

# BlueLine

Kingsbridge M.U.D. Newsletter

SMMR | 2012

## LESSONS OF WATER CONSUMPTION

MAKING THE MOST  
OF **SWIMMING**  
POOLS AND SPAS

**PLUS**  
FIVE CONCRETE  
STEPS TO CONSERVE  
A LIQUID COMMODITY

SUPPORT YOUR  
LOCAL FOUNDATION

STAY IN THE ZONE  
*USDA plant zone, that is...*

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# MAKE THE MOST OF SWIMMING POOLS AND SPAS

ADVICE FROM KINGSBRIDGE MUD'S OWN ASSISTANT SECRETARY BOB TOMLINSON



**K**ingsbridge MUD board member and assistant secretary Bob Tomlinson is a bona fide expert when it comes to swimming pools, spas, and the purchase and maintenance of both. He gained his hard-earned expertise through a half-century of on-the-job experience.

"I started out as a 'grunt,' plastering swimming pools for Austin Pool Plastering Company, Inc.," Tomlinson recalls. "I paid my way through college working for the company and eventually ended up buying it. I ran it for a good many years until I finally decided to retire," he says.

It was a short-lived reprieve, and by choice. "I soon realized," Tomlinson says, "that retirement isn't for me."

From current water-use perspectives, both economic and ecological, Tomlinson's consulting advice is more valuable than ever.

He agreed to share the following with Kingsbridge MUD Blueline readers:

## **Maintenance Matters**

After its initial fill, a swimming pool essentially becomes a reservoir. There are several things you can do to conserve the water in your pool and/or spa, all of which boil down to (no pun intended) effective preventive maintenance.

## **Don't Pull the Covers**

Whenever it's not in use, keep your hot tub covered. You have to take careful measures to keep the water inside a heated spa sanitary, particularly during the summertime. If your pool has a heater, the scenario is basically the same.

Thermal covers allow spa water to get very warm very quickly. As such they set the perfect stage for aggressive algae growth.

As for swimming pools, depending upon the size of the pool and the water temperature, evaporation will claim anywhere between one-eighth to one-half-inch of water per day. A large pool can lose as much as a thousand gallons of water a day.

## **Algae Control is Critical**

The only scenario worse than evaporation occurs when a pool is neglected so long as to allow major algae growth. Many people think at that point that the only option is to drain the pool.

Wrong. An algae-ridden pool can be treated, and treated effectively and safely, through the proper use of modern chemicals.

Considering the fact that swimming pools commonly hold anywhere from 18,000 to 40,000 gallons of water, it doesn't require great math

skills to readily acknowledge the benefits of treatment versus refilling.

The same goes for stains and spots that develop on plaster surfaces over time. Variable pH levels can cause problems. So can the slow but continuous deterioration of copper heads on some of the older pool heaters.

When its water is shocked with chlorine, metal deposits on the walls of a pool will quickly become apparent. Copper stains change color over time, from blue to green to dark green, and ultimately, black.

Again, there are a number of products on the market that will attack the stains, remove them from the plaster surface and gradually filter them out.

The pH level of a pool should optimally be maintained between 7.2 and 7.7. At pH levels above 7.8

or so, along with staining, scaling becomes problematic.

Scaling makes for rough and uncomfortable surfaces that rapidly require special stop-gap maintenance. In severe instances, conditions can deteriorate to the point that it is indeed necessary to drain the pool and have it completely re-plastered.

That's a worst-case scenario, one that fortunately, can easily enough be avoided.

### Choose Filter Systems Wisely

A quality filter system, either traditional chlorine or one of the newer salt systems, is the key-stone component of proper pool and/or spa maintenance.

Because the water in a hot tub becomes turbid at times, some people immediately resort to

completely draining the spa. With a quality filtration system, this is very rarely necessary.

A spa may have to be drained once or twice a year, if that. As for swimming pools, I had one for 22 years. I never once drained it.

Regardless of its design, whether it's a basic sand filter system, a replaceable-cartridge version or one of the more high-end DE clay filters, it's essential that a pool filter be regularly cleaned.

