VILLAGE OF WESTON
REQUEST FOR CONSIDERATION

AGENDA ITEM DSCRPTN:	SUMMARY OF HOW TO BUILD A RAIN BARREL WORKSHOP
FOR CONSIDERATION AT:	BOARD OF TRUSTEES; MONDAY, JUNE 15, 2015
LEGISLATION TYPE:	**ACKNOWLEDGE** | MOTION | ORDINANCE | POLICY | RESOLUTION
RECOMMENDATION TO:	Acknowledgment from the Board of Trustees to accept and place on file the written summary of the How to Build a Rain Barrel Workshop, held on 06/10/15.
REPORT PREPARED BY:	VALERIE PARKER, ADMINISTRATIVE SPECIALIST MICHAEL WODALSKI, P.E., DEPUTY DIRECTOR OF PUBLIC WORKS

BACKGROUND:

When the Stormwater Utility was created and implemented in 2004/2005, a Stormwater Credit Policy was adopted to encourage property owners within the stormwater utility district to reduce stormwater flow and to reduce the Village's costs in providing proper management of stormwater runoff. Residential properties may receive a one-time stormwater credit if they install either a rain barrel or rain garden. This credit is calculated out at 68% of the property's annual storm water bill. The average single-family household pays $48.00 annually (or $12.00/quarter). The average single-family household then is eligible to receive a one-time credit in the amount of $32.64, after providing documentation of their installed rain barrel(s) or rain garden.

Additionally, as part of the Village's Municipal Separate Storm Sewer System (MS4) Permit through the DNR, education and outreach activities need to be conducted annually, which these rain barrel workshops qualify for.

In 2014, we had about 30 people attend the May 17th How to Build a Rain Barrel Workshop. Thinking the interest may still be there, and after receiving some inquiries from residents on whether Weston would be holding a How to Build a Rain Barrel Workshop, Valerie Parker and Michael Wodalski set a date and advertised this June 10th workshop.

There were 11 people who had pre-registered to attend the June 10th workshop, but only 6 attended (perhaps the nice weather kept them away).

The workshop went well and the attendees seemed very interested about what they were learning. Wodalski went through a slideshow presentation which covered topics such as stormwater and water conservation. He and Parker demonstrated with a display rain barrel how to construct a typical rain barrel, and explained considerations when constructing and placing a rain barrel, as well as maintenance of rain barrels. Parker displayed many pictures of different styles of personalized rain barrels and creative ways to connect the rain barrels, and pointed out retail locations of where people can buy pre-constructed rain barrels.

Once the presentation concluded, Wodalski and Parker answered questions, and offered the participants a white 55-gallon barrel to take home.

ATTACHMENTS:

a. An introduction to Rain Barrels Power Point Presentation
b. Learn How to Build a Rain Barrel Picture Presentation
c. Instructions on Constructing a Standard Rain Barrel

FISCAL IMPACTS:

Budget Line Item:
Budget Line Item:
Budgeted Expenditure:
Budgeted Revenue:

STATUTORY REFERENCES:

Wisconsin Statue:
Administrative Code:
Municipal Code: Chapter 86, Utilities, Article V. Stormwater Utility
Judicial Ruling:

FURTHER REVIEW: None

An Introduction to Rain Barrels

Northcentral Wisconsin Stormwater Coalition

Clean water starts with you!

Presentation Written By:
Kris Tiles UW-Extension

UW Extension
Learning for life

An Old Practice becomes New!

Outline for Today

- Stormwater
- What are rain barrels
- Considerations (care, safety, etc)
- How to build

A typical moderate storm delivers one inch of rain in a 24 hour period.

700 gallons runs off the average roof

or an impervious area of 1,200 sq. feet.

The Problem: Typical site design

Traditional Drainage


Rain falls on
our roadways,
parking lots & roofs

Water emerges at a high velocity through storm sewer systems.

NO DUMPING

Northcentral Wisconsin
Stormwater Coalition

Clean water starts with you!

