Environmental Efforts Training

MODULE 1: Environmental Advisory Boards vs. Green Teams

Environmental Advisory Boards consist of three to seven members of a community, appointed by the local government. An EAB "may research issues and advise local government officials to help inform decision-making regarding the environment. It may also undertake an array of on-the-ground conservation projects, planning of new conservation initiatives, and environmental education efforts." (WeConservePA)

- Examples of EAB activities (from <u>WeConservePA</u>):
 - Open space protection
 - Greenway and trail development
 - Water and air quality monitoring
 - Recycling
 - Green purchasing
 - Green building
 - $\circ \quad \text{Sustainable parks} \\$
 - Alternative energy
 - Energy audits

Green Teams "leverage the skills and expertise of team members to develop plans, implement programs, and assist with educational opportunities that raise community awareness and commitment to a better tomorrow, one community at a time." (<u>Sustainable Jersey</u>)

- The formation of a Green Team is the first step in organizing efforts to pursue a more sustainable community.
- In office settings, Green Teams address such issues as "recycling in the office, composting food waste, reducing the use of disposable takeout containers and eliminating plastic water bottles" (<u>GreenBiz</u>)
 - Best practices for Green Teams in businesses (from GreenBiz)
 - Start with the visible and tangible: focus on internal operations
 - Get senior management involved, but don't lose the grassroots energy
 - Engage employees to capture ideas
 - Communicate and share best practices
 - Engage employees with their bellies: the low carbon diet campaign
 - Engage employees in their personal lives
 - Engage customers to be part of the solution
 - Use art to raise awareness
 - Create a toolkit to support and guide green teams
 - Align green teams with corporate sustainability goals

How does a community benefit by having either an Environmental Advisory Board or a Green Team?

- "Past efforts by EABs have shown that they can have success implementing strategies aimed at climate adaptation and mitigation. For example, Asheville is developing a 100% renewable energy initiative to reduce their emissions in an economically efficient and socially responsible way." (NC State University)
- "Counties currently without an EAB would benefit from having one so that they can start long term and short term planning efforts to build resilience to sea level rise, drought, extreme weather events and other climate hazards that will be amplified by climate change and also to curb emissions as a method to mitigate the impact of heat-trapping gasses." (NC State University)
- In the workplace, Green Teams can help green the workplace practices, bring new habits home, get your hands dirty with volunteer efforts, create a team of leaders, build a greener community, and lead sustainable change in your industry. (<u>Teachstarter</u>)
- Communities with Green Teams become "more *environmentally sound* by reducing the impacts of growth on natural resources and the environment, more *economically productive* by making local investments that will protect human and natural resources while yielding adequate financial returns, and more *socially just* by providing equitable access to resources and decision-making processes in ways that benefit all parts of the community." (Sustainable Maryland)

How are Boards and Teams established?

- "The formation of an EAC (equivalent to EAB) is an option available to municipalities; state law does not require it. It is up to those people interested in seeing one established, whether they be municipal officials or residents, to propose establishment to members of the municipality's governing body. If a municipality's governing body chooses to create an EAC, it must do so by passing an ordinance. The governing bodies of neighboring municipalities may choose to form regional, multi-municipal EACs." (WeConservePA)
- "Green teams can be established either by *resolution* or *ordinance*. If established by resolution, each time the town submits for certification it will need to provide a new resolution for the year it applies, or a proclamation from the mayor. If passed by ordinance, the town only needs to provide documentation on current members and activities." (Sustainable Jersey)

MODULE 2: Electric Vehicles

Electric and hybrid vehicles are gaining more and more momentum in recent years. Because of this, policymakers are able to put policies in place to transform the transportation sector and have positive influences on environmental efforts.

• According to the NCSL, "Forty-five states and the District of Columbia provide an incentive for certain EVs and/or PHEVs, either through a specific utility operating in the state or through state legislation. The incentives range from tax credits or rebates to fleet acquisition goals, exemptions from emissions testing or utility time-of-use rate

reductions... Other incentives include federal grants to convert older vehicles to new technologies, research grants and alternative fuel technology loans." (NCSL)

- <u>This guide</u>, prepared by the U.S. Department of Energy and U.S. Department of Transportation, details federal funding and assistance for electric vehicles and charging stations.
 - State governments are also providing funding. In Michigan, Governor Whitmer recently announced grants for 88 electric vehicle charging sites. You can read more about this <u>here</u>.
 - In addition to federal and state funding, there are opportunities to get funding from local governments. The U.S. Department of Energy details some examples from New York, California, Washington, Illinois, and other states on <u>this website</u>.
- Many states and cities have guidelines for the installation of electric vehicle charging stations. You will need to check with your local or state government to determine where the best location would be to install these stations. For example, San Diego's Center for Sustainable Energy submitted a <u>guide</u> detailing the best practices for charging station installation in their city.

