



Rev 3- 2/19/2015

**Final Report**  
**March 31, 2015**  
**Capacity - Building Grant (Water Conservation) Rain Barrel Workshop)**



**Submitted By: Mansfield Township**  
**Green Team**  
**JoAnn Fascenelli**  
**Michael Misertino**  
**Elaine Drazek**  
**Jennifer Keggan**  
**Robert Jewell**  
**Dawn Smith**  
**Connie Adasavage**

## **1.0 Introduction:**

Mansfield Township, Warren County, N.J. established a Green Team in 2010. In January of 2012 Mansfield became the first municipality in Warren County to become bronze certified by Sustainable New Jersey. Since certification, the team has worked tirelessly to maintain their Bronze certification while at the same time planning and executing action items which will allow them to progress toward silver certification. On January 24, 2014 the Mansfield Township, Green Team, applied for a \$2000.00, Sustainable, N.J., Capacity-Building Grant to support a **Water Conservation Action**, specifically a Rain Barrel Workshop. On March 12, 2014, in Camden, New Jersey, the grant award ceremony was held and Mansfield was officially awarded the grant. The grant was originally based on the build of 55 rain barrels.

The Green Team partnered with the Pequest, NJ Hatchery & Natural Resource Education Center and the Americorps Watershed Ambassador to the Musconetcong Watershed Association, located in Asbury, New Jersey, to provide a complete water conservation awareness program. Both of these groups have similar causes as our Green Team. The project started with a pre workshop lecture which included such topics as water conservation, rainwater (benefits and statistics), living with nature, native plants, rain barrel use, construction, painting, and winterizing. Upon completion of the project the Mansfield Township Green Team dispersed a total of 57 barrels for use, by citizens, as part of our water conservation project.

## **2.0 Project Completion Summary:**

**2.1** The expenditures for the rain barrel project event consisting of 57 barrels were as follows:

Item #	Description	Cost	Source
1	57 Barrels	\$0.00	Donor - Coca Cola
2	Mechanical Parts (60 sets)	\$862.74	Home Depot, Lowes
3	Paint ( 1 Barrel)	\$15.48	Home Depot
4	Publishing	\$90.63	Staples
5	Barrel Transport	\$440.15	Budget Rental
6	Fiber Glass Screen	\$67.40	Home Depot
7	Silicone Caulk	\$10.42	Various
8	Teflon Tape	\$5.90	Various
9	Cable ties 8&4"	\$20.15	Various
10	Colanders	\$61.00	Dollar Tree
11	Misc	\$56.49	Various
12	Hall Rental	\$300.00	Mans. Fire Co.
13	Dvrtr Kit (4)@\$35.99	\$69.64	Amazon
Grant Total		\$2000.00	<b>Grant Funding</b>
	Divrtr Kit(4)	\$74.32	<b>Green Team Trust Account Funded</b>
Total		\$2074.32	

In addition to the money we spent, we utilized over 200 volunteer hours to clean barrels, create publications, assist with the build, and other duties as assigned.

## 2.2 How did the Project differ from the original proposal:

The planning document submitted with the grant application estimated a 55 barrel event based on the population, estimated number of homes and a percentage of those homes that would participate. The Rain Barrel Workshop morphed into a phased event. The Green Team conducted a vigorous advertising campaign for the workshop and established a cutoff date for signups, for our first phase on June 7, 2014. The first phase, had 17 signups, by the cutoff date, with more on a waiting list. The cutoff date was established to allow ample lead time for the procurement of parts. We limited the first phase to 17 households and decided to hold a second phase on Sept. 21, 2014 to accommodate those households, with late sign ups, and to meet or exceed our goal of 55 barrels. The second phase held on Sept. 21, 2014 had 28 participants sign up. Again we created a waitlist for those who expressed interest after the cutoff date. The second phase brought our total to 45 barrels. We then did a third and final phase on November 16, 2014 and dispersed an additional 12 barrels for a total of 57 for the entire Water Conservation Project.

