2021 YANKEE CONFERENCE

What's Hiding In Your Water & What To Do About It

Presented by Paul Hurlbut

We are all concerned with what's going on in our environment. Everything from droughts, floods, hurricanes, snow and ice storms to global warming. Then we add all the great man made contaminants that make their way in to our water supplies.

All these things can effect our water sources, whether its ground water or surface supplies.

So now it's all of our responsibility to help the public decipher if they're being harmed and how to solve their problem.

2021 WQA CONSUMER OPINION STUDY

PUBLIC VERSION

2021 WQA CONSUMER OPINION STUDY

Summary Report: March 2021

Prepared by: Applied Research-west, Inc.

Water Quality Association

SURVEY METHODOLOGY

The report presents the findings of a national online survey conducted by Applied Research-West, Inc. between January 5 and January 30, 2021. A total of 1,413 adults over the age of 18 and living in private households were interviewed. ARW used a random sampling procedure, and the survey results are accurate within +/-2.6 percent. The results are representative of all U.S. adults over 18.

A report is available to the public and can be downloaded at wqa.org, while a more in-depth report and analysis is provided to WQA members.

Water Quality Association

VERACITY OF THE SAMPLE

- Sample was large enough to have a very small standard error
- Sample was representative
- Sample was randomly drawn
- Sample was matched with the U.S. Census in terms of demographics and state distribution

EMERGING FROM THE PANDEMIC

Emerging from the coronavirus pandemic, Americans are more positive about their household drinking water quality, less likely to depend on government oversight and increasingly ready to spend money on home water treatment, according to the 2021 WQA Consumer Opinion Study.

QUALITY CONCERNS STILL HIGH, BUT DECREASING

Thirty-eight percent of those surveyed in 2021 indicate that they are concerned or very concerned about the quality of their household water supply, a significant decrease from 51% in WQA's 2019 Consumer Opinion Study. In 2021, more than half (57%) think the water supply is safe, while only 15% think it unsafe, the survey demonstrated.

Water Quality Association

HOMEOWNERS FEEL INCREASING RESPONSIBILITY FOR THEIR WATER

Less than a third (31%) of the respondents think federal laws on drinking water are not tough enough, a dramatic decrease from the 49% holding that opinion in 2019. Although half say their municipality is responsible for monitoring and providing safe water, that's down from 63% in 2019 and 75% in 2017. Half the American households report they rely on home treatment systems (32%) or bottled water (18%) for quality drinking water in their homes.

As we ease out of the pandemic, concerns about contaminants and desire for a healthy lifestyle are considered the most important factors influencing the decision to purchase a water filtration product. About a quarter of those who do not have water filtration in their homes said they are likely to install products in the near future, with 10% saying the possibility was very likely. Almost half of the households (46%) have a refrigerator with a filtered drinking water dispenser, and 22% have a whole-house filter system.

BOTTLED WATER USAGE SLIPS

Although still significant, bottled water usage has trended down in the last two years. Seven out of every 10 Americans (70%) regularly consume bottled water, which is down from 78% in 2019. More than half (52%) of the respondents think bottled water is better than tap water (down from 60% in 2019), with nearly a third saying it is "purer" than tap water or a more convenient way to drink it.

At the same time, consumers increasingly believe that bottled water is not much different from tap water (38%) and some feel it might even be worse because of plastic bottling (10%). Environmental concerns have encouraged consumers to switch to reusable water containers (18%), and the 19% who say they bought a filtration system so they wouldn't feel the need to buy bottled water is twice as high as it was in 2019.

2021 WQA Consumer Opinion Study

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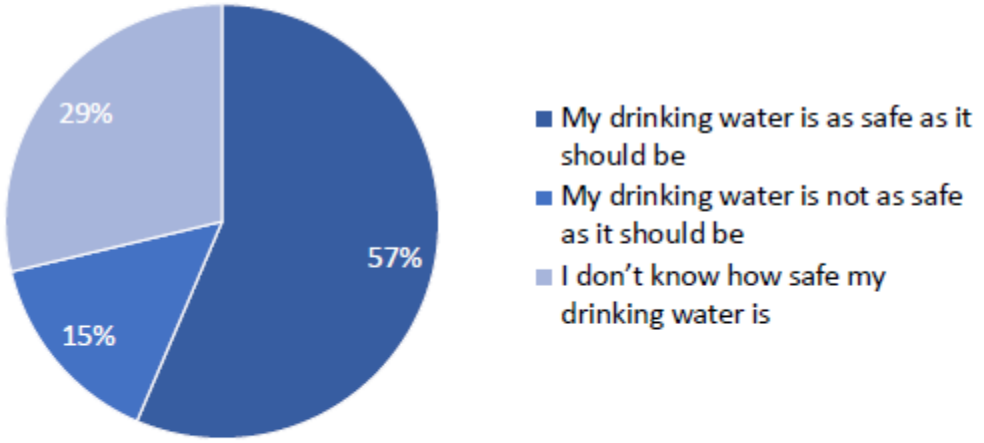
WATER SOFTENER USAGE INCREASES

This year's survey saw a major increase in water softener ownership with one in four households having a system installed, up from 19% in 2019 and only 13% in 2017. Nearly three-quarters (72%) of those buying a water softener said they did it within one year of buying or leasing a home.

