



Conservation Action Guide

2007

Conservation Projects 2007

Young people, 11 to 18 years old, can make a difference for wildlife in their community when they take on service projects that help conserve valuable resources for the future. Every day actions and larger, community-based projects will challenge youth to address topics like global warming, habitat restoration, and conservation awareness in their hometowns. This Conservation Action Guide (Guide) includes content tip sheets and detailed project suggestions.

Overview

This Guide seeks to inspire and innovative community-based projects and everyday actions that conserve resources for humans and wildlife. The conservation projects included within the Guide are designed to support adults who work with youth between 11 – 18 years old, as they design youth-directed projects.

Furthermore, it covers three main themes: Global Warming, Healthy Habitats, and Connecting People to Nature. Each theme includes: suggested projects, supplemental tools, and a key indicating a project's age appropriateness, timeframe, and ways to measure the project's impact.

'Beyond Recycling'

Recycling has become a widespread, tangible answer for engaging youth in school-wide and community-wide projects. While this is a positive step, the call to 'Recycle' has been shortened from the original reminder to 'Reduce, Reuse and Recycle'. The National Wildlife Federation believes in the 3 R's for conservation and has focused on actions that go 'Beyond Recycling'.

Continued Commitment to Conservation

Today's challenges to our natural world are outpacing wildlife's natural ability to adapt. Global warming, the loss of habitats, and the increasing disconnect of people from nature are creating a perfect storm of weakened natural systems, human-cause climactic disruptions, and growing public apathy. The National Wildlife Federation's vision is to restore the balance of nature and protect wildlife for our children's' future.¹

How to use this Guide

This Guide supplements service learning curricula and/or community service program(s) and highlights alternative actions that youth and adults can take to positively impact human and wildlife communities alike.

Inspire New Ideas

Brainstorm:

10 Actions – Fun names and short descriptions that may spark new project ideas. Keep track of thoughts and ideas for community-based projects.

Bag of Tricks:

The National Wildlife Federation's **Climate Action Toolkit** contains everyday items that have a positive impact on climate change. Bring out different items and discuss how each item is connected to global warming, energy conservation, and wildlife and/or community health. Keep track of ideas that may positively impact your community. Each item in the Climate Action Toolkit is linked to a project in this Guide.

National Wildlife Federation



Mission: Inspiring American's to protect wildlife for our children's future.

Visit us at www.nwf.org

¹ National Wildlife Federation Strategic Plan: *A Plan to Restore America's Wildlife*, April 2006

Tangible Results

Narrow down the possible projects based on program requirements and other criteria like hours of service, inclusion of different community groups, timeframes for project completion, etc.

Measuring impact is an important part of any project. The Guide suggests different ways to measure impact both immediate impacts (i.e. number of people reached, number of trees planted, etc.) and changes over longer periods of time (i.e. reduction in carbon dioxide use over a year, etc.). Impacts over longer periods of time will require some math and are more estimates unless your group calculates information throughout the year.

Suggestions and Tips

Each of the three topics in the Guide: Global Warming, Healthy Habitats and Connecting People to Nature include Tip Sheets that contain background information and glossary of terms. Projects outlined in the Guide are not meant to be a step-by-step approach to developing a plan. Project sheets have been developed to suggest different approaches, make connections to wildlife and integrate real life examples.

Additional Toolkits for Projects

As a reminder, the Conservation Action Guide is a supplement for established programs that demonstrate the value of community service and service learning. Youth Service America (www.ysa.org) and other service providers have toolkits and worksheets that provide step-by-step guidance in developing a community-wide service projects.

Join us in Action throughout 2007!

National Wildlife Federation and national partners have come together to raise awareness about issues facing humans and wildlife and inspire fun, meaningful, conservation-minded service projects nationwide.

National Wildlife Week™, April 21st – 29th is a week-long celebration of wildlife and the outdoors that aims to connect people with nature, foster awareness of the natural world and inspire stewardship throughout the year. Earth Day, April 21st, is the perfect time to join **National Wildlife Federation** and partner organizations for events and activities that will engage individuals, families, and groups for all ages, locations. Visit www.nwf.org/nationalwildlifeweek or contact nationalwildlifeweek@nwf.org for more info.

National & Global Youth Service Day, April 20th – 22nd A program of **Youth Service America** that mobilizes youth to identify and address the needs of their communities through service; supports youth on a life-long path of service and civic engagement; and educates the public, the media, and policymakers about the year-round contributions of young people as community leaders. Find out how to join millions of youth and adults in every state and more than 100 countries for National & Global Youth Service Day by visiting www.ysa.org/nysd!

Other Opportunities to Get Outside and Enjoy Nature

- Endangered Species Day, May 2007
- International Migratory Bird Day, May 2007
- The Great American Backyard Campout™, June 2007
- National Hunting and Fishing Day, September 2007

Youth Service America (YSA) is a resource center that partners with thousands of organizations committed to increasing the quality and quantity of volunteer opportunities for young people, ages 5-25, to serve locally, nationally, and globally.

Visit www.ysa.org for the following resources:

- Grants and awards
- Toolkits
- Posters
- Training
- Service Learning Materials

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Climate Change Tip Sheet

Reduce CO₂ Emissions in your Home and Community

Climate Change, Global Warming, Greenhouse Gases - These are terms you have seen in the newspaper, on the news and even in recent commercials for gas and oil companies. What do all of these terms really mean and how do they impact our daily lives? The following document will explain these questions and offer some actions that individuals and groups can take to help contribute to the reduction of carbon dioxide – a gas largely responsible for warming our fragile planet.

Global Warming 101

When coal, gas, and oil are burned, they produce carbon dioxide (CO₂) that builds up in the atmosphere and traps the sun's heat. This and other greenhouse gases released today remain in the atmosphere 100+ years, trapping more and more heat.

Since the mid-1800s, emissions of carbon dioxide have skyrocketed, and subsequently global temperatures have risen by about 1 degree Fahrenheit in the last century. Earth has not experienced such a rapid change in temperature in thousands of years.

Why should I care?

Unless we reduce the pollution that causes global warming, temperatures could climb between 2-10 degrees Fahrenheit this century. Such a rapid rise in temperature would fundamentally reshape the planet's climate, forever changing the landscape and water resources people and wildlife depend upon.