MODULE 3: Climate Change and Stormwater Management

Stormwater is "rainwater or melted snow that runs off streets, lawns and other sites" (<u>EPA</u>). According to the EPA, "climate changes, including more frequent and intense storms and more extreme flooding events, can increase stormwater runoff. An increase in stormwater runoff can exacerbate existing, or introduce new, pollution problems." In order to manage the problems stormwater can cause, governments can put policies into place.

- The <u>EPA</u> suggests applying green infrastructure strategies:
 - Use Bioretention to collect stormwater runoff
 - Use Blue Roof to hold precipitation after a storm event and discharge it at a controlled rate
 - Use Permeable pavement to allow runoff to flow through and be temporarily stored prior to discharge
 - Use Underground storage systems to detain runoff in underground receptacles
 - Use a stormwater tree trench to store and filter stormwater runoff
 - Use a retention pond to manage stormwater
 - Use extended detention wetlands to reduce flood risk and provide water quality and ecological benefits
- The <u>EPA</u> suggests using climate and land use data:
 - Consider how current design standards are formulated a starting point to the discussion
 - Demonstrate the use of dynamical downscaling on research projects at the site scale

- Develop a "wish-list" of data that should be collected to improve understanding of climate changes
- Use resources to show historical and future trend lines
- The <u>EPA</u> suggests using natural infrastructure:
 - Build swales and rain gardens
 - Control stormwater runoff
 - Plant trees
 - Promote stormwater infiltration

There have been many successful examples of places putting policies like the ones listed above in place. <u>This article</u> describes lessons learned in this area from the Chesapeake Bay and Great Lakes Regions. Another case study, which shows the efficiencies of stormwater retention ponds in Denmark, can be found <u>here</u>.

Bioswales are "linear, vegetated ditches which allow for the collection, conveyance, filtration, and infiltration of stormwater" (<u>esf.edu</u>). They help reduce stormwater run-off because of their impervious surfaces. While water typically runs off asphalt into a storm gutter or along a curb, a bioswale "replaces the traditional concrete gutter with an earthen one" (<u>esf.edu</u>). They are best suited along asphalt surfaces such as roads or parking lots.

Rain gardens, according to <u>EPA</u>, are "depressed areas in the landscape that collect rainwater from a roof, driveway or street and allows it to soak into the ground." Rain gardens are typically filled with grasses and flowering perennials. They are not only cost effective and beautiful, but can also help reduce stormwater runoff. Rain gardens collect the runoff, filtering out pollutants. According to the <u>Groundwater Foundation</u>, "rain gardens are effective in removing up to 90% of nutrients and chemicals and up to 80% of sediments from the rainwater runoff."

MODULE 4: Pet Waste Policies

Pet waste policies are important because pet waste is a significant water pollutant. Here are some examples of different communities' pet waste policies or ordinances:

- South Carolina's Richland County
- <u>Huron River Watershed Council</u>
- Oyster Bay Cold Spring Harbor

Some key elements of an effective pet waste policy (adapted from Southwest Florida Water Management District's <u>Reducing Pet Waste Final Report</u>):

- Education
- Creating community norms
- Making proper disposal more convenient
- Bylaws and incentives

MODULE 5: Sustainability Action Plan

A **Sustainability Action Plan** helps prepare a business/organization to implement environmentally conscious actions. Key elements of a Sustainability Action Plan include data,

people, infrastructure, marketing and reporting, and continual improvement (<u>Spokane Journal</u>). Implementing sustainability efforts can help businesses save money, save resources, and improve reputation. Having a plan in place will "drive your sustainability project forward and ensure support from all levels of the organization" (<u>Green Steps</u>). While creating a plan, it is important to keep in mind that your plan is SMART (from <u>Green Steps</u>):

- Specific
- Measurable
- Achievable
- Relevant
- Time limited

MODULE 6: Environmental Education

Environmental education is "a process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment" (<u>EPA</u>). To provide education about environmental efforts, EPA has many resources on their website for both children and teachers (<u>EPA</u>).

