

Third Time is a Charm?

by Susan and Barry Hixson, Pennsylvania

Do you ever get the urge to rebuild your pond? Do you ever feel that you need a bigger area for your fish to swim in and get more exercise? Do you feel that you need more fish? If you have pondered the above questions you may be smitten by the “bigger is better” syndrome in the koi vernacular.

This is our third and last pond redo since 1999. Before 1999, the pond was basically a water garden with lots of beautiful lilies, cattails, assorted water plants and shubunkin and koi. Less than 1,000 gallons, no bottom drain and a submersible pump that was always clogging.

We joined MAKC and learned about bottom drains and

separating the koi from the plants. Increased the size to over 2,500 gallons and we thought this is as big as we will ever need. Plants in the header pond, koi in the big lower pond. We didn't want to over populate the pond so we kept the number of koi to eight. Funny thing happened – they kept growing and growing and looked like they needed more room to swim. With the UV light and bottom drain, we could always see how



New pond outlined with block - “Better move that vortex!”



What a mess! “Come-Along comes in handy.”



Sunroom covered, fabric being placed.

our babies were doing. After a few more MAKC meetings and Annual Shows and attending the lectures, it was time to redo the pond for the last time.

In 2002, we made the pond slightly bigger, removed any sharp rock from the water, and upgraded the bead filter (vortex prefilter) to include a bio-reactor using kaldnes and an air dome. The lilies in the upper pond were planted in a non soil media and limited to a one hardy and one tropical. With the skimmer, bottom drain, vortex, Aquadyne, double vortex on the upper pond, two 40 watt UV's and running 3 inline pumps on the system (don't the koi need maximum exercise via returns), heating the system during the winter so we could feed our koi up to mid December and only go two months without feeding, we thought we had finally obtained our ultimate koi pond. System had 3,300 gallons.

We bought a few more koi and then had 11 koi and about ten shubunkin in the upper pond. The fish kept growing and growing. Now, in 2005, two of the koi were over 15 years old and a few over 24 inches. We calculated their weight as close to 60 pounds total. After a few more meetings and visits to other koi members' ponds, and reading articles in *KOI USA* and *Mid-Atlantic Koi* about the polyurea elastomer spray liners, we made a decision to do the pond one more time.

Regular readers of the above magazines know the benefits of the spray liners and even though spraying the liner is more expensive, in the long run we knew we would not have to worry about crud collecting in the folds of a liner or bulkheads leaking.

The first week of September we had Carl Forss from **Keirin Koi** and Kerry Snyder who does polyurea spray liners do a pond side consult. When Carl saw all the work involved in moving the millhouse with water wheel, shrubbery, screened enclosure to keep the herons out, and moving tons of stone, he said you have a lot of work ahead of you! Being retired we knew we had the time but weren't sure if we had the muscle to most of the work ourselves. As they say the longest journey begins with the first step, so redoing a koi pond begins with removing the first tree and stone.

We built an 800 gallon containment tank (raised on block and has a 3" bottom drain to two 55 gallon drums for filtration) in the basement and used one of the club's show tanks for another 350 gallons. Even with the established kaldnes from the bioreactor and springflo from the outside ponds, we were still getting an ammonia read of 0.5 to 1 ppm. We kept the pH at 7.5 but Susan still felt that we should do two water changes a day to keep our babies as safe as possible. We used 1500 gallons daily for this process for the three weeks they were in the basement. Temperature remained constant at 72 degrees. We went through a lot of dechlor, calcium and baking soda due to chlorinated soft municipal water. Thankfully, we only have water, not sewage, or the cost would have been through the roof.

Due to the landscaping, close proximity of the pond to the sunroom, on site septic system, in-ground pool, the digging was done by hand and excess ground and debris pushed by



Kerry spraying the liner.

wheel barrow to a 20 yard dumpster. The ponds both lower and upper were raised by six inches and the lower pond was bumped out from 17' to 23' and the width from 8' to 14' on the one end to wrap around the millhouse. Digging was

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Kerry and Terry checking their work.

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 slowed by the presence of large rocks. Had to use the “come along” to pull a few that were over 500 pounds out of the hole. The Norway Spruce trees that we planted 35 years ago served as a firm anchor to attach the chain. The digging was worth it since the pond increased from 3,300 gallons to 6,300 gallons.

In addition to the digging, shrubbery and tree removal, removing all the stone, we had to move one of the posts that supported the overhead sunscreen system and had to reframe the support system. The underground electrical lines had to be moved (up graded with two separate circuits). The vortex had to be moved as well as the millhouse. Blocks was concreted in and rebar



“Finished” although lots of landscaping to do. “Fish look so small now.”

used on the upper shelf. Additional pallets of stone were delivered.

John McDonald and Carl of Keirin Koi did most of the plumbing and tried to simplify our system. We had a big push day on September 22 and received help from Brian Hein (MAKC member), Jarod Simpson, Dave Hixson, and Kerry Snyder. The next day Kerry and his helper Terry arrived at 6:15 AM (dark out side, helped finish the block work, epoxied the three bottom drains and returns and made sure that everything would be ready for spraying the next day). He completed the spraying that Saturday and had a good suggestion for the water containment box for the water wheel. I made a box and he sprayed it inside and out and it should last a lifetime. We didn't want the water mixing from the water wheel and the pond water.

We attended the MAKC picnic on Sunday and took a much needed day of rest. There was still rock work to be done and on the 29th after hosing off the rock we started filling the pond. 6300 gallons, great! Plenty of room for our babies. Two days later, we drained the ponds because there was massive amount of dirt in the water even though the rock had been hosed off after it was set in place. Note: Always hose off each rock individually **BEFORE** setting in the pond if you want clear water.

On October 2, the fish were taken from the basement via sock net and plastic bags to their new pond. They looked so little in their new environment! The rest of the week was spent finishing the wiring, reworking the double vortex on the upper pond, moving dirt, planting new trees and shrubs, and yes, more rock work.

As we write this article, the fish have been in the pond for one week and seem to be doing okay even though they went three weeks without eating to control the ammonia. (Note: We didn't want to use an ammonia binder, because it interferes with the biological action on the media that we had established previously and are using now on the new pond.)

There is still landscaping to be done and should be challenging since we had over 10" of rain this weekend after going almost a month without any precipitation. As Kerry said, we got lucky when he did the spraying.

Thanks again to Carl, John, and Kerry from Keirin Koi who helped make our dream pond a reality.

This is the last time we redo the pond, no more room on this third of an acre property... Any larger properties for sale? ❖

