

New York State
Office of Parks Recreation and
Historic Preservation

Sustainability Plan

Agency Sustainability Priorities:

*Energy Conservation and Improvements
Sustainable Sites, Buildings & Operations
Waste Reduction and Recycling
Green Procurement
Education, Training and Interpretation*



Commissioner Carol Ash

April 22, 2009

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Introduction

Commissioner Carol Ash of the Office of Parks Recreation and Historic Preservation has identified “sustainability” as an agency priority stating, “State Parks should be a leader in integrating sustainability principles and ‘green technologies’ in all aspects of our programs and activities,” indicating that the agency “will advance a new agency-wide sustainability initiative to adopt energy efficient technologies, green building design, fuel efficient vehicles, and green products procurement.”

In late 2007, a sustainability planning process was initiated. Sixteen sessions were held to secure input from a broad array of agency personnel including Executive Staff, Regional Directors, facility managers, educators, and historic preservation staff. A statewide survey was conducted to assemble a snapshot of the agency’s current sustainability efforts. Eighty-four surveys were completed, with some responses for individual parks and others for multiple parks. In early 2009, a draft plan was circulated widely within the agency for comment and received considerable input. The priorities, strategies and action steps set forth in this plan reflect what has emerged from these contributions.

Sustainability at OPRHP

Sustainability is not a new concept for OPRHP. To the contrary, over the past decade the agency has made significant progress in implementing sustainability practices in many areas. OPRHP has:

- purchased renewable energy credits for 10% of its electrical use
- installed renewable energy technologies such as solar photovoltaic panels at park entrance stations, boat launches and police sub stations
- installed energy saving devices such as motion sensing light switches
- used water conserving devices such as composting toilets and waterless urinals
- purchased 100% post-consumer recycled paper
- developed an extensive alternative fuel vehicle fleet
- purchased biodiesel fuel for agency vehicles
- used hydrogen powered mowers to cut an entire golf course
- created composting demonstration projects
- initiated the agency’s first LEED-certified building (Taconic Regional HQs)
- integrated sustainability topics, such as ‘green’ cleaning, into Nature Center exhibits

OPRHP has been recognized for these efforts receiving the 2005 Clean Air Excellence award from the EPA for “outstanding, innovative efforts in improving air quality through transportation efficiency innovations.” Also in 2005, OPRHP was recognized by Clean Communities of Western New York, Inc. for the agency’s contributions towards reducing petroleum use.

Sustainability is a commitment to reducing consumption of energy and raw materials and a commitment to planning, designing, maintaining and managing OPRHP facilities based on the need to protect cultural and natural resources.

The overarching goal of the OPRHP sustainability program is to reduce the impact that the agency's daily operations have on natural resources. This includes materials used to build and maintain facilities, the fuels used to heat and cool buildings and run agency vehicles, and the waste produced by both visitors and agency operations. Becoming more sustainable in agency operations requires a better understanding of how much resources the agency uses and how we can improve the management of those resources.

This plan identifies sustainability priorities to be incorporated into facility's management objectives, decision making and day-to-day operations. Key actions, goals, objectives and timeframes for each of the priority areas are described. It concludes with an implementation section identifying potential agency staff that will lead efforts in each area. This plan is intended to be a 'living document' that will be re-visited on a periodic basis and inevitably expanded upon.

It is recognized that there are many sustainability practices beyond those outlined in this document. A conscious decision was made, however, to not address all of the practices that fit under the broad umbrella of sustainability, as it would result in a plan that would be unwieldy and difficult to implement.

This plan contains a number of data collection and reporting requirements that are based on mandates set forth in state law and Executive Orders. Data collection will help create baseline information that will be useful in measuring and achieving goals, as "what get measured, gets managed." There will be support from the Albany office to develop streamlined reporting systems and avoid duplication. Reporting systems will be digital so as to be consistent with sustainability principles.

OPRHP Sustainability and Greenhouse Gases

OPRHP has adopted a goal of reducing greenhouse gas emissions by 30% by the year 2030 (as compared to 2009) and 70% by 2050. The primary focus will be on reducing the consumption of energy derived from fossil fuels. The priorities outlined in this plan – facility energy use, transportation, waste reduction and recycling, green buildings, and landscape management – will reduce the agency's greenhouse gas emissions (GHG).

To be able to measure GHG emissions and track reductions, OPRHP will calculate and report the agency's overall GHG emissions.

SUSTAINABILITY PRIORITIES

For the next several years, OPRHP will focus sustainability efforts in five priority areas:

- I. Energy Conservation and Improvements
 - A. Building Operation and Maintenance
 - B. Reduced Mowing
 - C. Fleet Management
- II. Sustainable Sites, Buildings & Operations
- III. Waste Reduction and Recycling
- IV. Green Procurement
- V. Education, Training and Interpretation

I. ENERGY CONSERVATION AND IMPROVEMENTS

This section addresses the overall use of energy related to facility operations. Below is a description of the Executive Order that requires State Agencies and Authorities to implement energy efficiency and renewable energy programs. OPRHP energy related efforts will go beyond the requirements of the Executive Order to address issues from energy efficiency improvements to more sophisticated renewable energy systems.

