffrey Olson, an NPS Spokesman, says "There were over 273 million visitors to the parks last year alone, and we hope our sustainable initiative will engage visitors, neighbors and communities and to ask them to participate for the betterment of national parks and our world." When asked why we should all make an effort to visit the parks, Olson responded, "Visitor participation can have big environmental benefits. We hope our commitment to sustainability spreads and park visitors find opportunities to take similar steps in their own lives".

When we vacation in any natural area the old adage I learned in Boy Scouts still applies, "Take nothing but

pictures, leave nothing but tracks.” And, while I still don’t have a good answer for why we can’t preserve enough land to co-exist peaceably with our wild horses and other animals, I believe we can all have truly great family experiences and enjoyable memories of vacations shared that respect and celebrate our natural heritage. To me, it is one of the best ways to live green.

### **June 2014 Green Living Installment The Role of Vacations in Green Living**

Most of us like to feel we are in control of our fate, but researchers say that we live for the unexpected. Brain neurons crave novelty and we need stimulation to refresh our lives, improve our moods and generally provide for good health and emotional well-being. Luckily, there's an activity that guarantees unscripted action: the family vacation. On June 21 we officially welcome summer, the traditional time for vacations. I am particularly interested in this topic. I have been self-employed for thirty-five years, and my career has taken me around the world. I have seen many things others see only on the news or in travel magazines, and I have harvested incredible memories. I have also experienced a few things about the human condition I would like to forget. But in spite of working in twelve countries on five continents, I have never had a two-week vacation.

According to many in the travel industry, the extended American vacation is becoming a rare experience. <http://www.pbs.org/thisemotionallife/blogs/vanishing-american-vacation> Fewer and fewer kids today have the chance to experience the outdoors via activities that are not heavily programmed. Family vacations are down 28 percent overall since the 1970s. While two weeks' vacation was the norm in the '60s, according to a Harris survey only 14 percent of workers take off two weeks or more these days. The average vacation has shrunk to a long weekend. It's not that people are less interested in the natural world. But in today's downsized, layoff-prone workplace, increasing numbers of Americans feel they simply cannot, or should not, take the time off.

That's a loss for families and the environment. Shared adventure brings families together, thanks to the adhesive properties of the outdoor vacation experience: a time when distractions are nil, new sensory data are intense, and teamwork is required in between sibling battles. "If families are camping or hiking, the members are abandoning their daily routine and roles, discovering new skills, or relying on each other in very different ways," says Vicki Panaccione, a psychologist and founder of the Better Parenting Institute. "There is more need to pitch in together or stay closer or point out new discoveries to each other." <http://www.betterparentinginstitute.com>



Camping and hiking with family and friends;  
a great alternative to another soccer game?

Thanks to what some classify as dubious parenting practices, kids today are too busy for family vacations. Children are so overscheduled they have no time to wander, wonder, or entertain themselves outside structured activities. Families often cancel their summer vacations they could collectively benefit from in favor of one child's summer soccer schedule. Many child psychologists ask, "What will create better memories for our children, soccer or family time? We need to make vacations sacred, something that nothing short of a hospital stay will take away." <http://www.familycenterweb.org/index.php/ask-the-experts/42-all/32-overprogrammedkids>

But this is not the way it is in other countries. Unlike the United States, 137 nations (including all our industrial peers) guarantee holiday time with minimum-paid-leave laws, or legally mandated vacations. Australians get four weeks,

Brazilians five, and Europeans as many as six weeks minimum. Even the famously workaholic Japanese have a two-week vacation guaranteed by law. Since the United States has no minimum-paid-leave statute, vacation time is left to the whim of employers. It's no surprise, then, that vacations are vanishing in the benefits-slashing era, along with pensions and health plans. Some 31 percent of low-income workers receive no vacation leave at all, according to "No-Vacation Nation," a 2007 study by the Center for Economic Policy Research. Among the dwindling numbers of those who do get paid time off, more and more cut their vacation short or don't take one at all, fearing that any absence in a volatile job market might lead to losing their jobs. The legacy of decades of leveraged buyouts and mergers, of Wall Street bidding up stocks when layoffs are announced, is that fewer workers have to do more in less time, making it harder to get away.

<http://www.sierraclub.org/sierra/200805/vacation.asp>

The lack of leisure time takes a major toll on adults as well as children. According to a study by psychologists at the State University of New York at Oswego, an annual vacation can cut the risk of heart attack in men by 32 percent. Not going on vacation deprives kids of their best shot at forming a lifelong connection to the natural world, something that is exacerbated if a child grows up in an urban environment. In his short film *The Great Vacation Squeeze*, John de Graaf explores the differences in vacation and leisure time between the US and Europe over many years. In 2002 he co-founded the organization [Take Back Your Time](#) "to point out the problems connected with overwork in America."

According to de Graaf, the US is the only wealthy country without paid vacation time, which may be an underlying cause of a whole host of issues, including [stress and overwork](#). "Our lack of policy mandating paid vacations contributes to serious health problems, weakens family connections, and reduces the opportunity for all of us to get out in the natural world, especially children." The reader is left to ponder the aggregate impact of video games, preoccupation with social media, childhood obesity, and the rise of juvenile diabetes. Clearly, the need to get away and reconnect with the things that are antidotes to the maladies of contemporary living is becoming more important. In essence we need:

**Time to catch up.** The US is the only wealthy country without paid vacation time, which may be an underlying cause of a whole host of issues, including [stress and overwork](#). "Our lack of policy mandating paid vacations contributes to serious health problems, weakens family connections, and [reduces the opportunity for all of us to get out in the natural world, especially children," de Graaf said.