Our Goal

Need to make this

Act more like this

Rain Barrels- What are they?

- A catchment system involving a container and an output.
- Collects and stores rain water from roofs that would otherwise be lost.

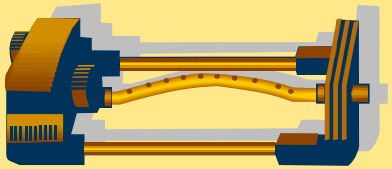
Rain Barrels

- Collects water from roof
- Catches 50 or more gallons of clean water
- Has overflow control
- Has screen or other method to prevent mosquitoes

Rain Barrels- Why?

- Save money on water bill
- Water is free of municipal treatment chemicals
- Diverting water from running off into storm sewers
- May be practical where a rain garden isn’t

Water- How much do we use?



The average homeowner uses 40% of its water consumption on lawns & gardens.

Rain Barrels- How much water?

- How much water can you collect?
  - For every inch of rain that falls on a catchment area of 1000 sq ft, you can collect 600 gallons of rain water
  - Catchment = sq footage of house + area of eaves
  - Rain barrel efficiency is 70-90%

How Much Rain?

- Not large storms, but it adds up!
  - 1,000 ft^2 roof: 1 inch rain = 600 gallons
  - Each downspout: 250 ft^2 = 150 gallons
- .35 inch rain can fill a 55 gal rain barrel coming from 250ft^2 of roof area

Rain Barrels- Types

- A simple barrel connected to the downspout of a gutter
- Several barrels connected under one spout
- More complex systems use gravity to feed water from gutters to a large cistern

Many Styles to Choose From

Uses for Water

- Rain water is slightly acid, preferred by plants over our hard tap water. No chlorine, no salt, no fluoride
  - Water flower gardens, hanging plants & lawn
  - Water house plants
- Not suggested for using in vegetable gardens: roof or eaves may leach zinc, cadmium, copper.
- Washing pets, washing hair, washing cars

Rain Barrels- Safety

Rain Barrel- Maintenance

- When building your own, use food-grade container
- Level ground
- Disconnect during winter to keep from freezing
- Watch for overflow

Rain Barrel- Maintenance

- Empty your barrel monthly
- Clean your gutters regularly to reduce debris
- Once a year, tip it over during a dry spell and rinse it out with a hose
- Don’t let rainwater sit in your barrel longer than a month
  - algae
  - chlorine bleach

Painting Your Barrel

1. Wipe down the barrel with a one-to-one mixture of vinegar and water.
2. Rough the surface of the barrel with a piece of fine grit sand paper.
3. Apply a coat of latex bonding primer.
4. Paint your design with "exterior latex paint".

Making A Rain Barrel

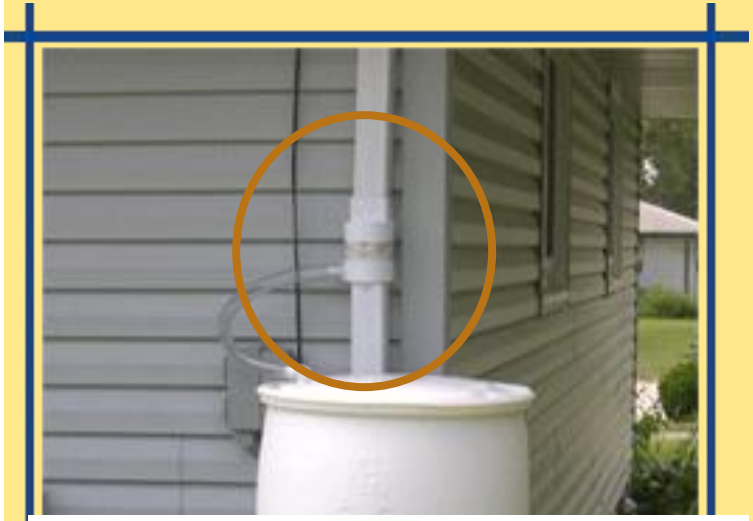
If you have a gutter and downspout system on your house or garage, you can build a simple rain barrel .