Initially our plans were to purchase barrels from sources we found locally with prices in the \$20-\$25 per barrel plus transportation. As we started executing the project, and establishing



partnership's, our watershed partner gave us the lead to Coca Cola, who also has an interest in water conservation. Coca Cola was willing to supply barrels at no cost as long as we could arrange for delivery and provide a letter, acknowledging their participation in the water conservation program. We did provide such a letter and as a result we have a new water conservation partner. This reduced our barrel cost from roughly \$1100.00 to \$0. On the other hand it increased our transportation cost since we had 3 different phases for which we needed transport vs. one we normally would have used. The 3 phase project also impacted our hardware costs because we did not experience the savings of economic order quantities.

In addition we used brass fixtures vs. the plastic spigots cited in the grant. The brass fixtures are more durable but also cost us more.

Construction was conducted in accordance with the Rutgers CO Operative Extension Bulletin E329 - How to build a rain barrel, and supplemental instructions offered by the Americorps Watershed Ambassador and the instructions in the Appendix . Other deviations were the parts used. The Mansfield Green Team reverse engineered the one competed barrel we had received and created a parts list as shown in Tablet 2-1. Alternate parts are shown, in red. We selected alternate parts because of some vendor problems. They functioned almost as well as the original design, but we recommend their use only in a pinch. For the drilling operation we had only one, 1" hole saw so we used a 1" spade drill which worked equally as well as the hole saw. Other variations were the use of a 4" cable tie vs. a wire "bread" tie to hold the mosquito net in place around the colander, and used an 8" cable tie to hold the mosquito net in place over the overflow port vs. the aerator, which was more expensive.

Rain Barrel Parts List w/AltParts			
Item #		QTY	P/N
1	Silicone Caulk	A/R	HD SKU-502030
2	Colander Fiberglass Screen 24" x 24" make from roll	1	HD 451-865(Roll)
3	Teflon Tape 1/2" wide	A/R	HD SKU-788287
4	Silcock 3/4"	1	HD 641-766
5	3/4" Conduit Nuts	2	Lowes 26192
5 A	3/4" Conduit Nuts	2	HD 665-445
6	Garden Hose Adapter 3/4" MIP x 3/4" MIP (Tapped 1/2" FIP)	1	HD LFA-655
7A	Bushing 3/4" MIP x 1/2" FIP	2	HD LFA-870
7B	Bushing 3/4" MIP x 1/2" FIP	2	Lowes 782-454
7B	Adaptor 3/4" MH x 1/2" MIP	2	HD LFA-663
8	6" Cable Tie for Colander Screen	1	HD 295-326
9	8" Cable Tie for Overflow Screen	1	HD 296-184
10	Overflow Screen 5" x 5" make from roll	1	N/A
11	8" Colander	1	Dollar Tree P/N 82893
12	55 Gallon Barrel	1	Coca Cola
13	Aerator	1	Danco 10467

**Table 2-1**

In addition we found that a 1-1/16" socket was much easier to use than an adjustable wrench for tightening the brass fixtures. Photos in the attachment section show various activities taking place during the event.

The barrels we received from Coca Cola were of the closed top type. Accordingly we elected to cut the top, colander, hole and the lower outlet hole, for the valve installation. These two holes enabled the Green Team to use a pressure washer to rid the barrels of syrup residue from the Coca Cola process.

Our Green Team created a template as shown in the photo album. This device allowed us to mark the location of the colander hole on all 57 barrels while the cutting of the hole was conducted in parallel.

In addition we created a cutting board, also in the photo album, for cutting of the screens for the water inputs (24 in sq.) and the overflow port (5 in sq). The board allowed us to lay the screen out

flat while we cut the sizes, along pre marked lines, using a utility knife and a 24" builders square. We saved a considerable amount of time for this process by abandoning the use of scissors to cut the screens.