- For children, "exposure to nature, either through structured programs or unstructured play, has many benefits" (<u>IJESE Journal</u>)
- Environmental Education topics (<u>EPA</u>):
 - Air
 - Climate change
 - Ecosystems
 - Energy
 - Health
 - Recycling
 - Water
 - Science and Research
- Local governments can set up environmental centers in their towns to provide a place for people to learn about the importance of taking care of the environment. The <u>City of</u> <u>Elkhart</u> serves as a great example of one of these kinds of centers.

How do communities provide effective notification regarding pesticide applications and mosquito spraying practices?

- The <u>NPIC</u> provides great information regarding pesticide application practices, including which pesticides are safer to use than others.
- One state that serves as a great example of effective notification is Delaware. "The <u>Mosquito Control Section</u> uses a Spray Zone Notification System to let residents know when and where they plan to apply pesticides to control mosquito populations" (<u>Delaware.gov</u>).

MODULE 7: Home Energy

New Home Construction: To encourage new home builders to improve energy efficiency in their homes, local governments can provide **incentives** like the following, from <u>EPA</u>:

- Discounted or delayed permit fees
- Priority with code processing
- Increased density allowances
- Expedited plan approvals
- Priority field inspections
- Discounted utility hook-up fees or rates

Home Improvement: Many choose to enhance the energy efficiency of their homes by making "home energy retrofits." These retrofits are "a cost-effective way to provide significant energy savings to homeowners as well as improve the health, comfort, and safety of homes" (EPA). By improving homes, you can also create jobs and increase the value of the home.

- Energy audits "assess how much energy a home consumes and evaluate measures to make the home more energy efficient" (EPA). Local governments can provide free or discounted energy audits to help increase the likelihood of homes undergoing energy efficiency improvements.
- According to <u>EnergySage</u>, "utilities, local governments, and state agencies offer energy incentive programs that help make energy efficiency a more affordable option. Depending on your state or municipality, programs can take the form of rebates, tax incentives, or loans for qualified purchases."

MODULE 8: Water Conservation

What form of irrigation best conserves water resources?

Drip irrigation is "the most water-efficient way to irrigate many different plantings. It is an ideal way to water in clay soils because the water is applied slowly, allowing the soil to absorb the water and avoid runoff." (<u>Regional Water</u>) According to <u>Cuesa</u>, drip irrigation systems can save "up to 80% more water than conventional irrigation!"

What are some bad watering practices to avoid?

The following dos & don'ts come from <u>this article</u> from Southern Living. <u>Do</u>:

- Choose a grass well-adapted to your region
- Water at the right time (i.e. very early morning before it gets hot

Don't:

- Use sprinklers in the blazing hot sun
- Use sprinklers when it's raining
- Use sprinklers to water the street
- Make the lawn bigger than you need
- Mow your grass during droughts

What is a low-flow water device?

Low-flow water devices are plumbing fixtures that save water by using less water per flush or a lower flow rate. Low-flow devices include shower heads, toilets, and sinks. There are different water conservation incentives for each state, and <u>Apana</u> has a great resource for finding these policies and incentives.

MODULE 9: Trash/Recycling Collection

Effective trash/recycling collection practices

- Containers (<u>Republic Services</u>):
 - Color coded, animal-proof lids
 - Handles that are simple to grab and easy to clean
 - Made from durable weather-proof plastic
 - Versatile wheels for smooth rolling on any surface
- Frequency of collection (<u>Junk-King</u>):
 - Waste collection occurs, in most circumstances, once a week. However, those with less or more waste can choose to have waste picked up less or more frequently, depending on the residential area you live in.
 - Recycling collection occurs every other week in most residential areas.
- Unacceptable curbside waste (Junk-King):
 - Make sure not to throw away hazardous materials such as chemicals and asbestos.
 - Service providers provide lists of acceptable and unacceptable materials for both trash and recycling. Review these lists before discarding waste. This is most important for recycling practices.
 - Standardized labels on recycling containers: You can recycle many different types of materials, including glass, plastic, cans, and paper. <u>Recycle Across America</u> is a great resource for understanding the labels on recycling containers.