Making A Rain Barrel

OPTIONS:

- Location of spigot
- Size of top hole

- Overflow
- Screening
- Connecting barrels



Diverters as an alternative connection

Direct downspouts onto your lawn or landscaping, not hard surfaces

Learn How To Build A Rain Barrel Workshop

Wednesday, June 10, 2015

5:00 p.m.

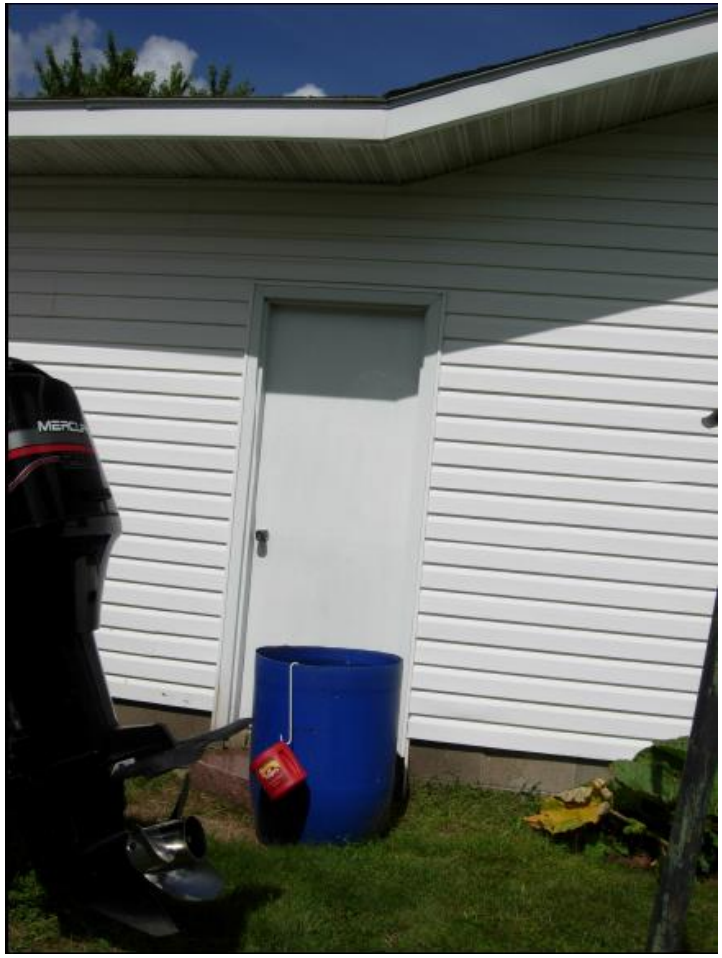
Standard Home-Made Rain Barrels

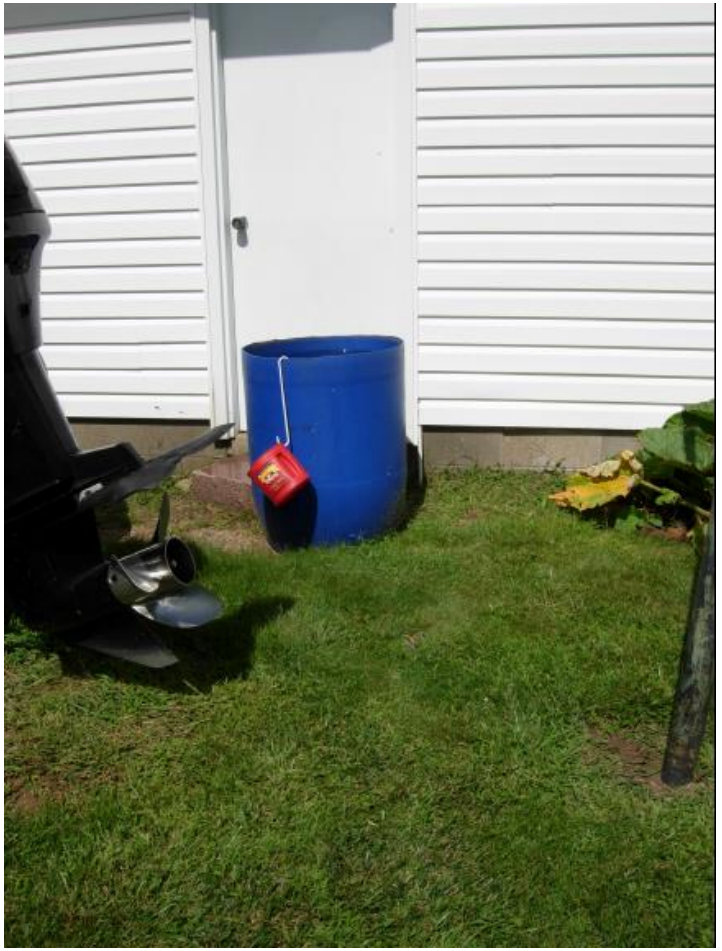