When you "backwash" a pool you probably end up pumping 250 to 300 gallons of water out into the storm sewer while getting rid of all the dirt and crud inside your filter. After backwashing, DE filters must be refilled, recharging the element. And once a year, like all filters, they must be broken down, cleaned and reassembled.

## STAY IN THE ZONE *USDA Plant Zone, That Is...*

Looking forward to buying those special plants, shrubs and flowers to perfectly accent your landscape? The trick is to stay in the zone.

The United States Department of Agriculture (USDA) has an online "USDA Plant Hardiness Zone Map" that establishes zone designations throughout the entire country.

The map is based on the average annual minimum winter temperature, divided into 10-degree Fahrenheit zones. Once a resident establishes his or her zone (the site is search-

able by zip codes), the next time he or she goes to the local nursery to buy plants, knowing the zone number will help ensure that all selected plant species are suitable for the climate and conditions in which the resident resides.

Find the USDA Plant Hardiness Zone Map at: <http://planthardiness.ars.usda.gov/PHZMWeb/>.

If you live in Fort Bend County we can save you some time by telling you that we're squarely ensconced in Plant Zone 9a.



Today's cartridge filters are much better made than those produced 20 to 30 years ago. They're less expensive and they don't present the labor-intensive issues that DE filters do after a backwash.

Plus, they're easy to maintain. It's as simple as taking out the cartridge, pulling it apart, spraying it with a water hose until it's clean and putting it back together.

So, which one to choose? Preferences invariably come down to a combination of how much time and money an owner is able and willing to invest in his or her swimming pool.

Sand filters will filter particulates down to roughly 15 microns. Cartridge filters cut that number down to about 7, and DE filters further narrow the margin to only 3 microns or so.

Accordingly, a DE filter is far and away the best. But it also requires the most maintenance. Cleaning a DE filter is a time-consuming task, which is why when cleaning time

arrives most owners of DE-filtered pools hire professionals to do the job. We used to tell our customers that if they were spending more than 15 minutes a week treating their pools they were spending too much time. That's all it should take to check your chemicals, pump and filter, scrub your tile and be through with it.

### A Priceless Payback

So is it worth all the effort and expense?

It all depends upon the individual.

It's safe to say, though, that anyone who has survived only a few Texas summers knows from experience how a clear, well-maintained swimming pool can miraculously morph a sweltering nightmare of a triple-digit day into the stuff of envious northerners' dreams.

(Homeowners and pool-building companies in need of Bob Tomlinson's uniquely valuable consulting advice can contact him via email at [rbtswim@gmail.com](mailto:rbtswim@gmail.com).)



## SUPPORT YOUR LOCAL FOUNDATION

**H**ome foundation settlement is an extensive and very expensive problem in our area, especially during drought episodes like the one we experienced throughout much of last year.

The composition of our soil makes extended periods of zero rainfall particularly problematic. We live in a geographic area of Texas properly known as "The Coastal Prairie." Eons

ago it was the outermost shallow fringes of the Gulf of Mexico, inundated with saltwater. Today it's a largely featureless expanse of clay-rich blackland soil that in the colorful vernacular of longtime Texans is generally referred to as "gumbo." It's an apt description.

Blackland gumbo reacts to water, or the lack of it, in dramatic fashion. Afforded abundant rainfall it

provides a superb foundation for the containment of surface water ... everything from shallow, half-acre farm ponds to sprawling reservoirs that blanket tens of thousands of acres. The naturally thick and adhesive clay component of gumbo soil is a highly effective "sealant" of sorts.

On the other hand, deprived of water, blackland prairie ground



*Here, fractured, unstable ground presents a serious and perennial threat to the concrete slabs supporting the vast majority of our homes.*

essentially shrinks up and cracks. Boot-gripping mud quickly becomes almost rock-hard, a fractured and even more-densely-packed wasteland of random fissures and open cracks.