### **3.0 Evaluation:**

#### **3.1 What has been achieved?**

As a prerequisite to the rain barrel, water conservation project, a Green Grounds and Maintenance policy was adopted by the Mansfield Township Committee at the regular meeting, by Resolution Number 2013-104, on September 25, 2013 and is provided in the Attachment section of this document defines this policy..

The 3 part event produced 57 rain barrels for consumer use. Each of these barrels will hold 55 gallons of rain water, diverted from the roof of a building, which can supply 600 gallons of water per 1000 sq ft of roofing in a 1" per hour rainfall. Most bi-level homes in our area have approximately 1000 sq ft of roof area. The total gallons that we anticipate saving, per year, assuming 3, 1"/hr rain fall events and 3 slow rainfall events, is  $57 \times 55 \times 6 = 18810$  gallons. This is based on the type of rain events we might see during our yearly rainfall of approximately 48 ". If a rain barrel is placed on each corner of a house we could conceivably save 4x as much water or 75240 gallons. We need to encourage the citizens to build 171 more rain barrels to reach that amount of savings.

A byproduct of this project, although not a water conservation task, was the fact that our advertising and workshops placed 186 recyclable bags (our parts kit bag) into the community. Each of these bags if used once a week at the local supermarkets will assure that 186 x 52 or 9672 plastic bags will be removed from the landfills. This is also a significant savings and is one of the goals of Sustainable Jersey. These are the green bags show in various photos shown in the photo album.

#### **3.2 What challenges were faced and how were they overcome:**

The barrels we procured from Coca Cola Bottling Works in Bethlehem, PA were the closed lid types and had syrup residue inside them. As a result our Green Team precut a 7" diameter hole in the top lid as well as a 1" hole, on the side, for the outlet valve. This enabled us to utilize a pressure washer to breakup and clean the syrup residue from the barrels.

Since we could not "Crawl" into the barrel during valve installation we drilled the outlet hole an arm's length from the top. Arms vary in length, and to accommodate all citizens we have established that the hole should be 8 1/2" inches from the bottom of the barrel. This will



eliminate the dependency on the person with the longest arms and assure everyone will be successful in building their own barrels.

In the first phase of the build citizens complained that their fingers were getting cut during assembly. Investigation led us to believe that burrs on the conduit locknuts were the cause. These burrs also caused the locknuts to bind when assembled to the brass fittings. We eliminated these problems by pre screening the locknuts so the threads ran free when assembled to the brass fittings, prior to them being kitted.

Most of the challenges occurred during the parts procurement. Even though we used a major big box supplier with over 22000 outlets and over 20 Rapid Deployment Centers we could not obtain the required sets of the same parts, from a single source. These problems were overcome by expanding our supplier base. This same issue occurred during the 2nd phase but during the 3rd phase we rid ourselves of the problem supplier.

### **3.3 What improvements could be made if this project were undertaken again.**

Examining the process leads us to the following potential changes if we were to repeat this task.

**3.3.1: Advertising** - Our advertising campaign was a rather robust effort which used 9 outlets that included both print and electronic media. In addition word of mouth was used in a belt and suspenders approach. The one thing we could do better in our communications was to highlight the deadlines for signups to assure we have the proper count for procurement of parts. Trying to accommodate late signups proved to be a thorn in our side since, as first time barrel makers, we didn't want to turn anyone away. The result was that we paid for 3 separate transportation events as opposed to one, if we were able to have a single event. We will certainly emphasize the importance of meeting deadlines in future rain barrel workshops.

**3.3.2: Parts Procurement** - Part procurement did not go as well as it could have. Rather than purchasing all the hardware parts at once we had to deal with 3 separate procurements. In addition we dealt with the big box stores who did not handle our purchase orders in an effective manner. Other than the big box store there are no plumbing supply stores within the boundaries of our township. Going forward we intend to establish working agreements with plumbing suppliers in adjacent municipalities. In addition we plan to obtain hardware for all the units at one time.