Barrels with the Lids Cut Off


BLUE BUNNY
Family Size

Customized Covers on Barrels

No Gutters on Building??





Diverter Systems


RAINWISE


RTS ENVIRONMENTAL SYSTEMS
RAINBARREL
SAVE ON YOUR WATER BILL
BARIL DE PLUIE
ÉCONOMISEZ L'EAU POTABLE


RTS ENVIRONMENTAL SYSTEMS
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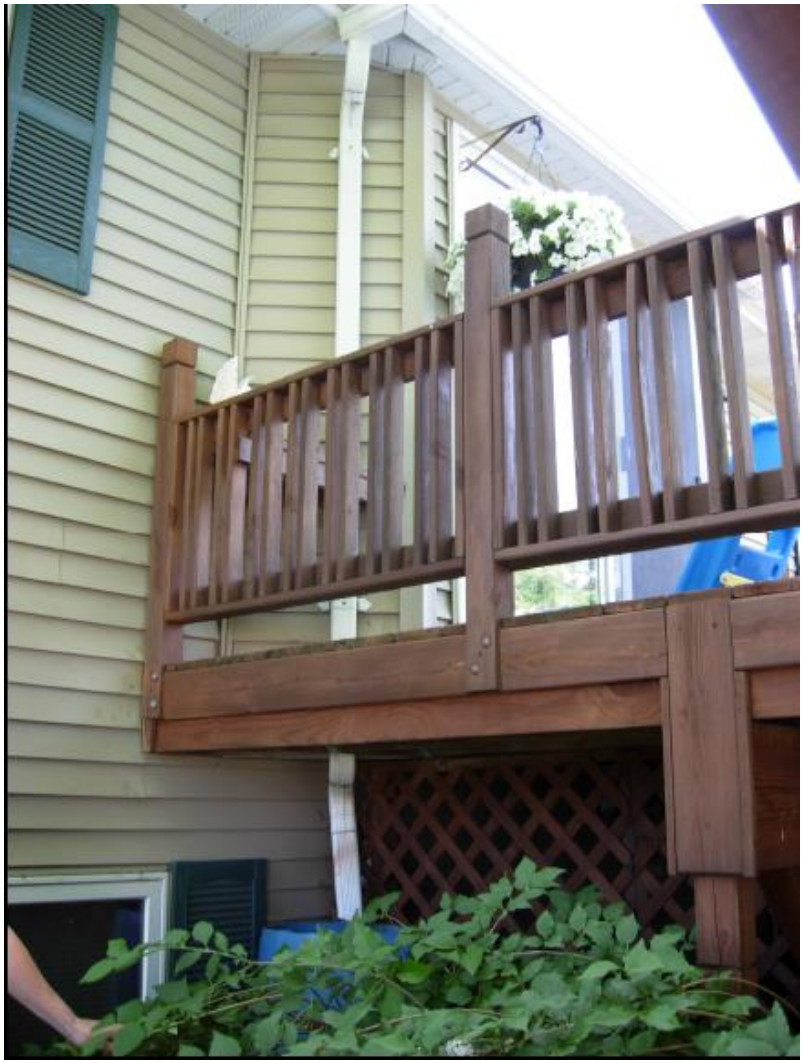
Painted Rain Barrels

