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MARCH 2012
Patent pending, HELIX Skimmer released to market due to contractor demand

OCTOBER 2012
HELIX Skimmer wins Pond Product of the Year

JANUARY 2014
Authorized HELIX Contractor program begins

JANUARY 2014
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FEATURES

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2017

September 23 - 24
39th Annual Koi Show
Central California Koi Society
Figueroa Village
Fresno, California
www.cencalkoi.com

October 17 - 18
Your Pond Farm
Bare Creek Mountain Resort
Lehigh Valley, Pennsylvania
877/413-YAKM (9276)

October 18 - 20
Hardscapes / GIE-EXPO 2017
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Louisville, Kentucky
www.gie-expo.com
www.hardscapes.com

October 29 - November 3
International Pool | Spa | Patio Expo
Orange County Convention Center
Orlando, Florida
www.poolspa.com

November 8 - 9
Irrigation Show
Orange County Convention Center
Orlando, Florida
www.irrigationshow.com

2018

January 9 - 11
Landscaping Ontario
Toronto Congress Centre
Toronto, Ontario
www.lcoagres.com

January 10 - 12
MANTS
Baltimore Convention Center
Baltimore, Maryland
www.mants.com

February 21-23
Water Garden Expo
Heart of Oklahoma Expo Center
Shawnee, Oklahoma
www.wgexpo.com

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Planning Ahead

Right about this time of year, our team here at POND Trade starts planning articles for the year ahead. As I was sitting back forming a list (oh yes — I love my lists!), an idea came to me. We get so many requests for information through our website in response to our articles. The inquiries cover all kinds of topics, including bog filtration and undergravel filtration, just to name a few. In fact, we have received so many questions about overwintering ponds that we are revisiting the topic in this issue. More on that below. But I thought I would reiterate that we are always looking for feedback and topic suggestions. So, if you have a topic you’d love to learn more about, even if we have written about it recently, please let us know — after all, this magazine is for you! Just send me an email at llgelles@pondtrademag.com.

Back to this issue, we’ve got a lot of diverse material throughout these pages. In preparation for winter, we asked Jamie Beyer to write another article about overwintering your ponds. He wrote an article about it for us about eight years ago, but thanks to a lot of the questions and feedback we have received from our readers, we thought it would be a good time for an update.

We’re also delving into the culinary world in this issue with a delicious article about edible pond plants. Zac and Nancy deGarneaux will excite your palate with their guide on planting and eating lotus, watercress and much more around your pond. On the digital front, Laura Reale introduces you to the world of CRM, or customer relationship management software, which has helped her company make an extra $150,000 this year so far. Also, our regular contributor Kent Wallace has an exciting tale of when he worked on a pond construction episode of the popular TV show “Tanked.”

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When homeowners decide to invest in professional landscape architecture, many choose to incorporate a beautiful water feature as the focal point or “crown jewel” of the design. This is no surprise, because we as pond installers know that a well-functioning, attractive water feature offers homeowners much enjoyment and brings the landscape to life with the sound of water and wildlife. However, when a pond or water feature no longer operates properly due to aging or improper installation, what was once a crown jewel can easily tarnish, creating an ongoing nightmare for homeowners. This is when a professional pond and water feature installer can assist the homeowner with re-envisioning the water feature so it can be, once again, a source of pleasure — not a constant heartache.

**Renovate & Maintain**

As a pond and water feature installer, I have had the privilege of helping numerous customers renovate less-than-desirable water features. My company serves the central part of North Carolina, which is one of the biggest markets for water features in the country. There are at least six professional water feature contractors within a 60-mile radius, and all are doing well and growing their businesses.

Though there is competition, there is also collaboration to better our work overall. We share ideas, provide feedback and assist each other on larger-scale projects. Through this competition across builders, there can be opportunity for potential work through maintenance and renovations. Competition can be your best advertisement if the original builder is not interested in ongoing maintenance, or if the homeowner is not satisfied with the original work. In our market we have noticed a distinct trend to renovate ponds and water features primarily due to older construction, and sometimes due to poor installations by unskilled installers or do-it-yourselfers.

Many times the homeowner who wishes to take on a water feature build is doomed from the start because of lack of experience, or perhaps because they watched the wrong YouTube video. Word of warning: there is an abundant amount of wrong information about pond construction on the internet today, and some homeowners can fall into this trap. It is through the experience of professionally building ponds and receiving specialized training and certifications that one can gain a full education and become a “pond professor” to know what works and what does not.

My business consists of a 50-50 mix of maintenance and construction. We have a large number of water features under contract for weekly, biweekly...
and monthly services, which keeps work for us year-round, so do not overlook the maintenance opportunities. Even though new pond builds continue to be requested, we noted that 70 percent of our builds this year have been renovations of existing features. So, for the first time in company history, we have done more renovations than new builds.

How to Tackle a Renovation

Some contractors are reluctant to take on renovations due to the difficulties of predicting the time and expense for demolition and reconstruction, as well as the time involved in detecting all the current problems. It is much easier to price a new installation than a renovation, because the process of demolition may reveal more issues than originally expected. So, accurately quoting a fair price for the company and the customer can be a challenge. But with some experience of common pond failures, a contractor can become more familiar and comfortable accepting these jobs. When you take an existing water feature apart, you can find the flaws in the system and learn from the former mistakes made by the original installer or DIYer. This learning process assists the renovator in quoting future projects.

There are a lot of details to consider when performing a renovation, such as skewed or contorted skimmers. These can be replaced or straightened to create a better product or proper function. Overflows built into a pond are a must to prevent water from getting under or behind the liner. When redesigning a pond, make sure the skimmer placement is the first concern to allow for the overflow, so water does not compromise the pond integrity over time. For better aesthetics, I also recommend placing the skimmer out of sight of the prime viewing area if possible. Nothing tarnishes a natural water feature more than the faceplate of the skimmer being the first thing you see! Rock placement at angles can conceal a skimmer, leaving space for leaves and debris to hide the skimmer entry. It takes a little more time to make sure a skimmer is hidden, but that is the part of being an artist!

Pump choice is just as important for a pond. We have had success by turning the pond over two to three times per hour, meaning that an increased rate of gallons per hour would double or triple the number of gallons of water in the pond. The waterfall should be on the opposite side of the skimmer for maximum cross-flow circulation of the water. Choose properly-sized plumbing to support the desired rate of water turnover. A common installation mistake is when the pipe size is too small for the necessary water flow. Find a pipe-sizing chart and learn what can flow in pipes of each diameter that may be used in any installation.

When assessing the work of the original installer, I often notice that...
the company had manufactured their own products. I strongly recommend not taking the time to create your own pond products, and instead use commercial-grade equipment that is professionally engineered, field-tested, and backed by a manufacturer’s warranty. Otherwise, your company is responsible for that product’s function or failure. Find the products that work for your company and your customers. Not one manufacturer on the market today has the best of everything. For my business, I research all products regardless of a specific manufacturer and use what works best for my business without committing my company to a specific brand. I find that this gives my customer a better, reliable product in the end and avoids future equipment failures and expenses to my business.

The Crowning Finishes to a Rebuild

Proper tucking of the liner is one of the most important parts to finishing the construction of a pond. It can be the most overlooked element for a lot of installers. Improper liner installation in many cases leads to the need of a renovation. To achieve a sound, reliable liner installation for a new construction or renovation, build a slight berm around the pond liner. This is the key to achieving good water quality, stopping the surrounding earth from getting into the pond and preserving the integrity of the feature to prevent leaks for years to come. Leave about a 4-inch piece of folded-down liner, press the liner against the back of the rocks and backfill tightly with dirt, leaving at least 2 inches of liner above the water level. Set your water level off the highest point that the pond can run (the overflow) using a transit. The “story stick,” as we call it, never lies. If you do not have a transit, make sure to purchase one in the near future. It is one of the most important hand tools a pond builder can have, because it shows you the water level around the entire perimeter of the pond. I advise leaving extra liner to allow for a fix if and when the feature settles. This provides 6 inches of liner left to pull up to fix the issue. It also gives a sound structure to prevent small rodents from burrowing to eat holes in the liner, eliminates the pearl necklace of river rounds around the entire water feature and avoids unsightly liner.
from showing after a couple of months. The dirt also looks more natural against your boulders. Running short of dirt should not dictate a poor feature. Bring in more dirt and fix grades, not leaving huge slopes for runoff and erosion. Taking these extra steps is inexpensive in comparison to coming back and repairing later.