**Strong ties.** In 1876 John Muir was the first American to advocate for a paid vacation law. Muir called for a "law of rest" that would give time off each year for people to reconnect with nature. The idea lived on in the early 20th century when President William Howard Taft suggested of a three-month long vacation for every worker. During the Great Depression, the Labor Department proposed a two-week paid vacation law, but it failed due to business opposition. Still, two-week trips were common in America at this time, whereas they've now dwindled into near oblivion.

**Practice what we preach.** Seventy-three percent of Americans say vacations help recharge their batteries, but fewer actually take this time. Of all working Americans, 28% receive no paid vacation time and 24% get only one week or less.

**Vacations are win-win.** "They do wonders for us in so many ways, as every other country understands, and they are actually helpful to business productivity and creativity as well," says de Graaf. On an individual level, vacations can be healing in that they give us relief from stressors of daily life. Time off also promotes reflection. "In idleness there is the opportunity for contemplation, there is the opportunity for soul-searching, and for seeing, for really truly, clearly seeing, what's around us," says Yosemite Park Ranger Shelton Johnson in de Graaf's film. Europeans have it better. On average, Europeans live longer and are less likely to suffer from chronic illness after age 50, even though they spend less on health care. Having long, paid vacation time may have something to do with this. It's known that taking breaks from work greatly reduces stress and even improves productivity.



Planning and working together to save for a family vacation can be a rewarding part of the experience.

***It's about justice.*** "Most low-income Americans never have the opportunity and don't even get paid vacations," says de Graaf. Many believe a law mandating paid vacations would eliminate this inequality and ultimately benefit all Americans. The push back to these ideas is often based on politically partisan concerns over lost productivity, reduced corporate profits, and reinforcement of the perceived welfare state. But with less than 1% of Americans controlling 40% of our nation's wealth, Wall Street experiencing record profits and evidence the American middle class dwindling in response to serious shifts in economic equity, are these concerns well founded?

I am keenly aware comparing any aspect of American life to other countries, especially European countries, precipitates cries of socialism and living less than the American dream. However, having spent considerable time working with colleagues around the world who enjoy the benefits of regular, reliable and affordable family vacations, I suggest it is one thing well worth emulating.

So, for the first time in my life I intend to take two full weeks of vacation in 2014. I will be happy to report out on the experience, and would welcome hearing from you about yours! Feel free to comment on this segment of Green Living by contacting me at [www.greenedgesupply.com](http://www.greenedgesupply.com), and have a great time!

*Note: This Green Living Segment is based largely on the website links referenced and several articles from the Sierra Club, [http://content.sierraclub.org/new/sierra/green-life/2014/05/no-vacation-nation-7-facts-will-have-you-packing?src=link1&utm\\_source=greenlife&utm\\_medium=email&utm\\_campaign=newsletter](http://content.sierraclub.org/new/sierra/green-life/2014/05/no-vacation-nation-7-facts-will-have-you-packing?src=link1&utm_source=greenlife&utm_medium=email&utm_campaign=newsletter)*

### **May 2014 Green Living Installment Living to work, or working to live?**

Regardless of where you stand on the question of living to work, or working to live, one thing is certain; to the extent we can, while meeting life's obligations and responsibilities, we all want to enjoy what we do for a living. For many of us green living is enhanced considerably if the fruits of our labors come from a green job. Throughout my career as a college professor I have had countless conversations with students about how to land the job of their dreams. Increasingly that has come to mean *green* jobs. May and June are traditional months for graduation, and our thoughts turn to those we know and love who are looking for opportunities to make the world a better place. I recently read an article by Kevin Doyle, Principal of Green Economy and Co-Chair of the New England Clean Energy Council Workforce Development Group, that shed some light on the subject of green jobs and those who seek them. <http://www.greenbiz.com/blog/2009/02/13/green-jobs-reality-and-rhetoric?ms=36240>

According to Doyle, the use of the term green jobs is causing a lot of confusion. He believes the sooner we start using words that can be tied back to positions that can be counted and verified by employers, the better off job seekers will be. In his opinion, the term "green jobs" has a very limited function. It creates a buzz about certain environmentally and socially important industries, especially renewable energy, energy efficiency, green building and organics, and it gets people

talking about the job creation possibility of certain kinds of investments. The success of the green agenda in the last stimulus bill (relative to other, equally important social agendas) is a truly astounding measure of just how far we've come in just a few short years.

But defining green jobs as an actual category of employment is a losing game. Each one of the green industries above has its own employment structure and workforce needs. Lumping them together under "green" is not helpful. Doyle argues job seekers who use it as a sorting category for job searches may come away disappointed when they don't find the position they were seeking. Saying one wants a "green job" is roughly the same as saying one wants to "work with people", or "do something that makes a difference". It doesn't get you very far. There is no shortage of information about each job subsector, and many of the professional and trade associations have good career sections and job boards. Once you've selected it it's not difficult to get the information needed about jobs in a specific sector, including solar, wind, geothermal, biomass, biofuels, weatherization, insulation, lighting and controls, HVAC, design, building commissioning, energy auditing, and so forth. The US Green Building Council site directs you to an actual list of all of the LEED Accredited Professionals (LEED APs) in numerous different categories. If you focus on green building as your industry, it's easy to use such a list to identify possibilities.

