

Lake of the Ozarks Watershed Alliance, Inc. (LOWA)
July 18, 2011
LOWA Public Meeting
The Lodge of 4 Seasons, Escollo Room

Donna Swall, LOWA Executive Director, called the meeting to order at 6:40pm, welcomed everyone, had round robin introductions and read LOWA's Mission Statement

Mission statement for LOWA

Citizens will preserve, protect, and improve the Lake of the Ozarks, its Watershed and natural resources, while maintaining our economic, social, and environmental health.

A pre-survey about rain barrels was handed out.

Omar Galal – Rain Reserve and Rain Barrels at the Lake of the Ozarks –

A Fluid Solution to Conservation

The Problem: When it rains, whatever is on the ground gets washed to the lake by storm water runoff. Much of this material carries with it nutrients and we don't want our lake to turn green with algae from too many nutrients.

36 states are expected to experience water shortages in the next 5 years.

We have the water cycle with evaporation, condensation and precipitation and every little bit that we can do can help. The water cycle occurs everywhere and even here at the lake, this body of water sets up a mini, localized water cycle too that occurs in conjunction with the larger weather systems.

A 1-inch rain on a 1000 square foot roof will produce 600 gallons of water that can be used many ways as non-potable water.

Arid regions and islands use collected rain water as their main drinking water source.

Community education is very important to teach people about the need to conserve water.

There is nitrogen in rain water, no poisons or chlorine or fluorine, the water is at an ambient temperature, plants like rain water, and this is water that can be used however you want when in the midst of water restrictions during times of drought or emergency.

And, when filtered properly, can even become potable for humans. Rain barrels also help in aquifer replenishment.

With rain barrels, one can also have energy savings by no pumping, no cleaning or transporting (by municipal sources).

One can be flexible and creative with the types of containers used as rain barrels. One can use recycled barrels or other containers.

But, with no diverter, the barrel will overflow – that's where the RainReserve Diverter comes in to play. All parts are made in the USA. The overflow pipe needs to be large.

Hook the diverter into the gutter. Leaves and other debris go down the gutter. All drilled holes are used with self-sealing fittings so no mosquitoes or other pests.

55-gallons is often too small and it's hard to get enough hooked up to store the thousands of gallons often coming off a roof in a heavy rain. With their Build-A-Barrel, people can

fit Lego-like panels together and then put a series of plastic bladders in there to hold as many gallons as desired, tucked into what ever size and shaped place desired.

Planting native plants is the best way to use all that stored rain water. Native roots are deep and will soak up the released water. Use rain gardens, vegetated buffer strips and vegetated channels to keep the rainwater on your property.

ARCSEA – American Rainwater Catchment Systems Association – they are a member. In Marshfield MO they are building a watershed center down there.

Build-A-Barrel is coming in 2012. Pumps and filters will be available too. These are lightweight, strong Lego-like panels that fit together to make any shape and size you want and then bladders are placed inside to catch and hold the rainwater. One can get very creative in shapes, where they get put, they can be hidden away, etc. Multiple bladders inside can be hooked together. Can add a pump if you aren't going to be using gravity feed. They can do custom designs and installations.

Cost for a 55-gallon barrel with diverter is \$99. Just a diverter is \$30.

They are located in Hartville.

They recommend sitting the rain barrel on blocks to assist with gravity feed.

www.RainReserve.com

Participants at the meeting received a buy one get one free discount for that evening.

Anyone can use the **discount code** of: **lowa_discount** for a **25% discount** when ordering online through August 31, 2011.

Lee Stanley – Build Your Own Rain Barrel

(Handout is attached)

Once you have your barrel, you'll need an input, an overflow, and a spigot to let water out. Flexible guttering provides the piping to go from the gutter to the rain barrel.

Design where the holes and piping will go to fit your site.

You can find many of the supplies in the plumbing section of a hardware store.

Cut a round hole in the top and put screen wire in place and then hook the barrel to the gutter with the flexible guttering.

The outlet valve should be sized to the roof and site.

A 1-inch wood drill drill the holes. Use glue or plumber's putty to seal the parts in place.

Barrels with removeable lids are preferable because they are easier to clean.

Can get a tile adapter for the diverter part in the plumber's sections.

Keep the barrel closed up to keep mosquitoes out.

Can hook several barrels together with a spigot on each barrel for independent emptying.

One can paint the rain barrel or decorate it.

Cost: about \$10 for the barrel and \$15 for the parts – about \$25-30 total.

Design your barrel for your own situation.

How to Make Your Own Rain Barrel

As told by Lee Stanley

The average household uses 146,000 gallons of water per year with up to 50% of that going to landscaping during the summer months.

Rain barrels can save energy, water, and money and also here at the lake are very instrumental in reducing erosion, storm water runoff, conserving water and help keep our lake water clean.

