



Sustainable Jersey Certification Report

This is the Sustainable Jersey Certification Report of Berkeley Heights Twp, a Sustainable Jersey silver certified applicant.

Berkeley Heights Twp was certified on February 23, 2012 with 375 points. Listed below is information regarding Berkeley Heights Twp's Sustainable Jersey efforts and materials associated with the applicant's certified actions.

Contact Information

The designated Sustainable Jersey contact for Berkeley Heights Twp is:

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Actions Implemented

Each approved action and supporting documentation for which Berkeley Heights Twp was approved for in 2012 appears below. Note: Standards for the actions below may have changed and the documentation listed may no longer satisfy requirements for that action. Additionally, points associated with actions prior to 2013 certifications may not be accurate.

Community Partnership & Outreach

Community Education & Outreach

10 Points

Program Summary: We have maintained an Environmental Commission web site and uploaded our NRI, Community Forestry Management Plan, Street Tree Inventory reports, announcements of current activities, and annual reports, and enabled the web site for email communication with members of the community. Other outreach activities include partnering in the Bio-Blitz which acquainted citizens with the flora and fauna of a local park, organizing a styrofoam recycling

event to handle holiday packaging, enlisting 20 volunteers and training them to inventory and evaluate our street trees, working with community volunteers to plant trees in the Passaic River Park, publicizing our Walmart grant study which quantified the value of the township's street trees, and organizing environmental programs and lectures at the library.

PDF: [STYROFOAM COLLECTION](#)

Green Team

10 Points

 Bronze Required

Program Summary: Seven Green teams were formed in December 2008 after reaching out to the community. The teams reviewed best practices and activities of other municipalities and prepared action plans which were reviewed with municipal departments, Boards, the public, and the governing body. The Green Team now consists of the Environmental Commission members, including a representative from the Board of Education and sub teams focusing on recycling, trees, and transportation. The recommended action steps have been integrated with the Sustainable Jersey programs and actions have been completed in all of the seven areas. The governing body has supported our continuing work toward silver certification. The green team plans are uploaded to our web site, bh-ec.org, under the tab SUSTAINABILITY. The plans were endorsed by the township council in a resolution passed October 4, 2011 (see Action Plans). Current (2011) Green Team members are included in File 3.

PDF: [ARTICLE](#)

PDF: [RESOLUTION FOR SILVER](#)

Energy

Energy Tracking & Management

10 Points

 Bronze Priority  Silver Priority

Program Summary: Utility data have been entered for all of our municipal buildings for at least the full year of 2010 and continuing through August of 2011. As requested, the account has been linked to Sustainable Jersey as a master account. A summary energy performance report and a benchmarking report have been downloaded and are attached. This data base will be updated periodically. It will be very useful for monitoring the benefits from energy conserving activities. The first building changes under the Direct Install program were made in August of 2011. Other improvements are scheduled. In addition a behavioral policy was adopted in August 2011 which includes energy saving actions.

EXCEL: [SUMMARY ENERGY PERFORMANCE REP](#)

PDF: [BENCHMARKING REPORT](#)

Green Design

Green Building Policy/Resolution

5 Points

Program Summary: A resolution in support of Green Building Practices was adopted by the Berkeley Heights Township Council on June 14, 2011. The township administrator distributed the resolution to department and division heads. The resolution is available through the Township web site under the Environmental Commission link.

PDF: [GREEN BUILDING RESOLUTION](#)

PDF: [RESOLUTION DISTRIBUTION](#)

PDF: [RESOLUTION UPLOAD](#)

Create a Green Development Checklist

10 Points

Program Summary: An ordinance requiring applicants to the Planning Board and Board of Adjustment to discuss how their land use application relates to the goals of Green Building Design was passed by the Township Council in December 2010 and is being applied by the Boards.

PDF: [GREEN BUILDING ORDINANCE](#)

Health & Wellness

Anti-Idling Education & Enforcement Program

10 Points

Program Summary: The program was started by Berkeley Heights Girl Scout troop 40315 from the Girl Scout Heart of New Jersey Council under the guidance of our Transportation Green Team. The scouts did a survey to determine frequent idling spots in town and then sold popcorn at a Green Fair event to raise funds and purchase no-idling signs. The Township Council passed a no-idling resolution in June of 2011. To date, 6 no idling signs have been erected - at the YMCA drop-off location and at the railroad station, with the help of NJ Transit. Seven more signs have been sited near schools. We have received the concurrence of Union County and Berkeley Heights Department of Public Works. The signs are scheduled for installation in the immediate future. The work was temporarily delayed by the Halloween storm. DPW crews are giving priority to the immense job of dealing with branch pick-up and chipping. After the seven signs are installed, the whole activity will be publicized. Educational activities to date include a general document on how to save gas, including idling reduction, which has been handed out at green fairs and other

community activities for the last two years and is also posted on our web site, a specific anti-idling advice on our web site, and the inclusion of a no-idling instruction in the Township's behavioral policies for all its employees.