Executive Order 111

Executive Order 111 establishes goals for energy efficiency improvements, conservation, and renewable energy use for New York state agencies. OPRHP will accomplish the goals of EO111 to the maximum extent possible. Because the agency is mandated to track and report energy use, OPRHP has implemented a uniform system to track energy use data. Annual energy consumption data to be tracked by the agency includes:

- Electricity
- Natural gas
- Propane
- Heating Oil
- Gasoline
- Diesel
- Kerosene

Energy use information will be compiled at the facility level through the regional offices, in a format that can be rolled-up into agency-wide measures.

Reporting

EO111 requires the agency to submit an annual report documenting progress towards achieving energy consumption reductions, renewable energy purchases, 'green' building efforts, and procurement of alternative fueled vehicles. OPRHP is required to submit this report to the New

York State Energy Research and Development Authority (NYSERDA) by December 1 of each year. Data necessary for submission of this report will be generated through the agency's regional energy and utility tracking program discussed below. Reporting will be done by the Albany office with data submitted by the regions. This data will also be the basis for GHG emission reporting.

Funding

In addition to funds available through our normal budget process, OPRHP will pursue energy efficiency and renewable energy funding through both Federal and State entities.

Energy Conservation and Reduction Plans

Each region will be asked to develop energy conservation and reduction plans in accordance with guidelines provided by the Albany office. The regional plans will provide a framework for energy planning to reduce, conserve and plan for future energy demand at all OPRHP facilities. Plans should include short and long term measures that can be taken to reduce energy consumption, including but not limited to, those mentioned below. Energy planning will incorporate a wide range of measures to reduce the wasteful use of energy and encourage an atmosphere of energy intelligence and independence. Two distinct areas will be addressed to improve overall energy efficiency – building management and operation, and fleet management.

Assumptions

The Agency recognizes that certain factors may require a change in priorities and goals. Below is a partial list of assumptions that have the potential to impact agency achievements:

- energy prices
- additional program funding requiring more space/vehicles etc.
- budget cuts/increases
- additional alternate fuel vehicles – natural gas/electric
- emergencies
- lack of availability of alternate fuel and alternate fuel vehicles
- funding

A. Building Management and Operation

OPRHP is committed to an on-going funded program to improve the energy efficiency of existing buildings. Significant improvements in facility operations and efficiency can be gained from low-cost or no-cost improvements.

1. Energy Efficiency Improvements

- Inspecting, maintaining, re-tuning or replacing heating, air conditioning and ventilation equipment to ensure optimal performance
- Replacing windows

- Air-sealing and insulation
- Installing more energy efficient lighting
- Installing programmable thermostats
- Installing occupancy motion sensors
- Installing more energy efficient lighting, removing bulbs, and maximizing use of natural light
- Upgrading pool pumps to high efficiency pumps
- Consolidating spaces
(This is not intended to be an exhaustive or all-inclusive list)

2. Training

- Create internal teams or retain consultants to conduct energy audits at selected OPRHP facilities
- Provide the training necessary to ensure energy improvements can be made
- Create capacity – through trained OPRHP crews or contractors – to implement energy-saving measures identified through the energy audit process

3. Buildings Operations & Administration

- Develop programs to assure that lights and office equipment are turned off at the end of each day
- Set printers and computers on sleep mode
- Reduce heating and cooling by implementing “5 up/5 down” – setting thermostats at 78⁰ during summer months and 68⁰ during the winter as is appropriate
- Reduce lighting use by 50% by turning lights off when appropriate
- Use blinds to control heat loss / gain
- Reduce snow plowing – snow plow only what is necessary for site safety
(This is not intended to be an exhaustive or all inclusive list)

4. Energy Efficient Equipment

All agency equipment purchases should be ENERGY STAR® rated or other energy efficient ratings as identified in the ‘green’ procurement specifications established under EO4 by the Interagency Committee on Sustainability and Green Procurement. To achieve this, the OPRHP Sustainability Coordinator and the Energy and Equipment Coordinator will develop an internal training program to support agency staff responsible for purchasing appliances and equipment.

5. Purchase of Renewable Energy

EO111 directs state agencies to purchase renewable energy credits (RECs) based on a percentage of total electricity used. Renewable sources can include wind, solar, biomass, tidal, geothermal, methane waste, and fuel cells. Currently OPRHP is

purchasing RECs for 10% of its electricity. By 2010, RECs shall be purchased for at least 20% of the agency's electricity use.

6. Renewable Energy Generation at State Parks

Opportunities exist at select OPRHP facilities to generate energy from renewable sources such as solar, wind, geothermal and hydropower. The agency will continue to evaluate opportunities to integrate renewable energy generation technologies into facility construction and rehabilitation projects. OPRHP will track the energy generated by renewable energy projects. The agency will also examine the potential to create energy that can be used beyond the agency's facilities.

Goals and Objectives

- Conduct energy audits and energy improvements for all Regional Headquarter offices and at the 25 facilities that are the agency's largest energy consumers.
- Reduce our agency-wide electricity use by 15% of annual KWh usage by 2015 (compared to 2007).
- Reduce our agency-wide purchase of natural gas and heating oil used to heat and cool buildings by 35% by 2015.
- Use of bio-based heating fuels equivalent to 0.5% of all heating fuel use at B-100 in 2007, increasing to 5.0% in 2012.
- Determine where renewable energy opportunities exist and develop criteria for use at agency facilities by 2011.
- Secure 30% of energy usage from renewable energy sources by 2015.
- Develop a tracking system (sustainability coordinator/energy and equipment coordinator) to be able to measure energy generated by renewable systems.