History: Kyoto and Beyond

In the 1980s and 1990s there was a concerted global effort, gathered in part by the United Nations Council on Humans and the Environment, to improve the quality of life for all. A series of meetings attended by representatives from 180 countries agreed upon different actions that industrialized countries, like the United States, should take to lead the way toward lessening human impact on the Earth. This historic 'promise' became known as the Kyoto Protocol, named for the meetings location in Kyoto, Japan.

- A key goal of Kyoto Protocol was a commitment to reduce greenhouse gas emissions to 5.2% lower than 1990 levels by 2012.

Early in 2000, the United States became the first and only industrialized nation to withdraw its promise to reduced greenhouse gas emissions as stated in the Kyoto Protocol. The reason – Kyoto was seen as a threat to the US economic viability.

Wildlife Connections:

American Southwest – A warmer climate is expected to cause more extreme fluctuations in precipitation levels across the southwest region, contributing to heavier rainfall and flooding events in winter as well as more severe drought conditions and wildfires in summer.

Mexican Jays – These birds are breeding and laying eggs 10 days earlier than they did in 1971 due to warmer temperatures.

The Good News:

A Mayor’s Initiative developed in 2003 has helped to keep the Kyoto promise alive in US cities around the country and around the world. An increasing number of US mayor’s (141 as of 2005) have made commitments on behalf of their cities to reduce greenhouse gas emissions equal to the commitment signed at Kyoto in 1997. To see if your city is participating and how you can get involved, visit the *Mayor’s Initiative – Urban Environmental Accords* web page (see the Climate Change glossary on page 9).

What is a Carbon Footprint?

Carbon footprint is an expression that describes how much carbon a person consumes over his/her lifetime. For example, each time you drive or ride in a car 100s of pounds of carbon in the form of carbon dioxide (CO₂) are released into the atmosphere. By changing activities, for example taking public transportation 1 day of the week or participating in a carpool with a friend can help reduce your carbon footprint. The idea is if everyone commits to lowering their respective *footprint* we will leave the Earth healthy for future generations.

How do we reduce our individual carbon footprint?

How do you calculate and track it?

A carbon footprint is typically calculated in pounds per unit of time, for example: a family of 4 people produces on average 20,000 lbs. of CO₂ per year through activities like driving, throwing items in the trash, and heating and cooling your home.

Check out How to Curb your Carbon This easy to use website provides easy to accomplish changes and alternatives to reduce your impact. Visit www.nwf.org/coolit.

Actions for Wildlife:

Mexican Jays and other birds need habitats to survive.

Increasing habitat by planting wildlife benefiting plants and trees can positively impact wildlife in your area.

Research native animals and plants in your area and organize a habitat team today.

Reducing your Carbon Footprint Today!

The following project ideas have been compiled to help reduce CO₂ emissions in your home, at school and in your community. Each project has been selected for its immediate results and easy to implement ‘core idea’. In addition, each project can be developed into a bigger group or community-level project that will help multiply the positive effects.

Project Suggestions:

- **Pump Your Ride** *A closer look at your car*page 9
- **Lighten Up!** *Big benefits from a little light*.....page 11
- **You, Me, and Bio-D** *Innovations in fuel technology*.....page 13

Climate Change Glossary

Greenhouse Gases – A mixture of natural and human made gases released into our atmosphere that have been identified as the main cause increasing land and oceanic temperatures.

Carbon Dioxide Emissions - Carbon Dioxide (CO₂) is the main cause of greenhouse gases. CO₂ is responsible for about 50% of the greenhouse effect. Every year, people add 6 billion tons of it to the atmosphere. Main sources of CO₂ include burning fossil fuels like coal, oil, and natural gas, and reduction of forests. Plants naturally reduce CO₂ in the atmosphere through photosynthesis.

Chlorofluorocarbons (CFCs) - CFCs are responsible for 15% - 20% of the overall greenhouse gases associated with destroying the Ozone layer and contributing to global warming. CFCs can be found in appliances responsible for cooling elements like air-conditioning units and refrigerators. Visit www.ciesin.org/TG/OZ/cfcozn.html for further details.

Methane (CH₃) - 18% of the greenhouse gases, mainly produced by cattle and trash

Surface Ozone (O₃) - Produced from ground-level pollution from automobiles, power plant emissions, and oil refineries.

Carbon Footprint - A term typically used to describe human impact (individual, group, or business) on the environment. Carbon units are calculated in pounds (lbs.) per year.

More information about Global Warming

Find out more about how climate change impacts humans and wildlife including action steps and quick, easy, everyday tips.

- National Wildlife Federation's state-based Global Warming and Wildlife fact sheets and see how your local wildlife is changing and how they can use your help - www.nwf.org/globalwarming/index.cfm
- Urban Environmental Accords - www.sfpsociety.org/sfenvacc.htm
- Seattle Mayor's Website and Overview - www.ci.seattle.wa.us/mayor/climate/
- Think MTV: Break the Addiction Campaign - www.mtv.com/thinkmtv/features/environment/break_the_addiction/
- Civil Society Institute: Red, White and Green Initiative - www.redwhiteandgreen.org/

Pump your Ride Climate Project

Age Appropriate:
11 – Adult

Time: 15 – 30 min.;
expandable into
year-long campaign

Impact: Decrease
carbon footprint
over time

Maintaining properly inflated tires may not seem like a big deal but consider the facts - a little air can improve fuel efficiency, reduce carbon dioxide (CO₂) emissions levels, save money and potentially save your life. Whew!! What a little air can do for you!

Carbon Emissions Add Up

On average, cars emit about 12,000 pounds of carbon a year and as our Earth's population grows so does human output of carbon emissions via activities like driving. Here are some ways to lower your carbon footprint when you travel:

Increase Fuel Efficiency - Low gas mileage cars like SUVs, or lack of routine maintenance for average vehicles, like proper tire pressure, decreases fuel efficiency, costing you more money at the gas pump and increases the amount of CO₂ emitted into the atmosphere.

Use Alternative Transportation – Participating in a car pool or taking public transportation saves hundreds of pounds of carbon over the course of a year.

Pump Your Ride

Fill your tires to the proper pressure amount (usually found on the inside of the driver's side door and/or on the tire) and check monthly – easy!

- **FACT** – A tire can lose several pounds of pressure a month due to temperature and seasonal changes.

What you will need:

- Air pressure gauge tool – looks like a steel pen and costs about \$2.50.
- Correct psi (**p**ounds per square **i**nch) for specific tire (usually found on the inside of the driver's side door and/or on the tire).
- Air pump – Gas station air for less than a dollar is the easiest way to inflate car tires.