Other waste collections:

- Benefits of yard waste composting (EPA):
 - "Enriches soil, helping retain moisture and suppress plant diseases and pests.
 - Reduces the need for chemical fertilizers.
 - Encourages the production of beneficial bacteria and fungi that break down organic matter to create humus, a rich nutrient-filled material.
 - Reduces methane emissions from landfills and lowers your carbon footprint."
- Prescription drug drop-off (FDA):
 - Prescription drug drop-offs are important events that should be available for the public in order to safely dispose of potentially deadly medications. Medications can be very toxic to some if not used properly. Most severely, some cases of accidental ingestion by children have led to death.
 - If you are unable to access a drug drop-off site, the FDA recommends flushing drugs ONLY if they are on <u>this flush list</u>.

- If you are unable to access a drug drop-off site and the medication is NOT on the FDA's flush list, you can dispose of medicines in household trash by following these steps, according to the FDA:
 - "Remove the drugs from their original containers and mix them with something undesirable, such as used coffee grounds, dirt, or cat litter. This makes the medicine less appealing to children and pets and unrecognizable to someone who might intentionally go through the trash looking for drugs.
 - Put the mixture in something you can close (a resealable zipper storage bag, empty can, or other container) to prevent the drug from leaking or spilling out.
 - Throw the container in the garbage.
 - Scratch out all personal information on the empty medicine packaging to protect your identity and privacy. Throw the packaging away."
- Hazardous waste (EPA):
 - According to the <u>EPA</u>, a hazardous waste is "a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment."
 - Hazardous waste can be temporarily stored at Treatment Storage and Disposal Facilities (TSDFs). These facilities will store, treat, and dispose of hazardous wastes (EPA).
 - There are different regulations for specific wastes. These regulations can be found <u>here</u>.
- Electronic waste (<u>IDR Environmental Services</u>):
 - It is important to dispose of electronic waste carefully, as e-waste can be hazardous. Here are some examples of hazardous electronic waste:
 - "Leaded glass: Computers and television screens contain leaded glass, which is a poisonous heavy metal.
 - Cancer-causing elements: Batteries carry explosive and cancer-causing elements such as cadmium, lithium and lead.
 - Mercury: Some appliances like gas hot water heaters and chest freezers contain mercury switches. When mercury isn't properly disposed, it may create serious health issues such as respiratory and skin disorders.
 - In addition to the possibility of disposing hazardous waste, it is also important to properly dispose of electronic waste for the extra safety layer it adds. By properly disposing, you are more likely to have your data completely removed from your devices.
 - There are many different options for where to dispose of electronic waste, including the following:

- Check with retailers. Some retailers will even pay you for your old devices!
- Donate to charities.
- Find a certified recycler.
- Use a disposal service.
- Plastic bag/foam container pollution:
 - Plastic bag pollution can "clog up gutters and drains causing water and sewage to overflow and become the breeding grounds of germs and bacteria that cause diseases" (<u>Plastic Bag Pollution</u>).
 - Plastic bags can also have "many detrimental environmental effects including animal choking, pollution, blockage of channels, rivers and streams, and landscape disfigurement" (<u>IBA</u>).
 - When you have the option, say NO to plastic bags and instead opt for reusable bags, paper bags, or biodegradable equivalents.
- Foam container pollution:
 - Foam containers are often regarded as one of the worst single use materials because they have "no market for recycling". This kind of pollution "represents 30% of all landfill space by volume" (EPE).
 - Styrofoam also comprises "90% of all marine debris, with single-use food and beverage containers being one of the most common items found in ocean and coastal surveys" (EPE).
 - This kind of pollution is poisonous for wildlife and disintegrates over time, spreading microplastics throughout our oceans and endangering not only wildlife, but human life as well (EPE).

MODULE 10: Community Engagement

<u>Reuse Opportunities:</u> There are many options for buying/selling/donating your unused items. Here are just a few of the many ways to pass along your old items (and maybe get some new ones too!):

- Ways to earn some extra money:
 - Sell to second-hand stores. Stores like Plato's Closet, Clothes Mentor, and Once Upon a Child all buy used clothing, shoes, and accessories. Half-Priced Books and some local bookstores buy used books.
 - Have a garage sale.
 - Facebook Marketplace is a great place to sell some household goods, furniture, books, clothing, and more.
- Donate to Goodwill, Salvation Army, Better World Books, or other thrift stores. You can also claim your donations on your taxes!
- Donate yearbooks to your local library. Additionally, libraries sometimes provide opportunities for the community to donate unused items.