Timeframe: Complete Audits by 2011, Improvements by January 2012 (3 years)

B. Reduced Mowing

In 2009, OPRHP will expand its reduced mowing efforts to a statewide initiative. Each region will identify opportunities to reduce the area and frequency of mowing. OPRHP will develop reduced mowing guidelines and implement an agency-wide data collection system to measure the impacts – in reduced fuel purchases and staff time – of this initiative.

Reduced mowing will be accompanied by a public education component to minimize negative reactions from park users and the community at large. This will help dispel the misperception that un-mowed areas are “uncared for.” Information gathered from tracking the fuel and monetary savings can be used in a brochure for public education. Uniform signage – such as “natural area” or “wildlife area” – will be developed and placed on previously mowed areas.

Goals and Objectives

- Establish a regional percentage reduction goal for number of acres mowed

- Establish a mechanism to track:
 - number of acres mowed
 - reduction in acreage mowed
 - fuel cost saving
 - staff time made available for other tasks
 - carbon reductions

Timeframe: 2010 (1 year+)

C. Fleet and Equipment Management

OPRHP maintains a significant vehicle fleet that includes 228 passenger cars, 636 pickups, 216 police cars, 47 vans, and more than 450 heavy duty trucks of various types (agency fleet inventory as of May, 2008). In 2007, OPRHP purchased a total of 1,166,928 gallons of gasoline and 266,212 gallons of diesel fuel, at a total cost exceeding \$2.3 million (assuming average \$2.00/gallon). This fuel use translates to more than 28.6 million pounds of carbon dioxide emissions annually.

OPRHP has adopted a goal of reducing our agency-wide purchase of gasoline and diesel fuel by 20% by the year 2015 (compared to 2007). This translates to a savings of approximately 230,000 gallons of gasoline and 50,000 gallons diesel fuel annually by 2015, yielding more than a half million dollars in cost savings to the agency and reducing our vehicle carbon dioxide emissions by more than 5.7 million pounds annually. To achieve this, the agency will:

- Reduce total annual miles traveled, and
- Improve the mileage efficiency of our car and truck fleet.

The agency's approach to reducing vehicles miles and improving overall efficiency of its fleet will include:

1. Downsize Vehicles & Increase Fuel Efficiency

The agency will increase the purchase of small, fuel-efficient sedans, reducing the number of SUVs and large cars in the fleet. For pickups and trucks, the smallest, most fuel-efficient models available to meet agency operational needs will be purchased. OPRHP will limit vehicle purchases to those achieving 30+ mpg or use the EO4 'green' specifications for passenger vehicles and purchase or lease vehicles which have a fuel economy in the top 30% of their vehicle class, which ever is more economically and environmentally beneficial.

2. Purchase and Use Alternative-Fueled Vehicles & Hybrids

EO111 directs that, as of 2005, alternative-fuel vehicles should comprise at least 50 percent of new light-duty vehicles purchases. Annual alternative-fuel vehicle acquisitions are expected to increase by 10 percent per year leading to 2010, when 100 percent of new light duty vehicles should be alternative-fueled (light duty are vehicles

having a gross vehicle weight rating (GVWR) less than 8500 pounds). In procuring these vehicles OPRHP must demonstrate that a source of the alternative fuel is available. Regional availability of alternative fuels must be considered in vehicle purchases. The EO4 'green' specification for alternative fueled passenger vehicles calls for selecting vehicles which have a fuel economy in the top 30% of their vehicle class.

a. Electric Vehicles

OPRHP will continue to invest in purchasing and maintaining electric vehicles. It is important that electric vehicles are supplied to sites that can make the greatest use of these vehicles and have the ability to properly store and maintain them.

b. Hybrids

OPRHP has will seek to increase the number of hybrids in its fleet, where practical, to help increase the fleets overall fuel efficiency. While hybrid vehicles generally cost more to purchase, studies show that they are actually less expensive in the long run due to increased fuel efficiency and reduced environmental costs.

c. Flex Fuel/E-85 Vehicles and Compressed Natural Gas Vehicles

In light of very limited availability of E-85 in many parts of the state, traditional gasoline is being burned in agency flex-fuel vehicles. For this reason, the agency will limit the purchase of additional flex fuel vehicles. When and if E-85 becomes more readily available, the agency will re-examine its purchase and use of flex fuel vehicles taking into consideration social and environmental sustainability issues associated with ethanol production. With regard to the flex fuel vehicles currently in the OPRHP fleet, E-85 should be used where available. Similarly to flex fuel vehicles, where fueling infrastructure exists, the purchase and use of natural gas vehicles should continue.

3. Biodiesel

OPRHP will continue to expand its use of biodiesel fuels. In 2007, the agency began to switch from traditional diesel fuel to biodiesel fuel in many State Parks. In most cases OPRHP facilities are using B5; B20 is being used in a small amounts. Biodiesel is not offered in some of the more remote counties, which prevents OPRHP from using the fuel across the state.

4. Alternative Fueled Landscaping Equipment

Where mowing and maintenance of landscapes is necessary, there are opportunities to examine the feasibility and use of alternative equipment and alternatives fuels – such as solar, electric and propane fueled equipment and bio-based products such as soy-based chain-saw oil. Where appropriate, the use of non-motorized hand tools, instead of power tools, is encouraged.