Bone-dry gumbo landscape brings to mind a broken windshield. Like the errant gravel truck rock that on occasion hits our vehicles, a sudden and severe shortage of water creates substantial damage of its own. There's a good reason why so many foundation repair businesses exist and thrive throughout all of Southeast Texas. Here, fractured, unstable ground presents a serious and perennial threat to the concrete slabs supporting the vast majority of our homes.

Re-leveling and securing the foundation of the typical Kingsbridge MUD-area home usually costs a minimum of \$10,000, according to veteran contractor Bob Tomlinson. Depending upon the severity of

the problem the price tag can run much higher.

Foundation damage cannot be ignored. It can, however, often be avoided using these next tips.

Tomlinson runs his sprinkler system twice a week for 20-minute periods in each of six "target zones" around his home's foundation.

"It's a basic preventive practice that I've religiously employed for well over a decade," he says, "and I've yet to have a foundation-related problem."

Don't have the luxury of an automated system?

The solution is available at your nearest hardware store.

"If you don't own a soaker hose," Tomlinson advises, "buy one. Position it adjacent to your slab and let it drip for about half an hour. Move

it," he says, "and repeat the process until the entire parameter of your foundation has been treated."

To minimize water evaporation this focused procedure is best done during the pre-dawn hours.

Yes, it's work. It takes time, and it requires scheduled, ongoing commitment at a time when most would much rather be sleeping.

If after consideration that seems altogether too much, call your local foundation-repair businesses. Ask around to find out what it typically costs to re-level and repair the foundation of a home the size of yours.

The quote you receive, regardless of the heat, will be a whole lot higher than the outside temperature.



# LESSONS OF WATER CONSUMPTION

LAST YEAR'S DROUGHT BURNED A CRITICAL FACT INTO OUR COLLECTIVE CONSCIOUSNESS. WATER, ANYWHERE YOU FIND IT, IS FAR TOO PRECIOUS TO WASTE.

*"In the beginning  
you really loved me,  
But I was blind and I  
could not see.  
But when you left  
me, Oh, how I cried.  
You don't miss your  
water till your well  
runs dry."*

Lyrics From  
*"You Don't Miss Your Water"*

©Stax Records, 1961

**W**hen American soul singer William Bill recorded that song and it made its debut as a hit single, no one would have suspected that 50 years later its lyrics might be interpreted literally.

All the same, for the vast majority of Texans it was the de facto state anthem of 2011.

Farmers and ranchers struggled heroically to protect millions of acres of emaciated pasture land. Fading reservoirs slowly unveiled the skeletal remains of abandoned towns and even the occasional stolen car as wildlife of every imaginable species died by the day. Inevitably, the wildfires began.

A seemingly-unstoppable inferno that's since been dubbed "The Bastrop County Complex Fire" sprang to life on Sunday, September 4. By the end of the month it had consumed 1,645 homes, burned over 34,000 acres and killed two people. It now ranks, right alongside the drought that spawned it, as the worst disaster of its kind in the state's history.

Last year's unprecedented drought, and the record \$7.62 billion in damages it extracted from agricultural interests alone, was a blazing virtual shot over the sun-scorched bow of the Lone Star State.

In 2011, just over 47 percent of all U.S. land claimed by wildfires burned inside of Texas' borders. Altogether, close to 3,000 mostly-rural families lost their homes.

The worst most Houston-area suburbanites suffered was unusually low water pressure and tightened restrictions on lawn and garden watering.

## Human Nature versus Mother Nature

After a couple of weeks of blessedly wet weather mercifully loosened the drought's relentless stranglehold late last fall, most of us quickly and conveniently relegated it to history.

Forgetting something like the driest year on record is just human nature ... especially if it's behind us, or never seriously affected us to begin with.

Kingsbridge MUD board member Bob Tomlinson likens this all-too-common tendency to texting while driving. "We all know it's a problem," Tomlinson says. "But until one of our loved ones is injured or even killed because of it, we don't think of it as our problem."

Tomlinson, the newest member of the Kingsbridge MUD board of directors and the district's assistant secretary, has a half-century of experience in the construction industry ... specifically, the building and maintenance of swimming pools. Now retired, he admits to "a bit of a learning curve, because the treatment of surface water for drinking as opposed to usage in swimming pools is considerably different. What I do know, for one thing," he emphasizes, "is that the water we drink is safe."

