



PRINCETON MUNICIPAL GREEN REPORT APRIL 22, 2011

A Report on Municipal Actions to Address the Sustainable Princeton Community Plan

In 2007, the Princeton Township Committee and Princeton Borough Council passed a resolution creating the Sustainable Princeton Steering Committee to oversee the development of the Sustainable Princeton Community Plan. The Plan, which was released in 2009, is a call to action to Princeton businesses, residents, schools, nonprofits and municipalities to accomplish six main goals.

The six goals are as follows:

1. Green the Built Environment
2. Improve Transportation and Mobility
3. Build a Strong Local Economy
4. Protect Environmental Health and Natural Resources
5. Curb Greenhouse Gas Emissions and Climate Change through Energy Conservation and Renewable Energy
6. Foster an Educated, Engaged, Vibrant and Socially Responsible Community

The following report details actions that Sustainable Princeton is aware have been taken by the Borough, Township, Sustainable Princeton and the Princeton Environmental Commission to address the goals of the Sustainable Princeton Community Plan since its inception.

In the two years since the Sustainable Princeton Community Plan was released, much has taken place in Princeton to address the economic, social and environmental building blocks that create a sustainable community. Cost savings, support of biking and special campaigns to reduce and reuse have been

implemented in keeping with the plan's goals. A few highlights of the Municipal Green Report include:

- * All exit signs have been replaced with LED lighting in the Borough building and Senior Resource Center with anticipated savings of 20 to 30 percent from previous years.
- * The Township obtained a \$20,000 block grant that will provide for \$50,000 of energy conservation measures to be completed at no cost to the Township.
- * The Princeton Recreation Department now distributes its bi-annual activities brochure electronically saving 130,000 sheets of four color print annually and \$5,000 a year.
- * The Township and Borough are creating Sharrows (shared lane markings) along two major streets in Princeton.
- * Both the Township and Borough passed resolutions to reduce single use plastic and paper bag use in Princeton with the launch of the BYOBag campaign on June 9th to involve the community.

The Municipal Green Report is a living document with online links to green resources, resolutions and ordinances to assist the municipality with its sustainable actions and activities in the future.

Goal 1: Green the Built Environment

1.1 Establish A Green Cleaning Policy

Borough Action taken: Tested green cleaning products that were not found to be acceptable alternatives to toxic cleaners.

Township Action Taken: No Data Available

Sustainable Princeton Action Taken: Sustainable Princeton held an information session for the public about the benefits of using green cleaning products and created a short video on the same subject which can be found on Sustainableprinceton.org.

Resources:

A sample green cleaning policy provided by the New Jersey Environmental Federation that has been adopted by a number of towns in New Jersey <http://cleanwateraction.org/files/publications/nj/greencleaningpolicy.pdf>

A sample request for proposals (RFP) for environmentally preferable janitorial cleaning products <http://www.seattle.gov/environment/documents/janitorialspecs.pdf>

Training programs for janitors: <http://www.greencleaninstitute.com/janitorial-training>

1.2 Enact Sustainable Landscaping Policies and Ordinances

Both Township and Borough Shade Tree Commissions have been instrumental in ensuring any new plantings include native species.

Borough Action Taken:

- Harrison Street Park and Marquand Park have planted some native species.
- No irrigation of parks or public areas.
- Uses phosphorus free fertilizers
- Adopted an Integrated Pest Management Statement (IPM) which is used to move from blanket pesticide treatment to spot pesticide treatment on all fields and parks.

Township Action Taken:

- Indigenous trees are planted in parks where feasible.
- Friends of Princeton Open Space has planted native species at Mountain Lakes, Farmview Field and the Township building.
- Retention basin was created at Princeton High School that is now an outdoor learning laboratory for students.
- Sprinklers are in operation during low usage from 2:00 a.m. to 6:00 a.m.
- Testing one organic playing field at Barbara Smoyer Park.
- Adopted an Integrated Pest Management Statement (IPM) which is used to move from blanket pesticide treatment to spot pesticide treatment on all fields and parks.
- Changing the wording in Township contracts to move away from blanket treatment, which they anticipate will save money as well as have less impact on the environment.
- The Township Arborist has attended a number of classes on organic lawn care conducted by Rutgers University.