Similarly we intend to procure all of the barrels at once. If need be, a larger truck will be used but we will save money by making a single trip to obtain them. We have no storage available to us within the township. As a result we have been able to partner with the local trout hatchery which has a storage shed available for short periods of time. The advantage of using the hatchery is that the storage area has both electricity and water available for us to cut the holes necessary to clean the barrels of syrup residue. We have no such facility in Mansfield Township.

**3.3.3: Kitting of Parts:** There were no problems experienced in kitting parts and placing them in reuseable bags.

#### **3.3.4 Building the Barrels:**

During the build we found that the 3/4" conduit nuts, sometimes, would not thread the entire length of the brass fitting. This was probably due to slight imperfections in the manufacturing of the parts. Some of citizens experienced finger cuts by trying to get the conduit nuts on the fitting.

In the later phases we matched the locknuts to the brass fitting prior to their use by the citizens to assure they were free of burrs.

At our event our participants were not allowed to use the power tools. This was for safety reasons. This is supposed to be a learning experience and it may be well to have an instructor build a barrel step by step as each participant completes the same step using the proper equipment and move on to the next step along with the instructor until completion. This would expand the number of participants per instructor and reduce the time for the event. Each person would take home the knowledge necessary to build rain barrels on their own, including the use of the electric drill. This is the only power tool they would need and only to drill a single hole. Our cleaning operation requires the Green Team to drill and cut the other holes to expedite the cleaning process as mentioned in paragraph 3.2.

During our build we found that when using fittings with a 3/4" pipe thread a 1 1/16" socket with a 3/8" or 1/2" ratchet drive was rather effective in threading the fittings together and into the barrel. It was less cumbersome than using an adjustable wrench or a box wrench. It also enables us to overcome difficult sight lines due to the closed top nature of the barrels.

In addition, as mentioned previously, it may be good to move away from the big box suppliers by engaging local small businesses vs. local big box stores. This may result in a somewhat higher cost but will assure timely delivery. Also attempt to get the number of signups three weeks before the event to assure enough delivery time for parts including barrels.

### **4.0 The Event:**

#### **4.1 Phase 1.**

In phase 1 , we distributed 18 barrels. One was a completed barrel which was excess from an event in another municipality. One of our Green Team members painted this barrel



and it was used as a demonstration barrel, displayed in the municipal building and at Community Days, Green Fairs, Moth Nights and any other event where we can spread the message of water conservation. The demo barrel is shown on the cover of this document and was not considered as part of our count. Seventeen (17) barrels were planned for public use and were paid for from the grant funds and citizen donations. Next we started an advertising campaign, We created a flyer as shown in Figure 9.

This flyer was used in a broad based advertising campaign with advertising done in the following media outlets:

1. Mansfield Township Web Site
2. Elementary School Newsletter with Backpack Distribution
3. Municipal Building Bulletin Board
4. Pequest Hatchery Bulletin Board
5. Hackettstown Life, on line Forum
6. Facebook
7. Local Newspaper
8. Treasure Hunt -local news stand sales booklet.
9. Comcast - local on screen TV bulletin board

Response to the advertising was very slow until the week before the event. Then the interest spiked and we were caught short of barrels. As a result we limited participation in the June 7, 2014 phase to 17 barrels, and immediately scheduled - a second phase.

In parallel with the advertising campaign we established a parts list which included alternate parts in case we couldn't obtain the primary parts in a timely manner. Using guidance in the Rutgers Co-Operative Extension Bulletin E329, the experience of the AmeriCorps Watershed Ambassador, Watershed Management Area 1, Musconetcong Watershed Association, and reverse engineering of the completed barrel, we received, we established the parts list as shown in Table 2-1.

Despite an aggressive advertising campaign, sign ups were late in developing. We limited the number of barrels to 17, since we ran out of time to procure additional barrels. To accommodate

those who signed up late we decided to hold a second phase on Sept 21, 2014 to assure all who wanted to participate had a chance to do so.

Using the parts list of Fig 2-1 we ordered the parts from vendors within the township, mainly Home Depot. Although it is a national enterprise, many of our citizens are employed there and as such we are supporting local businesses- which is another goal of Sustainable Jersey.