To allow customers to enjoy their features day and night, offer low-voltage lighting and plant packages to take the existing pond to the next level. Low-voltage lights extend a water feature’s enjoyment through the evening hours when most homeowners have more time to relax and enjoy it. Without lighting, the feature simply recedes into the landscape. Choose your lighting manufacturers wisely. Lighting failures cost your company time and money and is an expense that may be overlooked when first installing the feature. Plantings around a pond are also important for aesthetics and crucial for erosion control and water quality. We have learned that it is best if we complete this task. It reduces the risk of someone else cutting low-voltage wiring, pump cords and plumbing lines, or possibly causing liner damage. The plantings are the finishing touch to soften the hardness of the rocks and give a more natural look. Both lighting and plants are key to a successful pond enhancement, so my company always encourages the customer to consider these options during the construction process.

To sum it up, the pond industry is aging and could use a good facelift! When you do your spring cleanings or maintenance checks, take advantage of the opportunities that are in front of you by re-envisioning your current customers’ water features. They will thank you for renewing what was once tarnished and is now the crowning jewel of their landscape. We all have our ways of running our businesses and signatures on the ponds and water features we build. Be an artist, be rewarded for your work and leave your mark for years to come. Our formula for success is simple: Always call customers back, do what you say you are going to do, back your work and put quality before quantity. We are artists, so be proud of what you have the opportunity to share. Build a water feature to last a lifetime. Make it serviceable, build relationships and strive for the customer to become part of the family — not the assembly line. At Pond Professors, our slogan says it all: We Build Water Features to Enrich Your Life!
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How many times have your pond customers asked for your help to select koi to purchase? What is the best way to help customers select koi fish to buy?

There is no right or wrong way for customers to pick or select koi that they’d like to buy. Everyone has an opinion and personal taste when it comes to koi fish. Customers usually select a koi that catches their eye. Maybe it’s a type or variety that they have always wanted or a color that they’ve been looking for. Or, it might be a flashy new koi that you’ve just recently offered for sale.

First, suggest a closer look at the koi being considered.
- Slowly and carefully net the koi. Place it in a viewing bowl so the fish can be admired and evaluated.
- Add one or two other koi to the bowl to build a collection from the initial choice.
- Select koi that complement the first fish.
- Be sure to point out as many different types as you have available, including doitsu (scaleless), ginrin (sparkly diamond scales), hikari (metallic skinned) and butterfly koi.

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Show fish of different sizes as well. They can’t buy them if they don’t see them. (Koi are like Lay’s potato chips — you can’t take just one!)"
Winter is Coming

Plan ahead for protecting outdoor ponds

by Jamie Beyer,
Midwest Waterscapes

Just when I start to think that there isn’t much more I can write about keeping fish outside in brutally cold winters, I get a question that makes me realize that there are still some things I have not considered putting into writing before — even though I have been overwintering koi and goldfish outside in the northern Midwest for more than 35 years! There are many aspects to this topic, but it can be broken down into some basic principles — at least in my mind and, hopefully, in yours after reading this article.

I first want to recommend that you read the POND Trade article I wrote on this subject in August 2009 titled “Overwintering Koi Under Thick Ice.” (See archives at www.pondtrademag.com.) This article generated a lot of interest in keeping fish outside where the temperature drops below 20 degrees Fahrenheit. It is very important to realize that the fluctuating extremes in water temperatures will be very stressful for your fish. While hardy fish like koi and goldfish adapt to these kinds of environments, they must be healthy going into winter, and their environment must offer the best conditions possible for them to survive in a healthy state with quality water that is well oxygenated.

There are many silent stressors during the winter that can eventually kill fish, such as diseases or parasites that may wait to show up until springtime. In any case, the factors that kill or stress even hardy fish under these conditions are many, and I will try to go through every one of them (at least the ones I can think of). Please remember that it comes to living things and nature, there are always exceptions to every rule. Also, every pond is different due to hundreds of variables. I have to generalize when discussing these topics, but 98 percent of the time, this information is correct.

Aeration Above All

The lack of oxygen and a buildup of toxic gases is the No. 1 killer of an aquatic ecosystem. This includes fish, but also microbes, amphibians and invertebrates. Almost all the critters in your pond need oxygen. So, provide aeration, but in a way that the fish do not have to fight a current. You can provide circulation with a water pump that will aerate the water as long as you have an open surface in the ice. The open areas also allow toxic gases like hydro-
A fish’s metabolism can slow to kill quickly. During the winter, in toxic gases. These zones can become what I call dead zones. These are areas that your circulation does not reach and are therefore low in oxygen levels and high in toxic gases. These zones can kill quickly. During the winter, a fish’s metabolism can slow to the point that if they enter a dead zone, they might not have enough energy to swim out before being overcome. Proper pond design can prevent dead zones, but if you already have them, either keep the fish out of these areas or provide more aeration points.

Fluctuating Temperatures

A typical winter in areas that get really cold will see below-freezing temps for a period of time, allowing a layer of ice to form. Following a brief warmer period, which allows the ice to completely melt, it reforms again when temperatures plummet. This process is stressful for fish. Water temperatures can fluctuate 10 degrees or more overnight. There is not a lot you can do when Mother Nature does this, except to attempt to keep as much snow and ice on the pond as possible. Do not remove ice from the pond, and remember to unplug any heaters if you see a warm period predicted. A layer of ice keeps the water temperatures more stable. You also can create additional stress on the fish by shoveling on the surface or breaking up the ice. Fish become spooked easily, and you want them to be cozy and snug under that blanket of ice. Besides, it is a lot of work to remove chunks of ice and shovel off snow. You might mean well, but that ice serves a purpose that our fish have adapted to.

Water Changes

I started doing mid-winter water changes about 10 years ago, and it has seemed to help fish come out of winter more vigorous. By doing this, we are improving the quality of the water and thereby reducing stress. So, maybe two or three times during the winter, make a 10-percent water change. Of course, remove the chlorine as well, if present. If salt is in your water, make as many water changes as possible before winter to get rid of the salt. Salt can lower the freezing point of water, and your water can become super cooled if salt is present.

Organic Loads

Decomposing leaves, rotting water plants or anything that has died in the water depletes the oxygen and is a huge stressor on the fish. Fish resting on top of rotting leaves for a long period of time can also develop a fungus infection on their bottom side. Fungus can grow into the gills of the fish, causing death. Even with a heavy layer of leaves and orgamics on the bottom, you can provide enough oxygen with heavy aeration and circulation. This will drive off the toxic gases and replace the oxygen that these decom-
posing items use up.

However, if the fish are fighting a current, they are forced to use energy that they cannot spare during the winter. A majority of the fish may survive in conditions like this, but it is still a stressor, and your best fish may die. We want a quiet environment for the fish. They need to feel snug and calm under that ice. So, remove leaves and the majority of these organics before the ice arrives.

Surface Stressors

Above-ground ponds are more difficult for overwintering fish. It really depends on how much of it is below ground. If the entire pond is on top of the ground, the pond needs to be emptied and the fish brought inside. If you have 2 or 3 feet of the pond below ground, overwintering fish can be accomplished. The soil surrounding a pond bottom provides an amazing heat source. A pond that is 30 inches below the soil line is deep enough here in the Midwest to overwinter hardy goldfish. However, koi need more depth, and I recommend a pond that is at least 40 inches deep. This depth provides the vertical strata that are necessary for the fish to develop their muscles normally. This also provides the earth’s warmth.