Of course, the so-called green economy goes way beyond energy and buildings. There are fisheries, wildlife, parks and recreation, water quality management, solid waste management/recycling, planning, forestry, land conservation, and so forth. Each one of these industries is well established and it's not difficult to scrutinize job prospects, good and bad. Some are growing. Some are not. The problem for job seekers is not that there are not *enough* green jobs. The problem for individual job seekers remains the same as it's always been; the only job that really matters is the one that's right for you. That means getting clear about who you are, what you want to do, how badly you want to do it, how creative you can be in job searching/networking, what kind of skills you want to develop, the kind of people you want to work with, how much money you want to make, and how hard you're willing to work for it - even in tough times.

Like Doyle, I understand many people start their job searches with the question, "Where are the "green" jobs and how do I train for them?" It's understandable. My experience is the question needs to be redirected to address the realities of the job market. People who choose careers as electricians, plumbers, HVAC techs, insulation and weatherization workers, lighting and controls technicians, energy auditors, energy engineers, architects, wind turbine installers, (etc.) have certain interests and aptitudes that would make them good candidates for these jobs in a non-green economy, and will make them good candidates whether the green economy thrives or not. Likewise, people without interest and aptitude for these careers won't suddenly gain such an aptitude just because there is an uptick in green job growth, or because we agree to label a job as "green". Doyle suggests employers use terms like "green jobs" and "green economy" as teasers to bring people in the door. Once they're in many muse, "forget about green, let's talk about *you*." An analogy is professional sports, where recruiters often take the best all-around athlete as opposed to a promising "position specialist."

But there is another phenomenon occurring that has implications for green job advocates. Many corporations and businesses are looking for ways to green the culture of their enterprise, ironically to recruit and retain the best and the brightest who are increasingly interested in working for companies who espouse to be more sustainable. This is manifest in the increase of positions like the Director of Sustainability, or Chief Sustainability Officer. Companies like Google and Starbucks have built their corporate culture around sustainability and environmental stewardship and are continually looking for ways to improve. An employee looking for a green job opportunity would do well to consider how they could contribute to greening a company not previously disposed to the tenets of sustainability or any other environmental stewardship tact. Gandhi's maxim, "Be the change you want to see" comes to mind. Recruiters and employers put a premium on a candidate's ability to work efficiently and productively to improve the bottom line. Increasingly, the message of the green business movement is, "The bottom line of green is black."

So, whether you choose to work to live, or live to work, green living can be about finding a green job, greening the one you are looking for, or the one you have.

### **April 2014 Green Living Installment Time to Grow! Part One**

It's been a long winter, and where I live spring seems to be slow in coming. But the signs are all around. A flock of robins is enjoying the berries in our Siberian Crab Apple, softened, I'm sure, by the late cycles of freeze and thaw; the same ones that have wrecked the city streets. Our pin oak is dropping last year's leaves, and there are a number of shoots pushing up through our mulch-covered flowerbeds. The daylight hours are getting longer, and the earth will surely continue

to warm, so hope springs eternal, knowing summer is right around the corner. I'm spending more time "leafing" through seed catalogs as I ponder what we will grow this year. Home vegetable gardening has a lot of green living benefits that make it one of the top hobbies and recreational past times in America. Among these are, it:

- Lowers the cost of providing your family with healthy, organic vegetables. There is no question about the quality of the produce or where it comes from.
- Reduces the environmental impact of transporting and warehousing food. Your produce is always fresh.
- Makes your meals more personal and interesting
- Connects your family to the natural cycles of weather growth and renewal, lessons lost in our increasingly digital world
- Provides wholesome activity and lasting memories for your children.

Because of our small lot size, my gardening is limited to containers and flowerbeds. But for those of you with more room to grow, our friends at *eartheasy-solutions for sustainable living* [http://eartheasy.com/grow\\_backyard\\_vegetable\\_garden.html](http://eartheasy.com/grow_backyard_vegetable_garden.html) have a great list of "how to" tips to get your garden ready.

• **Garden size** - the size you choose for your vegetable garden will be determined by the amount of available space and the amount of energy you wish to commit to the project. Even a 100 sq. ft. garden, grown intensively, can produce a steady supply of salad greens for a family

• **Orientation to sun and shade** - the plants in your garden will want to face south, and will require a minimum of 5 hours of direct sunlight per day. Observe the path of shadows during the day from any trees, fences, tall objects or adjacent buildings in your yard. [Sunlight calculators](#) are available which give you a more precise measurement of sun exposure for choosing ideal planting locations. Many smart phones have compass "apps" that can help you determine orientation. The area of maximum continuous light will likely be the best location for your garden.

• **Proximity to trees, root systems** - besides the shading effects of trees, consider the spread of their roots. Locate your garden plot at least 10' beyond the drip line of any nearby trees. If you must grow close to any trees, you may need to establish barrier around your garden to block root incursions. Also, think about future fruit trees and plan for them by envisioning a 20' root spread and the future shading effect of the tree.