- Donate building materials to Habitat for Humanity.
- Join a local Buy Nothing group on Facebook. This is a great way to pass on items to others in your community who may need them.

<u>Community Sustainability Events:</u> Many towns and cities are looking for ways to enhance public awareness of environmental issues. Here are just a few of the many ideas Green Office Movement has for sustainability events. More ideas can be found <u>here</u>:

- Host a swap event for community members to exchange clothing, books, or household items.
- Host a repair cafe to teach community members how to repair broken items.
- Organize a lecture series for community members, inviting local experts to talk about sustainability options in the community.

You can also engage your community on Earth Day in so many ways! <u>Ygrene</u>'s blog has a great resource for organizing Earth Day activities for adults in your community. Here are just a few of their ideas:

- "Volunteer to clean your local street, river, or downtown area.
- Donate hours to an environmental protection organization.
- Hold a plant potting party.
- Go plastic-free with biodegradable utensils & dishes."

<u>Y grene</u> also suggests holding an in-office contest for employees at a company to see who can recycle the most plastic or reduce their carbon footprint the most in a specified amount of time. This could be easily translated to a community contest for a fun way to challenge community members to be aware of their environmental waste contributions!

Environmental Education Opportunities through Organizations: Great Nonprofits has a great blog that lists organizations which inspire change through environmental education, such as:

- National Parks Conservation Association in Washington, D.C.
- Conserve School in Land O' Lakes, WI
- Berkshire Environmental Action Team in Pittsfield, MA
- Grist Magazine in Seattle, WA
- Camp Unalayee Association in Palo Alto, CA

<u>Sierra</u> also has a blog listing organizations that are transforming eco curricula. Here are some of their picks:

- <u>BEETLES</u>
- Kiss the Ground
- National Geographic's Geo-Inquiry Process
- Green Schoolyards

Other communities have local organizations which provide environmental educational opportunities through programs like increasing rain barrel usage, backyard habitats, and other environmental initiatives. These organizations include <u>garden clubs</u>, <u>Master Gardeners</u>, and <u>Soil</u> and <u>Water Conservation Districts</u>.

Environmental Education Opportunities for Youth: There are many benefits to raising youth to be environmentally aware. The <u>NAAEE</u> has done great research into the benefits of environmental education for K-12 students. From their research, they found that "environmental education was shown to improve:

- Knowledge in science, mathematics, reading, writing, and more
- Emotional and social skills, such as self-esteem, character development, team work, and leadership skills
- Environmentally friendly behavior, such as reducing water use, increasing recycling, and participating in community cleanups
- Academic skills (21st Century skills), such as critical thinking, oral communication, analytical skills, problem solving, and higher-order thinking
- Motivation to learn, including enthusiasm for and interest in school
- Civic interest and engagement, including feelings of civic responsibility, feelings of empowerment, and ability to take action" (taken directly from <u>naaee.org</u>).

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Additionally, the <u>EPA</u> has many great resources regarding Environmental Education, or EE.

Recommendations:

- Check into presorting curbside recycling and selling or using sorted recycling for other purposes
- Purchasing a glass crusher as a shared resource with other nearby communities would provide a means to allow glass to be recycled through re-use in glass-phalt or as a road base
- Keep paper separated and create well-labeled containers at your drop-off barn facilities
- Consider using a container differentiated by color or style for paper or single stream only
- Library could have gardening tools in a "lending" library
- Consider having a composting area available for city use and potentially open to residents in the city public works barn area
- Consider and Eagle Scout or environmental club project with a bioswale, rain garden and/or rain barrel project as other steps towards addressing the stormwater runoff issue
- Institute a day of service as an extension of the 5th grade environmental event that involves activities where students put what they learned into action

- Consider planting citronella grass, basil, catnip or lavender, among others, to help deter mosquito populations

Additional Resources:

American Public Transportation Association – Promotes public transit systems.

Association of American Railroads – Promotes transportation by & safety of the railroads.

<u>Audubon International</u> – Education, assistance & inspiration for protecting & sustaining land, water, wildlife & natural resources.

<u>Clean Beaches Council</u> – Increases public awareness & volunteer participation in beach sustainability.

<u>Clean Energy Partnership</u> – promotes clean energy for communities.