PERCEIVED SAFETY OF DRINKING WATER

Which of the following best describes your drinking water?



2021 WQA Consumer Opinion Study

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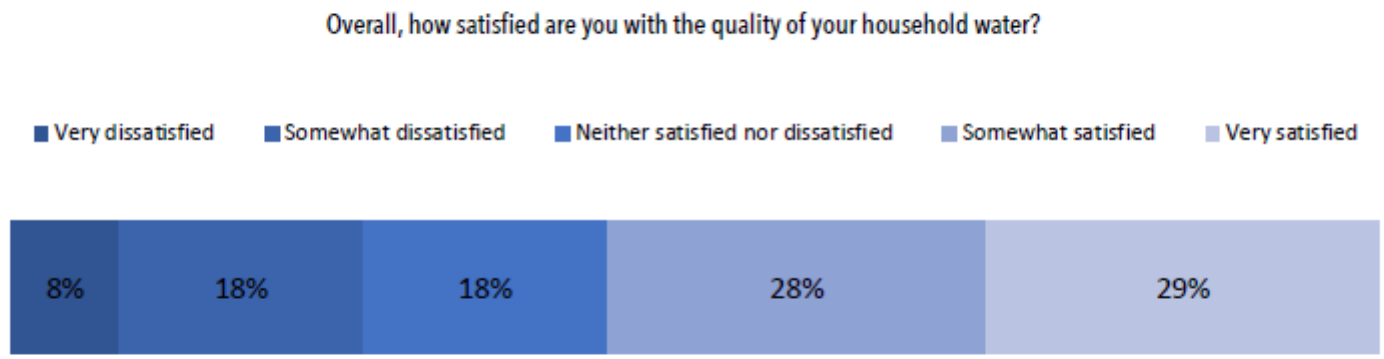
SATISFACTION WITH QUALITY OF HOUSEHOLD WATER



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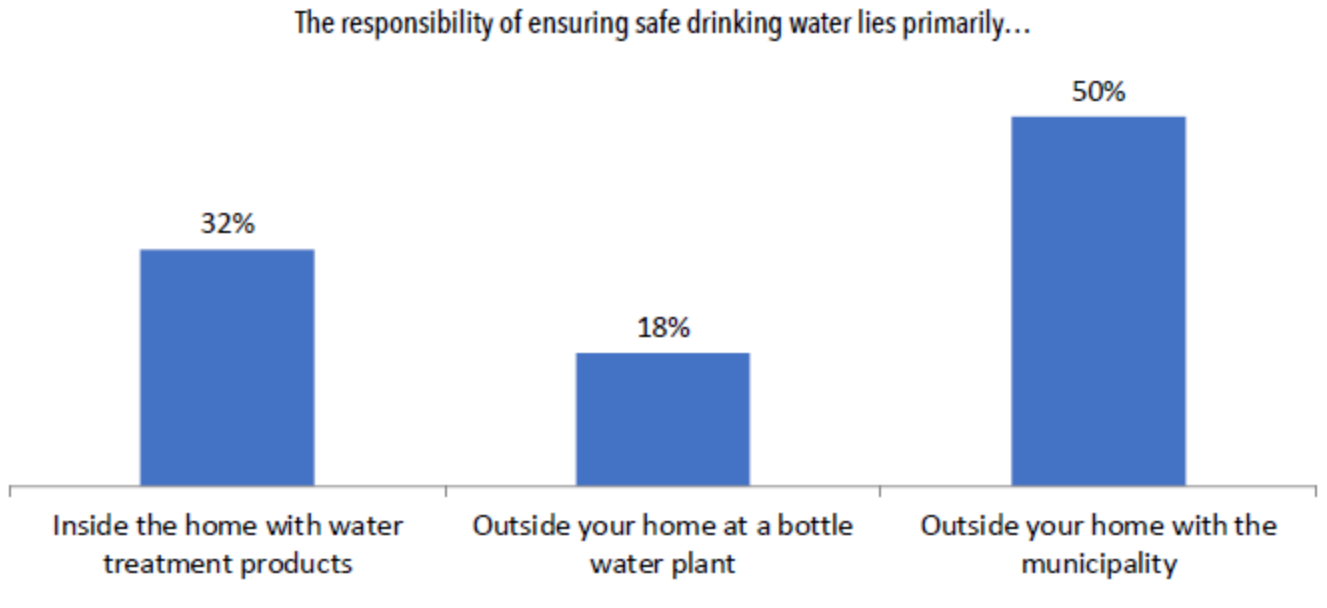
RESPONSIBILITY FOR SAFE DRINKING WATER