5. Diesel Retrofit Program

The New York State Diesel Emissions Reduction Act (February 2007) mandates that all state owned heavy duty vehicles (used in on-road and off-road applications) use the best available retrofit technology (“BART”) and ultra low sulfur diesel. This applies to heavy duty vehicles under contract with the state as well. Additionally, 33 percent of all such vehicles were to be fitted with best available retrofit technologies by December 31, 2008. OPRHP, will to the maximum extent possible, comply with this law by establishing and funding a Diesel Retrofit Program. This law also requires reporting.

6. Reduce Idling

To improve local air quality, and save gasoline and money while reducing the agency’s overall carbon footprint, agency personnel should not allow agency vehicles to idle. Vehicles should be turned off when a destination is reached, even if the stay will be brief. This is particularly important regarding diesel vehicles. Park visitors arriving in buses should also be asked not to let the buses idle. No idling zones will be created around park offices and facilities as appropriate with necessary signage.

7. Electronic Meetings

OPRHP should create and maximize its use of voice conferencing to reduce travel for in-person meetings. Agency personnel should maximize the use of “GO TO Meetings,” a computer program that allows for presentations to be simultaneously viewed and edited on employee’s desktop computers from different locations. Training is available to facilitate the use of this program. OPRHP will explore capability for video conferencing for each region, to improve agency communications while reducing staff travel times and expense.

8. Alternate Transportation, Mass Transit & Ride Sharing

The agency will promote and facilitate the use of mass transit and ride sharing through web-based resources such as <http://www.nyrides.com/> and www.rideshare.us (Note: In most cases ride sharing programs occur in urban areas. It is difficult to find a ride share program that includes rural areas). The use of non-motorized modes of transportation, such as bicycling, is encouraged for both commuting and travel within a park. For park visitors mass transit alternatives can be listed on park brochures with train/bus/bike path information on how to access the park.

To achieve fleet management goals OPRHP will:

- Calculate the average MPG of its existing fleet
- Develop a baseline of miles driven annually and per month
- Examine mechanisms to better track vehicle fuel use and equipment fuel use
- Calculate average MPG and miles driven per month of regional fleets
- Track progress on fleet-fuel efficiency

- Calculate the average MPG of all vehicles purchased each year. We will also continue to track our purchase of alternative fuels (E85; biodiesel, CNG, electric, hybrid)
- Provide education and training to promote understanding and use of alternative fueled vehicles and to effectuate behavioral changes in staff and visitors' driving habits

Goals and Objectives

- Reduce vehicle miles traveled by 10% per year
- Improve overall annual average MPG of agency fleet by 10% per year
- 100% of light duty vehicle purchases will be alternative fueled by 2012 (with the exception of Park Police vehicles, which are exempt from this requirement)
- Beginning in 2009, OPRHP shall purchase or lease vehicles which have a fuel economy of at least 30+ mpg or are in the top 30% of their vehicle class
- OPRHP will increase the number of gas-electric hybrid vehicles in the agency's fleet by 25%
- OPRHP will seek to increase its use of biodiesel to meet EO142 requirements
- Use of B-100 equivalent to 2% of total vehicle diesel use, increasing to 10% by 2012
- Track and measure reduced petroleum consumption

Timeframe: 2012 (3 years)

II. SUSTAINABLE SITES, BUILDINGS & OPERATIONS

OPRHP is committed to incorporating sustainable design principles into all facets of planning, designing, building, operating and maintaining facilities. OPRHP will take a holistic, integrated systems approach to designing and constructing buildings and managing landscapes to optimize resource use and minimize impact to the natural environment. Sustainable design serves to protect the natural environment by using resources more efficiently and effectively and by providing for the long-term stability and usefulness of agency buildings and landscapes.

Executive Order 111

As required under EO111, OPRHP will “in the design, construction, operation and maintenance of new buildings,...to the maximum extent practicable, follow guidelines for the construction of “Green Buildings,” including guidelines set forth in Tax Law § 19, which created the Green Buildings Tax Credit, and the U.S. Green Buildings Council's (USGBC) Leadership in Energy and Environmental Design (LEED)TM rating system.”

The Agency approach to incorporating sustainable design principles into planning, designing, building, operating and maintaining facilities includes:

1. LEED Certification

The LEED Green Building Rating System™, has become the de facto standard for building ‘green.’ EO111 requires that the construction of all new state buildings exceeding 20,000 sq.ft. (as well as major renovations of existing buildings) must comply with LEED certification standards. In practice, very few OPRHP construction projects will exceed 20,000 square feet.

Although only a handful of OPRHP capital projects will secure formal LEED certification, the agency is committed to comprehensively infusing the principles of LEED – sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality – into the design and construction of OPRHP capital projects, which largely focuses on seasonal use buildings, campgrounds, roads, bridges, recreational facilities, and rehabilitation of park infrastructure.

OPRHP will secure LEED certification for any new buildings over 20,000 square feet, and will consider the feasibility of LEED certification for smaller buildings constructed by the agency (such as visitor centers, nature centers, administrative offices, etc.). Likewise, LEED for Existing Buildings (LEED-EB) can help OPRHP facility managers review and measure operations, to make improvements on a consistent scale, with the goal of maximizing operational efficiency while minimizing environmental impacts.