A typical house has a roof area of 1200 square feet and four down spouts that will each drain about 300 square feet of roof. Using this guide a rainfall of 0.3 inches will fill 4 – 55 gallon barrels with one under each downspout.

One inch of rain on a 100 square foot roof yields 623 gallons of water.

Tips for using your rain barrel

- Don't** use collected water for drinking, cooking or bathing.
- Keep lid secure so children or animals cannot fall in.
- Disconnect the barrel in winter to avoid freezing. Attach for use in early spring.
- Elevate your rain barrel slightly to make access to the spigot easier.

Consider joining multiple barrels for additional capacity!

Step 1

1. Use a saber saw, a keyhole saw or a drywall saw to cut a round hole on the top of your barrel for the inlet of your choice.
2. Drill two holes with a 29/32" or 1" drill bit, one towards the top for an overflow and second one towards the bottom of the barrel for the faucet.
3. Rinse barrel out thoroughly- it previously had a food product in it. Do not use barrels previously used for chemical uses!

Step 2

1. Twist threaded side of 3/4" hose adapter into the threaded hole towards top of the barrel.
2. Prepare threaded side of brass faucet; wrap tightly with Teflon tape, make 4 or 5 rotations until all threads are covered; or apply a thin ribbon of Adhesive Caulk, or similar sealant.
3. Twist the threaded, prepared end of the faucet into hole at bottom of barrel.

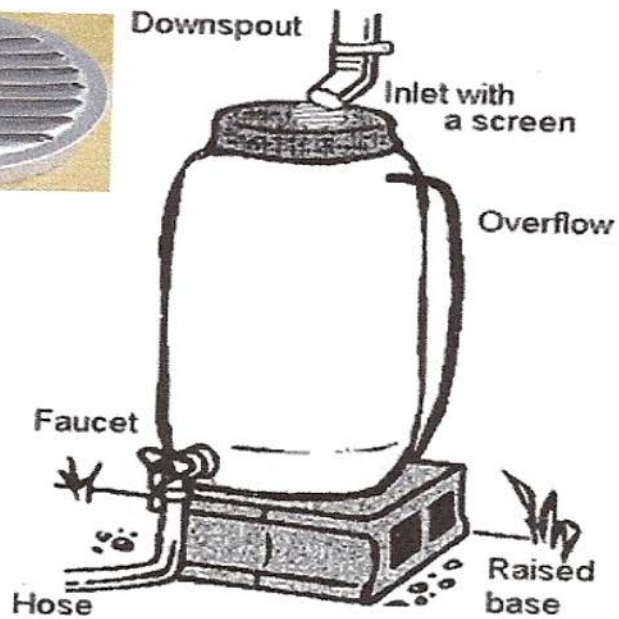
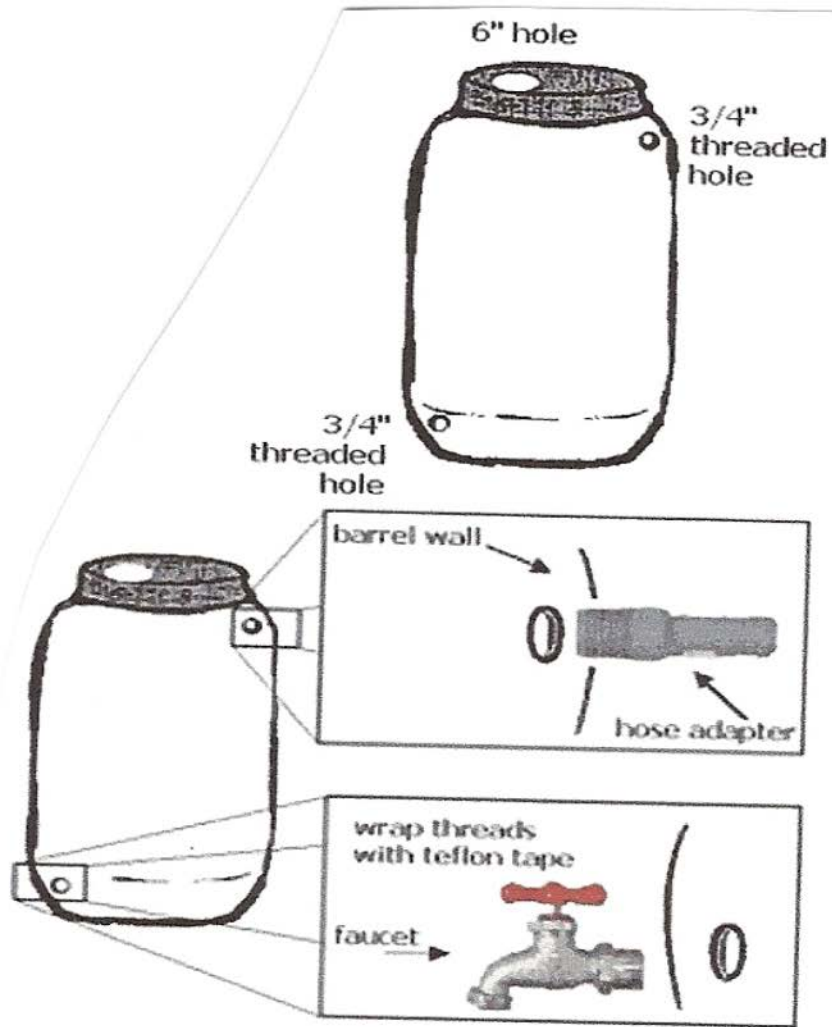
Step 3