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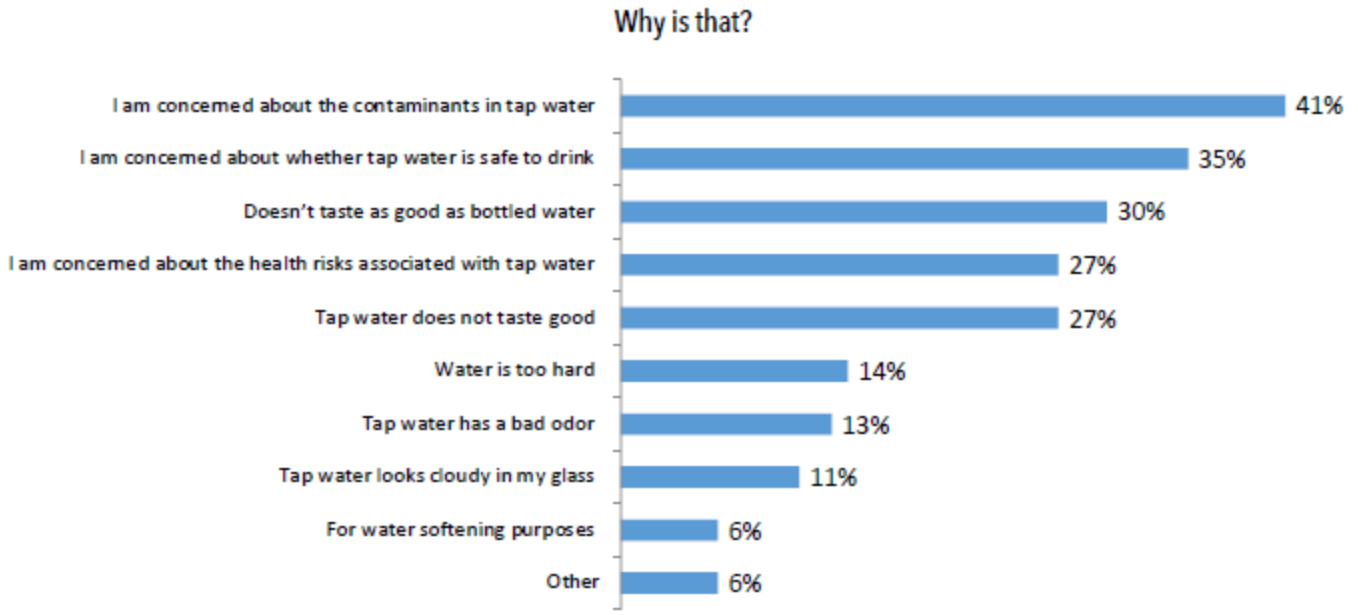
REASONS FOR CONCERN ABOUT HOUSEHOLD WATER QUALITY (AMONG THOSE DISSATISFIED)



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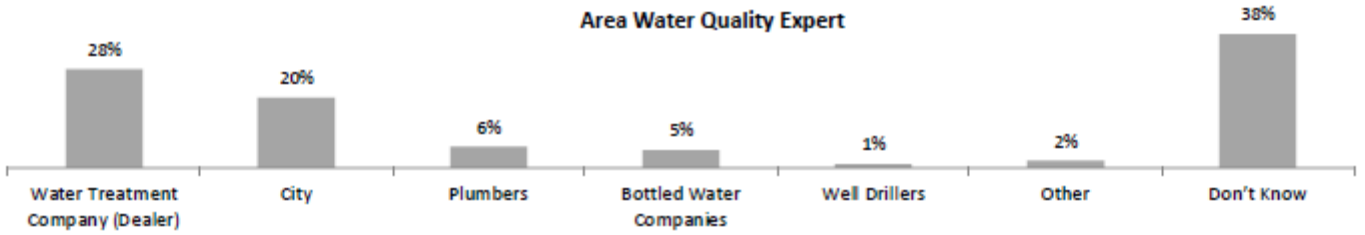
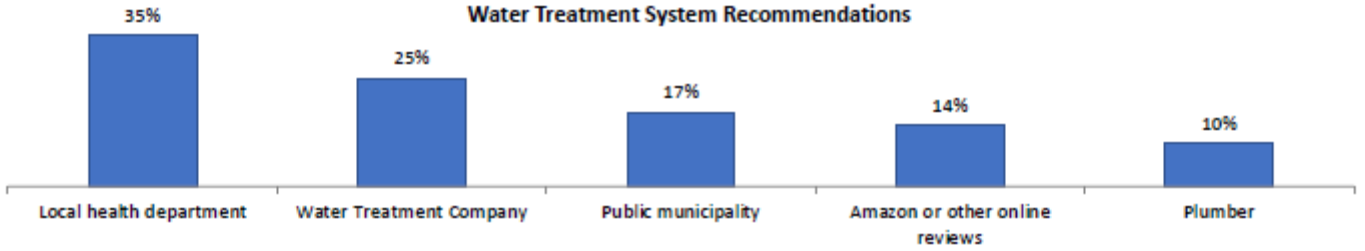
EXPERTISE REGARDING SAFE DRINKING WATER

Who is considered the water quality expert in your area?