Most koi people that have expensive fish would not think about overwintering their fish where the ice forms on the surface. I completely understand this due to the risks posed by the many stressors. Fish of this caliber may need the extra protection of a structure over the pond or an indoor environment. However, providing aeration, limiting strong currents and removing salt and organics will result in successful fish keeping, even where there are brutally cold conditions. I would worry more about power outages and predators than the cold itself. Have faith in these techniques, and keep those stressors to a minimum.

About the Author

Water gardening has been a passion of Jamie Beyer for more than 50 years, and he has worked on more than 1,000 ponds. He owns several very large ponds with many different kinds of water plants and fish. Jamie has a master’s degree in Fish and Wildlife Biology and is a Lifetime Master Gardener. He is the founder and former president of the Central Iowa Water Garden Association. He has a broad background in fisheries, the dynamics of water, horticulture and aquatic and wildlife ecology.

He currently owns Midwest Waterscapes, a consulting and installation business, where he specializes in water gardens, fountains and ponds.

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fun way to add interest to your backyard pond is to add edible pond plants! They allow you to delight the senses as you add a green sprig of aquatic mint to your iced tea or cool, crisp watercress to your salad this evening. These garden-fresh elements add to outdoor entertaining as well as a healthy lifestyle.

Most people are unaware that there are many plants in the water garden that have long found their way to the dinner table. We’re not just talking sprouts on a salad — we’re talking about nutritious snacks like a bag of fresh, green lotus seeds that you can take on a hike, or a complex Thai dinner entrée that includes lotus tubers and Neptunia oleracea! Edible pond plants are an exciting way to enhance your outdoor living space.

A New Demand

The desire for beneficial environmental solutions is greater than ever before. Customers are collecting rainwater, using solar panels and employing bog filtration systems for their backyard ponds and water features. Along with healthy environmental choices, customers are making healthy lifestyle choices by adding fresh produce to their dinner table. The demand for edible pond plants is substantial. Adding a water feature to your backyard really changes the dynamics of daily living, and adding a water feature changes the ambience in the same way a fireplace does, drawing people in as well as adding another element to your surroundings.

Nurseries and garden centers are aware that there are hands-on customers who use every square inch of their yard, garden, water garden, pond or bog area to enhance their lives. One way to do that is to grow...
edible plants in their pond or water feature. Ponds have shallow areas and bog areas where edible pond plants can be grown and easily harvested. Plant pockets that are easily accessed are great for edible pond plants. Beautiful, aesthetically pleasing pond plants can be a delight to the eye and the palate!

Most plants thrive in a traditional garden, but there are many plants that thrive in water gardens, rain gardens and bogs. Taro and rice were among the first water plants to be cultivated thousands of years ago. They can be perfect for fresh salads or soups, stews, snacks, curries and stir-fry dishes.

**Nelumbo Nucifera**

The lotus is an exquisite flower to be sure, but it can be so much more. Garden centers and nurseries have row upon row of breathtaking lotus in pots for sale. Some companies sell lotus tubers online. Most of the lotus that are sold in the United States are for ornamental purposes and will adorn a sunny area of a pond or patio.

All parts of a lotus can be eaten and are even a staple in some countries. The fresh green seeds can be eaten like fresh peas. Once the seeds begin to turn brown, they have a nuttier taste and make a delicious and healthy snack. Lotus seeds are rich in protein, magnesium, potassium and phosphorus. Leaves, stems and tubers, as well as flowers are used in recipes. The tubers are great in stir-fry recipes. When the tubers are sliced, the star-shaped air chambers are exposed, making a beautiful and healthy combination. Lotus seeds offer anti-aging benefits in the form of L-isosapartyl methionyltransferase. Lotus come in several colors, petal counts and sizes, from 8 inches to 6 feet tall. When choosing lotus as an edible vegetable, choose large varieties that produce large tubers. In Asia, there are individual cultivars used to grow large tubers and others that are cultivated for tremendous seed production. When planting lotus as an edible vegetable, they must be grown in shallow ponds. Our friend, Laura Bancroft of Ten Mile Creek Nursery, is currently working with planters for aquatic plants who want to turn their pond into an aquatic vegetable garden. She is growing a line of cultivated lotus, some of which are grown for their tubers.

**Turn Over a New Leaf**

The Chinese water chestnut (Eleocharis dulcis) is sedge-like and emerald green in color, growing beautifully in shallow water. Water chestnuts are grown in many countries around the world for its edible corms. If you have ever had water chestnuts out of a can, you haven’t had real water chestnuts! Once you have tasted fresh Chinese water chestnuts, you’ll discover the rich, robust, nutty taste that adds the delicious crunch in stir-fry dishes.

On warm summer evenings when it is too hot to cook, fresh, healthy salads make a nice option for the dinner table. Watercress (Nasturtium officinale) is a perennial pond plant from the mustard family that grows well in moist bog areas around the pond. Watercress does especially well in cool, sunny weather. These are healthy, zesty, peppery greens that go great in salads and can be used in place of spinach in many recipes. Watercress is a superfood that takes top honors, surpassing the more popular kale in both vitamins and nutrients. Another option is bloody dock (Rumex sanguineus), a nice, leafy, edible green plant with striking red veins on the leaves. This perennial pond plant is very easy to grow in part sun to part shade in moist soil. Tender young leaves can be added to salads for color and texture. However, bloody dock contains oxalic acid and should be used sparingly.

**Spices, Teas & Cattails**

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**Water celery** (Oenanthe javanica) is an edible water garden plant with soft shades of pink and green that grow well in shallow water in sunny locations in your pond. The leaves and stems are eaten raw in salads or used as a garnish for meat dishes. It is also an excellent addition for soups and stews, adding a subtle celery taste.

**Taro Tricks**

One of the most impressive plants you can grow this summer is taro. Taro is too hot to cook, fresh, healthy salads make a nice option for the dinner table. Taro chips are a healthy alternative to potato chips. Taro grow well in moist, sunny areas of the bog, in shallow water or with an inch or two of water over the top of the pot in the pond. Beautiful and versatile, taro comes in many varieties and can grow quite large. Leaves on some taro grow to 3 feet long! Taro is hardy in Zones 8 to 11, but it grows quickly throughout the summer months in the north, where it can be purchased as an annual. Many people tend to overwinter their taro indoors.

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ing a tall glass of iced tea, add a sprig of aquatic mint. Mentha aquatica is a lovely herbaceous plant that flowers all summer long with lavender blooms and attracts butterflies. It grows especially well in moving water and does well in stream beds. It can be wonderfully refreshing when creating flavored waters — just add a few sprigs of mint to a pitcher of water along with lemon and lime slices, and chill! Menthe aquatica may also be used as a garnish for fruit compotes or meat dishes.

When summer evenings begin to cool down, a cup of hot tea is in order. Lemon bacopa tea is divine. Just crush a few leaves of Lemon bacopa (Bacopa caroliniana), place in a cup and pour hot water to add a subtle, sweet hint of fresh lime to your cup of tea. This is a delightful, flowering pond plant that grows well in moist areas of the bog, or as a submerged or emergent plant in the pond.

Cattails (Typha latifolia) are usually found at the edge of a pond, in marshes or stream beds. Cattails can become aggressive, so be careful where you plant them. The tender, young stems on cattails can be eaten raw or boiled, and they taste like corn. The cattail flowers can be roasted, and the lower parts of the leaves can be used in salads. Cattail pollen can be collected from the plants and used as a thickening agent in soups and stews or added to pancake batter for extra nutrition.