PDF: [ANTI-IDLING RESOLUTION](#)

PDF: [IDLING SIGN AND MAP](#)

PDF: [PROMOTIONAL DOCS](#)

Building Healthier Communities

20 Points

Program Summary: Building Healthier Communities Berkeley Heights is well along in the effort to build a strong, healthy, active community. We are very fortunate to have a number of organizations in town who are passionate about promoting healthy living and are committed to providing opportunities to keep youth, seniors, employees and the entire community active. Although the descriptions and documentation focus on 2011 opportunities and achievements, many of these programs have been in place for a number of years. In 2011, the mayor of Berkeley Heights signed the Mayors Wellness Campaign, a copy of which is attached. The second attachment is a detailed inventory of activities that were undertaken in Berkeley Heights Township to Build a Healthy Community in each area as required. The third attachment is a compilation of documentation including press releases, fliers and detailed program descriptions.

PDF: [MAYORS WELLNESS CAMPAIGN](#)

WORD: [PROGRAM SUMMARY](#)

PDF: [FLYERS AND DOCUMENTATION](#)

Innovative Projects

Innovative Community Project 1

10 Points

Program Summary: The Berkeley Heights Green Team has set up at least 5 innovative projects: (1) A program in cooperation with the library to loan energy meters to residents (2) A study of the Berkeley Heights Tree Canopy and quantification of its value as well as trends (3) A volunteer effort to clean up/ desnag streams (4) Styrofoam recycling collections and (5) Conversion of the maps in our NRI to lot and block overlays on the township tax maps. We will submit the first two. The Environmental Commission purchased 3 Belkin meters which measure the power drain for appliances which might easily be turned off when not needed - things like chargers, modems, computers, TV boxes, etc. all waste electricity. The devices are being loaned out just like books and the campaign was launched with a lecture at the library. Later in the year, we expect to have a contest on loss identification.

PDF: [CHECK OUT ELECTRICITY MONITORS](#)

Land Use & Transportation

Sustainable Land Use Pledge

10 Points

 Bronze Priority  Silver Priority

Program Summary: The sustainable land use pledge was discussed at a public meeting between the Planning Board and Environmental Commission members. The discussion broadly covered the subject of how the EC and the Planning Board might work together to foster sustainability. Feedback was received and the EC chairman and the Planning Board chair subsequently worked together to adapt the model pledge more specifically to our community. The Master Plan, the Storm Water Management Plan, and the NRI were all consulted as part of this process. The resulting resolution was presented at a public meeting of the Township Council and unanimously adopted. It has been forwarded to the Planning Board, Board of Adjustment and the Environmental Commission. The resolution is attached.

PDF: [PLEDGE](#)

Natural Resources

Natural Resource Inventory

20 Points

 Bronze Priority  Silver Priority

Program Summary: An ERI/NRI was completed in late 2005. Because it was more than 3 years old, because it did not fully reflect our current emphasis on sustainability (although it does have a sustainability section), and because of the opportunity to look at regional and common issues including those related to the Passaic River, we updated the NRI in 2010. The 2010 NRI can be found at http://www.bh-ec.org/Docs/2010_Final_Natural_Inventory.pdf. If there is any problem, go to www.bh-ec.org, click on Natural Resource Inventories and then on 2010 Natural Resource Inventory. The Berkeley Heights' Township Master Plan was updated in September 2007 and incorporated the 2005 NRI by reference. The Master Plan included specific sustainability elements, some from the 2005 NRI and some new. The 2010 NRI added more sustainability elements and will be included in the next Master Plan update. As is evident, the NRI and Master Plan are closely linked. File 2 is several pages from the 2010 NRI. Note the reference to incorporating sustainability elements in the master plan (page iii), the reference to the 2007 Master Plan and the NRI elements used in site plan review (page iv), the passage of ordinances for Steep Slopes and Fertilizer runoff called for in the 2005 NRI and the reference to a Riparian Ordinance, since passed (Pages 62, 63). Especially noteworthy is the production of GIS maps indexed to the town's lot and block maps (Page 63). This project has now been completed and the maps have been distributed to and enthusiastically received by the Planning Board, Board of Adjustment, and Environmental Commission for land use planning and evaluation. File 3 is a copy of the Land use pledge which commits to periodic updates of the NRI.