Who would you, personally, go to for water treatment system recommendations?



2021 WQA Consumer Opinion Study

This survey shows you how important your role is in guiding the public to solutions when it comes to water problems.

This does not mean you need to be an expert in how to treat the water, but a conduit to help find someone who is.

We are the experts! We solve water problems on a daily basis. Any good company stands behind their products with follow up water samples and the needed service. "We" all are the solution to making sure the public has safe quality water for all their uses.

Unfortunately, I have heard some of your officials downplay the role of in-home treatment options.

I understand that once a system is installed, we can no longer guarantee a system's performance when its not maintained.

That is true, but we have technology to alert and even shut off a system once it reaches its end of life design.

There has to be some responsibility on the homeowner. Most people after they spend money on a system, will spend money to maintain it.

Now we need to look at options in solving many of the problems we deal with on a daily basis. We would always want to get back to the source of the problem and try to resolve it there, but that's not always the simplest and most cost effective.

Just look at Flint MI and many other States dealing with old lead water mains. The cost to replace the water mains is in the billions. Should they be replaced? Absolutely! But what do you do for the next 10-20 years that it will take to replace the lines?

How about the infamous road salt and brine contaminating wells? If we could find a better way to clear the roads, I wouldn't be installing so many whole house RO units.

What other chemicals do we allow to be put in our environment that is having such a damaging effect that we haven't banned its use yet? Why are we still putting liquid magnesium/chloride on our roadways? I've heard all the reasons why they use it, but how did we get around before with just salt and sand?

The cost to homeowners and municipalities are getting out of hand.

And let's not forget the latest and greatest PFOS and PFAS! Cha-Ching $$$.

All these problems have been great for my business but stinks for the consumer.

The options we have available, we call them the “Final Barrier” approach. This is broken down into either “Point of Use” or “Point of Entry” systems.

POU = Point of Use systems are more for when the water is an issue for drinking and cooking.

POE = Point of Entry is where the water comes into the home and can be an issue for bathing aesthetics along with drinking/cooking.

The next study from WQA goes into more detail on the “Final Barrier”

Final Barrier:

A better solution for hiqh-quality & healthier drinking water

www.wqa.org

DRINKING WATER FILTRATION PRODUCTS

Your Final Barrier for Water Consumed at the Water Faucet

What does Final Barrier treatment mean?

Final Barrier treatment is technology installed at the point where water is consumed (it is also called Point-of-Use technology or POU).

It can be:

- Pour-through pitchers
- Countertop units
- Faucet-attached devices
- Under-the-sink filters
- Refrigerator filters
- Reverse osmosis technology units

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How is water treated before coming into our homes and workplace?

Central water treatment plants treat water to "drinking water quality" – defined by the Federal Safe Water Drinking Act.

Fact:

- Only about 1% of water treated by municipalities is consumed by people.
- 99 out of every 100 gallons of drinking water is used to water lawns, flush toilets, fight fires, etc. We call this "working water".

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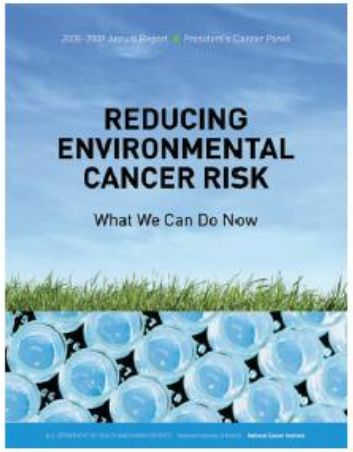
What can go wrong with our water before it reaches our home?

The US has the safest drinking water in the world. But with a vast distribution system, the potential for harm is very real:

- **Despite central treatment, these contaminants may still be present:**
  - Endocrine disruptors (hormonal)
  - Pharmaceuticals
  - Disinfection byproducts (DBPs)
  - Pesticides and herbicides

- **After central treatment potential points of contamination are:**
  - Biofilms (A film adhering to surfaces that are regularly in contact with water)
  - Repairs and replacements
  - Cross connections with waste
  - Power outages and leaks (negative pressure points)
  - Corrosion
  - Leaching from pipe walls, etc.



President's Cancer Report states: "Environmentally induced cancer has been grossly underestimated." One of its recommendations: "...people use home filtration systems to further treat water from public supplies or wells and/or use bottled water for drinking and cooking." Visit www.deainfo.nci.nih.gov and search for Reducing Environmental Cancer Risk for the complete report.

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How can we focus on improving the water quality of the 1% that we will consume?

Final Barrier Treatment

The 1% can be economically treated to the highest safety levels at the point where water is consumed.