<u>Detour UrbanSource</u> – Non-profit bookstore of over 300 sustainable transportation, urban planning, & other ecological books, magazines, videos, & CDs.

EarthCraft House – Green building program serving as a blueprint for healthy, comfortable homes while reducing utility bills and protecting the environment. ECH is a partnership between the Greater Atlanta Home Builders Association, Southface, government, and industry partners promoting sustainable homes, workplaces, and communities through education, research, advocacy, and technical assistance.

Earth Day Network – Promoting environmental citizenship, year-round, worldwide.

Eco-Portal – Information gateway empowering the movement for environmental sustainability.

Envirolink – Database of thousands of environmental resources.

Environmental and Energy Study Institute – Non-profit organization dedicated to promoting environmentally sustainable societies. Founded in 1984 by a bipartisan group of Members of Congress.

Environmental Guidelines for Responsible Lawn Care & Landscaping – Draft of document that is being developed to educate homeowners about environmentally sound landscaping & lawn care principles.

Environmental Newsletters:

- <u>Care2</u>
- Environmental Magazine
- Treehuggers
- <u>Grist</u>
- Environmental News Network
- Environmental News Service
- IdealBite

EPA GreenScape Alliance – EPA program that combines government & industry into a powerful, unified influence over the reduction, reuse & recycling of waste materials in large land-use applications. Also includes roadside landscaping, brownfield land revitalization, and the beautification & maintenance of office complexes, golf courses & parks.

EPA Resources Conservation Challenge – EPA initiative that identifies & uses innovative, flexible & protective ways to conserve natural resources & energy.

<u>Green Building Alliance (GBA)</u> – GBA is a non-profit corporation that integrates environmental responsibility with high performance design construction and operating practices in the Greater Pittsburg, PA market. Started prior to LEED.

Green Building Resources:

- America Society of Civil Engineers
- <u>American Society of Landscape Architects</u>
- Canadian Society of Landscape Architects
- Construction Management Association of America

<u>Green Business News</u> – newsletter on what businesses are doing green.

<u>Green Globes</u> – Adapted from a Canadian model, Green Globes is only one of two green building rating systems. GG can be used with any size building. The Green Building Initiative is developing GG in the U.S. GBI is an accredited standards developer under the America National Standards Institute.

<u>The Green Guide</u> – online resource for green consumer information of all sorts. Run by National Geographics.

Green Star: Environmental Rating System for Buildings

<u>Humane Society</u> – Programs for responsible animal control & environmental cleanliness, includes the **Urban Wildlife Sanctuary Program**.

International Council for Local Environmental Initiatives – Dedicated to helping local governments make improvements in environmental conditions.

International Council of Shopping Centers – awards programs for shopping centers for new recycling programs,, expansion of existing recycling programs, innovative recycling and outstanding community partnerships.

Land Choices – an organization to assist individuals on maintaining open space.

<u>LivCom Awards</u> (formerly "Nations in Bloom") – International Awards for Liveable Communities, Environmentally Sustainable Project Awards, & Bursary Award. Endorsed by the United Nations. Non-political. Embraces all nations & cultures with the objective of improving the quality of life through the creation of "liveable communities".

National Association of Home Builders (NAHB) Green Home Building Guideline – Created for mainstream homebuilders to aid them in integrating environmental solutions into new homes. Provides a tool that local associations can use to create their own green homebuilding program.

<u>National Fish & Wildlife Foundation</u> – Grants of up to \$5,000 for schools & organizations interested in initiating "Nature of Learning", a community-based environmental education initiative that seeks to use national wildlife refuges as outdoor classrooms to promote local conservation issues & encourage interdisciplinary approaches to learning.

<u>National Recycling Coalition</u> – maximize recycling efforts to achieve benefits of resource conservation and waste reduction. Reference state organizations.

<u>Natural Resources Defense Council</u> – Information on "Green Living". Dedicated to protecting the planet's wildlife & wild places and to a safe & healthy environment for all living things.

North American Association for Environmental Education – educational resource for teaching about the environment.

<u>Nuclear Energy Institute</u> – Resource concerning power plants & their relationship to the environment.

<u>Pacific Northwest Pollution Prevention Resource Center (PPRC)</u> – Regional approach to green building codes and standards designed by PPRC. PPRC works collaboratively with business, government, and non-government organizations, as well as other sectors, to promote environmental pollution prevention.