• **Wind exposure** - in windy areas, a fence or raised earth berm can serve as a wind barrier. Biodegradable straw that can provide a season of protection will become a great soil additive when decomposed.

• **If land is sloped**, you may need to terrace the beds. The beds should be as level as possible to avoid problems with uneven water distribution and erosion. Terraces can be built to level the beds. Do not use any material that can leach toxins into the soil.

• **Anticipate future crop rotations** - reserve space for an extra bed for next season's use, where some of your plantings will be relocated. When not in use, this bed should be planted in a 'green manure' cover crop which builds soil tilth and adds nutrients while keeping the bed free of weeds. Your local plant nursery staff can help you select plants for this.

Any seasoned gardener knows that successful gardening is all about the soil. Once your beds are prepared and the soil is enriched and ready to plant, the bulk of your gardening work is finished. To ensure a healthy, productive garden, consider these basic tips:

• **How many beds to plant?** - Unless you're planning on planting one very long bed, you'll need to establish several beds to fit the shape of your garden plot. It's useful to grow in multiple beds because plants with similar requirements can be grown together, and then rotated to different beds in successive years. Rotating crops is key to retaining healthy crops year after year.

• **Minimum 21" width pathways**- The pathways between beds should be just wide enough to allow your wheelbarrow to get in. In our garden, this is 21". If space allows, a 24" width is ideal.

• **How big to make the beds?** - Vegetable beds can be any length, but keep the widths under 4' for ease of weeding, mulching and tending the plants in the middle of the bed.

• **How deep to make the beds?** - The soil depth depends partly on the crops you want to grow. For raised beds, the height of the beds depends on your preference - taller beds require less bending over for the gardener. Colder climates benefit from raised beds because the soil warms faster in spring, so you can start planting sooner. In hot climates, in-ground beds require less watering than raised beds.



### **In ground beds**

#### **Pros**

- Easiest way to get a bed established
- Least expensive

#### **Cons**

- Weeds can easily creep into the beds
- Children and pets can wonder into the beds
- You have to bend over to access the plants



### **Raised beds**

#### **Pros**

- Provide for the best drainage and prevent soil compaction
- Soil warms up earlier in the spring
- The bed sides prevent weeds and pests from getting into the planted areas
- Can be raised as needed to make gardening easier – less bending over

#### **Con**

- The cost of materials and maintenance



### **“Sunken” raised beds**

## Pros

- By digging down the soil can be added to the raised bed containers. The beds can be filled without purchasing soil.
- Sunken beds have the same benefits as raised beds, but do not drain as well as conventional raised beds.
- Can be less visually intrusive

## Con

- Digging the beds down can disrupt the site

Our friends at *eartheasy* say, "It's all about the soil." Once you have determined the best location and configuration for the garden, it is time to focus on the soil. Our next Green Living installment – Time to Grow – Part Two will pick up with the remaining steps on how to get your garden growing.

## Time to Grow!

### Part Two

In our last installment of *Green Living* our friends at *eartheasy* [http://eartheasy.com/grow\\_backyard\\_vegetable\\_garden.html](http://eartheasy.com/grow_backyard_vegetable_garden.html) provided some great information on how to locate and determine the best configuration for your garden. In this installment we build on their mantra of "It's all about the soil" and talk about the basics of preparing the soil for our vegetable plants. They begin with the advice that the first year a garden is planted in fertile soil it may do well without additional inputs. As growing seasons pass and the vegetables remove nutrients to grow, it becomes a matter of "You get out of it what you put into it." They offer this advice...

### Prepare the soil

- **Determine soil Ph** - acid versus alkaline? Soil Ph is a major determinant in what plants will grow and where. Dandelions thrive at a pH level of about 7.5, and are a sign of alkaline soil, while the presence of moss indicates acidity. Acidic soils (low ph) can be sweetened by adding lime. Alkaline soils (high ph) need gardener's sulfur and rich organic matter. Mulch with acidic materials such as pine needles and forest duff. Blueberries and strawberries may love acidic soil, but lettuce doesn't.
- **"Double dig" new garden plots.** Dig down 12" - 18" for first time beds. Turn the soil and remove rocks and roots. Use a pitchfork instead of a shovel. The fork is easier to penetrate and turn hard soil and separate out the rocks. This also minimizes harm to the valued earthworm population.
- **Check the moisture level.** Soil should be dry before planting. It shouldn't clump or stick to your boots. Provide drainage if necessary by digging a shallow drainage trench alongside the bed, or grow in raised beds for improved drainage. Too much water is just as detrimental as not enough.
- **Develop the proper soil texture.** Garden soil should be well aerated to promote root growth and worm activity. The soil should be crumbly, not clumpy. Add peat or coir as needed. Once the soil is turned and any large clumps are broken up, you can enrich the soil with organic matter. This material should be dug, or hoed, into the top 6" of soil where it will be available to the root systems of young plants. The best sources for organic matter are:
  - **Compost** adds nutrient-rich humus which fuels plant growth and restores vitality to depleted soil. The compost bin is an essential part of any backyard vegetable garden. In close residential neighborhoods, sealed compost units are best because they don't smell or attract pests or flying insects. There are two basic types of sealed composters. One type is units which stand on the ground and have open bottoms; these usually sell for \$50 - \$100. Another is compost tumblers which are fully sealed and off the ground. They sell for \$150 - \$400. Compost tumblers are preferred as they speed up the composting process.
  - **Cow or horse manure** is a good source of organic matter. Ideally, the manure should be well aged so as not to burn any tender transplants. The liability of bringing manure into your garden is the weed seeds they may contain. This can be mitigated through the use of mulch which covers the ground and blocks light from reaching any weed seeds
  - **Green manure** is compost from fast growing legumes that can be easily chopped up and spaded into the soil, adding green organic matter which readily composts into humus. Green manure plants are commonly planted in fall and tilled into the soil in early spring. Your local landscape outlet can help you select these plants. Ideally they should be grown on site, convenient to your garden.
  - **Sea soil** is a combination of fish by-products and sawdust. Sea soil is rich but not too hot - it can be applied directly to beds.
  - **Additional soil amendments** such as bonemeal, bloodmeal, and a variety of amendments, which address specific soil needs. [Glacial rock dust](#) is particularly valuable as a soil amendment, especially after the first year of gardening

