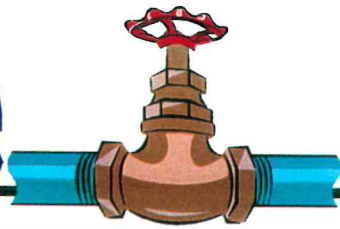


# The Mulvaney Pipeline



## Water, Water Everywhere...

The amount of water presently on earth is the same as it was when the earth was formed. Through a never-ending natural cycle of evaporation and filtration, the water running from your tap could very well contain water molecules once consumed by the dinosaurs. Given water is truly the "electrolyte of life", it's time we better understand this amazing liquid. 97% of the water on earth makes up the seas and oceans (basically salt water). Approximately 2% of the remaining water is bound up in the form of ice at the polar caps. That leaves just 1% for all of humanities needs including agriculture, manufacturing, community, residential and personal needs.

As we begin the 21<sup>st</sup> century, the advent and wide scale consumption of bottled water has rapidly dominated the consumable water market. Not so many years ago, most would think nothing of drinking tap water. Today, everyone has some degree of reluctance when drinking a glass of untreated tap water. Today, 46% of all Americans drink an average 16 ounces of bottled water each day. It is the 3<sup>rd</sup> most consumed drink, with coffee being the 2<sup>nd</sup> and filtered or unfiltered tap water being the 1<sup>st</sup>.

The skyrocketing demand for bottled water has prompted the re-emergence of other alternatives for safe, good tasting water. Many new systems have come to the market. Acronyms such as POU (Point of Use) and POE (Point of Entry) are now used to describe water purification systems used to treat tap water in the home, office and factory. Increasingly these on-site filtration and treatment systems are gaining popularity with consumers.

In the months since the September 11<sup>th</sup> attack on America, the combined military services have stepped up their interest in small portable point of use (POU) drinking water filtration and purification systems for combat troops. Although military interest in these devices began well over 20 years ago, today there seems to be wide acceptance that small POU devices can and will remove most chemical and biological contaminants. Industry indicators now point to some larger companies and organizations moving toward installing isolated piping systems designed for POE treatment to carry secure drinking water to all parts of their operations. Fine restaurants, coffee shops and even some fast food outlets have long used POU purification systems to enhance the taste of their food stuffs. More and more shops have awakened to the benefits of water filtration and purification to improve their products.

### How much water does it take?

to make a single serving of:

Corn	61 Gallons
Lettuce	6 Gallons
French Fries	6 Gallons
Tomatoes	3 Gallons
Wheat bread	75 Gallons
Rice	36 Gallons
Margarine	92 Gallons
Milk	65 Gallons
Pepsi Cola	70 Gallons
Hamburger	1,303 Gallons

A Typical Breakfast	209 Gallons
A Typical Lunch	1,427 Gallons
A Typical Dinner	2,897 Gallons

© 2002 International Bottled Water Association



## WIN DINNER FOR TWO

featuring over 6,000 gallons of water used!

Give us the correct 4 digit number described below, for a chance to WIN dinner for two.

What four digit number, has four different digits, and is equal to the number formed by its digits arranged in descending order, minus the number formed by its digits arranged in ascending order?

If more than one correct entry is received, a winner will be selected at random. The answer to the Word Jumble Quiz from last time was "Dinner for Two"

We received thirteen correct answers! Congratulations to:

- Taylor Jagoe - T.H.P
- Tom Orzech - Nestle
- Dana Morse - Larson Const. Mgt.
- Stuart Erhardt - Alliant Energy Intergraded Svs - Cogenex
- George Casey - Goodrich
- Claudia Rosas - Pharmaceutical Discovery Corp
- Kay Balun - Pharmaceutical Discovery Corp
- Dave Lawlor - Losito Electrical
- Maryellen Apelquist - Hoffman Architects
- CB Swanson - Charles Beckman Swanson Architects
- Dumitru Petrescu - D.P. Engineering
- Arthur Sanders - Hoffman Architects
- Diane Baker - Hines- 225 High Ridge