Here is what Final Barrier treatment does:

- **Final Barrier treatment provides proven reduction of:**
  - Disinfection byproducts formed during treatment and transmission to homes & businesses.
  - Corrosion products from the distribution system and home plumbing. *(For example: Lead)*
  - Contaminant intrusions into the system.
  - Disease-causing microbiological organisms.
  - Trace levels of endocrine disruptors, personal care products, and pharmaceuticals.

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MCL vs. MCLG: Getting to the "Goal"

One letter can make the difference.

MCL (**Maximum Contaminant Level**) takes into account the cost and practicality of treatment – which means a "permissible" amount of contamination is allowed. *It is a compromise* – getting as close to the goal, while also considering what is feasible.

MCLG (**Maximum Contaminant Level Goal**) is a water purity level at which the health community believes "no known or anticipated adverse effects on human health occur." *It is a high standard*. A separate goal is set for each contaminant that is regulated.

With drinking water filtration systems (or Final Barrier treatment), you can get to the "Goal". Consumers don't have to compromise.

USEPA DEFINITIONS

Maximum Contaminant Level (MCL): The maximum permissible level of a contaminant in water delivered to any user of a public system. MCLs are enforceable standards.

Maximum Contaminant Level Goal (MCLG): Under the Safe Drinking Water Act, a nonenforceable concentration of a drinking water contaminant, set at the level at which no known or anticipated adverse effects on human health occur and which allows an adequate safety margin. The MCLG is usually the starting point for determining the regulated Maximum Contaminant Level.

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What are the Final Barrier technologies?

Contamination	Drinking Water Filtration Technologies
Inorganics (i.e. metals, etc.)	Ion exchange, distillation, reverse osmosis
Microbiological Organisms	Reverse osmosis, distillation, ultraviolet, carbon blocks
Particulate Matter	Reverse osmosis, distillation, activated carbon
Volatile Organics	Activated carbon

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Your Final Barrier for Water Consumed at the Water Faucet

How can regulators and homeowners find out which drinking water treatment technologies work?

Through third-party laboratory testing & certification

Certified products are tested to NSF/ANSI (National Sanitation Foundation/American National Standards Institute) standards. Here are some of the common standards:

42 – Filter aesthetic contaminant performance evaluation
44 – Softener contaminant performance evaluation
53 – Filter health contaminant performance evaluation
55 – Ultraviolet contaminant performance evaluation
58 – RO contaminant performance evaluation
62 – Distiller contaminant performance evaluation

Who can certify a water treatment product?

- Water Quality Association – (WQA)
- National Sanitation Foundation – (NSF)
- Canadian Standards Association – (CSA)
- International Association of Plumbing and Mechanical Officials – (IAMPO)
- Underwriters Laboratory – (UL)

State registration: Iowa, California, Wisconsin

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DRINKING WATER FILTRATION PRODUCTS

Your Final Barrier for Water Consumed at the Water Faucet

Who is the Water Quality Association (WQA)?

The Water Quality Association (WQA) **is a not-for-profit international trade association representing the residential, commercial, and industrial water treatment industry. WQA maintains a close dialogue with other organizations representing different aspects of the water industry in order to best serve consumers, government officials, and industry members.**

WQA is a resource and information source, a voice for the industry, an educator for professionals, a laboratory for product testing, and a communicator to the public. The association serves (over 2,500) company members located in the USA, Canada, and International.

Water Quality Association

www.wqa.org

DRINKING WATER FILTRATION PRODUCTS

Your Final Barrier for Water Consumed at the Water Faucet

WQA's Gold Seal Product Certification

WQA's ANSI-accredited product certification offers a scientific method for consumers to ensure the effectiveness of the products they purchase. Product testing follows guidelines developed by ANSI/NSF, the most respected standards-development agency in the nation. Each technology is tested according to different standards.

Here's how products get the Gold Seal:

- Performance testing
- Structural integrity evaluation
- Material safety assessment
- Literature review
- Annual onsite audits

WQA has certified nearly 10,000 drinking water treatment devices and components. WQA conducts annual audits of nearly 400 facilities. Visit www.wqa.org for a list of certified products.

Water Quality Association

www.wqa.org

DRINKING WATER FILTRATION PRODUCTS

Your Final Barrier for Water Consumed at the Water Faucet

WQA certifies professionals, too.

WQA's Professional Certification testing program gives homeowners additional confidence in the knowledge & commitment of their water treatment professional.

- To be certified, professionals go through a series of classes, specialized training, and pledge to abide by a strict code of ethics.
- They show a necessary level of knowledge of water chemistry and treatment technologies.
- They must demonstrate a commitment to stay on top of industry developments through continuing education.
- Certification is reviewed by outside experts. Guidelines recommended by the National Organization for Competency Assurance (NOCA), the nation's certifier of certifiers.

CERTIFIED WATER SPECIALIST℠ Water Quality® ASSOCIATION

Number of WQA Individual Certified Professionals: 1,750

Water Quality® ASSOCIATION

www.wqa.org

Where do we go now?