has absorbed available minerals and nutrients. Rock dust is organic, slow release, and loaded with essential nutrients that your plants need to be healthy throughout the growing season. It will encourage the root systems of trees, lawns, flower and shrub beds, and of course vegetable gardens. After a season of gardening you'll have a better idea of any specific soil deficiencies you may want to address.

- **Level the soil and rake it smooth.** This final touch only takes a few minutes but it enhances uniform water absorption and encourages more uniform sprouting.
- **Mulch the pathways.** Wait until the bed preparation is complete before mulching the pathways. This is because any dirt clods which may fall onto the pathway will encourage weed growth. Scrape away any grass or surface weeds and cover the pathways with two layers of landscape cloth. Then cover with a 2" layer of bark mulch. This will keep weeds from sprouting in the paths and migrating into the beds. GreenEdge Supply carries the materials you will need for this task.
- **Avoid stepping on the finished beds.** Once the soil is prepared for planting there should be no further need to step on the bed. Stepping on the beds will compress the soil and reduce aeration. If you need to stand on the bed, lay a walking plank to spread the weight and minimize soil compaction.

It may seem like a lot of work to get the beds established for planting, but it can be done in stages. You can start with a small plot and enlarge the garden as time and inspiration allow. Establishing the beds, the bulk of the work, only has to be done once. Nutrients can then be added by 'top dressing', and will not require heavy digging or strenuous work.

The experts at *eartheasy* say the best advice they can give is to put your attention into building rich, organic soil. Plants bedded in rich soil will grow vigorously and have a natural resistance to insect pests and plant diseases. As plants grow rapidly and expand, weeds become blocked out and less of a nuisance. Rich, organic soil is developed and nurtured year after year, using strategies such as crop rotation, green manures between crop rotations, and occasional applications of peat to reduce compaction, and rock phosphate to ensure adequate phosphorus.

Learning the basics of soil development is not difficult. It just requires some attention early in the season before planting any crops, and during the season in between successive crop plantings if you are fortunate enough to grow more than one harvest. A well prepared garden will provide many years of productivity with relatively minimal routine maintenance.

The role of home gardening in green living cannot be overstated. Growing healthy food in a garden whose condition and contents are safeguarded has numerous benefits to our family, the community and the planet. Home gardening stands to increase its standing as one of the country's most popular pastimes as school gardens proliferate and the trend in urban gardening continues to grow. Few pastimes return the benefits of basic nutrition, recreation, food security and a strategy to combat childhood obesity. Home gardening offers the opportunity to recycle building materials and a number of organic materials into high value reuses. There are numerous examples of how home and community gardening ultimately support food banks and shelters for those less fortunate, a great way to teach civic responsibility by being responsible global citizens.

### **March 2014 Green Living Installment Great Things Come in Small Packages – Some are Tiny**

I spent the first six years of my life as the youngest of five siblings in a small frame home that is still clinging to the side of Troy Hill on Pitt View Avenue. Our grandparents lived with us, so the three-bedroom home held four adults and five children. I still have memories of the gardens and numerous fruit trees and berry bushes. The steep south-facing slope enticed spring out of winter a few weeks early, the springhouse was always fun to explore, and I remember the walk down the hill to first grade. At the time it seemed like a cross-country trek, even though it was only a few hundred yards. I have been back to the old homestead many times, and still don't know how we all fit in that place.

Like many in the early 1950s, we moved to the country to escape the city and find a place that could accommodate our large family; one that would see the arrival of another three siblings. It came in the form a large three-story brick home on a flat acre lot. The home had four bedrooms, one bath and a full attic. Our Grandparents came along so, while the place was much larger, it filled up quickly. The garden was re-established and we enjoyed the detached garage and small playhouse that was once a potting shed. The property abutted what felt like a wilderness mix of extensive woods and farm fields. It was a utopian place to live, by any standard, and I have always been grateful for the stability, lifelong friends and great school I attended during the seventeen years our family lived there.

As I write this I am in a very similar home that's even larger than the one I grew up in; three stories, six bedrooms, three full baths, and full basement. It's a big 'ole brick Victorian knock off in an urban neighborhood on a corner lot, right on a bus stop. It's on a corner lot, enough to support a small garden and some flowers, without a lot of grass to cut. It suited

the needs of what was a blended family when it was purchased. Now the children are all grown, and as fate would have it I am here alone sharing it with one sibling and a number of graduate students who fill the house with an international flavor and wonderful cooking aromas. The place has great bones, and I am fortunate to have a home with substantial equity that is in great shape, largely due to the effort that has gone into maintaining and improving it in the fourteen years I have owned it.

