Conservation Leaders in Our Communities

Report of the NRPA Conservation Task Force

with Best Practices and Case Studies

National Recreation and Park Association

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Introduction

IN THE FALL OF 2010, NRPA FORMED A TASK FORCE ON CONSERVATION to examine how park and recreation agencies could do more to implement conservation at the community level. Forty-one NRPA members, representing an excellent cross-section of NRPA membership geographically and professionally, volunteered to serve on the task force. The Conservation Task Force (CTF) had its first meeting in October 2010 and has worked for the past year to address the following objectives:

- To research and recommend environmentally sustainable and cost-saving management practices in conservation that can be readily adopted by any park and recreation agency.
- To identify and recommend strategies and practical steps by which park and recreation agencies can be a role model for sustainability in their communities and to promote such practices by example.
- To collect information on best practices in conservation and to share that knowledge broadly with NRPA members and the public.

The Conservation Task Force has completed work on the primary objectives and has produced the following:

- A summary report and recommendations of the Conservation Task Force
- A compilation of Best Practice summaries and case studies
- Identification of gaps in conservation knowledge, practice, and research
- A digital library of best practice examples and other information on conservation practice for park and recreation agencies for the NRPA Conservation Resource Center, and available to members.

All of the deliverables of the CTF are available for reading and download on the NRPA website at www.nrpa.org/conservation.

Conservation Leaders in Our Communities

Report of the Conservation Task Force / November 2011

A CORE MISSION OF PUBLIC PARKS AND RECREATION is to acquire land for parks and to protect the natural and cultural resources of a community, region, or state. This mission animates the services public park agencies provide to promote individual, social, and environmental health within our communities. This conservation mission of contributing to environmental quality and quality of life has become increasingly important to public parks, and it has received broad public support across the country.

As the largest landowners in most communities, public park and recreation agencies have a vital responsibility for stewardship of land and resources. Good stewardship requires management practices that protect and enhance the recreational, environmental, social, and cultural values of public lands and natural and cultural resources in a manner that is cost-effective and sustainable for future generations.

The Conservation Task Force (CTF) began its work with the acknowledgement that the field of public parks and recreation is changing dramatically and perhaps irrevocably, and focused on identifying challenges and recommending strategies to suggest a vision for parks and recreation that embraces conservation as a primary purpose of all of parks and recreation. This vision will enable NPRA to take a leadership role as the national organization leading parks and recreation in implementation of conservation practice and principles.

Also recognizing that the challenge for park and recreation agencies to fulfill their conservation mission is broad and encompassing, and that the time and resources of the Conservation Task Force were limited, the task force chose to focus on what they perceived as the most important conservation priorities for parks and recreation agencies at this time: natural resources conservation, sustainable landscapes, youth engagement, stewardship, and energy conservation.

Members of the CTF contributed a series of Best Management Practice summaries (BMPs) and Case Studies that they have employed in their agencies to implement conservation practices. Several of the BMPs are highlighted in this report. All of the case studies and best practices are available online in a new Conservation Resource Center at www.nrpa.org/conservation.

A charge to the CTF was to identify gaps in conservation

VIRGINIA STATE PARKS

Tree Army volunteers plant trees at First Landing State Park, Virginia, on the Chesapeake Bay.

FIVE RIVERS METROPARKS

Forest Foster Family Program, Five Rivers Metroparks, Ohio

practice and knowledge both for NRPA and for the field generally.

The gap analysis has been provided to NPRA leadership, along with recommendations for how to best address gaps in knowledge, training, and implementation of conservation practice. A condensed version is contained in this report.

Finally, if all park and recreation agencies are to achieve success in the core mission of being leaders in conservation in their communities, the CTF realized that a simple set of recommended actions will be invaluable in guiding citizens, professionals, and agencies to best achieve their conservation goals. Therefore, the CTF produced a list of the Top Ten Recommendations on how public park and recreation agencies can do more to promote conservation at the community level.

CONSERVATION: A Core Mission of Public Parks and Recreation

Virtually every mission statement of public park and recreation agencies includes as part of their core purpose to acquire land for parks and to protect the natural and cultural resources of a community, region, or state. The core mission services provided by park and recreation agencies promote individual, social, and environmental health in their communities. At the heart, the mission of every park and recreation agency includes the goal to promote conservation—of land, resources, and the environment.

This conservation mission of public parks—contributing to clean air and clean water, conserving open space, protecting natural resources, providing spaces for healthy outdoor recreation, and improving health—has become increasingly important to the daily life of people in every community in America. In most communities, parks, trails, and public lands are no longer viewed as amenities but as essential to the health and wellbeing of individuals and the community at large. Parks contribute to providing clean air to breathe and clean water to drink, protecting against floods and extreme weather events, enabling the eating of healthy foods, and reducing stress brought on by the challenges of daily life. Parks are seen as essential to the quality of life in a community.

As the largest owners of land in most cities, counties, and regions, public park and recreation agencies have a vital responsibility, perhaps the greatest of any governmental body, for stewardship of land, water, and natural resources. Good stewardship requires management practices that protect and enhance the recreational, environmental, social, and cultural values of public lands and natural and cultural resources in a manner that is cost-effective and sustainable for future generations.

The Conservation Task Force has been mindful that the field of public parks and recreation is changing. External forces beyond the control of local, regional, and state agencies are shaping the way parks and recreation serves the public. In recognition of this changing landscape and the new realities affecting parks and recreation, the Conservation Task Force had a goal to identify the most significant challenges and to recommend strategies to activate a vision which embraces the mission of conservation as a primary purpose of all of parks and recreation. This does not mean that other core missions of park and recreation agencies are any less important, but that conservation clearly has a new importance for the long-term future of public parks and recreation.

This vision calls for NPRA to take the leadership role as the primary national organization for parks and recreation in implementation of conservation practice and principles. This vision charts a course and sets new direction for NRPA.

A Conservation Vision for NRPA:

That NRPA will nationally position public parks and recreation at the forefront of conservation and environmental stewardship by stimulating, facilitating, and promoting leadership in conservation from within our communities.