Keep track of the savings and tell others, like your school's principal or community's elected officials

- **Gas mileage efficiency** - Save money with increased gas efficiency while promoting CO₂ reduction.
- **Safety** – Low tire pressure is to blame for flat and blown tires while driving.
- **Petroleum product reduction** - Well maintained tires reduce the need to purchase new tires and to discard old ones.
 - Average car tires should last 5 – 7 years and at a cost of \$400 for 4 new tires, maintenance is worth it.
 - Recycle those old tires – tires are used to build sound barriers on highways, athletic equipment and other everyday items. Learn more at www.epa.gov/epaoswer/non-hw/muncpl/tires/science.htm.

So What?

Carbon Dioxide and other byproducts of energy consumption have been tied to increasing temperatures globally.

Consider this:

A global increase of just 2 – 5 degrees Fahrenheit is theorized to cause widespread animal extinction, intense weather patterns like hurricanes, and a decrease in food productivity due to drought.

Make a BIGGER Impact:

Spread the word to others for a bigger impact. The following are creative and fun suggestions to get others involved in Pumping up their Rides for the planet!

- **Increase tire inflation awareness** in your school or community.
- **Dedicate a weekend to getting others to inflate their tires** – Organize a fundraiser and charge a fee per pound of air to inflate tires (organized similar to a Car Wash).
- **Get the word out through the media** – Tell them what you are doing and why.
- **Connect *Pump it Up* to other transportation projects** – Biodiesel, alternative transportation, neighborhood car pooling campaigns, etc.
- **Organize your Community to purchase Green Tags** - Green Tags represent alternative or ‘green energy’ credits to promote sustainable energy sources for you community. (This concept is similar to buying acres in the rainforest to prevent logging) Learn more at www.greentagsusa.org/GreenTags/index.cfm and www.terrapass.com.

College/Career Connection:

If you are interested in this project, you may be interested in these careers:

- City Planners/Department of Transportation
- Engineers for hybrid technology
- Chemical Engineers – alternative fuel sources

You, Me, and Bio-D Climate Project

Age Appropriate:
16 – Adult

Time: Week long
unit or more;
expandable into
year long campaign

Impact: Decrease
carbon footprint
over time

Did you ever wonder what powers your computer, cars, and the lights in your home?

The answer is electricity and gas. But where do they come from? Limited natural resources like oil, coal, and natural gas make up the majority of America's energy supply; however, new ideas to power machines are quickly sparking the imagination of people around the world.

The need for alternative energy, or energy produced from resources besides oil, natural gas, and petroleum, is a growing concern in America and around the world. As our world's population grows, human's consumption of energy grows thus exhausting the already limited oil and gas supplies. It's an exciting time to be looking at different ways to power our hi-tech society.

Alternative Energy

Solar, wind, water, and biodiesel (Bio-D) are all forms of alternative energy that use renewable or unlimited resources. Biodiesel is a relatively unfamiliar energy source but may be the most interesting option for cars.

Where does Biodiesel come from? Used vegetable oil is easily collected at area restaurants and then processed into a clear fuel called biodiesel. Soybeans and corn can be grown and converted into a clear liquid called ethanol that is also used as fuel.

Can biodiesel be used in regular cars? If your car already accepts diesel then biodiesel can immediately be used in your engine. Other cars will need modifications to the engine.

Can you get biodiesel in regular gas stations? Yes, there are biodiesel stations in all 50 states. Visit www.biodiesel.org/buyingbiodiesel/guide/default.shtm to learn more.

What are the benefits of biodiesel?

Reusable/Renewable Resource: Biodiesel reuses vegetable oil that has been used to cook food. Biodiesel also uses locally grown soybeans and corn making it a less expensive process to produce fuel than oil. Oil on the other hand is extracted from crude oil reserves found deep in the earth.

Health Benefits: Decreasing the amount of oil and gas used will help lower the amount of smog and airborne pollutants in our urban communities.

Lower CO₂ Emissions: Biodiesel emits 'clean' gases with an odor reminiscent of whatever food the grease was used to cook – think french fries! On the other hand gas releases harmful CO₂ into the atmosphere – the key ingredient in greenhouse gases, and the culprit in climatic changes.

Wildlife Connections

Arctic – Polar bears and other animals that inhabit the Polar Regions are being studied to test the impacts of global warming on their survival rates.

Since 1981, female polar bears have weighed less and had fewer cubs, and scientists are concerned that if the trends continue, polar bears could disappear in the wild before the end of the century.

Project Suggestions:

- **Alternative Energy Audit** – List ways that your family or neighborhood can use alternative energy like solar, wind, or biodiesel to power everyday activities. Here are some things to think about:
 - Lawn care – convert your lawn mower to use biodiesel.
 - City and School buses – work with local officials to suggest changing the fleet of school buses to biodiesel.
- **Work with local organizations** that are offering unique or innovative solutions for cleaner, alternative energy sources.
- **Bioneers Youth Initiative and Conference** – Get a scholarship to attend the national conference and learn from the leaders of ecological innovations. Learn more at www.bioneers.org.
- **Organize a Carpool or Bike to Work Day**- Get rewarded for your carpools with NuRide. Visit www.nuride.com/nuride/main/main.jsp for more info.

College/Career Connections:

If you are interested in this project, you may be interested in these careers:

- Mechanical Engineer (engines, automobiles, etc.)
- Chemical Engineer
- Agricultural
- Retail and Distributor for biodiesel
- Marketing and Sales for biodiesel

Lighten Up! Climate Project

Age Appropriate:

11 – Adult

Time: 15 – 30 min.;
expandable into

year long campaign

Impact: Immediate,
decrease carbon
footprint

The Facts: What helpful device can you find throughout your home that is finally getting a makeover after 127 years?

That's right – light bulbs. Thomas Edison developed them over a century ago and they are finally receiving a much needed energy efficient overhaul - introducing the new and improved Compact Fluorescent Light Bulb (CFL).

Incandescent Light Bulbs

A typical incandescent light bulb lights up a room using an amount of electricity calculated in units called Watts (e.g., 100W light bulb). This relatively cheap bulb costs about a dollar and lasts around a year or 10,000 hours on average. Kilowatt hours (kWh) is the way electric companies record the energy your home uses a month and then charges your family per kW used on the monthly energy bill.