Spice up your life! Sweet flag (Acorus calamus) is often seen growing at the edge of a pond, in marshes or on stream and river banks. The sweet flag plant is a perennial and highly aromatic. It has a spicy lemon fragrance and is used as a flavoring for gin, tonics and vermouth. Sweet flag rhizomes and foliage have a sweet fragrance. The rhizome can be used in the place of ginger root.

For an exotic twist, Neptunia oleracea (more often called Neptunia aquatic or water mimosa) floats effortlessly on the surface of the water. The tender young leaves, shoots and pods can be eaten. When eaten raw, Neptunia oleracea has a cabbage-like taste. It is often used in Vietnamese and Thai recipes for soups, stews, curries and spicy salads, and it tastes wonderful when used in kaeng som, a sour curry. When preparing Neptunia oleracea for stir-fry, make sure to remove the spongy outer layer to reveal the tender young stems. Roots of Neptunia oleracea are often used for medicinal purposes as well.

**Planting Tips**

When planting edible pond
plants, use heavy loam soil or Turface MVP in your pond and allow the leafy greens to grow above the water line.

Also consider using edible plants in your bog filters. Taro and water celery are excellent choices for this. To keep your bog filter from clogging up, always dig your bog filter 2 feet deep and use Turface MVP or a 50-50 mix of Turface MVP and 1/8-inch to ¼-inch pea gravel. Using pea gravel larger than ¼ inch may inhibit plant growth or crush plant roots. You can plant your edible pond plants in fabric planters and place them in the stream bed of your pond. To keep mosquito larvae at bay, pond plants that can be grown in shallow areas of the pond, plant pockets or bog areas.

Edible pond plants can add a pleasing aesthetic value as well as an international flair to your outdoor living space while encouraging whole-some eating habits. Some eating habits.

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About the Author

Zac deGarmeaux built his first water garden at the age of nine. Each summer, he would design water gardens for friends and neighbors and advise them on what waterlilies and plants to purchase. He has been growing water garden plants for more than 25 years. He is always on the lookout for new developments in the waterlily field, having spent the last few years traveling the world to learn more about them and meet with hybridizers and some of the world’s foremost authorities on waterlilies and lotus. He is the owner of Pondmegastore.com and Wholesalewaterlilies.com and works as a wholesale and retail distributor of aquatic plants. He enjoys traveling with friends, photography, growing new varieties of waterlilies, lotus and pond plants each year. He enjoys traveling with friends, photography, growing new varieties of waterlilies, lotus and pond plants each year.

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- Cord lock function to eliminate inadvertent plug disconnection
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- Asynchronous Pumps combine the efficiency of Magnetic Induction with the power of Direct Drive geometry, keeping operating and ownership costs to a minimum
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- Aeration kits powered by new Stratus KLC series compressors.

New KLC compressors combine outstanding performance with great value!
- Dual linear diaphragm design provides maximum air output
- Five models from 1.3 to 4.9 cfm capabilities
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- Three year warranty
When someone asks you what you do for a living, do you notice that moment of confusion — those two or three seconds of blankness in their eyes as they try to visualize what you actually do?

Many people don’t quite know what to say immediately, because what we do is not a clearly understood or defined career, such as a doctor, painter, teacher or...
automobile mechanic. It can be the same way with a prospective customer when they call on you to build a waterfall, water garden, pond, stream or lake — in other words, to transform their environment! There are so many variables to be defined, questions to be asked and information to be passed back and forth before each party actually has a good, clear understanding of what is being requested and what you as a contractor are willing and able to provide.

A Word from the Bench

Recently, I was given the opportunity to be one of several judges for the POND Trade 2016 Water Artisans of the Year contest. I enjoyed seeing the variety of projects and the prized work of many pond professionals in various parts of the country. There were commercial features that were designed and built to provide a major visual impact — a wow factor, as I call it. Then there were other extremely small, intimate, peaceful water gardens. Interestingly, there was quite a spread of personal insights and opinions regarding what makes a water feature or waterfall successful or exceptional. My goal is to share with you some of the aesthetic and design details I have learned on my own, from observing the work of nature and other artisans or from the masters when they were willing to share their opinions and I was willing to listen. What is to follow is not the law or strict rules to adhere to, but instead merely ideas and details to consider while creating your aesthetic presentation.

Naturalism

When I work with one of my best and long-term friends and associate Anthony Archer-Wills, we use a colloquial language with each other when we evaluate our work in progress and our finished projects. One of our most common phrases is, “Does it look comfortable?” What we are really asking is, does the work, the rock selection or formation look forced or artificial, or does the waterfall, water garden, stream or pond look comfortable, at ease and relaxed in its place? What we are looking for and measuring is the overall visual balance of rock, water, plantings or other visible man-placed materials. Does it appear as if nature has caressed, shaped and positioned the rocks in a natural manner? Does the blending of rock materials appear natural? We are blessed — but also perhaps cursed — to have an abundant variety of rock available to us for our projects. But, beware: it is easy to become complacent in your rock selection. This occurs when we begin to choose rock types, rock shapes or combinations of rock based on how easy they are to handle and install, how cheap they are to purchase or deliver or perhaps just how easy they are to acquire — all of this much to the detriment of the overall finished water feature.

You may find yourself saying, “The client won't know the difference,” or “I can make more profit if I take the easy route and use this material,” or “I am most comfortable with this rock type.” My approach, as well as that of many of my most respected associates and mentors in the industry, is to look first at what makes water features so diverse: everyone has a different focus, goal or detail they prefer in waterfalls and water features. In my opinion, that’s what makes water features so diverse: everyone has a different focus, goal or detail they prefer in waterfalls and water features.

Having been in this industry now for almost 30 years, with a very humble beginning but a significant drive to excel and do my best each and every time, I hope to share with you some of my naturalism in my approach to acquire — all of this much to the detriment of the overall finished water feature.
WHY NOT PUMP PERFORMANCE THAT STANDS OUT FROM THE CROWD?

Amidst the crowd of ordinary pumps, one stands apart as exceptional—Nitto Kohki LA Series blowers provide unparalleled performance for koi pond and water garden applications. This is why they’re the professional choice:

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They run quieter, supporting the natural design of ponds. Listened to a diaphragm pump lately? In contrast, linear-piston LA aerators have about as much ambient noise as a light ballast.

Their cost-of-ownership is lower.

La Series blowers consume far less energy—have only 50-60% of the line current requirements of diaphragm pumps. Nitto Kohki aerators better leverage filtration capability, increase the fish handling capability of existing ponds, and minimize the risk to valuable fish. Nitto Kohki aerators better leverage filtration capability, increase the fish handling capability of existing ponds, and minimize the risk to valuable fish.

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at the best material for the project that would make it look like a natural event or occurrence. I encourage you, if you have not already, to step back and really examine the beautiful examples nature provides. Look at how nature has created water courses and carried her rock work off into the landscape farther from the water’s edge. Look at the bigger picture, not just where water contacts the rock.

Harmony in Nature

When I hike in amazingly wondrous places, such as Glacier National Park in Montana, the Great Smoky Mountains or Aspen, Colorado, I have unexpectedly come around a corner in the trail and been in awe of the visual display, interaction or visual balance of rock, water and plants. We need to actually see, be aware of and understand how all these elements naturally interact and work together. There is harmony in nature. So, why do I bring this up, and what is my point? These are good questions.

In our industry, I truly believe most water feature builders want three things: appreciation for their work, the creation of long-term visual and audible interest and recognition as a company that can replicate nature. If this is you, let’s understand and be very clear that just because natural rock is used in your project does not mean that the water feature or rock formation will automatically look real, authentic or natural. Why not? There are three common mistakes I see across the country.