Because the challenge for park and recreation agencies to fulfill their conservation mission is broad and encompassing, and the time and resources of the Conservation Task Force were limited, the task force chose to focus on five conservation priorities, in recognition that these are the most significant conservation priorities for parks and recreation now. While more than 20

An NRPA survey of 1,900 parks agencies (430 responding) in 2007 showed that nearly 30 percent had no natural area parks and no nature-based educational programming.

categories of conservation priorities and strategies were considered by the members of the task force, the task force decided to focus on these critical priorities:

- Natural Resources Conservation and Management
- Sustainable Landscapes
- Stewardship
- Youth Engagement
- Energy Conservation and Energy Efficiency

In determining these priority areas, task force members noted the wide disparities in how some park and recreation agencies embrace conservation as a core mission of their agency while some do not. The task force noted that smaller agencies in particular may not have the resources or expertise to implement complex or larger scale conservation initiatives. While many regional and special park district agencies were formed precisely with the mission to implement land and water conservation objectives such as acquiring entire stream valleys as parks or protecting unique ecological, natural, or cultural resource features, other park and recreation agencies have not had conservation objectives as a core mission.

Most park and recreation agencies, however, have found that the public and elected officials are increasingly expecting them to implement conservation practices within their parks, and to demonstrate conservation leadership at the local level. The public recognizes that the physical assets of parks, trails, natural areas, waterfronts, and other public lands contribute significantly to the overall individual, social, and environmental health of communities that they serve, and they want to see the results of implementation of conservation practices within their communities. Thus, natural resource management and conservation, sustainable landscapes, opportunities for stewardship, engagement of youth, and energy conservation have become high priorities for park and recreation agencies.

Gaps in Conservation Knowledge and Practice

The Conservation Task Force was charged with providing an analysis of gaps in conservation knowledge and practice, both for NRPA and for the field of parks and recreation generally. The CTF identified a number of gaps in both knowledge and practice. This report contains a summary of the highlights; a more complete analysis and identification of need can be found on the Conservation webpage at www.nrpa.org/conservation.

- One of the most frequently cited gaps is the lack of training and professional development for parks and recreation agency staff. This need is cited across the board, from parks maintenance and management staff up through landscape architects and park planners to administrators and executive staff. Virtually all classifications of park and recreation professionals have noted that NRPA needs to provide better training and professional development opportunities for conservation and parks management.

HANCOCK PARK DISTRICT

Teens volunteer for Conservation Area maintenance in Hancock County, Ohio

A high school group plants native trees in Louisiana.

BREC

■ Many members have expressed a desire for NRPA to do more in demonstrating leadership on conservation in areas such as promoting best management practices, implementing cutting-edge conservation strategies, and developing strong creative partnerships for conservation.

■ There are significant gaps in conservation knowledge within parks and recreation. These include but are not limited to the following: knowledge of water conservation; water quality protection; wetland and stream management; forest management (especially urban forest management); sustainable landscapes; integrated pest management; invasive species control; energy conservation; climate change response; and other areas of conservation practice. NRPA needs to provide better conservation knowledge to the profession. Agencies need better tools, resources, and information to be more readily accessible and widely available to both professionals and citizens.

■ NRPA is not seen as a conservation organization, but as a recreation organization. There is a gap in perception and knowledge of this aspect of NRPA's core mission, and a need to correct this misperception through leadership and example.

■ NRPA does not address major conservation priorities of parks in a coherent, consistent way. Better science-based knowledge related to parks and conservation is needed. NRPA should also look strategically at how engagement in national and regional conservation policy priorities including energy development; land conservation; storm water management; protection of rare, threatened, and endangered species; response to climate change; air and water quality protection; wetlands conservation; drought response; and wildlife habitat protection can be incorporated into conservation strategies to be adopted by NRPA and public park and recreation agencies nationally.

■ An NRPA survey of 1,900 parks agencies (430 responding) in 2007 showed that nearly 30 percent had no natural area parks and no nature-based educational programming. NRPA should address how to provide tools and resources for agency development of nature-based conservation education and programming for children and youth, including how best to engage the public in stewardship.

■ Research gaps exist in several important areas related to conservation. Research is needed on the impacts of implementation of conservation practices to parks and the benefits of conservation for communities. One critical need is research on the economic benefits, cost savings, and jobs creation potential of implementing conservation practices in communities.

■ There is a gap in knowledge on how to create strategic partnerships for conservation, especially partnerships with organizations that have knowledge, infrastructure, or funding to partner to help parks providers. Additionally, increased knowledge on land acquisition and conservation planning is needed. NRPA should promote models of success in creating partnerships and developing conservation plans.

■ There is a gap in public support for and engagement in conservation at the local and community level by minorities and people of color. Agencies need better tools, training, and resources on how to engage minorities, underserved populations, urban residents, and rural constituencies in conservation at the community level.

Conservation Best Management Practices for Parks and Recreation

In addition to the Top Ten Recommendations, the CTF gathered a compilation of best management practices and case studies to encourage and educate park and recreation professionals. These and other tools are available online to share models for success and to help local park and recreation agencies incorporate conservation practices into their organizations.

Nearly 30 conservation best management practices and case studies are listed on page 15. The full text of the best practice summaries and case studies can be found at www.nrpa.org/conservation. This ongoing digital library will be expanded regularly with new knowledge and new information on conservation for parks, and will include an information exchange for member discussion.

ONLINE AND DOWNLOADABLE RESOURCES FOR CONSERVATION:

- Full Report of the Conservation Task Force
- Top Ten Recommendations
- Digital library of Conservation Best Management Practices and Case Studies
- Conservation Discussion Group on NRPA Connect
- Park Resources Network
- NRPA Green School—New in 2012, outstanding opportunities for staff training in sustainability and conservation practices

www.nrpa.org/conservation

TOP TEN RECOMMENDATIONS OF THE CONSERVATION TASK FORCE

1 Take a leadership role in the community to promote conservation. Park and recreation agencies have a unique opportunity to bring governmental agencies, nonprofit organizations, community leaders, and the public together for the cause of working on community-wide conservation objectives—clean water, wildlife habitat preservation, reducing energy use, and improving environmental quality. Park and recreation agencies must lead the way in promoting conservation to diverse and underserved audiences.