<u>PestFacts</u> (Information source of **RISE** [Responsible Industry for a Sound Environment]) – Provides current & accurate information on issues, research, reporting & lobbying concerning pesticide & fertilizer use.

<u>**Planet Ark**</u> – Reuters Daily World Environment News. Articles related to the planet's ecological situations.

<u>**RecycleBank**</u> – Organization that gives cash rewards to businesses who recycle.

<u>Rocky Mountain Institute</u> – Independent non-profit that fosters efficient & restorative use of resources that are sustainable & just.

<u>Sierra Club</u> – Practice & promote the responsible use of the earth's ecosystems & resources.

<u>Solid Waste Association of North America</u> – Recycling. Solid waste & landfill management & programs.

<u>Sustainable Buildings Industry Council (SBIC)</u> – SBIC's mission is to advance the design, affordability, energy performance, and environmental soundness of America's buildings.

<u>Sustainable Project Rating Tool (SPiRiT)</u> – Initiated by the U.S. Army Corps of Engineers, derived from LEED and expanded to incorporate sustainable site selection and preparation in regard to storm water management. Includes many <u>EPA</u> guidelines and standards.

Transportation Resources:

- American Planning Association
- American Public Transportation Association
- Public Transportation for Tomorrow
- <u>Complete Streets</u>
- League of American Bicyclists
- National Center for Bicycling & Walking
- National Resources Defense Council
- Rails to Trails Conservancy

- Smart Growth America
- <u>Surface Transportation Policy Project</u>
- <u>U.S. Department of Transportation</u>

<u>U.S. Composting Council</u> – Dedicated to the development, expansion & promotion of the composting industry based upon science, principles of sustainability & economic viability.

Other Resources:

Tidiness:

- Human–Environment Research Laboratory (University of Illinois at Urbana– Champaign) – Scientific studies about the relationship between people & the physical environment. Information about human-environment relationships to guide policy, planning & design of environments. Theory & research methods of psychology combined with theory & concerns of environmental design, policy & planning.
- International Sign Association Regulations, codes & standards related to outdoor signs.
- <u>Keep America Beautiful</u> Focuses on litter prevention, waste reduction, beautification & community improvement.
- League of American Bicyclists Promotes bicycling.
- **Outdoor Advertising Association of America** Dedicated to improving outdoor advertising quality, appearance, safety & effectiveness.
- <u>"Recycle on the Go"</u> to help government officials establish effective public-space recycling programs, offers information on implementing recycling programs at special events and large venues, descriptions of some communities' efforts and tools to measure the greenhouse gas savings from recycling.
- <u>Scenic America</u> Non-profit dedicated to preserving & enhancing the scenic character of America's communities & countryside.
- <u>Signage/Small Business Administration</u> Information about signage in the landscape from the Small Business Administration.

General Information:

- American Association of Botanical Gardens & Arboreta
- CAC Community Garden Handbook
- Deer Resistance
- Exotic Pests
- Extension Offices, U.S.
- Hardiness Zone Map, U.S.

- Integrated Pest Management (IPM) Resources
- Invasive Species
- Mulching Trees Properly
- Organic Land Care Standards
- Poisonous Plants

Universities:

- <u>Cornell University Horticulture</u> Lists of classes offered & extension office locations.
 Pictorial database of plants and pests.
- Kansas State University Horticulture, Forestry & Recreation Resources
- <u>New England Grows</u> University of Vermont Internet Resource List
- North Carolina State University Horticultural Science Department
- Ohio State University Horticulture and Crop Science
- Oregon State University Horticulture Department
- <u>Penn State University Department of Horticulture</u> Publications, fact sheets, educational information.
- <u>Purdue University Horticulture and Landscape Architecture</u> Includes research news, extension fact sheets, horticultural therapy, plant pictures to download as desktops.
- <u>South Dakota State University Horticulture, Forestry, Landscape and Parks</u> <u>Department</u>
- <u>Temple University Ambler College Department of Landscape Architecture &</u> <u>Horticulture</u>
- <u>Texas A&M Horticulture Program</u> Information related to classes, turf, ornamental & floriculture fact sheets, state extension offices & agents including links to other universities & plant databases.
- <u>University of Georgia Horticulture</u>
- <u>University of Kentucky Department of Horticulture</u>
- University of Wisconsin-Madison Horticulture
- Washington State University Horticulture & Landscape Architecture