Resources:

Samples of sustainable landscape policies:

<http://edis.ifas.ufl.edu/uw253>

http://www.qcode.us/codes/santamonica/index.php?topic=8-8_108-subpart_b_landscape_and_water_conservati&showAll=1&frames=on

http://www.sfenvironment.org/our_programs/interests.html?ssi=2&ti=1&ii=117

1.3 Establish Environmentally Preferable Purchasing Programs (EPP) policy including the purchase of energy efficient lighting, construction materials, office supplies and green products

Borough Action Taken:

- All exit signs have been replaced with LED in the Borough and Senior Resource Center with anticipated savings of 20% to 30% from previous years.
- Applied for a NJ Clean Energy Block Grant.
- Spring Street Garage has been re-lamped with anticipated savings of 30%.
- Motion sensors have been added to all the lighting in the conference rooms and bathrooms.
- Windows replaced in the Borough Hall.
- Windows replaced in the Senior Resource Center.

Township Action Taken:

- Re-lamped the Township building with high efficiency T8 Lamps, via a Direct Install grant from PSE&G.
- Added motion sensors in all bathrooms.
- Traffic lights replaced with LED lights saving an estimated \$25,000 in 2010.
- Partnered with Princeton University to purchase 100 percent post consumer recycled copy paper.
- Obtained a 2010 NJ Clean Energy \$20,000.00 block grant that will provide for \$50,000.00 of energy conservation measures to be completed through a Direct Install Program at no cost to the Township.
- Will be applying for a similar 2011 NJ Clean Energy Block Grant.
- Switched electrical energy providers from PSE&G to Viridian at an estimated \$50,000.00 annual savings. The energy provided by Viridian is 20% green.
- Contracted to change the Community Park parking lot lighting from metal halide to LED units at an annual savings of \$2,500.00.

Joint Recreation Department Action Taken:

- Removed all paper towels/hand towels from park bathrooms in spring/summer 2010 and installed hand sanitizer pumps in place of soap dispensers.
- Beginning in spring 2011, the bi-annual activities brochure will be distributed electronically instead of direct mailing of paper copies to all homes. The savings in paper is approximately 130K sheets of four-color print annually and the savings in dollars is expected to reach over \$5,000 per year.

Resources: <http://yosemite1.epa.gov/oppt/eppstand2.nsf>
<http://www.green.ca.gov/EPP/default.htm>

<http://www.greenschools.net/article.php?id=40> ,
US Communities Government Purchasing Alliance:
Go to <http://www.uscommunities.org/aboutUs/keyAdv.aspx> to register

1.4 Discourage Plastic Shopping Bags

Borough Action Taken: Passed a resolution to discourage use of plastic bags by merchants and encourage consumers to bring their own cloth bags for shopping.

Township Action Taken: See Borough Action

Sustainable Princeton Action Taken: The Resident's Committee is conducting a BYOBag campaign which will be launched on June 9, 2011 at the Princeton Public Library. A subcommittee is planning numerous events and education campaigns to support the campaign.

1.5 Enact Green Building Policies and Ordinances

Borough Action Taken: No Action Taken

Township Action Taken: No Action Taken

Resources:

American Institute of Architects (AIA). (2007) Cities with Green Building Programs Have Increased More than 400% since 2003.

<http://www.aia.org/adv.localleaders>

Global Green - A Guide for Local Governments

<http://www.globalgreen.org/media/publications/StepByStep.pdf>

Rutgers Center for Green Building

<http://www.greenbuilding.rutgers.edu>

New Jersey Green Building Council Chapter

<http://chapters.usgbc.org/newjersey/index.htm>

New Jersey APA Sustainable Design Committee

www.njapa.org

New Jersey DCA Green Homes Office

njgreenhome@dca.state.nj.us

Green Building/Remodeling Guidelines

EnergyStar

<http://www.energystar.gov/>

U.S. Green Building Council (LEED)

<http://www.usgbc.org/>

REGREEN

<http://www.regreenprogram.org/>

National Association of Home Builders' Model Green Home Building Guidelines

[http://www.nahb.org/publication_details.aspx?
publicationID=1994§ionID=155](http://www.nahb.org/publication_details.aspx?publicationID=1994§ionID=155)

Somerset County High Performance Building Program

<http://www.scbp.org/member/greenbuildings.html>

1.6 Enact an Integrated Pest Management Program

see 1.2 for update

1.7 Enact Green Snow Removal and De-Icing Policy

Borough Action Taken: Uses biodegradable de-icers.