2 Lead by example in employing best management conservation practices in parks. Park and recreation agencies should become the catalyst in the community for conservation by showing how best practices can be adopted—not mowing what doesn't need to be mowed, stopping wasteful energy consumption, and reducing pesticide use, for example. Show the public how conservation practices can benefit everyone.

3 Protect natural resources in parks and in the community. A core mission of public parks is to protect land and water resources and to be stewards of natural resources. This means committing personnel and resources to protect natural and cultural resources and creating sustainable long-term methods of funding this conservation mission. Parks and recreation agencies are entrusted with some of the most important public assets of a community and the conservation and long-term protection of this public trust is and should be a core component of every parks and recreation agency's mission.

4 Forge partnerships that foster the mission of conservation. The greatest and most beneficial conservation successes most often occur as a result of collaboration. Park and recreation agencies should partner with nonprofit and community service organizations, universities and colleges, school systems, other governmental agencies, and non-traditional partners for conservation outcomes. Promote health, education, green jobs, and other goals while working toward a common mission of conservation.

5 Create sustainable landscapes that demonstrate principles of conservation. Use sustainable landscapes to save taxpayer funds, to measurably improve conservation benefits, and to educate the public about conservation. For example, agencies can reduce turf grass and mowing frequency, replace turf with native plants, manage floodplains for multiple uses including conservation and public recreation, enhance wetlands for water filtration and groundwater recharge, plant model landscapes of drought-tolerant native plants adapted to climate and culture, and promote parks as food sources through edible landscapes and community gardens.

6 Engage youth in conservation. Get kids and teens outdoors and enjoying their parks. The experience of nature is inherently rewarding for youth. Set as a goal connecting kids in the community to nature and the outdoors. Conservation should be embedded in every aspect of recreation planning. Children and youth will be fascinated by nature and will develop a lifelong affinity, as well as a conservation ethic, if they have early opportunities to enjoy nature and recreate outdoors.

7 Involve volunteers in conservation and stewardship. Create a sense of belonging and stewardship for parks by creating a personal sense of ownership and value. Enable people to identify with their parks and natural resources, and to care about their future. Sustain stewardship by creating meaningful public participation in implementation of conservation principles and practices.

8 Establish a strategic land acquisition strategy based on knowledge and awareness of significant natural and cultural resources (watershed protection, unique ecological characteristics, and sensitive natural areas deserving protection). As the largest owners of public land in most communities, park and recreation agencies should lead the way in developing a strategic vision for preserving open space and conserving important landscapes and natural features.

9 Conserve energy in all ways. Park and recreation agencies must lead by example, showing the public how and why they should adopt practices that they can see demonstrated in parks and recreation facilities. Park and recreation agencies should adopt energy conservation measures that make sense and save public taxpayer funds.

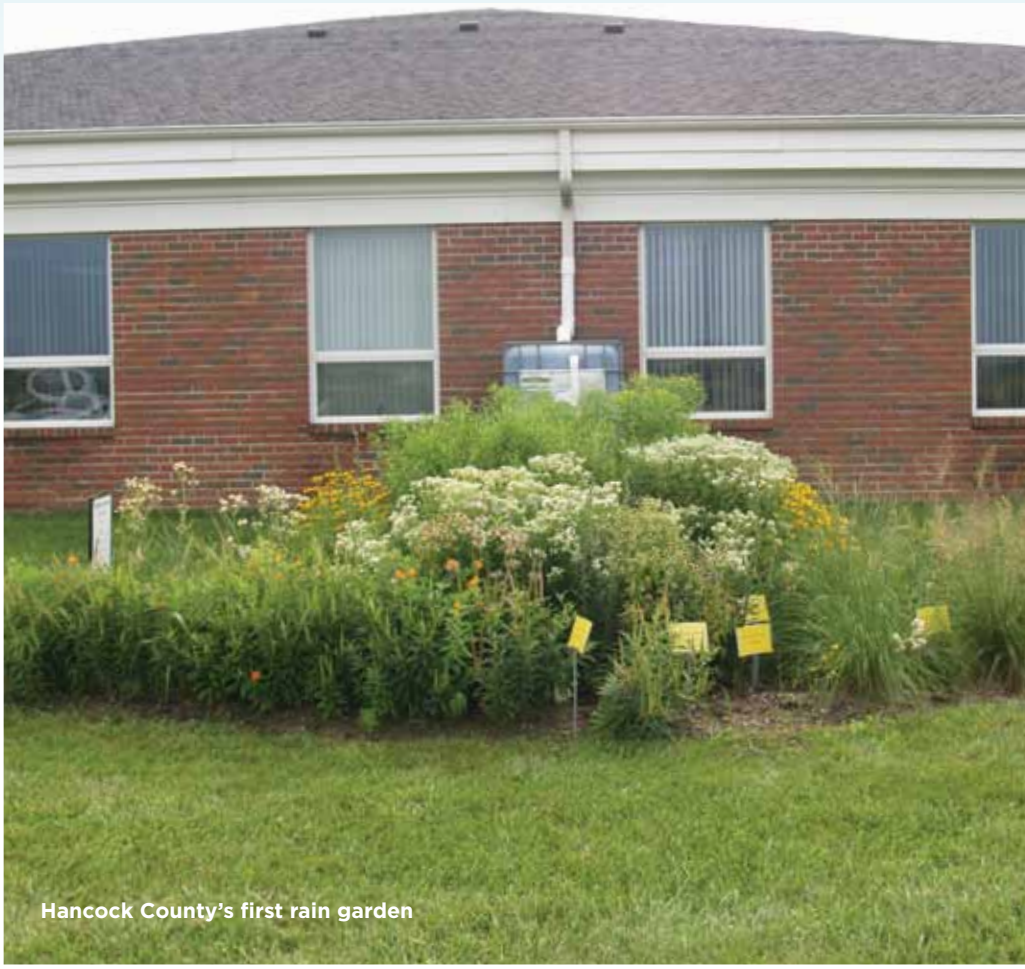
10 Utilize technology to promote conservation. Park and recreation agencies need to embrace technology to promote conservation. This is not only in applications such as GIS, but in utilizing social media to engage the public, especially youth. Technology is not to be feared as something that detracts from the conservation mission of parks agencies, but rather it is to be accepted as a means of sharing knowledge and connecting people to conservation and stewardship.