First, too many different types or shapes of rocks are blended together within a feature that do not visually or geologically go together. This creates visual tension, not a look of relaxed comfort. Is the rock formation or collection at ease, or is there visual tension and chaos? For example, in reviewing the spectrum of photos from the contest winners of the contest, there were many images where the stone selection, application and installation were beautiful, or where various sizes and shapes of the same type of stone were oriented in a “natural random” nature. In other cases, several types of rock, or rocks with extremely different shapes were blended together in a very unnatural manner, creating visual tension. When waterfalls are constructed from long, flat, horizontally-positioned waterfall boulders, but the transition to the landscape is littered with freshly fractured, sharp-edged, irregularly shaped rock, this creates a strong visual contrast and tension.

In my opinion, feathering waterfall boulders of the same type and size out into the landscape creates a sense that the rock formation is actually much bigger than just the part that makes up the waterfall itself. Second, too much rock are being used only at the water’s edge. The rock or hard-scape does not carry off into the landscape, tying the shoreline rock into the surrounding area. Rock is a strong visual element, and it draws the eye to more distant areas of the landscape, helping to create a grander visual experience. If it is only used at the water’s edge, an opportunity to enhance and expand the view is lost. For example, lining the entire perimeter or edge with cobblestone-sized rock is a common mistake. One term I use for this look is the “necklace effect.” Keep in mind that too much of any one element, such as rock, removes it from being an accent or a focal point and minimizes its visual impact. In nature, there is randomness — a shoreline will have areas of rock and plants, rarely just one or the other. Boulders, stone or...
rock should not only balance well at the shoreline but also extend outward and away from the water’s edge, unifying the landscape and the water. I encourage you to at least take a quick look at Chinese or Asian gardens, where the balance of yin and yang is critical. Rocks are the body of the world. The water is the world’s spirit, providing oxygen, breath, the liquid clouds and blood running through the veins. The rocks symbolize all that is active — the work and the forces of work. The water symbolizes all that is contemplated — all that complements work, thought, freedom, silence and reflection, or in other words, serenity.

Finally, I often see too many rocks of the same size used throughout a feature, again negating the accent or the dramatic element that was intended. Rock is one of the critical elements that draws the attention to the water or into the landscape. It is that strong accent that stands out in the landscape or pond edge and draws the eye to that area. If too much of the same shaped or sized rock is used, it is not an accent anymore. Finding and properly placing the key focal points — the boulders — into the water feature and surrounding landscape is essential to create a complete visual picture, to guide the visitor’s attention to where you want and to ensure long-term interest for the client or their visitors. Always keep in mind and execute the idea of “natural randomness,” the seemingly random blending and changing of the visuals from rock to water to plants.

Waterfall Weirs

Waterfall weirs represent another area where I see great potential for improvement in our industry. This is the art of selecting and incorporating various weir shapes and materials into waterfalls and streams to truly replicate how nature works.

I would expect that when most of us started our experimenting with waterfalls, we tended to use flat rocks as weirs, regardless of what other type or shape of rock is used elsewhere in the feature. Flat rocks are easy to find, shape and scale into place, and they provide for a wide visual waterfall. There is nothing wrong with that, unless the rest of the water feature is constructed from more irregular, water-worn stone. When I am out hiking in places like South Carolina, I see water flowing over horizontally-grained sedimentary rock, yet the weirs are worn and gently blend into the rock structure with formations extending well beyond the edge of the flowing water. This is one of the many key details that makes what you see look correct and comfortable, rather than forced.

When reviewing my inventory of rock material for a new water feature, I first look for the special weir rocks and set them aside. I’m looking for visually worn rocks, boulders that also have some type of an edge or a relatively sharp change in shape that will force the water to leave the rock rather than run down its face. My goal is to find an assortment of weir stones that allows me to use a minimal amount of water and provide the maximum visual waterfall display. Flat, sharp-edged rocks are by far the most efficient at making water break off the weir edge, but they rank the worst, in my opinion, at providing a natural waterfall look. On the other hand, water-worn boulders require a higher flow rate to achieve a waterfall, since more of the water tends to roll over the rounder weir edge. Take that to the extreme and use a round boulder for a weir, and all you really get is a wet rock.

Avoid the Lackluster

The bottom line in our business is that we usually not only have a budget to meet but also a specifically sized water feature to build. Flat weirs are easy to find and install and are less costly to build. They also provide the best waterfall weir width for the buck. But, there is a major downside to flat weirs. They are two-dimensional and promptly become visually and audibly boring. They become a non-changing event, and, if the weir edge is a sharp edge, the falling water is clear, allowing you to see right through it in the daytime and when lit at night — in other words, a very lackluster waterfall.

On the other hand, when randomly sized and shaped rocks are expertly selected and configured together properly, three-dimensional weirs and waterfalls can be formed that provide enhanced, easily seen waterfalls with an ever-changing melody of sound.

It is an exciting, creative journey that takes time, money and consistent effort to learn the true art of water-feature and waterfall construction, but it is well worth the gratification that comes from seeing your projects look more and more like natural occurrences.

In this industry, we continue to find new rock sources and learn how to handle, shape, cut and position the different types and textures of these rocks. We learn to use new tools and hone new skills. Continuing to learn and advance our industry is a passion for most of us — not just a way of earning a living. I saw this clearly in the talent displayed in the 2016 Water Artisans of the Year contest, for which I had the honor of serving as a judge. Thank you to all who participated and for the opportunity to be part of the Supreme Stream Court.

About the Author

David B. Duensing, a longtime industry expert and educator, specializes in combining natural stone, living water and his clients’ dreams to build unique and exceptional aquatic features throughout the Americas, the Caribbean and abroad.

With the creation of David B. Duensing & Associates Inc. in 1989, Duensing has focused his efforts on learning and perfecting the design and construction techniques required to perform at the top of the industry, internationally. In 2006 Duensing created David B. Duensing Aquatic Construction Services LLC, which specializes only in the construction of natural rock formations and living water features, leaving David B. Duensing & Associates to focus strictly on providing design and consulting to professionals and landowners. In addition to having won the Master of Design Award for his work, Duensing also teaches accredited, college-level courses on the many aspects of water feature design and construction through Geness University.

In 2013 Duensing, along with Anthony Archer-Wills, were sought out by Animal Planet to develop a new TV series called “Pool Master.” The show focuses on the blend of naturally filtered water, streams, ponds, waterfalls, swimming pools and swimming ponds, and it ran for two seasons.

This is one of my favorite waterfalls (far left) because it is fed entirely by snow melt, and the flow over the stepped weirs is ever-changing. I constructed it in 2002. It also appears to be a single but extremely water and weather-worn boulder, but in reality, it is made from many different but similarly colored and textured boulders. This waterfall (left) is a part of a Japanese water garden and was designed to be understood. Tennessee fieldstone was selected for its rounded and softer looking, aged appearance. This type of stone, similar to a hard sandstone, is more easily trimmed and fitted together, allowing the water feature to have many facets and water elevations that provide cascading views from several different directions. Photo by Stephen Dunn.
by Andy Schoenberger, Franklin Electric

Over the millennia, the sun has provided us with the resources to live and exist. For example, photosynthesis helps plants grow for our own sustenance and for our livestock to eat. Our bodies use sunlight to create essential vitamins like vitamin D. We even use sunlight to sterilize water to make it potable for consumption.

Water is obviously another essential resource for survival. Now, thanks to the teaming of both water and sunlight, these two crucial resources are also creating efficient opportunities for water movement in various applications, such as aeration, water features and agricultural watering.

New Cost Savings

Previously, creating beautiful water features required the use of electricity. The use of electrical wire or service can be prohibitively expensive in remote locations like the 16th hole of a golf course a mile from the nearest outlet, or the community of ranchettes on the edge of town. The average installed cost for a half mile of single-phase wire service is roughly $15,000, with three-phase service costing more than twice that. In addition, the annual maintenance fees associated with that service are above and beyond the monthly usage charges from the local utility.