But now I find myself questioning if this is the best place to be. Several things have got me wondering if this is the optimum living arrangement for me at this time in my life, and by what standard that should be judged. I was privileged to spend six and a half years in a one-bedroom condo in Coconut Grove, Florida. I know having great weather and access to the ocean was a major factor in feeling good about being there, but it was certainly enough room to be comfortable, and I was quite content sharing the amenities of the midrise with the other tenants. It is a walkable community, I rode my bike a lot, and never felt confined. This was underscored by the fact I owned a 30-foot sailboat, it was a two-minute walk to the dock and I spent as much time as possible on Biscayne Bay or the open Atlantic. Many times when I was moored out along the Keys I realized I could be quite content simply living on the boat. Anything larger would be wonderful, but not necessary.

It was during my sailing sojourns down the coast that I reflected back on a project I did for Two Mile Run County Park in 2004. The project was a 12' by 24' cabin consisting of a full bath, kitchenette and open flex space for living and sleeping. The cabin, which was built up off the ground on wooden columns on a wooded slope, was called the "Treehouse" because it gave the impression of being among the trees, if not directly built into them. The structure was designed to be passive solar, fully day lit, allergy free and nontoxic, and very energy and water efficient. The covered porch invited outdoor living and the lot was completely natural; nothing to maintain. The guest book was filled with entries by people who wrote "We love this place!" and "We can't wait to come back!" I felt the same way. I am speaking in past tense because the Park was taken over by the County to exploit its natural resources, and the plan to build a multiple Treehouse village was abandon. The fact the structure was removed and sited on the owner's property speaks to the simplicity and versatility of the design.



**The Treehouse at Two Mile Run County Park**

All of this came back to me at a screening of *Tiny Houses*, a short documentary on the rise of the tiny house movement in the US. <http://thetinylife.com/what-is-the-tiny-house-movement/> I was struck by the resemblance of the Treehouse to the dwellings featured in the film. The builders and occupants of the tiny houses expounded on the virtues of living simply, debt free, with a sense of accomplishment, independence and freedom not found in a lifestyle burdened by mortgages and piles of material goods. They seemed happy, healthy and well adjusted. Several had deliberately "dropped out" to use a well-worn 60's phrase, but others were brokers, educators and professionals who have taken the time to "do the math" and have come to the conclusion there is more than one way to financial independence. Tiny House dwellers are twice as likely to have master's degrees. Sixty eight percent of Tiny House owners are mortgage free, compared to twenty nine percent of American homeowners. Many Americans spend between one-half to one-third of their income to keep a roof

## The Costs of Buying a Home Over 30 Years

	2007
Purchase Price (typical single-family home)	\$290,000
Down payment	\$58,000
Principal	\$232,000
Interest @ 6.41%; total = \$291,000 (after tax: 33% bracket)	\$195,000
Taxes & Insurance (\$6,000 / year)	\$180,000
Maintenance (\$300 / month)	\$108,000
Major Repairs & Improvements	\$300,000
<b>Total Costs</b>	<b>\$1,073,000</b>

Note: 6.41% was the average mortgage interest rate in 2006; the national median home price was \$222,000.  
Source: Office of Federal Housing Enterprise Oversight

over their heads. Investing in a much more modest home allows full ownership in three to five years or less, depending on the cost of the property, after which any “mortgage money” can go into a variety of investments, education, travel, or a number of leisure pursuits. This is increasingly attractive to middle aged people whose children have left home, and who are looking for creative ways to secure their financial independence. Tiny homes are increasingly being looked to provide housing for low-income individuals, the homeless, and veterans. I hasten to add while Tiny Houses are exactly that, 100 to 400 square feet, they should not be confused with living in what some call “glorified out houses.” Many are extremely well built, finely finished and very comfortable. They draw on a number of well-tested building systems that have been optimized in the marine architecture and high- end recreational vehicle industry, and offer all the comforts of home. The one obvious limitation is a lack of privacy for anyone beyond the primary one or two occupants. They can be starter homes for young people looking to save money and invest in larger accommodations when the family grows, or they can be a great opportunity for downsizing, using the equity of an earlier purchase to fund the Tiny House project. Both scenarios could allow for a greater cash flow and better use of equity.

Clearly, Tiny Houses are not for everyone. The idea of living in a very small home is not what many think of when they envision the American Dream. The pros and cons typically align with our image of success, which is informed more by cultural norms than what we really need to be happy. The implications for financial security are intriguing, but that is something that can be accomplished with a big house, if one has the means to enjoy both. Equally interesting, however, is the potential for a Tiny House to be the epitome of green living, the best part being new found freedom.