2. Construction and Landscape Guidelines

Using resources such as the USGBC LEED checklist and *The Sustainable Sites Initiative* standards, the agency will develop and adopt written guidance for incorporating sustainable design, construction, operation, and maintenance practices into agency projects. The agency will establish an overall approach for integrating sustainable elements into new facilities and facility improvements ranging from construction of small, seasonal-use buildings such as restrooms and comfort stations, to simple renovations of existing buildings and infrastructure (roof replacements, utility upgrades, paving, pool pumps and chemicals etc.), to park-specific projects such as campgrounds, boat launches, and picnic shelters, to the purchase of green-certified wood and building supplies. The guidance will at a minimum address appropriate site selection, material use and waste, water use and conservation and indoor air quality.

This guidance will be a tool for evaluating capital projects and provide a means, such as a LEED-like “sustainable design” checklist to allow for the documentation of sustainability elements incorporated into agency projects. Life cycle analysis, product performance, and cost should be factored into sustainable design. The agency’s internal design and capital construction processes will seek to incorporate, to the maximum extent possible, integrated design and sustainable opportunities into agency capital projects as early in the design process as possible

A Simplified Sustainable Site Checklist

- use previously disturbed sites, protecting and restoring habitat
- repair and reuse existing buildings
- use products made from secondary or high content of recycled
- use durable products and materials – choose materials that will last
- use sustainable materials that are from rapidly renewable resources
- use materials with low embodied energy – products not heavily processed or manufactured, which tend to require more energy
- buy locally produced building materials
- use salvaged building materials when possible – lumber, bricks
- eliminate or minimize use of pressure treated lumber – especially when the user group is children – look for alternative products liked recycled plastic lumber
- maximize use of renewable sources of energy – solar, wind, geothermal
- maximize use of natural light
- seek to avoid using potable water for landscaping or irrigation
- use waterless or water saving fixtures
- use ‘green’ infrastructure to manage stormwater - rain gardens, grassy swales
- use innovative wastewater technologies
- provide storage, collection and delivery of recyclables to a recyclables processor

3. Pest, Turf and Ornamental Management

In April, 2009, the agency adopted a Pesticide Use Reduction Policy. The policy establishes a non-toxic pest control policy to reduce the use of toxic pesticides, emphasizing mechanical, sanitary, cultural, or biological means to controlling and eliminating pests in State Parks and Historic Sites as well as actively seeking out non-toxic and least toxic alternatives. Under Executive Order 4, two new specifications have been adopted by the Interagency Committee on Green Procurement and Sustainability for *Turf and Ornamental Management* and *Pest Management*. OPRHP will go above and beyond the requirements outlined in these specifications and eliminate pesticide use to the maximum extent possible. The agency is committed to carefully reviewing the use of toxic materials in order to protect the health of our visitors, staff, and the environment.

4. Sustainable Sites Training and Education

The agency will provide green building design and construction training (typically one-day training sessions offered through the U.S. Green Building Council or equivalent programs) to our Regional Capital Facilities staff and other interested agency staff as appropriate. A small number of agency staff will secure formal LEED accreditation. Sustainable design and buildings present tremendous public interpretation opportunities, particularly in LEED certified buildings.

Goals and Objectives

Energy

- Reduce energy consumption by 10-35% during rehabilitation or renovation of agency buildings and structures, and attain a least a 20 percent improvement in energy efficiency performance, relative to levels required by the New York State Energy Conservation and Construction Code for all newly constructed buildings

Material Use and Waste

- Divert from disposal at least 50% of construction waste
- Use materials with at a minimum recycled content of 10% (1/2 post-consumer +1/2 pre-consumer)
- Re-use at least 5% of materials
- Use at least 10% of materials that are extracted, processed & manufactured regionally

Water Use and Conservation

- Reduce need for water use in landscape management by 50%
- Reduce the use of water by 30%

Timeframe: 2010 (1 year) and ongoing

III. WASTE REDUCTION AND RECYCLING PROGRAM

OPRHP will create a comprehensive program to reduce waste, promote re-use and enhance and improve recycling programs. In addition to making good environmental and economic sense, OPRHP is required to reduce waste, re-use and recycle and by Executive Order 4 and the Solid Waste Management Act.

Reporting

EO4 requires an annual report be submitted documenting waste reduction and recycling efforts. In addition to materials recycled, annual reporting will include total solid waste generated and green procurement records. The Albany Office will work with the regions to create a standardized data collection and reporting system to clarify and facilitate the measurement and reporting of agency-wide progress. Regions will submit reports to the Albany office, and the Albany office in turn will submit one overall OPRHP annual waste reduction and reporting form. The submission deadline for this reporting form is August 1 of each year.

The agency's approach to incorporating waste reduction, re-use and recycling includes:

1. A Waste Reduction and Recycling Policy

A written policy establishing waste reduction and recycling goals will be important to the on-going success of the program.

2. Waste Reduction and Recycling Plans

The Albany office and the Regions will develop waste reduction and recycling plans. The primary goal will be to reduce waste generated, ultimately reducing procurement and/or disposal costs. The plans should set forth reduction, re-use and recycling efforts for waste directly generated by OPRHP activities from administrative offices, parks, historic sites, maintenance centers, etc., as well as reduction and recycling of waste generated by the visiting public.