The other?

It's also a finite resource. Despite last year's brutal reminder and decades of evidence to the contrary, a frustrating percentage of the population either does not know or refuses to accept the fact that our water supply is not inexhaustible.

Like any other precious commodity, water is valued according to supply and demand. There are no guarantees, however, that in the future the former will be able to maintain pace with the latter.

### "A Learning Experience"

Fact: Human beings cannot exist without water. For that matter, there's not a single living organism on the planet that can survive in the absolute absence of H<sub>2</sub>O.

One would think that this simple, sobering statement would be enough in itself for every single one of us to fully understand and appreciate the outright necessity of ensuring our water supply. It isn't. Not yet, anyway.

Says Tomlinson, "Anyone who believed that we cannot run out of water should have learned better by the time last year's severe drought finally broke. We all watched as all the lakes and ponds in Southeast Texas dried up, some to the point of becoming completely dry.

"Fortunately," he notes, "the City of Houston took great lengths to make sure that the available water supply was properly used and that as a result there would be ample water for everybody. We relied on water provided by Lake Houston and local watersheds as well as groundwater."

"It was definitely a learning experience."

"What we took away from it perhaps more than anything," Tomlinson adds, "was the inherent need to educate water consumers and hopefully ensure that all of us are better prepared when the next such incident occurs."

### Serious Problem, Simple Solutions

Although there will always be a need for conscientious water consumption, the solution to our current problem rests first and foremost with not the quantity of water we use but rather the amount that we waste.

"I recently read a report issued by the North Fort Bend County Water Authority," Tomlinson says. "According to Water Authority experts, 43 percent of all water utilized by Fort Bend County residents is wasted." Why?

"It's all basic stuff," Tomlinson explains, "but it's often the kind of things that we 'intend to get around to' or in some instances simply don't recognize. One good example? We water our sidewalks. We don't make sure that our sprinkler heads are on. "Just recently," he recalls, "I discovered that one of my own sprinkler heads was broken. All I was doing was running water into the storm drain, which is an egregious waste of the resource. I immediately had it repaired."

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*Bob Tomlinson, the newest member of the Kingsbridge MUD board of directors and assistant secretary of the District, served as a primary source of information for much of this water-conservation-focused issue of Blueline. A special word of thanks to Bob for his time, assistance and considerable expertise.*



Tomlinson stresses that in order to make certain that nothing has been knocked off-point, homeowners should periodically check their sprinkler system heads to assure that they're aimed in the right direction. "If they are oscillating heads, again, make sure they're not watering the street and sidewalks," he cautions. "The same basic rules apply to manually-operated sprinklers as well."

### Timing is Everything

"Some people water their lawns and plants in the middle of the afternoon," Tomlinson points out. "They don't realize that half of that water never goes into the ground. It evaporates."

"And of course," he adds, "the higher the temperature and hotter the day the more the evaporation factor comes into play. When the humidity is low (admittedly, a relatively rare occurrence inside of the typical Southeast Texas summer), the process is only magnified."

"Water sparingly," Tomlinson advises, "very early in the morning, for only 15 minutes or so. Shut it off. Then, a couple hours later, water again. Usually, you needn't water more than twice a week. You'll find that your bushes, plants, lawn grass and even your trees will get all the water they need. Conscientious timing alone will significantly reduce your water usage ... and, proportionately, your monthly water bill."

Many Fort Bend County homeowners do not own automated irrigation systems complete with oscillating heads and sophisticated timers. That doesn't mean, however, that they cannot take their own effective steps to waste less water and save the resource as well as a substantial amount of money over time.

Mostly, those steps call for an adjustment or two in the daily routine.

"As a matter of habit," Tomlinson says, "when people return home from work they turn on their sprinklers. The bottom line is they're watering at the wrong time of day."

"Here in Kingsbridge," he continues, "we see a dramatic reduction in water pressure at the same basic time when most people are returning to their homes from work. At the same time residents begin to water their yards they're also doing everything from cooking their evening meals to bathing and showering."