1. Cover the hole in the top by placing the inlet of choice onto the barrel.
2. Slide a hose onto hose adapter at top of barrel to direct overflow water away from your home.
3. Place concrete blocks under selected downspout as a raised base.
4. Cut your downspout about 4" above the top of the barrel, add an elbow, or flex elbow and make needed adjustments to the base and barrel.
5. Add a hose on the faucet or keep it available to fill a watering can or connect a soaker hose.
6. Secure your rain barrel to the house with aluminum banding & screws if desired.
7. Enjoy your rain barrel!

What You Need:

- Drill Saber saw 29/32" or 1" Drill Bit Inlet connections of your choice 3/4" Brass or plastic Faucet Teflon Tape or Adhesive Caulk
- 3/4" Hose Adapter Plumbers Pipe Strap and Deck Screws (optional) and plastic type paint if desired

See diagram on back of this page



A post-survey about rain barrels was handed out.

Committee Reports

Greg Stoner – Water Quality – Where have all the zebra mussels gone?

There has been an unexpected turn of events concerning zebra mussels at the Lake of the Ozarks. The zebra mussels are gone. When zebra mussels were first found at the Lake, there was a lot of concern because of the mussels' reproductive rate – they can cover a surface in a matter of a few months.

The zebra mussel was first seen at the Lake of the Ozarks around the 8 mile marker in June 2006. By November 2008, the mussel was found throughout the first 8 miles and up the Gravois Arm. 08-09 the mussels' distribution was still expanding. 09-10 there were no reports of new sites. 10-11 there were no reports at all and an overall decline had begun.

There are 3 main possible reasons for a population decline.

Predation is a possibility – the blue cat and the freshwater drum both eat the zebra mussel, as do ducks and raccoons.

Disease is a possibility and because of their concentrated population densities, a disease could spread rapidly through a colony.

Temperature is probably the main reason – Zebra mussels are intolerant of water temperatures in the high 80's and our lake has gotten into the low 90's in the last couple of years.

Today, the only place zebra mussels are found at the lake is at the very top of the Gravois Arm under the Hwy 5 bridge where it's fed by springs and has colder water all summer. This is near Troutdale.

Even though the zebra mussel seems to be gone, boaters still need to be careful when moving their boats from LOZ to other bodies of water. Boaters still need to remove all plant debris, mud, and other debris off the trailer and boat; drain all water from the bilge, livewells, etc; rinse the boat with hot water (above 104 degrees); clean anywhere water can collect (bilge, motor, livewells); air dry for 5 days; and be sure the bait bucket water is not transferred.

And remember, the Lake does not get above 90 degrees every summer.

Alice Walker – 2 Dam Days

LOWA's premiere canoe and kayak race is coming up in just 2 months! It's time to sign up for the race!

LOWA also needs volunteers along the lake to cheer the paddlers on and to help protect the paddlers as they go by.

2 Dam Days is a canoe and kayak race that goes from dam to dam in 2 days.

Information can be found at www.2damdays.org

Last year was our first year and we just had 2 races – the big, dam-to-dam 2-day 89 mile marathon and a shorter, one-day 12.5 mile Just for Fun paddle. The Top Paddler Award for overall best time went to Mike Herbert for 11 hours, 54 minutes, 46 seconds.

This year there are 3 types of paddle races:

1. The 2 Dam Day Marathon Event – 2 day paddle race beginning Saturday morning in Drake Harbor, stopping at Captain Ron’s Saturday and then picking back up and racing to Bagnell Dam on Sunday. Must complete both days.

3 Types of Marathon Event:

A. Unlimited Marathon: Unlimited with respect to boat specs. Guaranteed cash purse in all contested categories. Entry fee of \$150 per paddler.

B. Unlimited Masters Marathon: 50 and Over. Cash purse based on number of entries. Entry fee of \$100 per paddler.

C. Rule 3x27 Marathon: Rule 3x27 applies. Cash purse based on number of entries. Entry fee of \$100 per paddler.

2. Adventure Series – Need not complete both days. Cash purse based on number of entries. Entry fee of \$100 per paddler covers both days even if only one day is paddled.