PDF: [NRI PAGES](#)

PDF: [PLEDGE/NRI UPDATE](#)

Environmental Commission

10 Points

Program Summary: The Berkeley Heights Environmental Commission has been in existence for many years. The ordinance can be found in the Berkeley Heights Municipal code, chapter 2.88. To see the municipal code, go to <http://www.berkeleyheightstwp.com/>, click on Administrative, and then on the link for Municipal Code. Search for Environmental Commission. A screen shot of that chapter is included in File 1. The ordinance was updated in March of 2010. The 2010 annual report is File 2. The language of the ordinance is shown in file 3.

PDF: [SCREEN SHOT EC MUNICIPAL CODE](#)

WORD: [2010 ANNUAL](#)

PDF: [EC ORDINANCE 2010](#)

Water Conservation Education Program

10 Points

Program Summary: The Berkeley Heights Environmental Commission has been active in water quality and water conservation education. One of our seven sustainability teams focussed on this subject and has produced educational material which is presented on our web site, bh-ec.org and has been distributed at numerous public events. The water action plan was recently endorsed by the Township Council along with the other action plans as part of a roadmap toward sustainability. We have also helped prepare a riparian ordinance and detailed GIS map tools to help the water quality of the Passaic River, an important resource for local communities, and promoted the sale of rain barrels to local residents.

WORD: [PROGRAM OVERVIEW WORKSHEET](#)

PDF: [EDUCATIONAL BROCHURE](#)

PDF: [ACTION PLAN/RAIN BARREL FLYER](#)

Tree Planting Programs

10 Points

Program Summary: Berkeley Heights has had an active tree planting program for the last several years and the program has accelerated in recent years after the master plan was modified in 2007 to include a goal of more tree planting in the downtown area. During 2011, twenty 2 1/2 inch caliper trees were planted primarily in parks and school grounds, over 200 seedlings were distributed to fourth graders as part of our Arbor Day celebration, and over 150 silky dogwood and willow oak saplings were planted in Passaic River Park, in cooperation with Union County personnel and local volunteers. The project we will describe is the planting of the 20 trees which were primarily concentrated in Peppertown park and around the athletic field of Columbia school. Representative photos are included of these 2 locations as well as an overall map for the project. A photo of Passaic River saplings is also included.

WORD: [2011 PROJECT DESCRIPTION](#)

PDF: [2011 TREE PLANTING LOCATIONS](#)

PDF: [TREE PHOTOS](#)

Tree Hazard Inventory

10 Points

Program Summary: Summary: Hazard Tree Assessment Program The town has in the past relied on windshield surveys by the Tree Inspector, the township engineer, DPW foremen and resident reports to continue with the identification of hazardous trees. Hazard situations are dealt with according to these observations and re-mediated as soon as possible depending on the condition rating of the hazard identified. In 2008 in preparation for writing the Township Community Forestry Management Plan, the Township carried out a windshield survey and handled priority hazard situations. Separately, the Environmental Commission set a goal of 40% for the tree canopy of the Township. The most recent hazard tree assessment was begun out simultaneously with the Computerized Municipal Tree Inventory in 2010. This assessment was limited to trees within the Township right-of-way and excluded trees on county roads because the county maintains a separate program. At the same time as the volunteers learned about tree inventory, they also learned about tree hazard assessment from Steve Chisholm, a Certified Tree Expert and leading arboriculture educator. The data was also entered into the i-Tree program on hand-held computers and then uploaded to a desktop computer. The volunteers entered data on tree species, structural damage to tree trunks, cavities, percent of dead wood, condition of wood and leaves, wire conflict, pests and diseases. Using i-Tree they also made ranked the tree hazards and made recommendations for maintenance. This information was passed onto the tree inspector. The full file is included as file 2. The Township now has a database to carry out hazardous tree management, to plant additional trees and to show concretely the benefits of its tree canopy. The i-Tree program does not have a graphical mapping feature but all trees were located precisely by GPS latitude and longitude coordinates and secondarily by street address. This information is included in File 2 and we feel it is a more precise way of mapping than a pictorial representation.