When this "perfect storm" of community demand occurs, Tomlinson notes, residents throughout the area wonder why the water pressure is so abnormally low.

"Many homeowners automatically assume that we're having

a problem at the water plant," Tomlinson points out. "That is not necessarily so, and in fact highly unlikely. It's a matter of dramatically increased demand. With so many people simultaneously watering their yards, it places a serious drain on the system."

### A Moral Obligation

"Water conservation, ethically and practically, is a problem relevant to and hopefully resolved by all of us," says Tomlinson. "The roughly 4,000 homes inside of Kingsbridge MUD annually go through millions of gallons of water.

"I have 10 grandchildren and one great grandchild," he concludes, "and I don't want them to have to worry about water and other resources. It's my job as a parent, a grandparent, a great-grandparent and a responsible member of a wonderful community to help make sure that we have these resources for our future."

There are a lot of things as responsible individuals and families we cannot change. Fortunately, water conservation, the carefully monitored nurturing of our most precious natural resource, is not one of them.

## 5 CONCRETE STEPS TO CONSERVE A LIQUID COMMODITY

*Things we all can and should do to conserve our water and reduce our water bills:*

### 1 Get the unseen value of cedar mulch

Virtually everyone has a flower bed, hedge line, brick-bordered tree base or other type and display of vegetation that requires care and attention. Every species shares a common dilemma at this time of year.

Scant soil moisture.

Nighttime or pre-dawn watering is essential. Yet even more water can

be conserved, however, with a generous surface application of mulch. Cedar, for three specific reasons, is arguably the best.

One: It's a natural form of insulation that minimizes water loss due to evaporation. So do other varieties of mulch.

Two: It adds "trickle-down" nutrients to the soil. Again, so do other types of mulch.

Three, and this one's distinctive: Cedar mulch is Mother Nature's own

insect repellent. There's a reason, after all, that your grandmother always kept her wedding dress in a fragrant cedar chest.

### 2 Check the Faucets Inside and Out

A slowly-dripping kitchen faucet is an audible annoyance. Over time, it can also be surprisingly wasteful and expensive.

The minimal amount of money and time it takes to replace worn-out gaskets and washers is a no-brainer

in the cost/benefit department. Unfortunately, our outside faucets, the ones that we link with our water hoses and sprinklers, being outside, are much more likely to be ignored. A constantly-dripping faucet is a textbook everyday example of the old adage "Out of sight, out of mind."

To avoid an out-of-sight water bill at the end of the month, regularly inspect not only the shut-off valve but also any connections to hoses or other distributors of water. Make it a point to turn water off at the source (the faucet) instead of trusting hose attachments not to leak while under constant pressure.

In the sink or on the lawn, a steady drip can account for as much as 1,500 gallons of water in a single month.

### 3 Make even water-efficient toilets more efficient

Says Kingsbridge MUD board member Bob Tomlinson, "A leaky toilet, running nonstop, wastes an appalling amount of water in short order.

"Just think how much water is going down the sewer, water that could be saved with nothing more than an \$8.00 part. I have modern, water-efficient 3-gallon tanks on the toilets in my home," Tomlinson says. "To make them even more water-stingy, I placed a couple of 'toilet bricks' in each of them. They displace unneeded water. I get much lower water usage with every flush and with no noticeable reduction in the toilets' efficiency."

### 4 Take water-conscious care of thirsty trees

"The number-one way we waste water is by ineffectively watering our yards," Tomlinson emphasizes. "It's important that we water our trees at least a couple times a year."

For those occasions," he advises, "it's most efficient to use a ground injector. Punch it into the ground and water your trees for an hour each.

"Most of the time," he notes, "our trees get plenty of water. But during last year's drought I noticed tree roots inside my own yard that had broken through the surface of the soil. Trees are just like any other life form. They need water to survive, and will do whatever they can to get it. Ground injectors take the water to the trees' tap roots as directly and efficiently as possible."

### 5 Lay carpet of the outside variety

By and large, St. Augustine grass is the signature species of Southeast Texas lawns.