Day 1: Holiday Hills to Captain Ron’s – 33 miles

Day 2: Captain Ron’s to El Capitan’s – 21 miles

3. Just For Fun – Saturday only. No cash purses. Entry fee of \$25 (or \$30 the day of the race).

A. Just 4 Fun Open – paddled canoes and kayaks - 12.5 miles from Halfway Inn to Captain Ron’s

B. Anything Goes – anything that floats and has no motor - 3 miles from Bear Bottom Resort to Captain Ron’s

In addition to the races, LOWA will also host **3 Clean Water Festivals**.

Friday evening at Drake Harbor in Warsaw will welcome the kayaking and canoeing paddle marathoners and have booths, music and festivities.

Saturday afternoon and evening at Captain Ron’s will greet the racers as they arrive at Captain Ron’s. Music, booths, food, and festivities will provide entertainment for all.

Sunday afternoon at the Bagnell Dam Strip staging area will host booths, music, food and the awards ceremony!!!

Vendors for booths can be anybody! \$50 covers all three Clean Water Festivals and Non-Profits may have a booth for free.

LOWA needs volunteers at checkpoints, at the Clean Water Festivals, following the paddlers on the water, and being stationed all up and down the lake helping to protect and cheer on the racers. The check points at the 66 mm, the 47 mm, and the 38 mm are especially needed, as well as at Captain Ron’s and Paradise Point. Sign up online or by phone.

For more information, or to volunteer, go to www.2damdays.org or call LOWA at 573-280-1620.

Education/Outreach – LOWA needs an Education/Outreach Chair!

An Education Outreach Chair would help to coordinate volunteers at booths and at educational events. The Chair would help to sign up for the various festivals and fairs

around the Lake, coordinate volunteer help for the booths, work with the schools in the Lake area to set up and coordinate our yearly Earth Day is Everyday events in April and May and coordinate volunteers for those events.

LOWA also needs volunteers to help out at booths and at educational events working with students. Even if it's only once or twice a year for a couple of hours – every little bit helps. Thank you.

In fact, LOWA needs a few regular volunteers in the LOWA office to manage volunteer lists, LOWA mail, keeping schedules, and other administrative assistant duties. Please call LOWA at 434-4400 or go online to www.sosLowa.org

Lake Safety – Donna Swall reporting for Carroll Vogel

The Designated Captain's Program was created by LOWA back in 2006 and a brochure with participating restaurants and bars was developed. Then the Lake of the Ozarks Water Safety Council formed and LOWA handed the Designated Captain's Program over to them. Now, the WSC has produced a new updated brochure, has contacted the area businesses, and the Designated Captain's program is up and running again. In this program, the Captain of the boat can receive a free non-alcoholic beverage from participating businesses as we all work together to keep the drivers of the boats sober and our beautiful Lake safe.

Lake Safety is also coordinating the safety program for the 2 Dam Days race and is coordinating the volunteers following the racers and the Coast Guard Auxiliary vessels also.

LOWA LILs – Lee Stanley reporting for Kathy Fayant

The LOWA LILs program is trying to get everyone around the Lake of the Ozarks to do their part to keep runoff out of the Lake. We can make a difference to keep sediment, pesticides, animal waste, and other materials out of the Lake.

The LOWA LILs program is just beginning. LOWA is working with individuals and making suggestions of what they can do on their property to help with runoff and erosion control.

Year-round people are often on top of this and so LOWA not only is working with the full-timers, but also trying to reach the weekend folks and help them with issues at their property.

LILs stands for Low Impact Landscapes and includes any measure that reduces the amount of runoff reaching the Lake.

Please call LOWA at 434-4400 or go online to www.soslowa.org to find out more information about LOWA LILs. LOWA will come out to your house for free consultations, take soil samples, develop a nutrient management plan, or other helpful services.

LOWA Round Table

Q – What about the well testing kits? A – LOWA has kits to get your well water tested by health and Human Services available tonight at this meeting and also at the LOWA office in Laurie, in the Realty Executive office building at the north end of town.

If anyone is interested in having LOWA come out or in finding out more information or in volunteering to help, please sign the Interests sheet (or go online and sign up)

The Master Gardeners (Lake Area University of Missouri Extension Master Gardeners) program is holding a Master Gardeners class this fall. Beginning Aug 18 and running through November 8, this is a 10-week class to learn all about gardening. For more information call 573-369-2394.

LOWA recommends everyone stop by Willmore Lodge and check out the Rain Garden designed and planted by the Master Gardeners in partnership with Ameren Missouri and LOWA.

The meeting was adjourned at 8:15pm.

These minutes respectfully submitted by C. King Toole, LOWA Recording Secretary.