Township Action Taken: Uses polyurethane blades which allow the plows to get closer to the road resulting in less salt usage.

Resources: An alternative to salt: <http://www.wbng.com/news/local/78908267.html>

Goal 2: Improve Transportation and Mobility

2.1 Green the Municipal Fleet

Borough Action Taken: Currently have four hybrid vehicles in its fleet. According to Borough Administrator Robert Bruschi, savings have been hard to record because currently the hybrid fuel dispensation is co-mingled with that of standard vehicles. It is also required that the contracted refuse collectors use only bio-fuel vehicles.

Township Action Taken: Township Fire Marshal drives a hybrid vehicle.

2.2 Expand the Jitney Service to Daytime Hours

Borough Action Taken: The Borough and Township have expanded the Jitney service during the winter holidays with new routes to the Princeton Shopping Center.

Township Action Taken: See above

2.3 Initiate a Car Use Reduction Program

Borough Action Taken: No Data Available

Township Action Taken: No Data Available

2.4 & 2.5 Increase Bicycle Racks and Storage Facilities

Borough Action Taken:

- Added 12 bicycle racks to the downtown shopping area in 2010.

Township Action Taken:

- Partnered with the Princeton Joint Pedestrian and Bicycle Committee, Sustainable Princeton and the Princeton Regional Schools with plans to create sharrows (shared-lane markings) along two major streets in Princeton.

2.6 Provide Directions Using Transportation Alternatives and Americans for Disabilities Act (ADA) Accessibility Guidelines

Borough Action Taken: No Action Taken

Township Action Taken: No Action Taken

Resources: See attached ADA requirements <http://www.access-board.gov/adaag/html/adaag.htm>

2.7 Develop Prioritized Parking Spaces for Alternately Fueled Vehicles

Borough Action Taken: No Action Taken

Township Action Taken: No Action Taken

Resources: Sample signage to be used by municipalities:

<http://www.recyclereminders.com/Recycling-Signs/Recycle-Parking-Signs.aspx>

2.8 Develop Alternative Fuel Stations

Borough Action Taken: No Action Taken

Township Action Taken: No Action Taken

2.9 Encourage Development of Transportation Demand Management Strategies focusing on reducing single occupancy vehicles and developing fewer parking spaces

Borough Action Taken: Have established a committee to review the feasibility of implementing a TDM for the employees.

Township Action Taken: No Action Taken

Goal 3: Building a Strong Local Economy

3.1 Support Development of Local Businesses

Borough Action Taken: No Data Available

Township Action Taken: No Data Available

3.2 Support Development of a Buy Local Marketing and Support Program:

Borough Action Taken:

- Purchases office supplies from Hinksons, the office store located in Princeton.
- Purchases cleaning products from Princeton Supply Company.

- Developed a low price guarantee with Triangle Repro for all outside reproductions.

Township Action Taken: No Action Taken

Sustainable Princeton Action Taken: Partnered with Hometown Princeton and publicizes events and information regularly on the website and within the database about buying local.

3.3 Support the Development of a Sustainable Business Program

Sustainable Princeton Action Taken:

- Honors local businesses that have made clear progress in greening their operations as part of the annual Sustainable Princeton leadership awards program.
- Researching model sustainable business certification programs and business toolkits.

Goal 4: Protecting Environmental Health and Natural Resources

4.1 Expand Borough and Township Recycling Program

Borough Action Taken:

- Conducted a computer recycle day for Borough residents.
- Recycling receptacles are provided around the town on streets and public places.
- Blue recycling containers are provided at each work station in Borough hall.