Become Enlightened with Compact Fluorescent Light Bulbs

Swapping your traditional incandescent bulbs with compact fluorescent bulbs makes tons of sense, both practically and environmentally. Compact Fluorescent Light bulbs (CFLs) last on average about 9 years and provide the same amount of lumens (light) as standard incandescent light bulbs. Visit www.ge.com/stories/en/20347.html?category=Product_Business to learn more.

So what? Why should I care? Well, here are some other things to consider before doubting the power of a little light bulb.

One Compact Florescent:

- Reduces a home's carbon footprint by 180 lbs a year – replace 10 light bulbs and that's 1,800 lbs. of carbon NOT released into the atmosphere!
- Costs around \$7.95
- Provides equal if not more light (Lumens) than incandescent bulbs
- Reduces home energy bills by \$30 over one year (\$200 savings over the lifetime of the bulb 9 - 10 years)

Did You Know?

'If each household in America replaced one light bulb with a compact florescent it would reduce CO₂ emissions (produced by power plants and cars) by 13 billion pounds of carbon. That's equivalent to removing 1.2 million autos from the roads for a year.' *

Project Suggestions: Small actions can have BIG impacts!

- **Rebates** - Check to see if your local electric company offers rebates (money back) and/or conservation kits for changing light bulbs to CFLs.
- **Speak Out** - Work with others, like friends or after school clubs, to share what you know about CFLs with people in your community.
- **Commit to lower a carbon footprint** - Start a neighborhood-wide commitment to have every home change their next burned out light bulb to a CFL – report your efforts to your local paper.

- **Start a Campaign** – Work with area organizations and schools to distribute 10,000 CFL light bulbs into economically challenged homes. (Saves money for families in need and saves energy too!)

College/Career Connections:

If you are interested in this project, you may be interested in these careers:

- Electrical Engineer
- Home Energy Audit Specialist

Resources to check out:

- *Langholz, Jeffery PhD., Turner, Kelly *'You Can Prevent Global Warming (and save money)'*; 2003 Andrews McMeel Publishing, Kansas City, Missouri pg. 4
- Project Plan It! Web-based resource to help guide a project from dream to reality - www.ysa.org/planit/

NEW in 2008!

Reduce Your Global Footprint With the Climate Action Toolkit

Are you interested in tackling global warming in your community? Stay tuned for the 2008 Climate Action Toolkit!

The Climate Action Toolkit will help individuals and groups to reduce their carbon footprint immediately. Use the Toolkit in combination with projects found in this Guide and take the 2008 Carbon Pledge.

Housing

- Low-flow showerhead – saves energy on heating shower water
- 30 compact fluorescent light bulbs – two available for those signing up to advocate CFL use to friends or family members
- Temperature guide – recommended temperature settings for delivered hot water, hot water tank temperature, summer cooling, winter heating, fridge, and freezer.

Transportation

- Car tire gauge – *keeping tires properly inflated can improve gas mileage by 3%. Every gallon of gasoline saved keeps 20 pounds of CO₂ out of the atmosphere!*
- Bike patch kit – *don't forget to ride you bike or select mass transportation options like the bus or carpool*
- Organize a Bike to School Day information sheet
- Quick list on how to get rid of car, ski-do, 4-wheeler batteries safely
- Vehicle maintenance information flyer

Food

- Reusable Shopping Bags
- Pot, mini seed starter pot, and vegetable seeds
- Reusable Water bottle
- Composting and Worm bin flyer

Email nationalwildlifeweek@nwf.org for more info!

Healthy Habitats

Tip Sheet

Increase Healthy Habitats for Wildlife and Humans

Habitats are places where living things can find the necessary things to survive: food, water, shelter (home), and a place to raise young. All living things need these basic elements to exist. Here are tips and suggestions for individuals and groups to convert any location into a space friendly to humans and wildlife.

The Basics: What are some components of a healthy habitat that living things require to survive?

- **Food** – Organic nutrition that does not contain any chemicals or toxins
- **Water** – Clean, available, and water with neutral pH, appropriate dissolved oxygen and lacking hard metals like mercury, lead and cadmium.
- **Shelter** – Area of protection to build a home or hide from predators – promoting the co-existence between humans, wildlife, and plants
- **Space** to raise young – Enough open areas to play, find protection from predators, and locate food and water for survival.

There are a variety of habitats that have different plant and animal species, around the world, called biomes. Each habitat has specific non-living characteristics that change the region's inhabitants. Some non-living characteristics include: annual rainfall, sunlight, temperature, soil pH, and wind just to name a few. Because of these slight variations from place to place, you will find different plants and animals living in different locations.

Location, Location, Location

Every plot of land, from the largest national park to a tiny crack in the cement, is a habitat for living things. In these places, they build a home and gather the basic items to survive. Consider the following habitat profiles and think about which one or ones best represents where you live.

Urban Parks – Sometimes called 'pocket parks' these green spaces provide urban dwellers with green grass, trees, and man made ponds. Parks can be any shape or size; here are some metropolitan examples – Central Park, New York City; Golden Gate Park, San Francisco; and Centennial Park, Atlanta.

Forests – Thickly wooded area that may include a variety of hardwood,

Why Should We Care?

- **Clean streams, soil, and air** mean less toxic exposure to humans and wildlife
- **Open 'Green' spaces**, like community parks in urban areas have been connected to lowering stress levels in humans and wildlife
- **Managing open spaces** for recreation and healthy habitats increase areas for children to exercise, observe wildlife ,and connect with nature.
- **Planting trees** and other green plants help to lower our carbon footprint on the planet – (see *Carbon Tip Sheet* for more details.)
- **Urban and community parks** have helped to increase property values of homes and businesses in the surrounding neighborhood.

deciduous trees like Maple and Oak and softwood, coniferous trees like pine and spruce. Forests can be found in urban, suburban or rural areas, come in a variety of sizes, and vary depending on region.

Wetlands and Waterways – Water is a key element in any healthy habitat and could include local streams, rivers, canals, and lakes. Some habitats are water-based, like wetlands, estuaries, and watersheds. Wetlands and waterways are important habitats to keep clean and healthy for humans and animal species that depend on them for survival.

There are many other biome types or communities of plants and animals that exist. Investigate and find out what biome you live in and how to create or nurture a healthy habitat in your community.

What Can I Do?

The first step is to learn more about the local plants, animals, and organizations who are working to keep your community healthy. Schoolyard and backyard habitats friendly to wildlife are common amongst many groups. Take a look at the following project ideas.