### What's Goin' On?

- ▶ Connecticut Building Congress  
Habitat Golf Outing  
Sept 23<sup>rd</sup> Yale Course, New Haven CT
- ▶ Mechanical Service Contractors of America  
17<sup>th</sup> Annual Education Conference  
Sept 29<sup>th</sup> - Oct 3<sup>rd</sup> Las Vegas, NV
- ▶ Plumbing Contractors of America  
2002 Annual Plumbing Conference  
Oct 31<sup>st</sup> - Nov 3<sup>rd</sup> Toronto, Canada
- ▶ 2002 Home Show  
Nov 1 - 3 CT Expo Center, Hartford, CT

### WORDS from the Mulvaney Dictionary

- ABILITY** is what you're capable of doing. **MOTIVATION** determines what you do.
- ATTITUDE** determines how well you do it.
- LIFE** is like a box of chocolates, you never know when you're going to run into a NUT.
- DEMOCRACY** is 3 wolves and 1 sheep voting on what to have for supper.
- OBSTACLES** are those things you see when you take your eye off the goal.
- EXPERIENCE** is what you get when you didn't get what you wanted.
- ENGINEER**, one who knows a great deal about very little, and goes along learning more and more about less and less, until he knows everything about nothing.



## NYC'S ROOFTOP WATERTANKS

AN ANCIENT ARTIFACT, OR SIMPLE EFFICIENCY?



Scattered along the skyline, the wooden tanks with conical shaped roofs look like artifacts of the past. Old but not ancient, they are an essential part of the city's water delivery system, which feeds water use facilities and fire protection vessels in 90 percent of structures over six stories high. Water is pumped to the tanks and then gravity fed into buildings to maintain water pressure for drinking fountains, bathrooms and kitchens, and standpipes, conduits that carry water for fighting fires.

The ubiquitous weather-beaten water containers have been a presence on the city's skyline since the mid 19th century. Natural water pressure in the city is between 45 and 60 pounds per square inch, which is enough pressure to raise water only up to the sixth floor in most locations. In order to meet the current fire codes, most buildings are required to have two independent sources of water. Since the water mains in NYC that run East/West are different than those running North/South, larger block long buildings and those positioned on street corners normally have no problem obtaining the required two sources of water. Under city fire codes, tanks are the only option for buildings that do not connect with two different water mains.

Even though there are steel constructed tanks, wooden ones are preferred because they can be easily assembled and transported to rooftops in parts and also cost less. A 10,000-gallon steel tank costs about \$65,000, while a comparable wooden one runs about \$25,000. Cedar planks, because of their resistance to mold and rot, are used for the construction of the floors and walls of wooden tanks. The two and one half inch thick planks have the insulation equivalent of a 28-inch concrete wall. Assembling is easy and cost effective. Steel hoops hold the walls of the tank together. Glue is not needed; pressure exerted by the galvanized hoops, combined with the swelling properties of the wood when the tank is filled with water, prevents leakage. If you want to know how tall the tank you're looking at is... a simple rule of thumb is to count the number of hoops, then add one. The total number you come up with will be the approximate height of the tank expressed in feet. The staves are made either of California redwood or of white cedar (juniper) from the South or of yellow cedar from the West Coast. The conical roofs are plywood; they were originally made of yellow pine and later of cedar.

The quintessential wooded rooftop water tanks of New York date back over 150 years, but are as useful and efficient today, as they were in the mid-1800's. The need, use and application of these type tanks is as valid today as it was when the first tanks were delivered by horse drawn wagons. Modern technology has not superseded the simplicity and efficiency of these tanks and we suspect they will be with us for many years to come.

Excerpts taken from a white paper by: Bryan McShane  
"In New York, the water is aged in barrels".



**NEW** **Mulvaney** **WEBSITE**  
up and running

[MulvaneyMechanical.com](http://MulvaneyMechanical.com)

Our redesigned website has gone live with a new look and some very useful tools. Our goal is to build an online library of source material and items of interest to all. We will be updating the site regularly. Visit us soon and come back often.



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