Rain Gardens

Project Description and Purpose

A rain garden is simply a planted depression that slows and filters rainwater runoff from impervious surfaces such as building roofs and parking lots. To demonstrate the benefits of creating sustainable landscapes that actively improve environmental quality and save funds, three agencies worked together to install a demonstration rain garden at the Ohio Agricultural Service Center in Hancock County, Ohio. Creating a demonstration garden on a very active public site allows many people in the community to witness the process and see first-hand what sustainable landscapes are capable of achieving.

To create this small demonstration garden, soil was removed and organic material with good porosity was installed before a variety of water-tolerant plants was planted. A rain barrel was attached to the buildings' drain spout with an overflow pipe. As part of the design, once the rain barrel fills, it overflows onto rocks and flows into the rain garden. Water velocity of runoff from impervious surfaces is slowed, detained, and naturally filtered before percolating into the ground or flowing off site.



Hancock County's first rain garden

HANCOCK PARK DISTRICT

Project Goals of Creating Conservation Partnership and Educating Community Achieved

This project was the first rain garden in Hancock County, Ohio. The ongoing goal is to raise awareness and inform and educate the community about the benefits of a rain garden and its practical application in managing storm water runoff from impermeable surfaces.

Three primary agencies were involved in this project: Hancock Park District, Hancock Soil and Water Conservation District, and Ohio State University Extension Master Gardener Program. Each agency contributed staff time for planning, coordinating, plant growth, construction, upkeep, and education. Hancock County Commissioners contributed funds for signage and supplies.

The Hancock Park District propagated plants in the greenhouse and planted the rain garden, which was prepared by a local youth group, and then developed a rain garden brochure with plant listing. The general brochure is available at all three agency offices, including the Hancock Soil and Water Conservation District office, where the rain garden is located.

The Hancock Soil and Water Conservation District monitors water levels in the rain barrel. All agencies contribute staff time to weed control.

Small Project Produces Big Dividends

As a demonstration project, this rain garden serves as an excellent example of what can be done at low cost on public lands and home sites to reduce the negative effects of storm water. As added benefits, the rain garden creates a more permeable surface that drains water, reduces lawn maintenance, and adds beauty and wildlife habitat.

For more information on how the Hancock Park District partnered to create this rain garden and the lessons learned, contact: Gary Pruitt, Park District Director, gpruitt@hancockparks.com, 419.425.7275

Reduced Mowing Saves Funds and Improves Natural Resources

Project Description

In 2004, a mowing reduction plan was developed by Whetsone Park in Columbus, Ohio, to address the budget cuts resulting from a severe economic downturn in central Ohio. Mowing acres were reduced by 40 percent, which considerably reduced the department's grounds maintenance costs and at the same time yielded significant environmental benefits.

All regional, community, and neighborhood parks were evaluated and categorized by level of use and development as well as the conservation of natural resources and wildlife habitat. Vegetative buffers were established to protect reservoir shorelines and other waterways, including rivulets and even drainage ditches. Grassland areas were expanded to accommodate ground-nesting bird species, such as by expanding habitat for field sparrow, bobolink, and other grassland-nesting species.

Twelve previously mowed areas, including embankments, were planted with native wildflowers and deep-rooted grasses. Although there was a public education campaign developed to support the new mowing plan, these practices were met with much public criticism. The agency followed with a marketing and education campaign promoting the environmental and economic benefits of the grounds maintenance plan and eventually received public support. When the wildflowers bloomed, park neighbors were taken with their beauty and other neighborhoods requested wildflowers in lieu of mowing.

Conservation Benefits Beyond Cost Savings

One of the best outcomes for conservation of the mowing reduction plan was the creation of the Whetstone Prairie within the boundaries of Whetstone Park. Whetstone Park is an intensively used 300-acre urban oasis in the middle of densely populated neighborhoods in Columbus. A portion of the park that was used as an alternate soccer field, but was often too wet for play due to its proximity to the Olentangy River, was converted to a no-mow area. A five-acre area was planted with native species and established as Whetstone Prairie. The Wild Ones, a nonprofit organization that promotes native landscapes, offered to design, develop, and manage the prairie. Although this group is no longer officially involved in management of the prairie, volunteers known as Friends of the Prairie periodically remove invasive species such as thistle, work with the city to conduct prescribed burns, and maintain the grass paths that weave through the prairie. Volunteer support has been critical throughout the life of this project because of reduced support from the park and recreation agency due to severe budget cuts.

The busy community center in Whetstone Park utilizes the prairie extensively for various purposes and it has become a valuable community nature resource for urban Columbus, Ohio.

For more information on how to reduce mowing and gain public support for new conservation objectives, contact: Elayna Grody, Water Protection Coordinator, City of Columbus Public Utilities (Ohio), 614.645.1721, EMGrody@Columbus.gov.

MARK YOUNG

A previously mowed 5-acre section of Whetstone Park in Columbus, Ohio, was transformed into a demonstration prairie. The prairie requires little maintenance, protects an adjacent stream, and is a resource for teachers and students engaged in environmental education.

CASE STUDY

Creating Partnerships to Engage Youth in Conservation and Stewardship

Agency Goals

The Park and Recreation Commission of East Baton Rouge Parish (BREC) has developed a number of projects and partnerships that engage youth in environmental stewardship and sustainability, conserving natural resources, and energy conservation. These projects include tree planting, invasive plant removal, fundraisers for environmental organizations, and recycling projects.

Partnering with schools, nonprofit conservation organizations, individuals, local universities, scouts, and others interested in the environment is a primary vehicle for our agency's stewardship efforts. Many of these groups share common goals of conservation and often require service hours or completion of a conservation project, but some just want to contribute to conservation outcomes in the community. We take calls from these groups looking to partner very seriously and work with them to develop an understanding of implementing a successful project.

Project Partners

Many of the tree planting stewardship projects in BREC parks are a result of a partnership with the Coastal Roots (CR) Program led by program staff at Louisiana State University and established at schools statewide. As part of the CR program, students participating in the program become well informed about the issues of environmental stewardship and sustainability and actively participate in habitat restoration projects. BREC partners with the CR program by providing stewardship opportunities at our parks, where native trees that are grown at nurseries in the schools can be planted. Staff from the BREC Conservation Department explore and develop opportunities to incorporate tree planting in existing parks as part of a management strategy for each park. In our most recent CR planting project, a one-acre area of grass in a park that was underutilized was mulched and planted with native trees. This project has a secondary environmental benefit of reducing the amount of grassy area that requires mowing, thereby conserving energy and reducing staff time and resources for mowing while still meeting our mission of providing recreational opportunities.