When the parts arrived we made a parts kit for each barrel and placed them in reusable bags , with the instruction from Rutgers Co-Operative Extension Bulletin E329, and a flyer that described how to paint the barrel, if the owner choose to decorate it. Once the barrels are completed each participant will have a reusable bag to use in place of the plastic bags utilized by most stores. This will help keep the landfills free of plastics which is another goal of Sustainable Jersey.

The Rain Barrel Workshop phase 1 began with a presentation by , an Americorps Watershed Ambassador, who spoke about rain water runoff and the application of rain barrel water conservation measures . A representative , of the N.J. Environmental Commission, Pequest Hatchery, spoke about living with nature, setting aside areas for animals, birds, and insects. The Pequest representative also touched on having a native plant area as well as some of the invasive species that are invading our area and the recent problems with the ash borer.

Finally representatives of the Mansfield Green team spoke about water conservation and the construction of the rain barrel

The next step in the process was the build of the barrels. For safety reasons, only the staff members were allowed to use the power tools. The public was shown how to perform those operations so they could do them at home should they elect to build barrels on their own.

The build process evolved into three groups building, while others prepped the mosquito screens and built the screened drop in water inlets. Since this event was new to us we had to deal with the learning curve and along the way developed skills and processes to build the barrels more efficiently in future workshops. The entire event, from the beginning of the lecture, thru the build of 17 unit, and the cleanup took approximately 2.5 hours. This is a tribute to the number of volunteers that participated. We had a broad spectrum of participants from students to contractors, and from 5 years old to very old. See figure 4.

On Sept 21, 2014 the second phase of our project was held. It was a repeat of our first phase event except that we had 28 participants bringing our total of rain barrels distributed to 45. Essentially it was a repeat of the sequence of events we experienced in Phase 1.



On Nov 16, 2014 our third phase was held. Once again everything was the same except for the venue. The Hatchery had been our host for the 1st two phases but the late date was after the Hatchery switched to its winter schedule and was unavailable to host the event. Instead we worked with our Mansfield Township Fire Department which was kind enough to allow us to use their facility. This final phase accommodated 12 new citizens and brought our total of barrels distributed to 57, 2 more than we anticipated in our grant application.

#### **4.1 Additional Action to Minimize Water Consumption:**

##### **4.1 Green Grounds and Maintenance.**

In addition to the rain barrel phase of this task to minimize water consumption at the home, the following additional actions were taken to minimize water consumption by the municipality.

1. On January 23, 2015 a meeting was held with the head of the Mansfield Township Department of Public Works (DPW) and members of the Green Team, to discuss water minimization strategies. The following represents the Township stance on important water minimization topics:

##### **4.1.1 Minimization of water usage.**

A: Watering of Landscapes- The township has a 128 acre park of which approximately 10 acres are considered lawn areas. These ten acres house a softball field, a set of tennis courts, two parking lots and an open area with benches. Lawns at the municipal building, the department of public works, and at the elementary school account for another 7-8 acres. In addition we have various soccer fields and tennis courts, with adjoining plantings scattered throughout the township and represent an additional 10 acres. Our township does not water any of the lawns / fields at these facilities. The township relies solely on rainfall. In addition it sets the lawn mower to cut at 2-2.5 inches except on playing fields where we honor guidelines from experts on those types of playing fields. These measures allow the grass to grow to an optimum height to prevent burnout and minimize the need for water. In addition we do not fertilize these fields.

With the recent success of our rain barrel event it has been decided to place rain barrels under the downspouts of the municipal building and, the DPW building. Diverters and drip hoses will be used to channel the water to the lawns and plantings nearby. In addition plans are to use raised bed plantings to decorate the DPW building. They will be located in close proximity to the downspouts and will benefit from irrigation via the rain barrels. Also, the Green Team will work with the elementary school and local fire departments, none of which are controlled by the township, as a means to have them adopt the same water conservation programs we are implementing at the DPW and municipal building.