### February 2014 Green Living Installment Breaking Bad Habits and Making New Green Ones

*“We are, all of us, creatures of habit, and when the seeming necessity for schooling ourselves in new ways ceases to exist, we fall naturally and easily into the manner and customs which long usage has implanted ineradicably within us.”* Edgar Rice Borroughs – The Beast of Tarzan

Much of what we do on a daily basis is done as a matter of habit. Breaking old habits and making new green ones may be the hardest thing to do when compared to the “green adjustment” itself. We usually aspire to change our habits when we want to improve our health, performance at work or at school, or, conversely rid ourselves of anything that is not contributing to our general well-being. According to a paper published by Duke University, more than 40 percent of our daily actions are habits. The key is in learning how to replace bad habits with good (green) ones. In his book, *The Power of Habit: Why We Do What We Do in Life and Business*, Charles Duhigg teaches us how habits are formed and what we can do about them. He writes a habit is the brain’s way of saving effort, and they can be changed if we understand how they work. Duhigg breaks down the creation of habits into a three-step loop:

- *The Cue* – a trigger that tells your brain to go into automatic mode and which habit to use.
- *The Routine* – which can be physical, mental or emotional.
- *The Reward* – which helps your brain decide if this loop is worth remembering and repeating in the future.

By becoming mindful of our habits, we can better understand our actions and, in turn, make a more deliberate choice. Duhigg says the important part to remember is that *“When a habit emerges, the brain stops fully participating in the decision making. So unless you deliberately fight a habit and find new routines, the pattern will unfold automatically.”*

Habits are often formed unconsciously, without our consent. Good or bad habits can be made or broken, just as

easily. For instance, we normally don't just stop going to the gym on a regular basis. We miss going once a month, then gradually once a week, then twice – as the new cues and rewards undo the habit – until we don't take the time to go at all. The good news is that once we understand our habits, including the *cue*, the *routine* and the *reward*, we can start to change them. Duhigg provides us with a framework for understanding and recreating our habits:

- *Identify the routine*
- *Experiment with rewards*
- *Isolate the cue*
- *Have a plan*

Changing some habits will be harder than others. Deciding to quit smoking is much easier said than done. In *The Power of Habit: Why We Do What We Do in Life and Business*, Duhigg states that “sometimes change can take a long time. Sometimes it requires repeated experiments and failures. But once you understand how a habit operates – once you diagnose the cue, the routine and the reward – you gain power over it.” Forming good, green habits requires the willingness to reconsider some of the most common, everyday things we do by looking at them through a green lens.

For instance, many of us *routinely* venture out for a few things at the grocery store without any thought to how this simple, common act can be made more sustainable. The *cue* is we have run out of something we need. The *plan* or *routine* is what we need to develop, so a greener habit results. For instance, if we are only after a few items, and the trip can't wait, perhaps we can pick up what we need as part of a good walk or ride on a bicycle. If you are walking, be sure to take along a reusable tote bag to make carrying the goods easy and comfortable. As part of the *plan* the tote and the bicycle should both be in a convenient place, easy to locate quickly. Bike racks or saddlebags are quite capable of carrying a number of common grocery store items. They also encourage longer recreational bike rides, which can be an additional good, green habit with its own rewards. Walking and cycling can be more enjoyable, healthy and sustainable than using an automobile for the trip. And, while weather can influence the decision to ride a bike or walk, finding a parking place won't be a problem. The *rewards* for forming this new habit will include being in better shape, reducing your automobile fuel costs and keeping your mileage low. Walking is a great mood elevator, and you may meet some new people along the way while reducing your carbon footprint.

If you must use a car to shop, a number of other considerations are in play. The *cue* is the same; we need something from the store. The *plan* can include bundling trips to the bank, post office, salon, gym, recycling center or any other destination, turning the single destination habit into one that saves time, energy, money and the environment. A car can carry larger loads so, if possible, purchase the most common items you shop for in bulk. It may take some effort to get into the habit of buying in bulk, but there are economic and environmental benefits. Bulk purchases are generally less expensive and are considered more sustainable because they reduce or eliminate packaging materials which, if not recycled, end up in a landfill. The environmental benefits or *rewards* double when you offer a ride to a neighbor or housemate, and the experience can be more enjoyable. Many hands make light work, and it could be a chance to catch up with a friend or family member.

In addition to reconsidering our existing habits, we need also ask why we don't habitually do things that can help us improve our green living standard. If the infrastructure for recycling exists in our municipality and we don't recycle, what are the *cues*, *plans* and *rewards* that can make recycling a new, green habit? What can we do to make gardening, composting, turning our lights off, washing full loads of clothes in cold-water and line drying, and drinking water filtered at home from reusable bottles that aren't plastic, new green habits? And, why is it important? I believe Gandhi said it best:

*“Your beliefs become your thoughts. Your thoughts become your words. Your words become your actions. Your actions become your habits. Your habits become your values. Your values become your destiny.”*

### **January 2014 Green Living Installment**

*“I think in terms of the day's resolutions, not the years.”*  
Henry Moore

New Years is a time many of us reflect on the past and look forward to the future. Depending on our station in life and how we feel about things in general, it can be a time of great joy or trepidation. For me there's always a little nostalgia mixed with my sense of optimism. Looking back I can't say I am one to make many New Year's resolutions. I self-assess on a regular basis and make adjustments when I need to, knowing I am better at small course corrections than major changes. I am more interested in the “why” of someone's New Year's resolutions than the resolution itself. Most are for

self-improvement; lose weight, exercise more, get more sleep, learn a second language, etc. Others are often in response to changes in our lives or things we want to enjoy; spend more time with our children or grandchildren, take that tropical vacation, plant a garden, start a journal. Yet, in all the conversations I have had with anyone about their New Year's resolutions or plans for a coming year, I have never heard anyone say they wanted to "be more green" - at least not directly. The good news is, many New Year's resolutions have a lot to do with green living, and thus benefit the planet *and* us. For instance,