BREC has partnered with several scout groups on environmental stewardship efforts over the years. Boy Scout and Girl Scout projects have included removal of invasive Chinese tallow and Chinese privet trees at our Conservation Areas. Boy Scout, Cub Scout, and Girl Scout projects have also included planting native trees in accordance with a restoration planting plan for a mitigation project that is one of our conservation areas.

One of our most successful Scout stewardship projects was collaboration between BREC, volunteers from Boy Scout Troop 12, the Baton Rouge Recycling Foundation, and the Baton Rouge Soccer Association. In June 2010, BREC hosted the U.S. Youth Soccer Region III Championship Tournament at the BREC Burbank Soccer Complex. During the six-day tournament, the scout volunteers worked to recycle over 1.6 tons of plastic, aluminum, and cardboard. Recycling containers were provided by the Recycling Foundation, and a utility cart to assist with the collection was provided by the Baton Rouge Soccer Association.

In 2011, BREC collaborated with individual high school students who sought to complete service projects. The first project was a large tree-planting effort at

Global Youth Service Day lake cleanup

PHOTOS: BREC

one of our parks. The student submitted and received a grant application from an area foundation to plant trees at an area park. The student then partnered with BREC and an area nonprofit tree advocacy group to acquire and organize a volunteer effort to plant the native trees. BREC provided support by having a landscape architect find the appropriate location for the trees and get construction crews to dig the holes for the large trees prior to the planting.

The second project involved a high school student who wanted to raise funds to assist organizations rehabilitating wildlife impacted by the 2010 BP oil spill. Staff worked with the student to instruct her in fundraising and provided her with a venue at one of our conservation areas to host a fundraiser for the project. Her fundraiser, "Walk 4 Wildlife," raised over $1,500 to benefit the Louisiana Marine Mammal and Sea Turtle Rescue Program and Wings of Hope Wildlife Sanctuary. BREC has been fortunate to partner with the Wings of Hope Wildlife Sanctuary for years and they have supported our programs and conservation efforts.

In June of 2011, BREC partnered with a local nonprofit (City Year) and a local youth leadership group (the Hugh O'Brian Youth Leadership Program) to implement a stewardship project that cleaned up two lakes that are adjacent to BREC parks. This project was part of the Global Youth Service Day (GYSD) that included service projects around the world. The local nonprofit group solicited supplies from various groups including American Rivers, which donated garbage bags and advertised the cleanup on their 2011 National River Cleanup website; local restaurants which donated food and drinks; Louisiana State University which donated garage grabbers; a local adventure outfitter which donated canoes, kayaks, paddles, and PFDs for the day; and the local Keep Baton Rouge Beautiful organization, which donated gloves. Hundreds of participants, mainly local youth, picked up garbage to clean up the lakes.

While BREC does not currently incorporate specific formal career orientation to guide youth to "green" job

opportunities, we do have programs such as the Bluebonnet Bird Monitoring program that does actively recruit university students as volunteers and teaches them contemporary bird monitoring techniques in order to prepare the next generation of informed conservationists and wildlife biologists. This program also provides extensive hands on outreach opportunities for K-12 students to learn from and interact with captured birds and the young college-aged biologists who teach them about avian ecology, wildlife biology, and conservation and provide great role models for the youth.

Funding

The programs are funded in a variety of ways. Many of the projects are funded primarily through our partners, but also out of current operating budgets with existing staff. In some cases, the program is supported through donations of supplies and materials from businesses. Staff works with the youth to develop their understanding of necessary funding to complete a project and educate them about how to solicit funds for their project. This is an important part of the development of leadership skills in youth, and it helps to ensure success of projects.

Social Media Utilized

Social media and mobile technology (Facebook, Twitter, and various postings on webpages) were effective in soliciting volunteers for the GYSD project. Social media and mobile technology (posting photographs and stories) have been supported in the post-event marketing of almost all of our stewardship projects.

Creating a Culture of Conservation in Youth

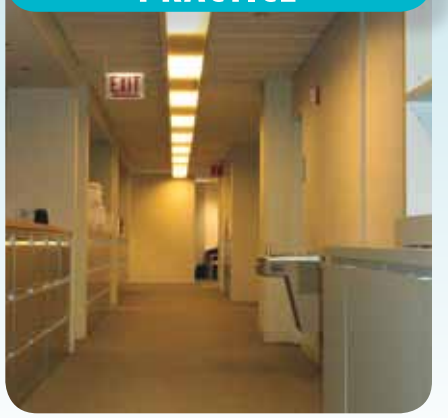
We have had the most success instilling a dedication to conservation in young people in our summer camp program. In this program, we have the time to work with participants to delve deeply into conservation issues and develop environmental stewardship leaders. We typically have these young people for 40-50 hours each week (7:30 a.m.–5:30 p.m.) during the summer, and many of them come back for years after. During our summer camp, we explore various issues in great depth and provide young people hands-on opportunities for environmental stewardship. Youths that participate in this program develop an appreciation for the environment and an understanding of the value of nature, making it easy to motivate them to identify actions that they can take to conserve the environment. Research has supported findings that such experiences are where environmental stewardship and a culture of conservation will be developed.

Goals Set, Results Evaluated

In each case where we partner with an organization, we try to establish measurable goals for specific projects. Each project is different. Tree-planting projects can measure the number of trees planted. Garbage or recycling projects can measure the amount and types of garbage or recyclables picked up over a given period of time. Sometimes in working with partners, particularly young partners, the learning experience involves evaluating the outcome as part of a project after action review. It also may involve discussing why we met, didn't meet, or exceeded our projected outcomes.

For more information on how the Recreation and Park Commission of East Baton Rouge Parish (BREC) creates partnerships to foster stewardship and conservation, contact: Greg Grandy, ggrandy@brec.org, 225.273.6405, 6201 Florida Boulevard, Baton Rouge, LA 70806.