Plant beds exist at several places in the township such as the soccer fields and tennis courts in the Kensington section of town. Mulching is used to keep the weeds under control as well as to retain moisture for the plants to remain healthy.

There are 4 downspouts at the municipal building and four at the DPW garage. We will be able to utilize 55 gallons x 6 x 8 or 1760 gallons of water per year at these two buildings. Since our rain barrel workshops were completed in early November 2014 we have decided to take on these tasks in the spring of 2015.

At the present time we are evaluating diverters for our use. One we are currently testing, the Algreen 81052 Model is made of plastic and is not recommended for use in below freezing weather. This diverters cost around \$36 including shipping. It comes with a hole saw and directions that are clear and easy to follow. We are able to test them indoors at the DPW garage.

In cold weather this diverter is easily removed and the hole plugged with a supplied stopper. See the photo in the photo album to gain incite as to its installation in a down spout.

All of these actions are in compliance with our green Grounds and Maintenance Policy as displayed in the appendix.

Our maintenance policy represents the ultimate water conservation condition since we do not water. Soon we will have available  $55 \times 8 \times 6 = 2640$  gallons of collected rain water to use as we see fit, when we integrate rain barrels at the Municipal Building and the Department of Public Works Garage. When we successfully negotiate and implement this idea into the one elementary school in the township as well as the 4 fire companies we will increase our conserved water utilization by another  $55 \times 20 \times 6 = 6600$  gallons of water. The fire departments and school are independent entities within the township.

# Attachments

RESOLUTION # 2013-104

TOWNSHIP OF MANSFIELD  
WARREN COUNTY, STATE OF NEW JERSEY

## RESOLUTION ADOPTING A GREEN GROUNDS AND MAINTENANCE POLICY

WHEREAS, the Township of Mansfield, Warren County, State of New Jersey supports policies that encourage sustainable municipal operations, promote healthy communities, waste reduction, biodiversity, and water quality protection and conservation; and

WHEREAS, Sustainable Jersey Green Grounds and Maintenance Policy is such a policy; and

WHEREAS, in an effort to support the Sustainable Jersey guidelines to reduce the State's carbon footprint, the governing body has created a green grounds and maintenance policy; and


WHEREAS, the Mayor and Township Committee reconfirm their commitment to its existing recycling program and will continue to evaluate and/or implement additional principals and measures where applicable for Efficient Landscape Design, Minimizing Water Consumption, Recycling Materials and Composting, and Integrated Pest Management that encourages sustainability.

- Recycle materials in recycling depot.
- Compost landscape waste (e.g. leaves, pruning's, etc) or use the waste as mulch (backyard composting)
- Use native species instead of exotic plants whenever possible.
- Minimize lawn areas to reduce required maintenance, and replace lawn areas with higher value landscaping.
- Design landscaping with stormwater management in mind. Consider property contours and create plantings that will slow water flows and filter runoff to improve groundwater recharge and prevent erosion.
- Reduce or use conventional pesticides as needed and/or adopt an Integrated Pest Management program outlining same.
- Avoid excessive fertilizer use.
- Improve operations with efficient watering schedules, improved irrigation equipment, and rainwater capture (rain barrel workshop). Water the landscape only when needed. Be sure to search for and fix leaks promptly.

NOW THEREFORE, BE IT RESOLVED, that the Mayor and Township Committee of the Township of Mansfield, Warren County, State of New Jersey, does hereby approve and authorize the said policy.

Dated: September 25, 2013

I, Dena Hrebenak, Municipal Clerk of the Township of Mansfield, Warren County, New Jersey do hereby certify the foregoing to be a true and exact copy of a resolution adopted by the Mansfield Township Committee at the regular meeting held on September 25, 2013.