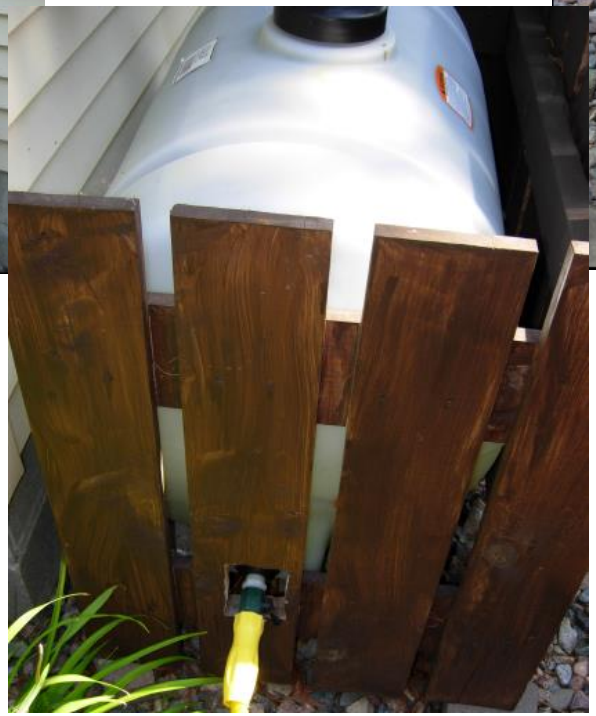
Connected Rain Barrels

Hidden Rain Barrels



Rural Rain Barrels

Purchased Rain Barrels



Village of Weston's Rain Barrel

Constructing a Standard Rain Barrel:

Tools:
Drill with 3/4" hole saw
Jig Saw
Scissors

Parts:
2 – 3/4"Plastic or brass faucet (a.k.a. hose bib, water valve, spigot, etc.)
4 – Gaskets or seals
2 – 3/4" nuts to screw to the back of the faucet to keep it in place
Window Screening
Silicone

A. Use a jig saw to cut a hole at the top of the barrel, wide enough to fit your arm all the way into the barrel.

B. With a drill and 3/4" hole saw, cut two holes into the side of the barrel. The top hole should be at least an inch from the top, as that is your overflow hole. The bottom hole should be within 4 – 6 inches from the bottom of the barrel (or no longer than the depth of where you can reach your arm). By leaving a few inches or more at the bottom, the barrel will keep some water weight in it, which will help keep the barrel in place during strong winds.

C. Place the threaded end of the faucet through the bottom hole of your barrel (there should be a gasket that goes between the barrel and the faucet). Behind the threaded end of the faucet, inside the barrel, another gasket gets placed followed by the 3/4" nut which will get screwed on as tight as possible. You will need to be able to reach your arm into the top hole of the barrel to the back side of the faucet to screw the gasket and nut on. You may need a friend there to hold onto the faucet end sticking outside of the barrel.

D. Repeat step “C” for the top side hole (overflow hole). If you do use a faucet, you will want to make sure that faucet is turned “on” at all times.

E. Cut a square of window screen a little bit larger than the hole at the top of the barrel. Place some silicone around the outer opening of the hole, and stick the screen to the silicone.

You will want to put together an elevated, sturdy base for your rain barrel to be set on. The sturdy base will keep it from falling over, and by having the barrel elevated, you will gain more pressure.

You should now be ready to use your rain barrel!!