Suggested Actions:

- **Build a Carbon Sink** – *Creating climate and wallet friendly habitats.....*page 19
- **You are what you EAT** - *Get the basics about organic food.....*page 22
- **Toxic Free for you and ME** - *Keep free of harmful chemicals*page 24

Healthy Habitats Glossary:

Wetlands - Those areas that are inundated or saturated by surface or ground water (hydrology) at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Watersheds - An area of land that drains down slope to the lowest point. The water moves through a network of drainage pathways, both underground and on the surface. Generally, these pathways converge into streams and rivers, which become progressively larger as the water moves downstream, eventually reaching an estuary and the ocean.

Estuaries - A semi-enclosed body of water, which has a free connection to the open sea and within which seawater is measurably diluted by fresh water derived from land drainage.

Grasslands - Areas in which grass is the primary, natural vegetation. The two main categories of grasslands include temperate grasslands and tropical grasslands.

Biomes - For division of the ecological communities on Earth characterized by the plant and animal life of that region

Biodiversity - Number and variety of living organisms; includes genetic diversity, species diversity, and ecological diversity.

Soil pH - An indication of the alkalinity or acidity of soil. It is based on the measurement of pH, which is based in turn on the activity of hydrogen ions (H⁺) in a water or salt solution.

Additional Resources:

- National Wildlife Federation's Habitat Programs – Tips and tricks to converting any space into a certified habitat - www.nwf.org/backyardwildlifehabitat/createhabitat.cfm
- Environmental Protection Agency: Oceans, Coasts, and Estuaries - www.epa.gov/owow/oceans/factsheets/fact5.html
- Environmental Protection Agency: Wetlands - www.epa.gov/owow/wetlands/
- *National Tree Trust - www.nationaltreetrust.org/
- United States Department of Agriculture's Forest Service Urban and Community Forestry Program - www.nationaltreetrust.org/doc/UCF%20Program%20Summary.pdf

Build a Carbon Sink Habitat Project

Did you know that plants have the amazing ability to help us keep the planet cool naturally and save us money?

Here is how it works - Excess carbon, like carbon dioxide (CO₂)* is expelled into the atmosphere by automobiles and industrial facilities while green plants absorb CO₂ as an ingredient of *photosynthesis* or the process that plants use to make their own food. Climate professionals and policy makers call the process of removing carbon from the atmosphere by planting trees and increasing green spaces building a 'carbon sink'.

Age Appropriate:
11 – Adult

Time: Day long event; expandable into year long project

Impact: Increase in acres, wildlife observations, and change temperature

Carbon Sinks

Carbon is stored on Earth in a number of major reservoirs or 'sinks' including living plants, fossil fuels, the atmosphere, dissolved in water, and other locations. As humans use an increasing amount of fossil fuels - gas, oil, and coal to heat homes and run machinery, it is necessary to restore the balance of carbon sinks. One way to do this is to increase the amount of trees and green spaces able to absorb some of the carbon released by natural and human activities. While this will not completely restore the carbon balance, it does help, especially in urban communities.

"The American Forestry Association estimates that the average economic contribution of a single tree is \$73 in energy conservation, \$75 for erosion control, \$75 for wildlife shelter, and \$50 for air pollution benefits. Over its lifetime, an average tree provides more than \$57,000 in environmental and economic benefits."

- Trust of Land Conservation, 1993

By increasing the number of trees and green spaces in your community it is possible to positively impact climate change while creating cooler, outdoor spaces to play and watch wildlife.

Try it out!

Green Roofs and Butterfly Balconies:

No area is too small to create habitat. Many people living in apartment buildings and in large cities feel left out when project discussions turn to planting trees and plants. Green Roofs are the answer to urban dwellers that have a green thumb – or want to develop one. Green Roofs are simply spaces like roof tops or balconies that have all of the necessary features to grow plants and ideally attract watchable wildlife like butterflies and birds.

Impacts

Planting trees and increasing acres of green space has the following benefits:

Habitats for Wildlife

Arkansas – 'At 550,000 acres, the Big Woods of Arkansas is the largest corridor of [bottomland hardwood forest](#) remaining in the Mississippi Delta north of the Atchafalaya River.

Today, less than 10 percent of Arkansas' original 8 million acres of forested wetlands remain — mostly small forest islands surrounded by a vast sea of agricultural fields. As forests continue to be broken into smaller fragments by roads, ditches, urban development and gravel mines, the number of plants and animals that can survive in those patches decreases.

It is in these vastly diminished forests of the delta that the [ivory-billed woodpecker](#) was rediscovered in Arkansas in 2004.'

Visit www.nature.org/ivorybill/habitat for more details.

- Save money – 30% reduction in home energy costs
- Reduce carbon and other harmful substances – trees absorb toxic cadmium, sulfur dioxide, nitrogen, and even reduce dust particles
- Increase value of homes – home values increase in relation to surrounding urban parks and maintained forests

Project Suggestions:

- **Begin at Home** – Evaluate your living space and see if there are ways to shade your home or apartment naturally.
- **Spread the Word** - Carbon sinks and their benefits might be news to many friends, family and neighbors; share your knowledge.
- **School or Neighborhood Project** – Work with others and commit to transforming a large area like a school, community center, clubhouse or neighborhood block into community carbon sinks via the National Wildlife Federation’s Certified Wildlife Habitats. Visit www.nwf.org/gardenforwildlife for details.
- **Build a Carbon Campaign** – Raise awareness about carbon sinks and track your progress by recording green spaces (by the acre) in your community.

College/Career Connections:

If you are interested in this project, you may be interested in these careers:

- Urban Planner
- Architect specializing in Green Design
- Master Gardener
- Naturalist
- Biologist

Glossary:

Photosynthesis - The process by which green plants make carbohydrates such as sugar, using water, carbon dioxide, and sunlight.

Carbon Sink - The United Nations Framework Convention on Climate Change defines 'sink' as 'any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere'.