Solar panels, now having been around for decades, are changing the landscape altogether. As with most technology, the cost of solar panels continues to decrease while the efficiency is increasing. The purchase cost is now less than 69 cents per watt, compared to a high of nearly $200 per watt in some areas in the 1970s. The panels are more efficient, now creating more power with the same area of space. Structurally, they are better. The days of fragile glass solar panels are ending and are being replaced with new materials that withstand our environment and weather much better. All common solar cells start as silicone (atomic No. 14 on the periodic table), which is a nonmetal with conductive properties.
super properties that provide the ability to convert sunlight into electricity. From there, the panels and their enclosures vary by manufacturer and use. Today, mono-crystalline panels are the most efficient, and amorphous thin film panels are the most flexible.

Applications Abound

The water pumping market has seen this positive trend and is taking hold of the newest technologies. Many ranchers and farmers are shying away from the expensive electrical systems for local source power, instead choosing the power of sunlight to water their livestock and enable agriculture to thrive even in remote areas. With a quick regular dusting of the panels, they always have the power they need.

Pond and lake management is another segment that is beginning to utilize solar rays to power aeration and fountain systems. Municipalities have begun to change over their floating aeration and fountain systems to solar and are experiencing significant monthly utility savings. Golf courses are adding new systems to their properties to improve aesthetics, especially during the harsh times of year for water features — early spring and the hottest parts of summer. Maintenance has improved as well with field-repairable drives like the Photon solar controller. All you need to install and modify the system is a six-in-one screwdriver. From irrigation pumps to lake management aeration systems, we are beginning to see solar systems utilized more for cost savings and convenience.

Worldwide Initiative

A major global impact is being made in communities with residents who formerly had to hike miles a day to gather water or relied on old technology like diesel-engine pumps prone to noise, pollution and breakdown. In Africa, for example, children walk 7 miles a day on average to access clean water. With solar pumping systems in place, they can now focus their extra time and peaceful environment on education, family, farming and community building.

The Franklin Wells for the World Foundation (FWWF) continues to make a difference in Africa by providing clean, safe drinking water through the installation of wells and leveraging Franklin Electric’s innovative products. Over the past six years, the FWWF has made a difference in the lives of more than 100,000 people. Last year, five projects spanning five different countries in Africa were completed, reaching nearly 18,000 people.

Energy Storage

The next solar-pumping evolution is focused on storage options. Currently, most solar technologies utilize the sun during the day to store the water in tanks for use after dark. Once the sun goes down, the pump turns off. Storing electricity for night use is a real option now as battery technology continues to improve. Recently, plans to build the largest battery in the world were announced, a 100-megawatt emergency backup battery for the electrical grid in South Australia. Lithium-ion batteries have been in widespread use since about 1991, but mostly on a small scale. A typical lithium-ion battery can store 150 watt-hours of electricity in 1 kilogram of battery, achieving more than double the capacity of nickel batteries. These projects are proving the large-scale use of battery storage and ensuring power delivery around the clock.

The recent total solar eclipse in North America reminded us of our dependence on and fascination of the sun. It is predicted that new solar installations will be less expensive than coal-based thermal power plants in most of the world within the next decade. By replacing fossil fuels with technology, we achieve a cost-effective balance of creating energy to manage our water needs. The sunlight we see is eight minutes old by the time it arrives, proving that the past continues to power the future.

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About the Author

Andy Schoenberger has been with Franklin Electric, a global leader in water-moving technologies and manufacturer of Little Giant branded products, for a decade now. His experiences range from product and system design to field installation, learning best practices along the way for future innovations and trainings. He is part of the portfolio management and sales management teams at Franklin Electric. When not moving water, he is usually outdoors in the water and the sun creating essential vitamins, while always keeping an eye on the battery in the sky.

Lake management is ideally suited for solar installations due to electrical service and distance limitations. Solar allows for potential cost savings and convenient maintenance.
CRM Made Easy

Painless Pond Pipeline
How we made an extra $150,000 this year using CRM

by Laura Reale,
Pondtent

A
s the co-owner of a busy water features company, I know how hard it is to keep track of potential work while keeping in touch with current customers. As recently as last winter, my husband would come home from working in the field and ask me who had called that day, and I would have a piece of paper with notes written all the way around it in tiny words, none really making sense. It was very confusing — and not very helpful to our company! If I wanted to see what we had charged a customer for a cleanout, I would have to check at least two, if not three places to find out. I’d go to the Excel spreadsheet, the Excel “master list” spreadsheet, the cleanouts spreadsheet and QuickBooks. There had to be an easier way!

The Answer Becomes Clearer

Last winter, I was talking to a friend who is also in the pond industry, and she heard my problem. “You need Less Annoying CRM!” she declared. What was that? I kind of knew what CRM was — customer relationship management — but what made it less annoying?

In my previous life as a marketing consultant, for many years and for many larger companies, I knew the importance of a database. But I hadn’t seen software made specifically for pond builders. Nor did I know how easy it would be to personalize it.

I quickly logged on to Less Annoying CRM (www.lessannoyingcrm.com), which is called LACRM for short, and I fell in love! It was so easy to use. The first thing I did was export my data from QuickBooks and import it into LACRM. It took me just a few minutes. From there, I began exploring the world of LACRM.

Groups, Pipelines and Contacts, Oh My!

Everything starts at the same level in LACRM — with contacts. You customize your data sheet for contacts any way you want to limit your request to what you are seeking. Then the fun begins.

Things are divided into two main areas — pipelines and groups. There are many explanations on the differences, but as it says on the LACRM website:

“Groups are good for tracking some sorts of things, but not so good for others. Groups are a list-building or contract/company segmentation tool — they are good for keeping track of a shared quality between a group of records in your database … Pipelines are a way to track a project from first phone call to thank-you letter. They have comprehensive reporting tools for you to follow the process over time. Pipelines allow you to build out a custom workflow, track the contacts through that workflow, enter notes along the way and even create custom fields to capture additional workflow-related information.”

These are both very important, because they allow us to track a job in a pipeline. Everything is customizable as well.

How a Pipeline Works

Let’s say Mark Smith reaches out to us as a potential customer. I put in his information as a contact in LACRM, which tracks every customer and potential customer, allowing you to add them to various lists and pipelines.

LACRM tracks every customer and potential customer, allowing you to add them to various lists and pipelines.
MailChimp offers a variety of templates for newsletters, weekly tips, store sales and essentially any information you’d like to share with clients. You can simply put the customer in the next pipeline for thank-you notes. This enables me to follow each lead all the way through. We have made a lot of money this year by being proactive and following all leads. We are also able to track all our leads this way. For example, I know we had 97 Google leads this year.

**LACRM Groups**

Beyond pipelines, I rely on LACRM for groups, which then merge seamlessly into MailChimp. I put customers in different groups, such as “people I want to get to our pond tips each week,” “hardscaping clients” and “everyone.” (The group labeled “everyone” gets our monthly newsletter.)

The groups then merge with MailChimp into their lists so I can reach out to each dedicated audience. I can send an email to hardscape clients or seasonal customers quickly and efficiently.

First, I created a welcome series campaign. This is a series of five emails that start going our right after I put a potential client’s email in the list. Each added email address will get a series of introductions already written about our business — a total of five over five weeks. For example, we sold a $14,000 new pond installation by using this method. We got a lead on a Sunday night. I activated the emails while still eating dinner, and the customer was learning about us within minutes. When I spoke to him the next morning, he said we were the only people who got back to him right away, so we were hired! In addition, through the email series, he learned we did hardscaping and hired us for a hardscaping job as well. Second, I have a customer follow-up series sent three days, three weeks and three months after we complete a job. Through emails, we check in on customers and ask how they are doing, and then ask for a Google or Facebook review as well. We include a link to our price brochure in our last email to get people thinking about their next project.