The goal is to institute collection of glass, aluminum cans, and plastic bottles at all parks and historic sites for agency staff and the public where feasible. Reduction, re-use and recycling should include all park concessionaires in addition to the agency's direct operations. The plans will take into account regional differences – local regulations, markets for recycled material, and the availability and cost of recycling haulers vary greatly across the state (and often vary within individual regions), as well as seasonal variation in park visitation. At facilities where trash collection is not provided (Carry In - Carry Out), the posting of recycling signs will be considered. Plans can either be prepared regionally or be park-specific depending on the circumstances. Some parks may consider collaborating on developing and implementing their plans.

The plans will:

- Identify a regional waste reduction and recycling coordinator
- Identify objectives and procedures to reduce or eliminate waste
- Establish procedures to track total waste generated, recycled and disposed by type (regular trash, C&D waste, tires, electronic equipment, other) by volume/weight
- Set up procedures to conduct periodic waste composition analyses (waste audits) to determine the greatest potential for reduction, set material-specific waste reduction goals and increase capture rates of recyclable materials
- Identify specific opportunities and items for re-use
- Identify opportunities to reduce waste by volume/weight
- Consider establishing a re-use center for items such as office supplies
- Identify opportunities to work with concessionaires to reduce, re-use and recycle
- Inventory current recycling practices
- Identify resources needed to improve recycling–bins, recycling services, signage and associated costs
- Identify waste streams that will be captured for re-use and recycling
- Identify opportunities for re-using or recycling special wastes such as electronic waste, scrap metal, construction material, waste tires, batteries, toner cartridges, fluorescent tubes and waste oil
- Consider recycling signage in 'Carry in Carry Out' Parks and Historic Sites

- Explore the feasibility of composting food and yard waste at selected facilities
- Identify and describe training efforts to educate agency staff on re-use, waste reduction and recycling programs available at their work location
- Identify staffing necessary to implement a successful waste reduction and recycling program
- Build in a review mechanism to re-think re-use, reduction and recycling
- Include penalties in waste haulers contracts for mixing of regular trash and recyclables
- Identify and describe outreach and interpretation opportunities for visitors
- Establish procedures to track amount of materials recycled by weight for paper, commingled plastic, glass, metals; returnable/deposit containers, bulk clean C& D debris, batteries (including vehicle batteries), car and truck tires, electronics, motor oil, food waste, and yard waste. A complete material list will be provided with EO4 Report form

3. Paper Reduction Measures

EO4 specifically requires state agencies to reduce their paper consumption. OPRHP will continue its on-going efforts to ensure all agency printers and photocopiers are set to duplex as the default. All new printers and copiers purchased must have the capability for two-sided copying and to be set to duplexing as the default. OPRHP will explore the use of paperless management options as well as other paper use reduction measures to reduce the use of paper throughout the agency.

4. Printing

Consistent with EO4, agency printed materials will maximize the use of post-consumer recycled paper, seeking to use 100% post consumer recycled paper and paper from sustainable sources whenever feasible.

5. ‘Green’ Meetings

OPRHP will seek to minimize waste produced at meetings by using waste reduction practices such as only printing and distributing written materials when absolutely necessary, distributing double-sided materials, and using ceramic mugs for coffee instead of polystyrene or paper cups.

6. Concessions

The waste reduction, re-use and recycling requirements for concessionaires will be developed through the Albany office as part of the agency’s overall waste reduction and recycling policy. OPRHP will work with agency concessionaires over time, to establish and demonstrate waste reduction measures and to install and maintain appropriate recycling programs at OPRHP facilities. Recycling requirements will be stated in all new agency concession agreements so that concessionaires comply with all state requirements regarding recycling and use of recycled products. Concessionaires should implement

recycling programs, consistent with applicable state and local regulations, to source separate and recycle waste paper, metal, glass and plastic. Receptacles should be provided to separate and collect recyclable materials from the public.

7. Funding Recycling

The agency will explore a bulk purchase of recycling bin systems for distribution to administrative offices and individual parks and historic sites throughout the state. The agency will also explore opportunity to create an on-going funding stream to improve and enhance facility recycling efforts.

8. Recycling Revenue

Opportunities for creating revenue from recycling will be explored and implemented to the greatest extent feasible.

9. Tool Kits

A series of waste reduction “Toolkits” and informational memos will be distributed.

Goals and Objectives

- Develop waste reduction and recycling plans in all regions/parks/historic sites and the Albany office.
- Develop a baseline for waste generated, recycled and disposed by August 2010 (Base year will be data collected and reported for FY 2009-2010).
- Achieve a 10% reduction in overall waste generated per year beginning FY 2010-2011.* This goal shall apply to all office buildings, and all other types of facilities, including public use facilities (e.g. campgrounds, etc.). This will either be based on pounds per full time employee per year (lbs/ft/yr) or a combined estimate of pounds per full time employee and user per year (lbs/ft + user/year).
- Develop a baseline for the amount of photocopy and printer paper purchased, by weight, for FY2008-2009 (base year).**
- Develop a baseline for the amount of janitorial paper, such as paper towels and toilet paper purchased, by weight, for FY2008-2009 (base year).
- Achieve a 10% reduction in annual paper use (copy and janitorial) as measured against the base year of FY2008-2009.
- Increase recycling opportunities in OPRHP facilities (agency and public use) to capture and recycle recyclable materials.
- Establish goals to measure progress in "capturing" the recyclable materials for recycling.