*Lose weight* is one of the most common New Year's resolutions. There are lots of ways to do this, but most have to do with exercise and diet. The health benefits of walking and riding our bikes are well known. Both can be fun, especially with a friend or companion, and the environmental benefits are multiplied. Walking or bike riding reduces the use of a car and therefore provides attendant reductions in air pollution, traffic congestion, noise and our carbon footprint. These benefits can be significant, starting with eliminating the trips by car where we only "pick up a few things" easily obtained by walking or riding a bike. A small, lightweight saddlebag, rear cargo rack or front handle bar basket is all you need for several small grocery items. Parking is never a problem, and you can pick up the grocery store items on the way home from a pleasure ride if you are out and about.

*Improve our diet.* Experts simplify losing weight to controlling caloric intake from the proper blend of healthy choices, and exercising. Walking and riding our bikes, along with other physical activities we maintain or introduce via our New Year's resolutions, will take care of our need to exercise. *Improving our diet* by supporting local farmers has numerous environmental benefits, especially if they offer organic produce. By definition, *organic* means herbicide and pesticide free, which benefits all life forms. Buying from local farmers reduces the need to transport food long distances, which, like walking and bike riding, reduces pollution while minimizing the farmer's carbon footprint. Eating lower on the food chain and consuming food which is not highly processed or loaded with chemicals and preservatives is better for us and the environment. Not consuming food from endangered sources benefits the Earth's ecosystems. Eating one or more vegetarian meals a week, especially if they offset the consumption of red meat, would be an eco-friendly New Year's resolution.

*Start gardening, or expand our existing gardens.* Gardening can be a part of the *eat better and improve our diet* resolution, but it has so many significant environmental benefits it deserves special mention as a worthy New Year's resolution. These include composting our food and yard waste, the displacement of environmentally detrimental lawns with high quality food production, exercise and personal enjoyment, to name a few. Organic gardening using integrated pest management instead of chemicals does on a small scale what organic farmers do commercially. Rainwater harvesting is the most environmentally benign way to irrigate our gardens, and it also benefits local storm water management. Gardening can include more complex edible landscapes which feature fruit and nut trees, berry bushes and landscape design solutions that provide habitat and food for wildlife, as well as our families. When it comes to walking gently on the Earth and minimizing our carbon footprint, few things benefit the planet or our fellowman more than sharing our food with others, including donations to the local food bank, a great New Year's resolution.

*Volunteer to a good cause.* I hear this New Year's resolution every year, perhaps because I have done a lot of volunteer work over the years and have friends who give freely of their time and expertise. Clearly, volunteering to any environmental cause or organization directly benefits the environment. I combine my personal and professional interests as a green architect and college professor by volunteering to the green school movement. I am particularly interested in supporting activities that help K12 students become environmentally responsible global citizens prepared for the emerging green economy. I know volunteers who create and maintain bike trails and community gardens. Others plant trees and volunteer for meals on wheels, saving untold numbers of trips to a grocery store while serving our most needy. Habitat for Humanity, which is committed to building energy, material and resource efficient affordable housing, is a great example of an organization carried by thousands of volunteers. Volunteering to environmental groups is a great opportunity to network and enjoy the company of likeminded individuals. But, if your New Year's resolution is to simply donate to environmental groups or support them in other ways, that's good too!

*Random acts of kindness.* The New Year is a good time to let the Spirit of the Season energize some personal activities, many with environmental benefits. One is to edit our wardrobe and give clothing to those in need. I subscribe to the adage "if you didn't wear it last year, you probably won't wear it next year." So, why not keep those items in circulation? One of my favorite charities is *Project Bundle Up*, which provides new and used winter clothing to those in need. The typical American garage, attic or basement is full of things we seldom use that can help others. Local bike shops will often refurbish old or unused bicycles going to charity at no cost. Children's car seats, cribs, toys and other childcare items our kids have outgrown are better off helping someone with young children than simply taking up space in our homes. Exercise and athletic equipment, unused planting containers and gardening tools, old furniture, books, computers and electronic

equipment, appliances and a myriad of other items can all benefit school groups, veterans organizations and homeless shelters while preserving their embodied energy and keeping them out of a landfill.

*Projects, projects, projects.* If you are still looking for a New Year's resolution with environmental benefits, resolve to have 2014 be the year you *implement as many environmental home improvements as possible.* You can

- Install a rainwater harvesting and/or solar powered yard lights.
- Switch to rechargeable batteries for all of your battery needs
- Invest in water purifying system(s) and containers that eliminate the need for bottled water.
- Replace all incandescent lamps with compact fluorescents or LED alternatives.
- Install as many Energy Star appliances, energy and water conserving fixtures or accessories as you can afford.
- Contract for a home energy audit and install the energy efficiency improvements the audit indicates are warranted.

These are just a few ways in which our New Year's resolution(s) can have environmental benefits, locally as well as globally. All of us at GreenEDGE Supply share your interest in green living and stand ready to help you accomplish your New Year's resolutions. We wish you the very best in 2014. May it be the happiest, healthiest, most prosperous and **greenest** New Year ever!