  
Dena Hrebenak, Municipal Clerk

Green Grounds & Maintenance Policy

### **Instructions for Rain Barrel Construction**

1. Rain Barrel - the rain barrel you receive will have a hole approximately 7" in diameter in the top cut , with a jig saw. In addition it will have a 1" diameter hole, located 8 1/2" from the bottom of the barrel and anywhere on the barrel's side but not on one of the barrels seams.
2. In your parts kit is a Silcock ( Valve) with a fitting and a 3/4" conduit nut attached to it. Take a look at this assembly because it will be assembled to the barrel in the same configuration as you have received it.
3. Remove the fitting with the conduit nut from the valve. Take the teflon tape and wrap the end of the fitting with two turns of teflon tape at the end of the fitting in front of the conduit nut.
4. Using the caulk, butter the flange of the valve and also supply a small amount between the fittings teflon tape and the flange.
5. Position the valve over the 1" diameter hole, on the outside of the barrel, and from the inside screw in the fitting to engage the valve. Tighten this assembly to the barrel wall using a 1 -1/16" socket on the inside fitting while holding the valve firmly in place with your other hand, on the outside of the barrel.
6. Now we need to drill a second 1" diameter hole approximately 2-1/2" from the top and just below the thick band on the top of the barrel. This is the overflow hole and the homeowner should determine where , on the diameter of the barrel, this hole should be located with respect to the valve. This location is dependent on where your barrel will be located and on which side you need the overflow.
7. Wrap the 3/4" thread ( not the hose thread) with teflon tape as you had done on the previous fitting and apply a small amount of caulk between the tape and the flange. Thread this fitting into the barrel, from the outside using the 1-1/16" socket , to tighten this fitting, as we did previously ( Note: this fitting is the same as the one threaded into the valve).
8. Take a piece of fiberglass screen 5" square. Take a 8" cable tie and form an approximate 1-1/4" loop. Reach into the barrel and hold the screen over the end of the overflow fitting. Attach the looped cable tie with the screen in such a manner that the screen folds over the end of the fitting. Pull the cable tie tight over the fitting to lock the screen in place.



9. Cut a piece of fiberglass screen 24" square, using a utility knife. Take the colander and turn and set it in the center of the screen upside down. Gather the edges of the colander to the top of the colander and twist them together, as you would twist a tie wrap on a loaf of bread. Now take a 4" tie wrap and close it around the twisted screen to hold it in place. Drop the colander, with the screen, into the 7" diameter hole in the top of the barrel.

10 The barrel is now complete. It is best to install it on a platform of cinder blocks to keep it level and stable. Modify your downspout to allow the end of the spout to drop the water into the screened colander as was demonstrated in the opening lecture.



Brought to you by the Mansfield Township Green Team,  
Pequest Hatchery & Natural Resource Education Center,  
AmeriCorps Watershed Ambassadors and Sustainable Jersey.



**Rain Barrel Workshop**  
A Mansfield Township  
**GREEN TEAM** Initiative on June 7<sup>th</sup> at  
Pequest Trout Hatchery  
603 Pequest Rd, Oxford, NJ

**To Register**  
**Call Mon - Thurs**  
908-689-6151 Ext. 116 **OR**  
**Online Registration OR**  
<http://www.signupgenius.com/go/10C0B45ADAB2DAAFD0-rain>

**SATURDAY**  
**June 7th**  
**10 AM to 3 PM**



## **RAIN BARREL**

HOSTED AT PEQUEST FISH HATCHERY

Did you ever wish you could save the rainwater that falls off of your roof? Rain barrels allow homeowners to save hundreds of gallons of water per year to use for gardening. Rain barrels help reduce storm water run-off, which can pollute local rivers and lakes, and reduce a homeowner's dependence on water by providing an alternative source for outdoor needs.

Join us for a Make-Your-Own Rain Barrel Workshop at the Pequest Trout Hatchery. A donation of \$10.00 per rain barrel is suggested to offset the cost of supplies. An AmeriCorps Watershed Ambassador will present about the value and use of rain barrels. There are a limited number of barrels and participation will be on a first come first served basis.

*Girl Scouts will be selling refreshments after the presentation.*

Get Updates about  
Green Team  
activities, click  
[Google Group](#).