Fossil Fuels - Deposits of coal, petroleum, and natural gas derived from once-living things

Resources to check out:

- Earth Pledge Foundation – New York City-based foundation - www.earthpledge.org/programs.html and www.earthpledge.org/GRIA.html
- California school district program and action steps - www.greenschools.net/
- Renewable Energy Trust – Division of Massachusetts Energy Collaborative. Overview about clean energy and operating cost reduction in new and renovated schools - www.mtpc.org/RenewableEnergy/green_schools.htm
- Tree Carbon Calculator for Deciduous trees - www.greenhouse.crc.org.au/tools/calculators/treecarbon

Citations:

1. Dwyer, John F. 1993. "The Economic Contribution of Trees to Urban Communities." In Trends: Justifying Recreation and Parks to Decision Makers. v. 30, no. 4.
2. Fox, Tom. 1990. Urban Open Space: An Investment that Pays. The Neighborhood Open Space Coalition, New York, New York.
3. McAliney, Mike (ed.) Arguments for Land Conservation: Documentation and Information Sources for Land Resources Protection, Trust for Public Land, Sacramento, California, December 1993.

You are what you EAT

Habitat Project

Age Appropriate:
11 – Adult

Time: 15 – 30 min.;
expandable into
year long campaign

Organic food is a regulated process whereby, as defined by the United States Department of Agriculture National Organic Standards, ‘soil and plants are not treated with toxic chemicals or persistent pesticides. No toxic fertilizers or sewage sludge is used to promote growth. Animals are fed organic feeds and their natural behaviors must be accommodated to make their lives as comfortable and stress-free as possible.’

Top 5 reasons to support Organic Food for Healthy Humans and Wildlife

1. **Preserve Biodiversity** – Organic food is grown on small farms that are inhabited by a diverse amount of wildlife and plant species. A typical organic farm raises plants and animals for human consumption at the same time planting food for wildlife to eat, preserving trees that protect the farm from wind, and maintaining natural wetland areas instead of removing them.
2. **Nutrition/Exercise** – Organic produce tastes better than processed and modified food. Organic food won’t help you exercise more; however, a healthier diet includes the necessary energy needed for outdoor play.
3. **No Pesticides and Toxins** – Organics limit the amount of toxins absorbed by the land and your body because the food is grown without pesticides - chemicals used to kill insects and weeds that would otherwise destroy crops. Organic farmers successfully grow toxic-free produce using natural strategies to get rid of pests like smaller farms and crop rotation.
4. **Support Local Businesses and Communities** – Small farms and community gardens are usually owned and operated by local families who have a sense of pride in their community and products. The money used to buy organic meat, cheese, vegetables, and fruit stay in the community and support local businesses. Farmers’ markets and community gardens are also a meeting place for people living in the neighborhood – a place to catch up on the week’s news and meet new people.
5. **Energy Savings** – Smaller organic farms use less non-renewable natural resources like gas and oils because they integrate natural methods to control pests, water their crops, feed the animals, and preserve nutrients in the soil.

So what are you waiting for? Here are ways to get involved:

- **Visit a local Organic Garden** - Organize a trip to learn more about what makes an organic farm successful and the food healthy
- **Lend a hand at an Urban Organic Garden** - Get your hands dirty and watch the seeds you plant turn into food you can eat.
- **Speak Up and Stand Up** - Work with a local organic advocacy group or farmers’ market and help spread the word about how organic farming works

- **Plant an Edible Schoolyard Garden** - Work with an adult advisor and classmates to select a plot and create a school-based garden or greenhouse
- **Inspire the Next Generation** - Organize and lead a program that teaches younger kids about the benefits of nutrition and exercise

College/Career Connections:

If you are interested in this project, you may be interested in these careers:

- Organic Agriculture or Ecologist
- Organic Grocer – Whole Foods Market
- AmeriCorps and Peace Corps – Work domestically and other countries to introduce organic farming
- Soil Scientist or Ecologist

Resources:

- *Doing the Right Thing: Farming Organically in a Complex World*, Whole Foods Market, www.wholefoodsmarket.com/issues/org_farming.html
- **A Growing appreciation for organic foods*, CNN, January 5th, 2001, Submitted by Nikolina Sajin, University of North Carolina.

Toxic Free for you and ME Habitat Project

Age Appropriate:
11 – Adult

Time: 15 – 30 min.;
expandable into
year long campaign

Impact: Awareness
and reduction of
toxins

Our homes are filled with chemical cleaners and disinfectants purchased to help clean and sanitize our homes. *How do these chemicals affect the health of humans, our pets and wildlife?*

Toxins, Inside and Out

Toxins are found everywhere you look - cleaning products that help remove dust from inside your home and pesticides help to remove unwanted plants and creatures outdoors. A toxin is a natural or man-made thing that causes harm to humans and other living things.

Different toxins have varying levels of toxicity or degrees of harmfulness. A good way to determine what household products are harmful versus those that are not is to examine the warning label. If you see the following terms and/or ingredients on the label, most likely they are considered toxic. Look for the following words: *Danger, Poison, Warning, Phosphate, and Petroleum-based.*

Did You Know That...

The average home contains anywhere from 3 to 25 gallons of toxic materials, most of which are common, household cleaners.

Health Issues:

It is difficult to say exactly what these household toxins do to human, animal and environmental health; however, physicians agree that breathing in the fumes, ingesting, and/or direct absorption into the skin could be the cause of rashes, headaches, mild to severe sicknesses to your stomach, vomiting, and sometimes even death to both humans and pets.

In addition to causing harm to humans and household pets, chemicals and toxins used in your home and outside have a disastrous effect on the environment. For example, phosphorus-containing cleaners, when dumped down the drain, flood our waterways with an unnatural level of material that is harmful to living things in our streams and lakes.

What Can I Do?

The good news is that most cleaning products and household chemicals have healthier, ecologically friendly alternatives available at your local grocery store. Follow these steps for a toxin-free home:

Take an Inventory - You can begin by examining your home and making an inventory or list of all the potential toxins and their purposes.

Dispose of Toxic Chemicals- Getting rid of the toxins, but don't put them down the drain. Contact your local Department of Public Works to find out how to safely dispose of these chemicals.

Here are some other things that you can do to keep your home and neighborhood free of toxins.

Buy Chemical-Free Cleaners – There are many low-toxin and even natural cleansers on the market today. Encourage your family and friends to be toxin-free. Some words to look for when identifying a healthy alternative: *biodegradable, phosphorus-free, non-petroleum based, and non-toxic.*

Make your own – An easy and cost effective alternative is to make your own glass cleaner by simply adding a small amount of water to vinegar. Alternatively, if you are trying to get rid of aphids on your plants just mix together some soap and water. These and other safe alternatives are easy and effective.

Spread the Word – Share your new found knowledge with younger siblings or lead a class at the local elementary school

Adopt-a-Stream– Organize a group who will periodically test the water in a local stream for changes in pH, Dissolved Oxygen, and other chemicals, and report your findings to the local water authority.