Township Action Taken:

- Consistently updates its website, the Township newsletter and public works newsletters with information about recycling.
- Offers ongoing computer and small electronics recycling to all its residents.
- Other items accepted for recycling: cell phones, DVDs, VHS tapes, cassette tapes, micro fiche and jewel cases.
- Will be accepting TVs under 26 inches in size.
- Added recycle receptacles to all parks and bus stops.
- All Township desks are provided a blue recycle bin.
- Recycle container behind Township building is filled regularly with recyclables for pick up.
- All schools have been provided blue bins for classroom use.
- Educational assembly programs are available to all interested Princeton K-5 schools geared towards recycling and litter abatement.
- Recycling coordinator introducing curbside food waste recycling as a pilot program to Township residents in 2011.

- Annual document shredding.
- The Township public works department accepts plastic bags, bubble wraps and other film plastic for recycle during business hours.

4.2 Expand leaf and brush composting program

Sustainable Princeton Action Taken:

- Created a video in partnership with TV 30, Township Public Works and the Princeton Environmental Commission (PEC) detailing the options for brush and leaf composting. It can be found on Sustainable Princeton, Princeton Township and TV30 websites.

Princeton Environmental Commission Action Taken:

- Conducted a survey about leaf and brush composting which can be found on the Township website.
- Created a brochure on leaf composting that has been distributed at events throughout the year.
- 50 leaf corrals were given away to Borough and Township residents to test mulching leaves.

Township Action Taken:

- Biodegradable leaf bags are available to all residents for bagged leaf collection.

4.3 Develop Construction Waste and Recycling Reuse Depot

Borough Action Taken: No Action Taken

Township Action Taken: Recycling coordinator signs off on all demolition permits to ensure recycling of materials.

4.4 Expand the Hazardous Waste Collection Program (County Responsibility)

4.5 & 4.8 Restore and Preserve Native Plants and Wildlife Habitat and Pass a Revised Tree Protection and Mitigation Ordinance (see goal 2).

Borough Action Taken: Both the Borough and Township have active Shade Tree Commissions which encourage planting native trees.

Township Action Taken: Township adopted a revised tree protection ordinance and both the Township and Borough have active Shade Tree Commissions which encourage planting native trees.

4.6 Expand Green Space and Parks in the Community

Borough Action Taken: Reconstructed Harrison Street Park.

Township Action Taken: Partnered with local non profits to preserve three parcels totaling 56 acres.

4.7 Create a Visually Pleasing Pedestrian Experience in Retail and Commercial Districts

Borough Action Taken: Hinds Plaza currently has a Farmer's Market, and the Borough maintains Nassau Street.

Township Action Taken: Working on new zoning to create mixed use density along Alexander.

4.8 See 4.5

4.9 Utilize the Environmental Resource Inventory (ERI) to Update Master Plan

The Regional Planning Board of Princeton is currently utilizing the ERI to update the Princeton Community Master Plan.

4.10 Expand the Recycling Education Program

See 4.1

4.11 Implement Recommendations Set Forth in 2007 Municipal Assessment

Borough Action Taken: The Borough is currently working to address the suggestions in the 2007 Municipal Audit.

Township Action Taken: The Township is currently working to address the suggestions in the 2007 Municipal Audit.

4.12 Develop a Food Composting Collection Pilot Program

Borough Action Taken: No Action Taken

Township Action Taken: The Township Recycling Coordinator is currently developing a pilot food waste recycling program with Premiere Food Waste for Township residents.

4.13 Implement Low Technology Rainwater Harvesting and Reuse Techniques

Borough Action Taken: No Action Taken

Township Action Taken: The Township Recycling Coordinator has researched the feasibility of piloting rain barrel use on the premises but at this time the costs of barrels is too prohibitive.

- Both communities encourage new development to incorporate rain harvesting and reuse techniques.

Goal 5: Curb Greenhouse Gas Emissions and Climate Change through Energy Conservation and Renewable Energy

5.1 Calculate and Track Community's Carbon Footprint

Borough Action Taken: No Data Available

Township Action Taken: No Data Available

Sustainable Princeton Action Taken: Sustainable Princeton has promoted residential tracking of carbon footprints at four separate events this past year. Additional information can be found on the Sustainable Princeton website.