BEST MANAGEMENT PRACTICE



How to Develop an Energy Conservation Program for Your Agency

A Best Practice for Agencies

One of the most important steps any park and recreation agency can take as part of a conservation strategy is to reduce energy consumption. Making your agency's facilities and equipment more energy efficient and reducing the amount of energy you consume will reduce costs and reduce impacts on the environment, ultimately making your agency more sustainable. But how do you get started? Following is an outline of steps to consider when developing an energy conservation program.

Developing an Energy Conservation Program for your Agency

- **Measure and document a baseline of energy usage (ideally, a year's worth for each facility)**

In order to conserve energy, you need to know how much each facility and energy cost center in your organization is using. This applies to electric, heat, oil, gas, fuel, and all types of energy consumed. First, determine who pays the utility bills and if they have access to utility usage data. Work with your energy provider as they may be able to run usage reports by account. Work with your facilities staff to determine which accounts belong to which facilities. Note that usage amounts and dollars spent are two different things to measure. The cost of utilities may fluctuate from year to year depending on your contracts. The usage of utilities may fluctuate month to month depending on weather or usage patterns. Once you have the usage data, develop a baseline for each account or facility—ideally a full year's worth of use or at least a seasonally representative sample of several months.

- **Understand and take credit for what the organization is already doing**

Assess your organization's facilities and operations for energy use. Identify where you have already implemented energy -saving practices and where you can still apply creative solutions to reduce energy use. For example, do you purchase Energy Star certified appliances or electronics? Do facilities have motion or occupancy sensors to turn lights on and off? Are fleet managers implementing anti-idling policies to reduce wasted fuel? You may be surprised by what your organization is already doing, and your effort to identify how you use and save energy will produce new ideas for more savings.

- **Set goals and have policies for energy conservation**

Once you have baseline usage, you can look at how to set a goal of reducing usage by a certain percentage. Or you may look at setting a goal of saving a specific amount of actual energy used. Review facilities for reduction opportunities that can range from the simple (turning off the lights) to the complex (HVAC system retrofits). Determine if there are facilities that are slated for energy-efficient upgrades and how much potential energy savings will be available. Prioritize the steps and retrofits you can take for energy-saving strategies from the largest amount of energy saved to the lowest and then devise an implementation plan consistent with your annual budget to achieve the greatest amount of savings for the most appropriate investments in time and money.

- **Implement simple energy conservation measures in both facilities and operations**

Work with staff in the facilities to identify simple energy conservation measures such as turning off lights when no one is using facilities or is in a room. Identify equipment that is running when not in use, and devise ways to easily and simply turn such equipment off when it is not in use. Get surge suppressors for computers, for example, or power strips for multiple electronics. You may also be able to identify simple energy efficiency retrofits such as replacing incandescent light bulbs with compact fluorescent bulbs. No matter how much you have already done, there are almost always more ways to reduce energy use with simple solutions.

For more ideas on how to implement simple energy conservation measures, go to: www.energysavers.gov.

- **Train staff and educate the public**

Develop a messaging campaign about the energy conservation measures that you are implementing. Provide staff with training on when daylighting can be substituted for interior lights. If your organization has similar facilities, develop an energy reduction contest between the facilities that compares energy reductions and then shares best practices among staff afterwards. Promote your campaign to the public, encouraging them to recognize your efforts to save taxpayer dollars, and to adopt similar steps in their own homes and businesses.

- **Measure reductions both in energy units and dollar savings**

Work with your utility company or your billing department to track monthly utility usage. Compare year-to-year usage to see if reduction goals have been met. Compare costs but adjust for contract changes or off-peak prices. If facilities are reducing energy, let them know about it! Incentivize managers and staff to save energy, and provide tangible rewards and recognition to staff and facilities.

■ **Look for smart designs in retrofits and capital projects**

When considering upgrades to facilities or new facility construction, ensure that energy efficiency is part of the discussion. Consider energy-efficient lighting, high-efficiency heating and cooling systems, additional insulation, and efficient doors and windows. Look to the U.S. Green Building Council's LEED rating system as a guide for energy efficiency goals.

For larger projects, consider special training for certain staff in how to apply new technologies or design with energy-efficient equipment—or consider bringing in a consultant to advise you. Often, the savings will more than pay for the up-front expense, and these savings will extend well into the future in reduced energy consumption and costs.

For more information on energy retrofits and smart energy design, go to the U.S. Green Building Council site at: www.usgbc.org.

■ **Incorporate alternative energy sources where possible**

If you have the opportunity to implement integrated renewable energy systems in new construction or major retrofits, look for opportunities to utilize alternative energy sources. First, ensure that you calculate the return on investment at the beginning of your process to determine potential cost savings; and if cost-benefits ratios are favorable, consider making the choice for alternative energy. Such a choice can also serve a public education benefit if it is properly interpreted and explained to the public. Alternative energy sources are particularly suitable for educational facilities such as nature and environmental education facilities where the efficient use of alternative energy can be incorporated into learning programs. When making bulk electricity purchases, include green power in your portfolio.

For more information on how to incorporate alternative energy sources into retrofits and new construction, go to: www.epa.gov/cleanenergy.

■ **Continue monitoring your energy use**

Continue tracking energy usage to determine whether reduction goals are met. Also by tracking energy usage, you may find anomalies that indicate equipment or usage issues. Also, continue looking for energy efficiency or conservation projects that can be short-term or long-term. Look to the International Standards Organization ISO 50001 for guidance in implementation of an Energy Management System.

For more information on how Chicago Park District uses these strategies in its energy conservation program, contact: Brendan Daley, Director of Green Initiatives, Chicago Park District, brendan.daley@chicagoparkdistrict.com

Solar and wind powered pedestrian lights at Northerly Island, Chicago

CHICAGO PARK DISTRICT

CASE STUDY

Wind and Solar Learning Center

Project Description

This innovative energy conservation and education project is located in Glacier Ridge Park, which is operated by Metro Parks of Franklin County near Columbus, Ohio. The project consists of a 7.5-kW energy wind turbine and two solar panels that generate electricity for the park. In addition to the wind turbine and solar array, a small education center called the Wind and Solar Learning Center was constructed near the tower to interpret wind and solar energy science and educate the public about renewable energy sources.