We've learned a few fundamental facts about water:

- **Only about 1% of centrally treated water is consumed by people.**
- **Science and technology is constantly discovering more potential contaminants in the water – such as pharmaceuticals and endocrine disrupters – including, at times, in water that has been centrally treated.**
- **Final Barrier treatment can stop many elements that come into the home, even after water has been centrally treated.**

Taking the long-range view, it seems clear that within 20 years the current paradigm – centrally treating water and doing essentially nothing more – will no longer work. Central treatment will not be able to cope with the demand for higher quality water. *(It is worth noting that even in 2011, a scientific survey showed that two-thirds of Americans have concerns about the quality of their drinking water. The same survey showed 50% of Americans believe Federal drinking water laws should be more strict.)*

The most practical solution is to encourage homeowners & employers to install drinking water treatment products and curbside systems (very small sytems that treat drinking water for 5-10 homes) into the current paradigm. The great news is that there is no need to invent new products or technologies. The water treatment industry is doing this all the time. Instead, it is up to policymakers to invent new regulations and permissive regulatory structures to implement this new approach. The industry already has the standards development system testing laboratories, ANSI product certification programs, audit systems, and professional training.

It is simply a matter of will and cooperation to make a healthier future for everyone.

Water Quality Association

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Overcoming Objections

Three objections have been raised in the past to this concept:

- **First, how can we monitor the current status and life span of the treatment technology?**
- **Second, how can we implement this process across millions of homes and apartments?**
- **Third, how do we pay for this technology?**

Solutions to all of these can be envisioned today:

1. Endpoint monitoring is being done today, and new technologies are coming online every year. Low-power, low-cost technologies exist, or soon will, that can communicate, in real time, to a central monitoring station. Also, current technologies are designed with warning lights and can even shut off automatically when they reach a predetermined point.
2. This Final Barrier concept would need to be implemented over a period of decades with interim solutions for the mid- and short-term. Local codes can be adjusted to create "water ports" in new construction that allow service personnel to change out a filter without entering the home. Other means for extremely simple switchouts of filters have already been designed and implemented in residential filtration products.
3. Consumers have already established the price of drinking water—it's what they are willing to pay for bottled water. The same monitoring technology mentioned in point one above can be used to determine the amount of drinking water used, and this can be separately billed to the consumer.

No one says it will be easy, but treating 100% of the water in a municipal system to "drinking water quality" and then wasting 99% of that quality through leakage, flushing toilets, watering lawns, fighting fires, is an unsustainable strategy.

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As we look at some of the more common contaminants, like road salting, we have to take into consideration how high the levels are. Corrosion to stainless steel starts at 100 mg/l; corrosion to copper starts at 175mg/l; but we advise people on low sodium diets not to drink water over 100 mg/l of sodium and 250 mg/l of chloride for private wells. Public water supplies still use 28mg/l as an advisory not to drink if you have high blood pressure. So are we going to make all public water supplies treat water just like private water supplies? No, but if the chlorides are high, we now need to worry about leaching lead. Just like a public building or school on a private well, they have to meet the same standards as any large system. Do we make the building rip out all the plumbing or do we solve what's creating corrosion at the point of entry and maybe also look at point of use for drinking water?

When we treat Na/Cl at high enough levels to create corrosion, we either have to inject chemicals into the plumbing structure to slow down the attack on the pipes or we have to remove it.

We're finding levels around 300 mg/l of chlorides are starting to eat up water heaters and pipes pretty quick. Coating the pipes is just a Band-Aid. It does little for anything stainless steel.
Removal is becoming more common. This is done through Reverse Osmosis (RO) technology.

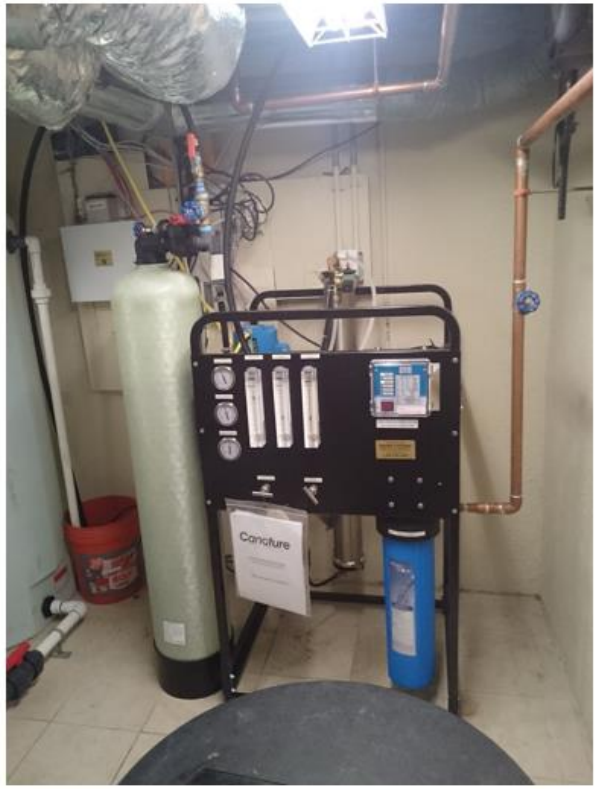
RO is a slow process of separating dissolved solids from the water and sending the contaminant down the drain. The best way to describe it is, a sheet of plastic with microscopic holes that only allow good water through and all the contaminants are discarded. We push water pressure against the membrane to allow the separation.

