



## **Alternative Water Solutions**

*Trust us, let us Prove it*

The recipient of this proposal agrees not to reveal the contents of this proposal to anyone without the expressed consent of Alternative Water Solutions and will treat this proposal with strict confidentiality

# Presenting Ultra Filtration Drinking water stations

## A Proposal to:

## Presented on

# Physical Water Treatment vs. Traditional Water Treatment by Alternative Water Solutions

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# Physical Water Treatment vs. Traditional Water Treatment by Alternative Water Solutions



Trust us, let us prove it



From fresh untreated



To chemical cocktail  
Or filtered city water



Or Reverse Osmosis



OR...

Alternative Water Solutions has devoted its endeavors to cutting edge and responsible water treatment processes and installations with over 25 years experience and is proposing a change in the method of water treatment and purification that will both improve water quality and save you, our customer money.

## 1 Traditional purification methods for potable and drinking water

Traditionally for the last 50 years water that leaves extensive scaling and calcium buildup, in other words “Hard Water” has been treated with ion exchange softeners. This treatment utilizes salt to regenerate the resin media that exchanges sodium ions with the calcium and magnesium ions – thus removing the “hardness mineral” from the water. The resulting soft water responds better to soaps and leaves much less in the way of water spotting and scale buildup.

### 1.1 Community chlorination for disinfection

Softeners require salt and frequent backwashing. This salt finds its way to the septic systems and eventually to the ground and surrounding water systems. Since salt is not naturally removed by the water cycle the resulting salt water gradually takes over the fresh water supply. Softeners also use large quantities of water to regenerate and backwash resulting in increased water usage.

### 1.2 Filtration systems

Every 1,000 gallons of water softened will require approximately 40 to 60 gallons of water for backwash and 9 to 15 lbs of salt.

### 1.3 Reverse Osmosis

## 2 The Alternative Solution

With the increase in population and the higher concentrations of our population, the use of softeners has increased hugely in some areas. This has made a significant impact on surrounding water systems. As a result there is a resurgence of research being done to provide a “greener” more environmentally responsible solution to water hardness.

### 2.1 Hollow Fiber Ultra Filtration with Vectapure or Freshpoint

Also health studies have indicated the more natural spring or mineral waters to be healthier for plants and for drinking. A myriad of unique

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- Freshpoint Ultrafiltration removes the bacteria, cysts, virus and leaves the mineral balance in the water
- Chlorine and heavy metal is removed with filters and media without water wastage.
- For the Ultimate touch, treat the water with a Dreamwater to give life giving balance back to the water for the freshest taste
- Freshpoint Dreamwater is absorbed into body cells 300% faster for greater hydration and health.
- Freshpoint Dreamwater process restores natural PH balance

The Vulcan-Impulse-Technology generates a controlled electrophoresis which produces a protective metal-carbonate layer on all blank surfaces.



systems have become available to the consumer as a result. Most provide some benefit, but few produce the convenience of soft water.

## 2.2 Physical Water Conditioning with Dreamwater or Vulcan

We believe that we at Alternative Water Solutions have discovered systems that do provide not only the cleaning capability of soft water but also numerous life giving added qualities.

Vulcan with Redox is one such solution.

## 3 Electronic Conditioners \$ave Time and Money

Electronic conditioners change the structure of the mineral in water rather than remove the mineral. This greatly decreases scaling and “hardness” issues.

Electronic conditioners use no chemicals and waste no water, thus saving the cost of salt and of transporting the salt.

The Vulcan conditioned water will perform cleaning tasks somewhat equally to soft water while protecting equipment and pipes from scale build up better than soft water.

## 4 Alternative Solution

Alternative Water Solutions proposes to treat all the water for your household at the point of entry first of all with Redox media which neutralizes chlorine, realigns the mineral ions through a Redox exchange of electrons, and removes 99% of heavy metals. We would then pass the water through a sediment bag filter which efficiently removes visible sediment and any byproducts of the Redox process from the house water. The Redox very effectively prepares the water for the final stage – a Vulcan Electronic Conditioner which restructures the mineral crystal as well as tipping the balance of carbonic acid providing exceptional protection from corrosion and rust.

- This provides mineral rich, excellent tasting and healthy drinking water from any faucet in the house.
- Vulcan greatly reduces mineral spotting and scaling.
- Vulcan and Redox is the best alternative to chemical or salt softeners.

### 4.1 Approach

In order to accomplish the best results we propose to place a 20” Big Blue Bag Vessel at the point of entry and then pass the water through a combination Chlor Redox-Coco Carbon backwashing filter This will remove sediment, chlorine VOC’s, THM’s and heavy metals

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as well as improve the taste and odor of the water. The water would then pass through a Vulcan 5000 Conditioner.

Since the process of heating water with electric elements or changing pressure increases scaling issues, we recommend that a Calmat booster also be placed on the hot water line or just prior to the dishwasher.