Or visit  
[www.mansfieldtownship-nj.gov](http://www.mansfieldtownship-nj.gov)  
for the Google group  
"Environmental/ Green Team".

May 2014, Version 3



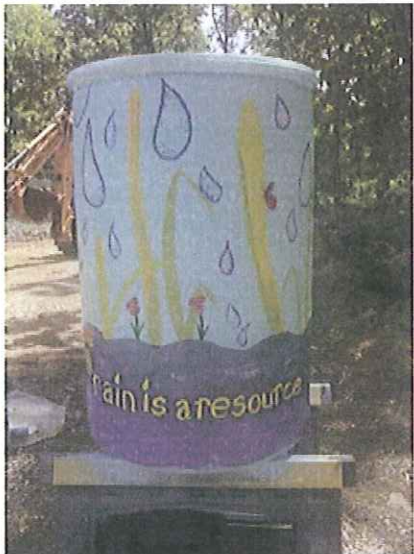
## Photo Album



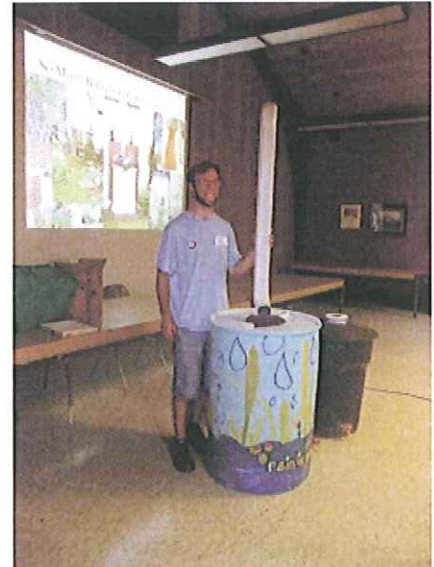
Kitting Parts



Family Participation



Painted Barrel



Pre workshop Lecture



Pre Workshop Lecture



Kits ready to Build





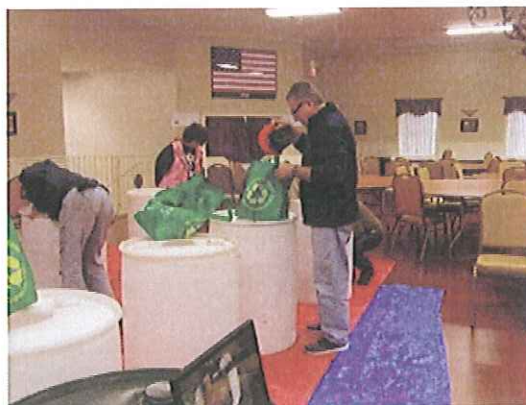
Pre Workshop Lecture



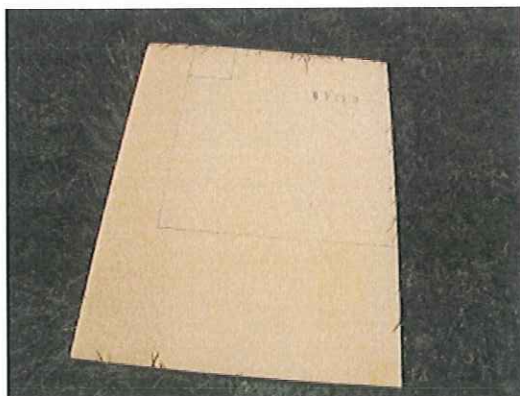
Completed Rain Barrel



Phase 3 Kits Ready to Build



Phase 3 Build



Screen Cutting Template



Template for Colander Hole



Diverter Installed in Sample Downspout

**GRANTEES CERTIFICATION AND DECLARATION**

I do solemnly declare and certify, under the penalties of law, that the within description of the grant project is correct in all its particulars; that the articles have been furnished or services rendered as stated therein ;that all expenditures are allowable charges against said grant and that all compliance issues of this grant have been met per the grant agreement.

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

POSITION \_\_\_\_\_