College/Career Connections:

If you are interested in this project, you may be interested in these careers:

- Toxicologist – scientists who study the potentially harmful effects that chemicals have on humans, animals and environment
- Nurse, Allergist and other health care professionals
- Agriculture Systems and Pest Management including Biotechnology – combination of technology and biology to improve agriculture productivity.

Resources:

- Children’s Healthy Environmental Coalition (CHEC) - www.chechnet.org/
- Environmental Protection Agency - www.epa.gov/ebtpages/humanhealth.html
- The GREEN Project (Global Rivers Environmental Education Network) - www.green.org/
- Seventh Generation - www.seventhgeneration.com
- Sun and Earth – www.sunandearth.com

Connecting People to Nature

Tip Sheet

Naturally Stress-Free

If you have ever taken a walk through the woods after a stressful day, then you have probably experienced the natural calming affect of nature. Believe it or not, each year we lose more of these open spaces and their natural benefits because they are under utilized and undervalued.

Losing open places to play may not seem like earth-shaking news but the fact that the average teen spends more than 6 hours a day in front of some type of electronic screen *is* news. This means that we as Americans spend little to no time exploring and playing outdoors.

Everyday Reminders:

- Go outside on a nice day to: eat lunch, do homework, chat with friends, take a walk, ride your bike, play a game, etc.
- Explore natural areas like creeks, forests, fields, and city parks with friends and family
- Visit a local nature center, zoo, arboretum, or community garden for the day

Why should we care about playing outdoors?

Researchers tell us that spending unstructured time outdoors helps our brains develop and at the same time relaxes us naturally. Take a hike in an urban park and look closely at your surroundings. There are exciting and mysterious discoveries awaiting you like insects, birds, frogs, and lily pads. Playing outdoors increases our level of exercise and helps us to release stress. Increased exercise helps to keep us healthier and happier; things that are important to all of us.

Why don't we spend more time outside?

Safety is an understandable concern for adults who might otherwise allow their children to play outside. It is challenging to combat our culture of fear bubbling from national media coverage of children-centered events. Questions still remain about the long term consequences of keeping our children inside rather than in the outdoors, which naturally stimulates curiosity and reflection. Try to enjoy some family time outside everyday.

Americans are busy individuals, so busy that even schools and daycare facilities have scaled back the number of field trips and out-of-classroom time they provide for children. If we consider studies that conclude, *spending time in nature is the key factor in developing lasting affection for nature,*² the next generation is emerging as an indoor-dwelling group that has lost nearly all physical and emotional connection with nature.

If this information concerns you, then you are not alone. Let's examine ways to safely incorporate nature into our busy lives and celebrate green spaces outside.

Research Update

'Cornell University environmental psychologists reported in 2003 that a room with a view of nature can help protect children against stress, and the nature in or around the home appears to be a significant factor in protecting the psychological well-being of children in rural areas.'

Richard Louv's *Last Child in the Woods*

Project Suggestions:

- **Walk on the Wild Side** - *Share time with a homebound senior citizen*.....Page 28
- **Literary Animal** – *Connect kids to wildlife with books*Page 30
- **Fishing, Camping, Birds Oh My!**-*Teach others a new outdoor skill*.....Page 32

Additional Resources:

- *Last Child in the Woods Saving our children from nature-deficit disorder*; Richard Louv; 2005, Algonquin Books of Chapel Hill
- ¹ *Environmental Literacy in America*, Kevin Coyle, September 2005, National Environmental Education Training Foundation
- Green Hour Blog Commentary on what parents should know about and can do to counteract common "nature deficit disorders" – www.greenhour.org

A Walk on the 'Wildlife' Side People Project

Did you know that by the year 2030 nearly 1 in 5 or 70 million people will be considered a senior citizen?

While many seniors are living longer healthier lives, many are isolated in assisted living facilities and at nursing homes around the country. While the living conditions at these homes are sufficient for health care and basic needs, there is usually a limited amount of staff time and resources dedicated to providing a wide range of activities for these older citizens.

This is a perfect opportunity to connect seniors with nature. It is common for youth to spend quality time visiting with senior citizens, especially around the holidays. These visits are the highlight of the year for seniors and youth. Why not organize a visit in the spring with a theme of getting fresh air in the outdoors and connecting with nature? There are many activities that can be adapted to a variety of locations, here are just a couple to get you started.

Age Appropriate:

11 – Adult

Time: 15 – 30 min.;
expandable into
year-long campaign

Impact: Increased
time outside,
observations, etc.

What to do before you begin:

- Contact your local retirement home or assisted living center and ask about the types of activities offered to residents
- Prepare a detailed plan of what you would like to do with the residents
- Work with an adult advisor who can assist with transportation and help coordinate the event
- Organize a group of youth who have an interest in sharing time with seniors
- If you are planning on doing arts and crafts, or projects, make sure to collect the proper tools and supplies
- Have fun and plan multiple visits throughout the year

Project Profile:

Youth visiting a local assisted living facility for the day organized the following activities for residents:

- Read nature related poems/writings or stories
- Pair up with able residents and take a short walk on the grounds

Impacts: Keep track of how you are connecting senior citizens to the outdoors. Here are some ways to share your efforts with others in your community.

- Keep track of the hours you spend visiting with seniors and outside having fun
- Make sure to keep a record of books you read and activities completed
- Keep a short journal with fun quotes and short stories about what you did and how you did it (pictures/stories/etc.)
- Share the oral history project (below) with the local radio station and see if they will play the stories on the air

Additional Suggestions:

- **Virtual Adventures** Select books with a specific theme like wildlife and outdoor adventure, and bring these stories to life through skits, plays, and puppet shows.

- **Nature Focused Oral History** Pair up youths and seniors and ask prepared questions about what their neighborhood and community used to look like when they were growing up. Record them using video and/or audio. Compile and compare/contrast aspects of the community in the past and present.
- **Wildlife Viewing** Build and decorate birdhouses and feeders. Place feeders near nursing home windows so residents can watch wildlife all year long.

College/Career Connections:

If you are interested in this project, you may be interested in these careers:

- Social Worker
- Assisted Care Nurse
- Teacher
- Naturalist
- Anthropologist

References:

- National Academy of Health, 2003, National Health Policy Conference - www.academyhealth.org/nhpc/2003/raphael.pdf

Literary Animal People Project

Age Appropriate:
16 – Adult

Time: Week long
event; expandable
into year long
campaign

Impact: Increased
time reading

Do you like little kids and animals? Do you have a favorite book that has wildlife or nature related themes? This is your chance to combine the things you love and have fun at the same time.