This project is an outgrowth of the Metro Parks agency mission to promote environmental conservation. The flat, open grasslands of the park are an ideal setting for siting wind and solar energy facilities, and robust public visitation to this park makes it an ideal location for public and youth education. This structure and education facility are consistent with the education focus of the park on alternative energy sources.

In addition to the facility at Glacier Ridge, Metro Parks partners with the nearby Dublin City Schools in assisting with curriculum development on renewable energy sources and other conservation principles.

Obstacles Encountered

When Metro Parks first proposed the alternative energy project, the electric distribution cooperative Union Rural Electric rejected the plan. Union Rural Electric (URE) and the 24 other Ohio electric cooperatives own Buckeye Power, and they agreed to buy all their power from Buckeye. When the Glacier Ridge project was proposed, URE staff believed that interconnection to any other power than that which they generated would technically violate that agreement. Research for the project turned up a 1978 regulation that required Buckeye to allow interconnection regardless of the all-requirements contract. Confirming that there were no further barriers at either URE or Buckeye Power, the process to write an interconnect agreement was launched. Today, that agreement is used as the model for agreements in electric cooperatives statewide.

This infrastructure for the project was completed in 2004, but that didn't mean that regulatory hurdles were over. Once the generation was functional, the next obstacle was interconnecting with the transmission grid, which is regulated by the Federal Energy Reliability Council (FERC). A generation supplier must be rated as a "qualified facility" before connecting to the grid. Obtaining FERC formal approval was a long and arduous process, but eventually the FERC qualifying facility designation for Glacier Ridge was approved in November 2007.

Project funding

Phase I included installation of a Bergey 10-kW wind power generator mounted on a 120-foot free standing tower and a 48-volt battery bank at a cost of about $80,000 in 2002. Phase II in 2003-2004 included two 1,200-watt solar panels and 1,000 feet of cable connecting the generation station with the park restroom and shelter for heat, lights, and pumping, at about $30,000 in project costs. Fifty percent of the project cost was covered by an Ohio Department of Development grant to purchase the equipment. The Wind and Solar Learning Center was completed in 2008.

Project benefits are many

This project has produced many benefits for the park agency and the public at large. It has received significant publicity and has been used in marketing materials by the agency.

Educationally, there have been a number of outcomes. A bi-directional meter toggles between displays that show both the kilowatts the park has consumed from grid and the production of the generation station in excess of consumption. An educational display explains to park visitors how the system is structured, how alternative energy is generated, and how the park is using it. Events at the park draw in visitors and enhance the learning process.

In addition to partnering with Green Energy Ohio, Glacier Ridge is also working with teachers from nearby Dublin City Schools, faculty from Ohio State University, and educators from the Ohio Energy Project to develop supplemental curricular materials (science and math) that can be used by all of Ohio's K-12 teachers with their students when visiting the park. By informing the expected 300,000 child and adult visitors to Glacier Ridge each year, Metro Parks is spreading the news about one of Ohio's natural resources, renewable energy.

While the wind/solar project generates energy to power park facilities, the primary focus is on education through the interactive Wind and Solar Learning Center. Electricity generation is metered and measured. The educational benefits are outstanding, as Metro Parks collaborates with local schools and informs the public about the science of wind and solar power and the value of alternative energy sources.

For more information, contact: Mike Heisey, Park Manager, Glacier Ridge Metro Park, Franklin County Metropolitan Park District (Ohio), 614.891.0700, info@metroparks.net, www.metroparks.net/parksglacierridge.aspx.

COLUMBUS METRO PARKS

29 BEST MANAGEMENT PRACTICES AND CASE STUDIES AT WWW.NRPA.ORG/CONSERVATION

1. LEED for New Construction—Green power and energy-efficient design for new building construction at Chicago Park District.

2. Green Procurement—Make your agency as sustainable as possible by purchasing green. Reduce energy, impact on human health, and even costs.

3. Energy Saving Performance Contracts (ESPC)—Audit your energy consumption and pay for upgrades to current mechanical, HVAC, and building automation systems through cost savings. Reduce operating costs and improve performance through an ESPC.

4. How to Develop an Energy Conservation Program for Your Agency—Step-by-step directions on how any agency, large or small, can develop an energy conservation program.

5. Variable Frequency Drives for Pools—Reduce pool pump energy costs by 30 to 50 percent with a variable frequency drive retrofit that pays for itself within as little as six months.

6. Sustainable Turf Choice and Management—Guidelines for how to choose the most appropriate turf for a site that minimizes environmental impacts, reduces water consumption, and promotes more sustainable landscapes.

7. Youth Engagement: Summer Employment for Teens, Waterford, CT—Conservation-focused youth summer employment program for a Connecticut town has been successful for nearly 40 years.

8. Creating Partnerships to Engage Youth in Conservation and Stewardship—Case study of how Park and Recreation Commission of East Baton Rouge (BREC) has engaged teens in a wide variety of environmental stewardship and sustainability projects such as tree planting, invasive plant removal, fundraising for causes that promote conservation, and recycling projects.

9. Using Prescribed Fire for Managing Ecologically Sensitive Areas—Interagency team in Jacksonville, Florida, area manages sensitive natural areas containing fire-dependent species by controlled burns.

10. Bioswales—Easy to construct and highly effective stormwater management techniques with numerous conservation benefits.

11. Rain Barrels—Conservation education and fun with a 1,000 gallon rain barrel.

12. Rain Gardens –Simple plantings to divert runoff from impervious surfaces can slow stormwater, conserve water, and create wildlife habitat and landscape beauty.

13. Constructed Wetlands—Created wetlands at Discovery Center at Oakwoods Nature Preserve in Findlay, Ohio, contain stormwater runoff and produce excellent wildlife habitat

14. Youth Engagement: Energy Saving Adventures Program—Innovative after-school program in San Diego County in partnership with a local energy company has the goal of motivating and empowering youth to change the world around them through energy conservation and sustainable practices.

15. Youth Engagement—Curriculum-Adapted Education Programs—Discovery Kit—Curriculum-adapted cooperative field experience program between the San Diego County Department of Parks and Recreation and the San Diego School District emphasizing environmental adventures.