5.2 Conduct Energy Audits and Implement Retrofits in Municipal Facilities

Borough Action Taken: Energy audit completed. Lighting retrofits have occurred in the Spring Street garage. The municipal building lighting in all bathrooms and conference rooms are on timers. Using energy audit to implement retrofits in municipal facilities.

Township Action Taken: Energy audit completed. Township building switched to energy efficient lighting, bathrooms and conference rooms on timers. Using energy audit to implement retrofits in municipal facilities in conjunction with the NJ Clean Energy Program.

5.3 Participate in Clean Power Partners Program

Borough Action Taken: No Data Available

Township Action Taken: No Data Available

Sustainable Princeton Action: Distributed 200 CFL's via the program to Princeton Residents.

5.4 Establish a Solar Power Purchasing Agreement to Install Solar Photovoltaic Panels or Qualifying Municipal Rooftops and Facilities in Array.

Borough Action Taken: Proposal being evaluated.

Township Action Taken: Proposal being evaluated.

5.5 Establish Energy Efficient Computing and Lights Off Policy

Borough Action Taken: Motion sensors installed in conference rooms and bathrooms.

Township Action Taken: See above

5.6 Use Smart Meters to Display Real Time Energy Usage Data

Borough Action Taken: No Data Available

Township Action Taken: Mountain Lakes House has installed a whole house energy monitor.

5.7 Install Renewable Energy Systems

Borough Action Taken: Exploring opportunities to install solar arrays.

Township Action Taken: See above.

5.8 Promote Energy Audits of Residences and Businesses

Borough Action Taken: Sustainable Princeton demo project.*

Township Action Taken: Sustainable Princeton demo project.*

- * Sustainable Princeton and the Princeton Environmental Commission worked with three local businesses to conduct energy audits in six Princeton homes of differing size, age and location. An article was published in the Princeton Packet about the results.

5.9 Establish Routine Monitoring and Upgrade Schedules to Encourage Energy Conservation

Borough Action Taken: Ongoing (see 5.2)

Township Action Taken: Ongoing (see 5.2)

GOAL 6: Fostering An Educated, Engaged, Vibrant and Socially Responsible Community

6.1 Continue to Improve Affordable and Senior Housing Options

Borough Action Taken: Zoning is in place.

Township Action Taken: Zoning is in place.

6.2 Continue to Offer Menu of Recreation Opportunities

Borough Action Taken: Ongoing

Township Action Taken: Ongoing

6.3 Maintain and Informative Sustainable Princeton Website

Action Taken: Sustainable Princeton has a website that is maintained.

6.4 Hold annual Sustainable Princeton Leadership Awards (PEC)

Princeton Environmental Commission and Sustainable Princeton awarded leadership awards for the fourth year in February 2011. Awardees can be found on the Sustainable Princeton website.

6.5 Hold annual Princeton Green Home and Garden Tour (PEC)

Princeton Environmental Commission held its annual Green Home and Garden Tour in June 2010.

6.6 Develop a Communication and Media Campaign about Sustainability

Borough Action Taken: See Below

Township Action Taken: See Below

- Sustainable Princeton has partnered with TV30 to create a series of sustainable videos featuring local residents involved in sustainable activities. The videos can be found on TV channel 30 and the Sustainable Princeton website.
- An article appeared in Sustainable Princeton magazine about Sustainable Princeton
- Five articles have appeared in the Princeton Packet, PM magazine, Town Topics and ECHO in 2010 about projects such as trashy trees, home energy audit pilot, composting and annual reports.

6.7 Host an Annual Sustainability Event

Sustainable Princeton held a workshop during the Princeton Environmental Film Festival on the community plan.

6.8 Institutionalize the Coordination of Sustainable Princeton

- Sustainable Princeton's coordinator and intern have been provided office space in the Township planning office.
- Research is being conducted on becoming a 501 c-3.
- Both Township and Borough provided \$7500 to support Sustainable Princeton in 2010 and again in 2011.