*This goal will be re-evaluated after 5 years to determine if successive 10% annual reductions can be consistently achieved.

** This should include all paper purchased in bulk off of state-wide and agency-specific contracts.

Timeframe: 2012

IV. GREEN PROCUREMENT PROGRAM

OPRHP commits to purchasing products that minimize their impact on the environment and maximize the use of recycled and secondary materials. “Green” purchasing is defined by the USEPA as products or services that “have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.” Environmentally preferable purchasing can be factored into most commodities purchased – encompassing everything from paper, office supplies, and cleaning products; to asphalt, road aggregate, paint, office furniture, and computers; to park benches, playgrounds, and the choice of building materials for construction projects.

Availability of Green Products

Some “green” commodities are currently available on state contract at competitive prices, such as environmentally preferable computers, ‘Green Seal’ cleaning products and 100% post-consumer recycled paper. In addition, under EO4 ‘green’ specifications have been developed for a number of products widely used by state agencies. OPRHP will use the ‘green’ specifications created under EO4 to the maximum extent possible. The agency’s Sustainability Coordinator will work with business office personnel and other staff to provide additional information on the availability and efficacy of environmentally preferable products.

The Agency approach to ‘green’ procurement includes:

1. EO4 / Use of Recycled Paper

EO4 requires state agencies to purchase copy paper, janitorial paper, and other paper supplies manufactured of 100% post-consumer recycled content. Similarly, all agency publications are to be printed on 100% post-consumer paper. If non-recycled content is used for publications, it must be from sustainably-managed resources. OPRHP has adopted agency guidelines implementing the purchase of 100% recycled content paper which is available on the agency’s intranet.

2. Green Purchasing at OPRHP

OPRHP already purchases a number of environmentally preferable products, but more can be done. For many of the products OPRHP purchases such as construction materials, picnic tables, park benches, playgrounds, and office furniture, environmentally preferable alternatives should be explored to maximize recycled content in these products and minimize the use of raw materials and toxics. For many of these products, independent third-party certifying organizations provide various levels of assurance that products are indeed “green.” Wherever applicable and practicable, agency purchases will be based on third-party certification procedures adopted by independent entities.

3. ‘Green’ Purchasing Guidelines”

The agency will develop ‘Green Purchasing Guidelines’ for all agency staff involved in the purchase of commodities, goods, and services. The Guidelines will:

- Define an agency-wide green purchasing program.
- Evaluate and identify green products appropriate for OPRHP.
- Create protocols to support agency purchase and use of ‘green’ alternatives.
- Adhere to and maximize the use of EO4 ‘green’ specifications and ‘green’ products.
- Establish an outreach program to educate Albany Office, Regional, and facility-based agency staff on the availability of environmentally preferable products.
- Tracking and reporting progress on buying green products.
- Evaluate chemical purchasing (pesticides, pool chemicals, cleaning products) and seek alternatives.
- Adopt measures directing OPRHP contractors and concessionaires to follow state green procurement guidelines.
- Ensure products are indeed ‘green’, effective, safe and durable.

4. E0134 / Green Cleaning Products

Executive Order 134, adopted in January 2005, requires all state agencies to “procure and use cleaning products having properties that minimize potential impacts to human health and the environment consistent with maintenance of the effectiveness of these products for the protection of public health and safety.” Currently OPRHP staff uses some ‘green’ cleaning products. Opportunities exist to expand our use of green cleaning products thereby reducing our use of more toxic cleaners. The use of concentrated green cleaning products so as to minimize packaging will also be important. OPRHP can be a demonstrated leader in the use of green cleaning products. The Agency Sustainability Coordinator will help identify ‘green’ cleaning products that are effective and will perform. The agency will conduct one or more of its own pilot testing projects to find effective green cleaning products.

5. Information Technology Procurement

The procurement, use and disposal of computers, monitors and printers are an essential component of the agency’s overall approach to energy efficiency and environmental responsibility. OPRHP will follow the ‘green’ procurement specifications developed under EO4 when purchasing IT equipment to ensure that equipment is Energy Star and/or registered as part of the Electronic Product Environmental Assessment Tool (EPEAT) program. Working through the OGS Personal Computer Aggregate Purchase Initiative, all desktop computers, laptops, and computer monitors will be a minimum EPEAT silver, and gold-rated whenever feasible. Similarly, all new printers and copiers purchased by the agency should be equipped with a duplex option, to allow for 2-sided printing and copying.

Annual Reporting

OPRHP will track and report progress on buying green products as required under EO4. The agency will develop comprehensive data collection systems to be able to report on the purchase of recycled and green products – particularly recycled paper and green cleaning products.

Goals and Objectives

- Purchase 10% (a percentage of dollars) of products that are defined as environmentally preferable, with a long-term goal of purchasing 100 % of products that are environmentally preferable as available.
- Purchase and use 100% post consumer recycled paper for copy/printer paper, janitorial paper and printing throughout the entire agency to the maximum extent practicable.
- Purchase and use “Green Seal” or “Ecologo” certified cleaning products to the extent practicable.