WORD: [PROJECT DESCRIPTION](#)

EXCEL: [HAZARDOUS TREE FILE](#)

Community Forestry Management Plan & NJUCF Accreditation

20 Points

Program Summary: The second 5 year CFMP for Berkeley Heights was approved in February 2009. It was developed by a CTE consultant in cooperation with the Berkeley Heights Environmental Commission and the Township Tree Officer. The approval letter is included as well as the last "Approved Status Letter" from the previous 5 year plan. Also included is the canopy goal, adopted by the Environmental Commission on August 31. Other goals are included in the CFMP.

PDF: [CFMP APPROVAL LETTER](#)

PDF: [CFMP](#)

WORD: [CANOPY GOAL](#)

Tree Maintenance Programs

10 Points

Program Summary: Tree maintenance activities were carried out as part of our Community Forestry Management plan and are documented in the Annual Accomplishment Report.

PDF: [TREE ACCOMPLISHMENTS REPORT](#)

Easement Inventory & Outreach

10 Points

Program Summary: Berkeley Heights Conservation Easement Project The working group consisted of a summer intern, the Township tax assessing clerk, and a member of the Environmental Commission, with liaison to the Township administrator. Conservation easements were identified by carefully examining the 50 odd Township tax maps. Eight potential easements were identified. The next challenge was to identify the nature of the easements. No current Township officials or Planning Board members had any recollection or information about such easements. Fortunately, Union County has on-line property records. These were searched for all cases where the Township of Berkeley Heights was the grantee. Seven of the eight conservation easements were confirmed, one was found to be just a drainage easement, and 2 other conservation easements were discovered. Eight of the nine easements required preservation of lands in their natural state and one was for the preservation of a specimen tree. The land preservation easements total approximately 16 acres. The fact that the easements were not remembered by Township officials is not surprising since they were granted between 1994 and 2001. Three of the easements were from Condominium Associations and the other six were from individual homeowners. The land easements have been inspected on Google Earth and all appear to be nicely wooded. The tree easement has been inspected visually and discussed with the property owner. Owners of the easements have been identified from the Township tax records and were sent copies of the easements to remind them of their obligations. A sample of one of the letters is included.

PDF: [SAMPLE EASEMENT LETTER](#)

EXCEL: [EASEMENT DATABASE](#)

Tree Protection Ordinance *Retires 12/31/25*

10 Points

Program Summary: Tree Protection Ordinance. This ordinance was revised in December 2004 and again in December 2008 to discourage tree removal and require replacements. The Environmental Commission took a leading role in strengthening these ordinances. The latest revision offers incentives for larger tree replacements and also payment of monies into a tree replacement fund if replacement cannot be done on site. Copies of the ordinance and its amendment are included. A folder of correspondence with the Planning Board Chairman and Engineer as well as minutes of the public meeting of the Environmental Commission is included to

show how the ordinance is being implemented.

PDF: [2004 TREE ORDINANCE](#)

PDF: [2008 AMENDMENT](#)

WORD: [CORRESPONDENCE & MINUTES](#)

Sustainability & Climate Planning

Community Asset Mapping

10 Points

Program Summary: This task was coordinated by an intern who developed an initial list of community assets, based on Wikipedia, the township website, the telephone directory and the internet. Then input was sought from other members of the community. Berkeley Heights is a small town and individual resources were found to have broad familiarity. The town reference librarian was very helpful. An interactive "\"brainstorming\"" was held with 9 long term residents and this added a dozen more organizations to the list. This group included Environmental Commission/Green Team members, 2 members of the Township Council and a representative of the Board of Education . The revised list was circulated in advance of a second review with the same group plus the township engineer. As suggested by Sustainable Jersey, addresses, contact information, and brief descriptions were added and locations were mapped on Google Earth. The map is publicized on the Berkeley Heights Public Library Blog, Twitter feed and Facebook page. It is available to the public at <http://t.co/IKB73UrJ>. A companion text document contains location and descriptive information and is available on the Berkeley Heights Environmental Commission web site. Many of the organizations are also linked to the Township web site.