Systems are designed based on how much water you need within a 24 hr. period. Small scale units would produce 10-15 gals and go under the kitchen sink. Bigger systems would run the whole house or even a town.

The great thing with RO is its ability to remove huge amounts of various contaminants. Because of its pore size, it can filter down to sub-viral level. However pretreatment for certain things like hardness, iron or manganese can clog the pores and keep it from producing water. Most larger producing units would have a water softener pretreating the water before feeding the RO unit. The downside with RO systems, is how much water has to go down the drain versus how much good water it collected. Some of the basic drinking water units could be 3-4 drops of water for every drop it collects. Commercial systems recirculate water back to the membrane so it reduces the waste stream. Good units will produce 1 gallon of quality water and send 1 gallon of water to waste.

The ro water will flow through a tank filled with crushed limestone before going in to the storage tanks. This will add some minerals back to the water and raise the ph.

This unit is designed to produce about 1000 gallons per day.



This is a external booster pump drawing the water out of the tanks and sending it in to the house.

ECLIPSE™

The Eclipse™ reverse osmosis drinking water system is a top of the line RO system that provides your family with the cleanest, healthiest water possible. Multiple filters transform ordinary household water into pristine water by reducing unwanted and harmful contaminants.* System performance is verified with a touch monitor on the system's faucet base. Installation and filter changes are simple, plus no electricity is needed for operation!

System Features:

- Water Quality Monitor
- Service-friendly cartridge modules

System Benefits:

- Cost effective option to bottled water
- Healthy, sparkling clear drinking water
- Better tasting soups, sauces and meals when prepared with R.O. water
- Full flavor coffee, tea and juice
- Convenient, clean water ready at the tap
- Environmentally sound water treatment
- Crystal clear ice cubes

WaterRight®

system benefits

Effectively Reduces Contaminants in Drinking Water:

- Nitrates
- Lead
- Arsenic (pentavalent)
- Cyst (cryptosporidium)
- Fluoride
- Radium 226/228


ECLIPSE™
Reverse Osmosis Drinking Water System
WaterRight

Typical press block carbon that feeds the cold side of a faucet. Removes lead, voc's & cysts.

Typical water softener. Control on top used to regenerate system based on water use in the house. A salt barrel would sit next to the unit where every few months it would need replenishing.

Different size units based on flow rate and level of contaminants. These tanks can be filled with different media for treating other things like limestone or iron media

It is very common to have multiple tanks treating different things.

Non-backwashing system. The water flows up or down through the media. Most common set up would be to have two tanks piped in series with each other. This creates redundancy. Pre & post cartridge filters to remove sediment.

Typical media is GAC for Radon below 10,000 pci/l or Voc's and Pfas/Pfos. Can also be used with anion resin for uranium removal.

Once the resin is exhausted, it's replaced in the first tank. Then the second tank is moved to the first position, the fresh tank is moved to the last position.

Aeration system are to strip radon and Voc's. It bubbles the water and uses a 2" vent pipe to exhaust gases outside of the building. This is done atmospherically so a booster pump is built in to send the water back into the building under pressure.

Coliform/E.Coli Bacteria = Typical test results are represented by a positive or negative count. The presence of either form is considered a non-potable water supply. Coliform is the most common bacteria and is found in approximately 28% of all samples collected. Its presence is usually due to surface water entering the well structure (i.e. wells below the ground). When E.Coli is present it means there is most likely a source of fecal contamination, or animal decay.

Remedy – Inspect well head and shock chlorination system. Retest water in 7-10 days after chlorine is absent from the water.

Lead = Colorless, tasteless, and odorless. The mcl is <0.015 mg/L or 15ppb. The primary source is solder joints in the plumbing structure, especially in homes built before 1986. Proper sampling procedures require that the sampling point be a faucet that has not been used for at least 6 hours, but no longer than 12 hours. Often inspectors grab samples from faucets that have not been used for days which can give you a false high reading. Running a faucet till the water is cold the night before collection would be a more accurate sample.

Copper = A blue/green stain in tubs, showers and sinks is a typical sign of corrosion to the plumbing structure. The mcl is 1.3 mg/L. May be caused by low pH or high chlorides.

Iron = A brownish or reddish stain in fixtures often indicated the presence of iron. The mcl is 0.3mg/L. Water softeners and iron filters can remove iron.