**One More Puzzle Piece**

The final piece in my puzzle is MailChimp’s automation campaigns. As MailChimp says about its automation campaigns:

“Send an on-boarding series to introduce new subscribers to your business or organization. Automatically follow up with customers after a purchase and recommend other products that they’ll love. Surprise your best customers with a coupon triggered by their shopping behavior. Remind customers of the products they’ve left in their cart and encourage them to complete their transaction. Re-engage inactive subscribers.”

I currently use automation campaigns in two ways.

**Emails**

Each new customer is added to one or more groups or lists in MailChimp. We send out two items regularly: our monthly email newsletter with links to our blogs, leading industry blogs, helpful hints and before-and-after photos, and our weekly pond tip. This way, we know we are communicating with each customer regularly. For example, last year we sent out our newsletter and received a reply from one of our clients. He kept meaning to tell his financial client about us, but he forgot. Then the monthly email reminded him, and he made the introduction. We built a $63,000 pond for his client referral!

**Overwhelmed Yet?**

Don’t be. It’s not as complicated as it sounds. And when you are finished setting up your systems, everything will be much easier to run, and you will make a lot more money. Organization and communications are key to running a successful business, and these programs truly help.
Several months ago, I was contacted by Glass Entertainment, a production company, to help with a project for the TV show “Tanked.” The owners of Acrylic Tank Manufacturers (ATM), Wayde King and Brett Raymer, live in Las Vegas and are the stars of the show. They were building ponds in their own backyards and wanted to create a competition for the season finale. They named the episode “The Pond Off,” and I thought it would be fun. Little did I know, I would fall into a schedule of 16-hour days and lose almost 10 pounds in the 110-degree heat for the duration of the builds. Growing up in the desert, I’m used to the heat, but with this schedule, it was difficult to manage.

**An Ambitious Endeavor**

It all started with a review of their original drawings and me informing them they couldn’t have everything they had sketched out. For example, Wayde wanted to have fake hippos and other creatures, drawing from his aquarium perspective, and Brett wanted a giant waterfall. Long story short, the hippos were evicted, and the towering waterfall was redesigned. With Wayde, I explained that obstructions in a pond can be hazardous to the fish and take away from the overall aesthetic. With Brett, I explained that a giant waterfall that reached over the fence line would be hard to manage, especially consider-
ing the wind and potential evaporation.

Next were the fire features. Each pond was to have a fire feature similar to the fire features in their swimming pools. The design showed the gas being released from slightly under the water with the bubbles igniting as they popped through the surface. It sounded very cool — except for the gases inevitably diffused into the water. Once they understood that the gas would impact the water quality, the fire features remained but were moved just above the water level.

Behind the Scenes

Being on camera was fun, but almost all the construction footage was eliminated. The show ended up being more about the fish and less about the ponds, which is understandable since “Tanked” is in its seventh successful season of building amazing custom aquariums stocked with saltwater and tropical fish. Thus, this article about the construction side of “The Pond Off” is a behind-the-scenes look for those who have told me that they wished it had been more about the construction and less about the fish.

For those who know me, there was, of course, going to be bottom drains to prefiltration with two forms of biofiltration both static and aerated. I called Eric and Leslie Triplett at The Pond Digger to supply the filtration equipment. Each pond is identical in equipment and function, which made ATM’s plumber happy. I supplied my new aerated bottom drains and the internal parts for the prefilters along with my UV lights and return fittings for polyurea. Pentair supplied the water and air pumps. Each pond is a raised edge pond with polyurea-sealed shotcrete as the construction method.

For prefiltration, I had been working on a new smaller version of my radial separator built from two Helix bodies with no media of any sort. We used them here because we couldn’t dig deep enough to install the 6-foot-deep Wave 36 tanks I usually use; moreover, we needed a higher flow rate than one Helix would allow. The main pump pulls...
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A dual chamber (left) Helix Radial Separator Bodies. Stone edge and steps (right) are shown under construction at Wayde’s pond.

Two Distinct Styles
Brett’s pond had acrylic widows on two sides that fit into 5-inch-wide epoxy-coated channels. It was fascinating to watch the guys from ATM install the acrylic. The edges of the acrylic panels were precoated with a special silicone before they were delivered and installed by a wizard named Justin Portney. Justin also did the rock edge work on Wayde’s pond. It was truly an experience to watch him work. The epoxy bonded well to the polyurea applied by Paul Parszik of Artisan Aquatics. The time schedule didn’t allow for a full 28-day minimum cure time for the concrete, so the Bond-Kote layer was applied after just two days to seal the chemical moisture in the shotcrete from the polyurea. Bond-Kote is the

water from both the Helix skimmer and prefilter and divides it among two Helix upflow sand and gravel filters placed on each side and one Helix moving bed waterfall filter at the top. This totaled about 8,000 gph. Secondary pumps pull from a midwater inlet and operate the water features on both ponds. The current jets are gravity-flow from the top of the moving bed filters.
concrete surface preparation of choice, but in this case, we used it to speed up the timeline and keep things moving. Bond-Kote was literally being applied to the surface of Wade’s pond while Paul was applying polyurea to Brett’s.

Wayde’s house is seafoam green, and he had coordinated many items around that color scheme, so of course, he wanted the polyurea surface to be some shade of seafoam green. This was the biggest challenge I faced. Not much will stick to polyurea. Even when I reminded Wayde that the surface would eventually be covered by a thin biolamin layer and algae over time, he still wanted to start out with the seafoam green. Because the hippos had been eliminated, I needed to honor his seafoam green request. On previous applications, a fluoropolymer paint at $500 per gallon has been used to protect polyurea from chlorine, but this wasn’t an option because of the time schedule and the small amount we needed for this project. Everyone I contacted about solving this problem told me their product wouldn’t work, and it simply could not be done.

With just a few days to go before the surface had to be color-coated, I had an idea. The composite fittings I make as my main work required penetrations for polyurea applications bond very well to the polyurea but still need mechanical clamps. I ran a quick test using the plastic I use in my fittings as though it were paint on a sample of polyurea. It stuck! The problem was that the pot life of less than five minutes wasn’t going to work, and I needed more flexibility. I found a food-safe urethane with a 20-minute pot life from Smooth-on and had it overnighted. The day before we needed to apply it, I tested different color combinations and had a seafoam sample ready for Wayde’s approval. The only issue was that it had odd, fish-eye-like spots and it ran on vertical surfaces. In a pond environment, these created a fantastic underwater look, and Wayde loved it.

Helping Hands
With the almost impossible timeline approaching, Paul Parszik and his crew completed the poly spray in record time, applied the color, and then generously stayed for another 10 days. We needed all
the help we could gather to meet the deadline, and the extra hands worked through impossible heat and hours. Joe Acevedo of Hanako Koi was visiting from California, and we convinced him to stay and supervise the waterfall construction and rock work. Without Paul and Joe’s help, we never would have completed these projects anywhere near on time. Wayne even cored drilled his own island rocks to help speed things up. On the last day of the deadline, the Glass Entertainment crew was still recording and counting down the minutes until they needed to board a plane and get all the footage back to Pennsylvania for editing. This was hectic on so many levels. Hours before my son’s wedding, which was hosted in our backyard for more than 100 guests, I was in front of the camera with a frantic wife texting me to rush home, get showered, put on my tux and get ready to greet our guests! With a great deal of sweat, spirit of cooperation and creative vision, we did it!

Check out the “Tanked” TV Show Facebook page for some great videos, which include behind-the-scenes videos of Wayde and Brett’s ponds.