PDF: [COMMUNITY ASSET LIST](#)

PDF: [ASSETS ON BH WEB SITE](#)

Municipal Carbon Footprint

10 Points

🏅 Bronze Priority 🏅 Silver Priority

Program Summary: Berkeley Heights Municipal Carbon Footprint The carbon footprint for the municipal government buildings and vehicle fleet of Berkeley Heights Township was calculated. This was done to support the submission by the Berkeley Heights Environmental Commission for Sustainable Jersey certification. The Berkeley Heights municipal complex consists of nine buildings. They are: the municipal building (Town Hall and Police Department addition), the Engineering building, the DPW garage, the Recreation Commission building, the Public Library building, the Fire House, the Rescue Squad building and the Waste Water Treatment plant's two buildings, the Main building and the Digester Plant building. The Township's vehicle fleet consists of 21 cars and 12 light duty trucks, all using gasoline and 17 diesel fueled heavy duty trucks. The base year for the calculations was 2009, the first year that a complete data set was available. Natural gas and electricity data were obtained from an energy audit performed by CDM, an engineering firm, in 2010. Reliable data were not available for the Rescue Squad building for 2009, so data were taken from PSE&G meter results for 2010. Electricity usage for street lights

was charged to the Township by JCP&L at the flat monthly rate of 28,363 kwh or 340,356 kwh /yr. Usage data for traffic lights and miscellaneous other uses were obtained from individual meter readings from JCP&L and totaled 138,419 kwh/yr. Data for vehicle fuel use and mileage calculations were obtained from the Township engineer's office. Supporting data are given in the appendix. The results, shown in the attached spreadsheet, show 549 mtCO₂e for natural gas use, 1526 for electricity use and 448 for vehicle use, giving a Berkeley Heights municipal carbon footprint of 2523 mtCO₂e. 1.Township of Berkeley Heights Final Energy Audit Report, May 10, 2010 CDM

EXCEL: [CARBON FOOTPRINT SPREADSHEET](#)

EXCEL: [FUEL LOGS](#)

PDF: [UTILITY DATA](#)

Community Carbon Footprint *Retired 12/31/22*

10 Points

Program Summary: Berkeley Heights Township Carbon Footprint The carbon footprint for the Township of Berkeley Heights was calculated to support the submission by the Berkeley Heights Environmental Commission for Sustainable Jersey certification. Data available from the New Jersey Department of Environmental Protection (DEP), Jersey Central Power and Light (JCP&L), Public Service Electric and Gas (PSE&G), suppliers of electricity and natural gas to Berkeley Heights and the US Census Bureau were used to calculate the CO₂ emissions associated with electricity and natural gas use, transportation and other miscellaneous activities. Natural gas use data from 2010, the first year a complete data set were available from PSE&G were used. The data are given in the appendix. The last year electricity use data could be obtained from JCP&L was 2008, so that year was used. Data are also shown in the appendix. Transportation and other activity data were obtained from a NJ DEP report¹ which gave projected state wide CO₂ emission data for 2010. The state values were then prorated for Berkeley Heights based on the population ratio. The carbon footprint calculation results are given in the following table. The total emissions for Berkeley Heights Township were 304,593 mtCO₂e or 23.6 mtCO₂e per capita. 1.New Jersey Greenhouse Gas Inventory and Reference Case Projections 1990-2000, NJDEP (2008)

EXCEL: [BERKELEY HEIGHTS CARBON FOOTPR](#)

EXCEL: [NATURAL GAS USAGE](#)

PDF: [ELECTRICITY USAGE](#)

Indicators & Targets *Retired 12/31/23*

10 Points

Program Summary: Seven green teams comprising 40 residents were formed in 2009. Questionnaires were distributed and collected from residents at 2 town events. The plans were reviewed with department heads, board of adjustment, planning board, township council, and at a public meeting. A resolution endorsing the plans and the vision statement was passed on October 4, 2011. Documentation of some of the reviews and interaction is attached. The plans contain both short and long term goals and metrics. Indicators of progress are implicit in many of the plans, but to make everything explicit, a specific list of indicators has been developed and shared with the Township Council. The indicators are included in File 1, along with the Action Plans. As of now, 15 of the 51 goals have been achieved or substantially progressed.

PDF: [INDICATORS/ACTION PLANS](#)

PDF: [RESOLUTION OF SUPPORT](#)

WORD: [ACTION PLAN INVOLVEMENT](#)

Waste Management

Community Paper Shredding Day

5 Points

Program Summary: A paper shredding day was held on May 7, 2011 in cooperation with Union County and publicized with flyers around the town. The event was at Alcatel-Lucent, which is located at the border of Berkeley Heights and New Providence. 177 people from both towns participated. A second event will be held on October 22 and will be publicized.

PDF: [PAPER SHREDDING FLYER](#)

WORD: [PAPER SHREDDING DATA](#)