16. Food Production in Parks—Community Gardens—Volunteer-led community garden program in South Bend, Indiana, supported by parks and recreation department now has 50 community gardens.

17. Youth Engagement: Innovative Programs—Extensive array of children and youth-focused programs in Portland, Oregon, from Nuts About Nature for kids to GRUNT to Ultimate Teen Adventure.

18. Invasive Species Control—Interagency Cooperation—Interagency and intercounty working group assesses threats and guides response to invasive species in northern Florida.

19. Soil Moisture Irrigation Assessment—How to identify soil moisture ranges and develop strategies to maintain optimum soil moisture levels.

20. Youth Engagement: Outdoor Adventure Program for Teens—High adventure program for teens in San Diego County, California, includes hiking, kayaking, snorkeling, mountain biking, rock climbing, wakeboarding, paddle boarding, snowboarding, surfing, and community service projects.

21. Interagency Cooperation for Natural Resources Management—Federal, state, and local partners agree to joint management principles on 80,000 acres of public lands known as the Timucuan Trail State and National Parks in and around Jacksonville, Florida.

22. Sustainability Principles—Sample Statement—An example of a simple statement of sustainability principles for local government from Mission Oaks, California.

23. Controlled Burning and Fire Education—Community Wildfire Protection Plan for Boiling Springs, North Carolina, to reduce threats of wildfires to public and private lands.

24. Cultural Resource Protection— Beckman Mill—Case study of the improbable preservation of a historic grist mill located in Rock County, Wisconsin, involving numerous partners and many challenges.

25. Environmental Damage Restoration—Riparian restoration of stream channel and old gravel pit in Salem, Oregon.

26. Wind and Solar Energy Conservation Project—Construction of windmill and solar power station along with education center in Glacier Ridge Park, Ohio.

27. Reduced Mowing Saves Funds and Improves Natural Resources—Creation of no-mow areas and restoration of native prairie proves to be a conservation success story that saves money in Whetstone Park, Columbus, Ohio.

28. Environmental Damage Restoration—Blackwater Conservation Area—50 acres of Louisiana bottom land mined for sand and gravel are restored and replanted, creating natural area park with bottomland hardwood forest and freshwater swamp near Baton Rouge, Louisiana.

29. Forest Foster Family Program—Engaging the Public in Tree Conservation—Innovative program that encourages the public to "adopt" tree seedlings and grow them at their own homes for up to a year, returning them to be planted in reforestation projects in parks. Huge public response exceeded all expectations.

MEMBERS OF THE CONSERVATION TASK FORCE

Brian Albright
Director, Parks and Recreation, County of San Diego
San Diego, CA

Bradley Armstrong
Sustainability Coordinator, Utah State University
Logan, UT

Jennifer Budge
Park Planner, Washoe County Regional Parks and Open Space
Reno, NV

Brian Burket
NR Recreation Specialist, Waterfront Management and Programming
Jacksonville, FL

Becky Cummings
City Planner
Boiling Spring Lakes, NC

Brendan Daley
Director of Green Initiatives, Chicago Park District
Chicago, IL

Tim Denny
Director, Parks & Recreation, Assistant Township Manager
Haverford, CT

Brian W. Flaherty
Director, Waterford Recreation and Parks Commission
Waterford, CT

Tina Fleming
Division Director, Parks and Recreation Operations
Gwinnett County, GA

Bill Foelsch
Director, Parks and Recreation, Morris Township
Convent Station, NJ

Karen Franck
Director, Parks and Recreation
Plymouth Township, PA

Mary L. Green
Director, Parks and Recreation
Boiling Spring Lakes, NC

John Hamilton
Assistant to the Director, Louisville Metro Parks
Louisville, KY

Mike Hooper
Development Administrator, Parks and Recreation Department
Westerville, OH

Eriks E. Janelsins
Director, Schrader Environmental Center, Oglebay Institute
Wheeling, WV

Ken M. Keeley
Senior Landscape Architect, Waukesha County Parks
Waukesha, WI

Evie Kirkwood
Director, St. Joseph County Parks
South Bend, IN

Todd A. Kucharski
General Manager, Public Works Dept
Sarasota, FL

Todd R. Larson
Director, Parks and Recreation
Yankton, SD

D. Lauretano-Haines
PROS Supervisor, Town of Southwest Ranches
Southwest Ranches, FL

Edward Matthews
Business Manager, Suffolk Parks and Recreation
Suffolk, VA

Joel W. McKnight
Deputy Director, General Services Dept.
El Paso, TX

Beth A. Miller
Director, Marketing and Public Information, Five Rivers MetroParks
Dayton, OH

TJ Newman
Parks Director, Mission Oaks Recreation and Parks District
Carmichael, CA

John O`Meara
Executive Director, Columbus and Franklin County Metro Parks
Westerville, OH

William G. Palmer
Recreation and Park Commission, East Baton Rouge (BREC)
Baton Rouge, LA

Gina L. M. Peebles
Director, Marion County Parks and Recreation
Ocala, FL

David J. Pinsonneault
Public Ground Superintendent/Tree Warden
Lexington, MA

Gary E. Pruitt
Director, Hancock Park District
Findlay, OH

Dirk Richwine
Recreation Superintendent
Henderson, NV

Richard L. Rose
Commissioner of Parks, Recreation, and Conservation
Montgomery, NY

Zari Santner
Director, Parks and Recreation (retired)
Portland, OR

Steve Sullivan
Director, Parks and Open Space
Apple Valley, MN

Susan J. Tanski
Senior Planner, Parks, Recreation, and Neighborhood Affairs
Tallahassee, FL

Susan Trautman
Executive Director, Great Rivers Greenway District
St. Louis, MO

Joe Turner
Director, Parks and Recreation
Houston, TX

Greg Weitzel
Director, Parks and Recreation
Allentown, PA

David Whitehouse
Director, Boone County Parks and Recreation Department
Burlington, KY

Lori Williams
Director of Parks
Rock County, WI

Mark Young
Professional Consultant
Columbus, OH

NRPA Staff Support
Rich Dolesh
Chief of Public Policy
NRPA, Ashburn, VA

For more information see www.nrpa.org/conservation
National Recreation and Park Association
22377 Belmont Ridge Road
Ashburn, VA 20148
703.858.0784