Timeframe: 2011 (2 years+)

V. EDUCATION, TRAINING AND INTERPRETATION

An important aspect of this initiative is to create awareness among agency staff about the importance of incorporating sustainability practices into day-to-day operations. A strong commitment to training and education of OPRHP staff is essential. Over time, all agency employees should become familiar with the goals and objectives of this plan and understand how their day-to-day work activities and actions can contribute to making the agency more sustainable.

Staff education and outreach are an important element of realizing the goals and objectives outlined in each of the priority areas. The agency’s Albany-based sustainability coordinator and energy and equipment coordinator will work with the regions and other agency staff, particularly the agency’s educators, to create a better understanding of the goals and objective set forth in this document.

Internal sustainability training for agency educators and others will be important. The agency will consider possibly using educators to help train other staff (train the trainer). Educators can help promote the agency’s overall sustainability programs and demonstrate ‘green’ technologies. Statewide mandatory sustainability training is being considered by the EO 4 Interagency Committee modeled after the NYSDEC sustainability training program.

A series of white papers and “toolkit” documents will be produced that provide supplemental additional information and resources for these priority areas as well as other sustainability topics. Possible white papers and toolkits include

- State Government Framework for Sustainability
- Defining Sustainability
- Ecosystem Based Management and Sustainability
- Winter Energy Conservation Tips
- Summer Energy Conservation Tips
- Funding Sources for Renewable Energy Projects
- Writing a Waste Reduction Plan and Waste Reduction Tips
- Measuring Waste Generated Versus Waste Disposed
- Greening Your Meeting
- Composting Food and Yard Waste
- Benefits of Green Procurement
- The Efficacy of Green Cleaning Products
- Alternative Oil for Chainsaws and Other Equipment
- Measuring and Tracking Greenhouse Gases
- Green Infrastructure and Stormwater Management

Public Education

Likewise, OPRHP must take advantage of the tremendous opportunities that exist to demonstrate sustainable practices to the more than 55 million people who visit State Parks and Historic Sites each year. For example, at the Jones Beach Nature Center, where solar and geothermal energy are used, provides a wonderful opportunity for public education and interpretation of these renewable energy projects.

To achieve this, OPRHP will incorporate sustainability education into the agency's overall education and interpretation programming offered at our State Parks and Historic Sites. Regional management can direct interpretive staff to provide sustainability information to visitors, school and community groups. Enriching agency educational offerings can bring public awareness and support for OPRHP successes while encouraging others to adopt sustainable daily lifestyle practices.

Another important venue for promoting sustainability includes agency events and festivals, which can reach thousands of people. At these events, OPRHP can promote agency sustainability efforts. OPRHP should use its participation in the state fair to promote sustainability.

Some public education efforts will be regionally focused. For example, education on the impacts of sea level rise may be important to coastal regions such as the New York City and Long Island regions. Other Sustainability topics such as energy conservation, recycling, and renewable energy can be addressed statewide.

Goals and Objectives

- Develop and distribute white papers and tool kits elaborating on the agency's sustainability priorities.

- Training and information on agency intranet creating common area (shared drive) for easy access to “green” information and updates.
- Develop an internal electronic newsletter to provide targeted agency staff with energy conservation and waste reduction tips as well as information on upcoming training events and relevant publications and share success stories.
- Obtain and distribute free materials from NYSERDA and others to encourage staff to participate in reducing energy consumption.
- Include “green/sustainability” articles and messages in OPRHP publications, such as our Parks Welcome Kits and annual camping guide.
- Incorporate Sustainability education into the agency’s overall education and interpretation programming offered at our State Parks and Historic Sites, topics such as energy conservation, recycling, and renewable energy can be addressed statewide.
- Create a sustainability section on our external website highlighting sustainability projects in Parks.
- Develop a comprehensive sustainability training program for agency personnel.
- Develop specific sustainability training modules on energy conservation, waste reduction and recycling and green procurement.

Timeframe: 2011

PLAN IMPLEMENTATION

With the diversity of environments, facilities, operational constraints and opportunities that exist within OPRHP, successfully implementing these sustainability practices will require a commitment from agency staff across the agency. To successfully weave sustainability practices into existing operations, Albany, the regions and individual facilities must work together. To that end, an Albany-based Sustainability Task Force will be created along with eleven regional workgroups.

The Albany-based Sustainability Task Force will consist of the agency’s Energy And Equipment Coordinator and Sustainability Coordinator whom will be primarily responsible for working with the regions to implement this plan, along with four members of the Executive team – the Executive Deputy Commissioner, the Deputy Commissioner for Operations, the Deputy Commissioner for Natural Resources and the Deputy Commissioner for Finance & Administration, which will provide overall direction and support. On an as-needed basis, the Task Force will call upon OPRHP programs, bureaus, and regional and facility managers to garner input for implementation of these priorities.

The Task Force will address how to most effectively involve the regions – and by extension park and historic site managers – in the implementation of this plan. While the goal is to create comprehensive programs that are implemented agency-wide, local resources and local opportunities will dictate where efforts can be focused and programs enhanced. Funding for energy conservation and recycling equipment will also be critical.

Regions will be asked to create standing regional sustainability workgroups that will be charged with developing and implementing the priority areas outlined in this plan. While workgroups will be established based on regional resources and needs it is recommended that the regional workgroup consist of the regional capital facility manager, regional business office staff, at least one park manger and one historic site manager.