It's resilient. It's simple to plant, either as individual "runners" or as pre-cut squares of sod. And with its thread-thin, shallow-spread root system, St. Augustine grass maximizes and uses virtually every drop of water it receives."





# 2012 Drinking Water Quality Report

## Consumer Confidence Report

### Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

### Water Sources

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and in some cases, radioactive material, and can pick up contaminants resulting from the presence of animals or from human activity.

### Contaminants that may be present in source water include:

- Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment facilities, septic systems, agricultural livestock operations, and wildlife;
- Inorganic Contaminants, such as salts and metals which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming;
- Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;
- Organic Chemical Contaminants, including synthetic and volatile organic chemicals which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and
- Radioactive Contaminants, which can be naturally-occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency prescribes regulations which limit the amount of certain contaminants in water provided by public water

systems. Federal Food and Drug Administration Agency regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### En Español

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en Español, favor de llame al telefono (832) 490-1635.

### Public Participation Opportunities

The Board of Directors of the District meets at 6:30 PM on the second Thursday of each month at 9114 Woodleigh, Houston, Texas. You may mail comments to:

Kingsbridge Municipal Utility District  
Attn.: Board of Directors  
6420 Reading Road  
Rosenberg, Texas 77471  
Or Call: (832) 490-1635

### Where Do We Get Our Water?

Our Drinking water is obtained from both groundwater and surface water sources. Our groundwater comes from the Evangeline aquifer and our surface water comes from the North Fort Bend Water Authority. The Texas Commission on Environmental Quality completed an assessment of your source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detection of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts for our system, contact Mike Thornhill of our Regulatory Compliance department at (832) 490-1507.

### Special Notice for the Elderly, Infants, Cancer Patients, People with HIV/AIDS or Other Immune Problems

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or Immuno-compromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline: (800-426-4791).

## All Drinking Water May Contain Contaminants

When Drinking water meets federal standards, there may not be any health based benefits to purchasing bottled water or point of use devices. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

## Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, or odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concerns. Therefore, secondaries are not required to be reported in this document, but they may greatly affect the appearance and taste of your water.

## About the Tables

That attached table contains all of the chemical contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants. All contaminants detected in your water are below state and federally allowed levels. The State of Texas allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

## Drinking Water Definitions and Units Descriptions

**NA:** Not Applicable

**ND:** Not Detected

**NR:** Not Reported

**pCi/L:** picocuries per liter (a measure of radioactivity)

**ppm:** parts per million, or milligrams per liter (mg/L)

**ppb:** parts per billion, or micrograms per liter (ug/L)

**MNR:** Monitoring not required, but recommended

**MCL:** Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG:** Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

**MRDL:** Maximum Residual Disinfection Level: The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG:** Maximum Residual Disinfectant Level Goal: The level of drinking water disinfectant below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**AL:** Action Level: The concentration level of a contaminant which, if exceeded, requires a water system to treat water or follow other requirements.

### Regulated Inorganic Contaminants

YEAR	Contaminant (Unit of Measurement)	Kingsbridge MUD	NFBWA	Range of Detected Levels	Violation	MCL	MCLG	Source of Contaminant
2011	Arsenic (ppb)	<2.0	<2.0	NA	No	10	0	Erosion of natural deposits
2011	Barium (ppm)	0.0816	0.065	0.065 - 0.0816	No	2	2	Erosion of natural deposits
2011	Fluoride (ppm)	0.59	0.61	0.59 - 0.61	No	4	4	Erosion of natural deposits
2011	Nitrate (ppm)	0.23	0.23	NA	No	10	10	Erosion of natural deposits
2011	Alpha emitters (pCi/L)	<2.0	<2.0	NA	No	15	0	Erosion of natural and manmade deposits
2011	Combined Radium (pCi/L)	<1.0	<1.0	NA	No	5	0	Erosion of natural deposits