Manganese = A blackish grey stain in fixtures can indicate the presence of manganese. The mcl is 0.3 mg/l with desirable levels less than 0.05 mg/L. Treated much like iron.

pH value = (scale 0-14) below 7.0 indicated an acid condition and above 7.0 indicates an alkaline condition. The acceptable range is 6.4-8.5. Acid conditions are more common with pH values in our area being between 5.5-6.7 and causes corrosion to the plumbing structure resulting in pin hole leaks and blue/green stains. Treat with limestone neutralizer, feed soda ash or aeration systems.

Sodium = 100 mg/L is an advisory level to people on sodium restricted diets. The mcl is 150 mg/L. Elevated levels can often be present from the use of salt for water softeners. Treat with reverse osmosis or distillation.

Chloride = The mcl is 250mg/L. Levels of 100 mg/L can cause corrosion to plumbing. The presence of sodium and chlorides is not uncommon in well waters. Its most common source is due to over salting of the roadways. Treat with reverse osmosis or distillation.

Radon Gas = A radioactive gas that has been linked to lung cancer. It enters the home in one of two ways. The most common is airborne and emanates through the slab or foundation of a home. The recognized limit for radon in air is 4.0 pCi/L. Treatment consists of creating suction beneath the slab or foundation with a fan and venting the gas above the roofline of the home.

The second source of radon gas is in the well water. The gas is released into the air when water is used. There is no current standard for radon in water, but 3500 pC/L-5000pC/L or greater are typically the levels where treatment should be considered. The most common treatment is using G.A.C. tanks for levels between 5000-10,000 pCi/L. For levels above 10,000 PCi/L, aeration is the suggested treatment method.

Nitrate/Nitrite = the mcl for Nitrate is 10mg/L and the mcl for Nitrite is 1 mg/l. The most common source is fertilizers or fecal decay. Nitrates/Nitrites linked to "Blue Baby Syndrome". Treated with specialty anion resin or pump driven reverse osmosis.

Arsenic = Arsenic is a metal that has no smell or taste. Arsenic is naturally present in bedrock in many places throughout CT. Depending on local environmental conditions, arsenic can leach from soils or mineral deposits into groundwater The mcl for arsenic is 0.01mg/L. Research indicates that people living in areas where water concentrations are very high are more likely to have bladder, lung, or skin cancer. They are also more likely to have problems with their skin, and with their cardiovascular, immune and neurological systems. These toxic effects of arsenic exposure developed after many years of exposure mostly through ingestion. Common acceptable methods of removal are point of use reverse osmosis or point of entry ferric oxide & anion resin systems.

Definitions:
MCL- Maximum contaminant level
Mg/L- milligrams per liter sampled
PPB- parts per billion per liter sampled
PCI/L- Pico curies per liter.

Uranium = The mcl for uranium is 30ppb. Uranium is a naturally occurring element in groundwater in some portions of Connecticut. It gets into drinking water when groundwater dissolves minerals that contain uranium. The amount of uranium in well water will vary depending upon its concentration in bedrock. Most ingested uranium is eliminated from the body. However, a small amount is absorbed and carried through the bloodstream. Studies show that elevated levels of uranium in drinking water can affect the kidneys. Bathing and showering with water that contains uranium is not a health concern unless they exceed 750 ppb. Common acceptable methods of removal are point of use reverse osmosis or point of entry anion resin systems.

Lets talk about discharge. Some of the units we just looked at have to backwash waste water. We all know about the requirements for having treatment systems discharge waste water to a sub-surface drainage system or drywell. The only thing allowed to go into the septic is a neutralizer, carbon filter or a small RO system.

Do you also know that many treatment systems are only discharging raw water? This would be the same water going into the septic system if they didn't have a treatment system. It's okay to water your lawn with an irrigation system with the same raw water. Many of these irrigation systems use 5,000 plus gallons of water per day.

Let's not forget swimming pools can discharge chlorinated and salt water to the surface.

So let's ask DEEP why they felt the need to restrict discharging to the surface. They were part of the original discussions around creating the SSDS regulation, but felt if they gave all the responsibility to DPH, it was no longer their problem.

Did you know most states either require discharge of water softeners to a septic system or have no requirements on discharge at all? I hope all of you are familiar with the many studies done on the effects of water softener discharge to septic systems. If not, I will be more then happy to get you copies of those INDEPENDENT studies.

Let's use some common sense. This is costing homeowners a tremendous amount of money with 0 proof of widespread problems to septic systems or environmental contamination.

When it comes to a water softener discharging, we suggest using only high efficiency demand based units. Not a time clock model. These systems only clean based on how much water is used in the house. Maybe we need to require a drywell be part of any new septic system.

In the end, you let us know the contaminants in the water that need to be treated and we'll give you technology to solve those problems.

There are many great companies in your areas that have the ability to solve the public's problem, use them. We have the CT Water Well Association along with the Water Quality Association as resources to find good company in your area.

I love it when I can give advice or refer you to someone who can help. It's a win-win for everyone. So feel free to call with any water problems you need help with.

Remember - We are all the solution to these problems!

Thank you for your time.
Questions?