About the Author

Kent Wallace was born and raised in Las Vegas. Kent spent most of his adult life in the automobile industry at independent shops and dealerships, including his own shop as a racecar fabricator at age 24. Then, in 2001, a neighbor asked Kent if he could build her a koi pond like the one Kent’s father had. From that point on, pond building became his new passion. That first pond he built was submitted to Better Homes & Gardens magazine and won Best Courtyard Nationwide in their special-interest publication. livingwatersolutions.com 702/845-6782
Franklin Electric recently partnered with the Turtle Survival Alliance (TSA) — a nonprofit organization focused on achieving zero turtle extinctions — to improve the habitat for some of the most endangered turtles in the world. Turtles have been roaming the water and earth for nearly 220 million years, making them one of the oldest species and one of the few to outmatch the dinosaurs in existence duration. They are essential to our ecosystem, helping clean up the environment by serving as aquatic scavengers. And yet, more than 50 percent of the 330 species alive today are threatened with endangerment. The TSA’s South Carolina location, known as the Turtle Survival Center, houses nearly 650 freshwater turtles and tortoises, including 21 of the world’s 25 most critically endangered species. Franklin Electric recently donated 12 Little Giant F-Series Pumps to help create more stress-free environments that simulate their original habitat. F-Series Pumps are energy efficient, oil-free and safe, requiring little maintenance.

"Once we saw the global impact that the Turtle Survival Alliance is having on the environment, we felt an instant desire to contribute to the cause," said Andy Schoenberger, portfolio manager for Franklin Electric and the Little Giant brand. "This campus provided a multitude of applications that fit our pumps, from circulating water with our water garden pumps to an evaporative cooler solution provided by our sump pumps that is now keeping a containment area cool and ideal for the turtles. We recognized this partnership as an excellent opportunity to showcase the broad application of our pumping systems in the harshest of applications and to join a conservation movement that has global roots."

**Helix Pond Skimmer Gains Patent Approval**

In spring 2012, the Helix Pond Skimmer hit the market and was quickly recognized by the pond and water garden industry as something special, winning the Pond Product of the Year in its debut season.

This unique pond skimmer was quickly backed by some of the pond industry’s most impactful and versatile pond professionals, such as Alex Castro, Mike White, Michael Northway, Brian Fitzsimmons, Randy Stewart, Nate Brunk, Mark Gibson, Kent Wallace, Mike White and Benjamin Timmermann, to name a few.

Summer 2017 marks a new level for the Helix Pond Skimmer, as the United States Patent Office issued its approval for our specialty filament.

You see who has our back. Let Helix have your’s.

For more information on the Helix Pond Skimmer, visit www.helixpondfiltration.com.

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**Beneficial Bacteria Tablets Promote Water Quality**

New GreenClean Beneficial Bacteria Tablets are comprised of powerful, beneficial bacteria. This unique product is designed to bring pond water back into balance, while helping fish and aquatic life flourish in a healthy environment.

GreenClean Beneficial Bacteria Tablets reduce ammonia, nitrates, fish waste and debris to promote better water quality for a healthier aquatic ecosystem for fish and plants. They can be used all season long to eliminate cloudy waters and odors.

GreenClean Beneficial Bacteria Tablets are a great value — one container treats up to 32,000 gallons. The easy-dose tablets come in 1-pound containers and are ideal for weekly maintenance.

For more information, contact BioSafe Systems LLC at www.biosafesystems.com or 888/273-3088.

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**New KLC Compressors Combine Outstanding Performance with Great Value**

Supplying adequate oxygen levels and circulation during hot summer months and deicing during freezing months are critical components of pond and fish care.

Stratus KLC compressors from EasyPro Pond Products provide reliable performance, and deicing during freezing months are critical components of pond and fish care. The integrated wastewater discharge pump runs simultaneously, allowing for nonstop vacuuming by emptying the container continuously during use. Larger commercial wheels ensure stable movement through rough terrain as well as low noise when in operation. The robust aluminum suction tubes, a transparent suction tube and hand regulator (for adjusting the suction power, based on water depths) permit precise and convenient vacuuming. The PondoVac 5 comes with an extensive nozzle package and suction hose and drain hose fittings, including a plastic quick connection of the drainage hose to the outlet side for a reliable and watertight seal and easy removal for storage.

Learn more at www.oase-livingwater.com.

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**Introducing the OASE PondoVac 5 for Uninterrupted, Full-Power Cleaning**

Now even more powerful, the multifunction OASE PondoVac 5 vacuum thoroughly and effortlessly removes debris and silt from ponds, pools or wet floor of any type. The integrated wastewater discharge pump runs simultaneously, allowing for nonstop vacuuming by emptying the container continuously during use. Larger commercial wheels ensure stable movement through rough terrain as well as low noise when in operation. The robust aluminum suction tubes, a transparent suction tube and hand regulator (for adjusting the suction power, based on water depths) permit precise and convenient vacuuming. The PondoVac 5 comes with an extensive nozzle package and suction hose and drain hose fittings, including a plastic quick connection of the drainage hose to the outlet side for a reliable and watertight seal and easy removal for storage.

Learn more at www.oase-livingwater.com.

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**Kloubec’s Continued Emphasis on Koi Health**

On Aug. 9, 2017, Kloubec Koi Farm hosted the Iowa State University and USDA APHIS training course, Fin Fish: Foreign and Emerging Diseases. Twenty-two veterinarians from across the country and Canada participated in the three-day training program. As part of the curriculum, a fictitious scenario of an unidentified outbreak was portrayed by the ISU and Kloubec Koi Farm staff. The participants learned proper procedures to conduct and lead a FAD investigation when a fin fish pathogen is suspected. The mock investigation provided hands-on training for accurate collection and handling of fin fish diagnostic specimens for laboratory submission, learning skills for conducting a farm visit and the accepted method for interviewing a fin fish producer or farmer. Myron Kloubec said, “This was an excellent opportunity to understand their protocols, and most importantly, for the vets to understand the side of the producer, hopefully opening a new dialog between USDA and APHIS by keeping the lines of communication open for the entire industry.”

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**New GreenClean Beneficial Bacteria Tablets**

GreenClean Beneficial Bacteria Tablets promote water quality and are ideal for weekly maintenance. These tablets are a great value — one container treats up to 32,000 gallons. The easy-dose tablets come in 1-pound containers and are ideal for weekly maintenance.

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**Ecological Labs Launches New Website**

Ecological Laboratories Inc. is proud to announce that we have launched a new, user-friendly website at www.microbelift.com. We want your experience to be simple and the information easy to locate. You will find information on ponds, aquariums and agriculture, and our catalogs are right there. No more scrolling through page after page of pictures. Dealers have images ready to use. In addition, we are cleaning up the store locator files to make this search engine more valuable to shoppers. Do you love it as much as we love our users? Check it out at www.microbelift.com.
On Aug. 4, 2017, 100 years after the company’s founding, family patriarch Charles B. Thomas officially passed on ownership of Lilypons Water Gardens,” Koogle said. Lilypons Water Gardens was started in June 1917 by G. Leicester Koogle, and his spouse, Timothy Koogle. Mrs. Koogle has been managing the business on her father’s behalf since 1997 and is determined to ensure the family business thrives for another century. “I am humbled and honored to be the fourth-generation owner of Lilypons Water Gardens,” Koogle said.

Over time, the company took a more botanical path, shifting its focus to water gardening and cultivating waterlilies. In 1978 company president Charles B. Thomas officially changed the name to Lilypons Water Gardens. Now celebrating its 100th year of existence, the company continues to provide beautiful plants and quality pond supplies to customers across the country. In time, Mrs. Koogle and her dedicated staff looking forward to building on the company’s reputation of excellence and leadership in the industry.
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Turtles and tortoises are the planet’s most endangered vertebrates, and the Turtle Survival Center is the last hope for some of the rarest species. Our goal is zero extinctions, so we try to simulate their natural habitat. To do so, we need water pumps that can handle the murkiness of the job. The Little Giant® F-Series pumps meet all my needs. They are energy efficient, ideal in almost any application, easy to clean, and environmentally safe.

Nathan Haislip
Facilities Manager and Lead Keeper
Turtle Survival Center