### Lead and Copper

YEAR	Contaminant (Unit of Measurement)	90th Percentile	Number of sampling sites exceeding Action Level	Violation	Action Level	MCLG	Source of Contaminant
2011	Lead (ppb)	<1.0	0	No	15	0	Corrosion of household plumbing
2011	Copper (ppm)	0.0037	0	No	1.3	1.3	Corrosion of household plumbing

### Disinfection Residuals

YEAR	Contaminant (Unit of Measurement)	Highest Average Level Detected	Range of Detected Levels	Violation	MRDL	MRDLG	Source of Contaminant
2011	Chloramines (ppm)	1.88	0.79 - 3.87	No	4	4	Disinfectant used to control microbes

### Disinfection By-Products

YEAR	Contaminant (Unit of Measurement)	Highest Level Detected	Range of Detected Levels	Violation	MCL	MCLG	Source of Contaminant
2010	Total Trihalomethanes (TTHM) (ppb)	ND	NA	No	80	0	By-product of drinking water disinfection
2010	Total Haloacetic Acids (HAA5) (ppb)	ND	NA	No	60	0	By-product of drinking water disinfection

### Unregulated Contaminants\*

YEAR	Contaminant (Unit of Measurement)	Kingsbridge MUD	NFBWA	Range of Detected Levels	Source of Contaminant
2011	Bromoform (ppb)	NA	1.9	NA	By-product of drinking water disinfection
2011	Bromodichloro-methane (ppb)	NA	8.7	7.9 - 8.7	By-product of drinking water disinfection
2011	Chloroform	NA	8.0	7.5 - 8.0	By-product of drinking water disinfection
2011	Dibromochloro-methane (ppb)	NA	6.3	3.1 - 6.3	By-product of drinking water disinfection

### Organic Contaminants

YEAR	Contaminant (Unit of Measurement)	Kingsbridge MUD	NFBWA	Range of Detected Levels	Source of Contaminant
2011	Atrazine	NA	0.2	NA	Herbicide runoff
2011	Simazine	NA	0.12	0.11 - 0.12	Herbicide runoff

### Regulated Microbiological Contaminants

YEAR	Contaminant (Unit of Measurement)	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Source of Contaminant
2011	Turbidity (NTU)	0.28	100	0.03	Soil Runoff





We at Kingsbridge want to ensure our residents are happy and well informed regarding any district related happenings. Don't forget, the board of directors are usually residents here too. Naturally, as elected officials, we strive to keep the district safe and operational while keeping the district finances in order and as reasonable as possible. If you have any general questions you may contact the communications consultant at [admin@kingsbridgemud.com](mailto:admin@kingsbridgemud.com) or by visiting our web site at [www.kingsbridgemud.com](http://www.kingsbridgemud.com). Below we've also listed relevant district contact info for district related personnel.

## DISTRICT CONTACTS

### BOARD OF DIRECTORS:

President  
Robert Shindler

Vice President  
Mark Hollis

Secretary  
John Buhner

Asst. Secretary  
Bob Tomlinson

Treasurer  
Carl Peters

### CONSULTANTS:

Operator  
Si Environmental  
[www.sienv.com](http://www.sienv.com)      832-490-1600

Engineer  
Miller & Associates      281-497-8700

Bookkeeper  
McLennan & Assoc.      281-920-4000

Attorney  
Johnson Radcliffe Petrov & Bobbit  
[publiclaw.com](http://publiclaw.com)      713-237-1221

Tax Assessor  
Bob Leared Interests      713-932-9011

Communications  
Blue Umbrella  
[blueumbrellaco.com](http://blueumbrellaco.com)      281-766-4276

### OTHER CONTACTS:

Trash Pickup  
Republic Waste      713-996-2007

Water Leaks  
Si Environmental      832-490-1500

Gas Leaks -  
Centerpoint Energy      800-752-8036

Sheriff's Dept. -  
Fort Bend      281-342-6116

### IMPORTANT DATES:

Board of Director Meetings -  
Second Thursday of each month at:  
9114 Woodleigh, Houston, TX 77083

Heavy Trash Pickup -  
Last Wednesday of each month.

[Kingsbridgemud.com](http://Kingsbridgemud.com) for more info