Young kids are creative bundles of enthusiasm that need outlets not only for their limitless energy, but also to help nurture their imaginations. Consider the facts collected about young children and their relationship with nature and the outdoors.

‘The culture of childhood that played outside is gone and children's everyday life has shifted to the indoors. As a result, children's opportunity for direct and spontaneous contact with nature is a vanishing experience of childhood’³

Think about the fun and excitement that so many kids are missing by not playing in the outdoors. There are lots of fun, easy ways to connect younger kids to nature and access their imaginations at the same time.

Things to Think About Before Getting Started:

- If you are planning to work with small children who are part of a structured program like an elementary school class or an after-school program, we encourage you to speak with the adult in charge prior to finalizing your plans and activities.
- Learn more about the interests and experiences of the young kids with whom you will work. Prepare easy to understand, age appropriate questions for kids to answer. Let them tell you stories about their familiarity with the outdoors and wildlife.
- Preview the materials and activities ahead of time. There will be a lot of distractions once you begin the program so it's best to be familiar with the stories, materials, and activities.
- Think about what you want to accomplish as part of your contact with young kids. For example, do you want them to complete an arts and crafts project, write their own story, or be active outside?

Impacts: Keep track of how you are connecting young kids to nature and wildlife. Here are some examples and thoughts about sharing your success.

- Keep track of the hours you spend outside learning and having fun
- Make sure to keep a record of books you read and activities completed
- Keep a short journal with fun quotes and short stories about what you did and how you did it (pictures/stories/etc.)

Additional Suggestions:

- **Sponsor a School** for a year by raising money for a classroom set of wildlife magazines like *Wild Animal Baby* (ages 0 – 3 years old) and *Your Big Backyard* (4 – 7 years old) - devote one hour a month to reading the stories to them.

- **Wildlife Literacy Volunteer** Become a certified volunteer at the local library and select nature or wildlife related books
- **Plan a Wildlife Fun Fair** that includes things like wild animal face painting, performances, a parade, contests, and booths to raise awareness and money for wildlife related causes.

College/Career Connections:

If you are interested in this project, you may be interested in these careers:

- Classroom teacher
- Environmental/Outdoor Educator
- Author of children's books
- Wildlife photographer

References:

¹ *Young Children's Relationship to Nature*, Randy White, 2004 White Hutchinson Leisure & Learning Group - www.whitehutchinson.com/children/articles/childrennature.shtml

Fishing, Camping and Birds.

OH MY!

People Project

Age Appropriate:
16 – Adult

Time: Week long event; expandable into year long campaign

Impact: Increased time outside, learning outdoor skills

How much time do you spend outside just playing and exploring in nature?

Believe it or not, the average middle and high school aged youth has less time to play. Reasons for this decrease in outdoor time include added time spent in school and participating in organized after school activities. Playing on the local soccer team is great exercise; however, it doesn't include discovering things in nature and having fun without competition.

Another major factor that has reduced the amount of outdoor play is the fear of strangers and nature itself. *'Due to 'stranger danger' many children are no longer free to roam their neighborhoods or even their own yards unless accompanied by adults. Fears of ultraviolet rays, insect-born diseases and various forms of pollution are also leading adults to keep children indoors'*⁴

Consider This:

*'Between 1981 and 1997, the amount of time children ages 6 to 8 in the U.S. played decreased 25%, by almost four hours per week, from 15 hours a week to 11 hours and 10 minutes'*¹.

The following are suggestions about outdoor festivals and events designed to safely reconnect people, young and old, with nature.

Before you get started:

- Make a list of people and organizations who might like to join in the festivities (for example, an event about birds may attract the local Audubon Society)
- Advertise your event well in advance. Post information in the local papers and at local businesses at least 3 months before the event.
- Keep a short journal with fun quotes and short stories about what you did and how you did it (pictures/stories/etc.)

Outdoor Event Suggestions:

- **Fishing Day Derby** Organize local kids and families to participate in a day of fishing. National Fishing and Hunting Day (Fourth Saturday of September)
www.nhfd.org/index.htm
- **The Great American Backyard Campout™** Get back to nature with a night outside under the stars. Invite family and friends to 'rough it' in your backyard or local campground. www.backyardcampout.org/stories/default.aspx
- **Earth Day Fun Run** Celebrate Earth Day and/or wildlife by organizing a 5 kilometer fun run in your community. Raise awareness about wildlife and encourage participants to dress up.

- **Bird Watching Bonanza** Teach others the art of bird watching and see how many different species each participant can identify in a 24-hour period of time. Find local birders through National Audubon Society www.audubon.org/
- **Wildlife Photography Contest** Foster the connection of art and wildlife by holding a wildlife and nature photo contest for youth. Display pictures at a local nature center, airport, or mall to increase interest in the outdoors.
- **Adopt-a-Stream** Work with others to keep the waterways in your community clean and healthy. Go one step further with these fun additions.
 - Raise and release trout fry as part of a restoration effort for native fish in your community's waterways. Trout Unlimited 'Trout in the Classroom' program. www.tu.org/site/pp.asp?c=7dJEKTNuFmG&b=404755

College/Career Connections:

If you are interested in this project, you may be interested in these careers:

- Park Ranger
- Outdoor Educator
- Naturalist
- Nature Photographer
- Outdoor Recreational Planner

References:

¹ *Young Children's Relationship to Nature*, Randy White, 2004 White Hutchinson Leisure & Learning Group - www.whitehutchinson.com/children/articles/childrennature.shtml

Project Suggestions:

What other two projects would you be likely to implement? (Circle/highlight your choice from the following topics or add your own)

- Water Quality
- Energy Conservation
- Air Quality
- Endangered Species
- Climate Change
- Others:

Are there annual events and/or specific time(s) of year when your group typically engages in these activities? If so, what event(s) and what time of the year?

We are collecting case studies and best practices to share with others. Can we contact you to learn more about your project? (Circle one)

Yes

No

Improvements to this Guide:

Please offer any suggestions that would improve the quality of this guide.

Keeping In Touch:

We would love to be part of your network for information and resources. If you would like to be connected with us and part of the National Wildlife Federation network please let us know.

(Circle one)

- No thank you.
- Yes, - include your email or contact us at nationalwildlifeweek@nwf.org