The resulting water will not be chemically soft, but will have a silkier feel with increased sudsing. The characteristics of the hardness mineral have been altered – resulting in a significant reduction in scale or encrustation.

This water will taste fresh and clean and be healthier to drink and shower in then Reverse Osmosis water due to the mineral content.

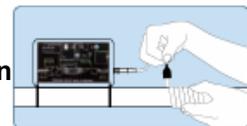


## 4.2 Benefits

- Vulcan stops scaling on surfaces
- Vulcan sanitizes the piping system by increasing carbonic acid increasing descaling action leaving a thin protective layer inside of pipe.
- The Vulcan generates a electrophoresis which produces a protective metal-carbonate layer on all blank surfaces.



- The number one benefit to the consumer is improved water quality without caustic and damaging salt or chemicals.** This of course will also be of great benefit to the environment as a whole.
- The Alternative means NO SALT! Salt even in the quantities necessary for softeners slows or impedes the septic process and damages plants and animal growth.
- Sodium is caustic and causes increased corrosion in equipment. Vulcan treated water has **no sodium added**.
- Redox neutralizes chlorine, removes H<sub>2</sub>S, rotten egg odor, removes trace iron content, removes 99.9% of heavy metals, and enhances Vulcan performance by 20%.
- Redox and Activated Carbon effectively remove bad taste and odors – often negating the need for separate drinking water systems. Fresh, clean, mineral rich water from every faucet.
- Vulcan treated water causes all metal surfaces to be coated with a very thin hydrocarbon layer – **savings by reducing corrosion and friction** on bearings and moving parts – gaining maximum working life of commercial machinery and equipment
- For potable water systems currently without treatment, Vulcan equals **savings since cleaning jobs will require less time and soap**.
- Savings due to more efficient use of energy spent on heating water**
- Food and beverages keep their natural taste**
- Installation is relatively simple so installation costs are minimal**
- One of the most impressive benefits is that Electronic Conditioning systems cost very little to operate and **need virtually NO ongoing maintenance and no shutdowns**. This represents convenience and savings with fewer service and maintenance bills.



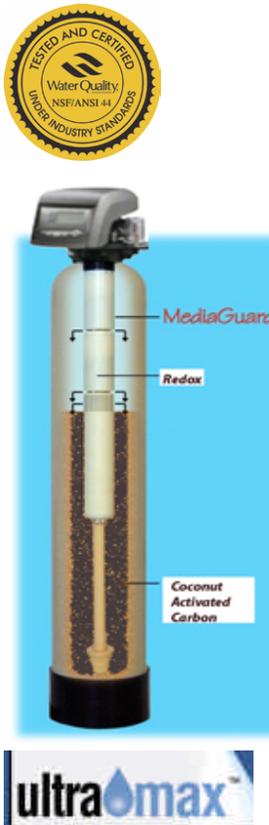
Every 1,000 gallons of water costs \$1 to \$2 for salt. Assuming an average daily use of 200 gallons the **salt alone will cost approximately \$100/year**. With the cost of cleaning products today the average household spends \$40 to \$60/month on cleaning products. With a savings of merely 15% - savings on cleaning

# Physical Water Treatment vs. Traditional Water Treatment by Alternative Water Solutions

products equals an additional \$100/year savings. Healthy and fresh tasting water out of every faucet means you no longer need to buy bottled water. Based on an average of 1 to 2 bottles at \$5 each this represents an additional savings of \$390/yr. **Our Alternative Water Solutions can save the average household \$600/year and provide better and healthier water for all.**

**The cost of operating the Vulcan system is merely the cost of electricity to run a low voltage transformer or \$5 to \$10 per year.**

**Redox and Automatic Activated Carbon systems require rebed of media only every 3 to 6 years.** Reducing maintenance service costs and charges compared to softeners and Reverse Osmosis.



## 5 Traditional Option

Alternative Water Solutions has sold and serviced all types of water treatment including softeners and reverse osmosis for years. We handle one of the most efficient and dependable systems available today. As a General Electric Platinum Dealer we can provide the best in traditional water treatment.

Our Ultra Max water softener uses soft water regeneration and computer regeneration management that maximizes efficiency – saving 30 to 40% on water and salt use. So if you are going to use a softener – lets at least cut down the damage.

The Ultra Max also carries one of the best warranties in the industry, a 10 year warranty of the electronic controls and a lifetime warranty on everything else including the resin. As far as we are aware on other manufacturer carries this kind of warranty.

The Ultra Max softener can be combined with Redox media for chlorine removal and a separate Activated Coconut Carbon backwashing filter to remove taste and odor and organics to provide chlorine free and fresh, clean water from all faucets in home.

The Puroline Reverse Osmosis is manufactured in North America and uses the highest quality material. The tfc membrane is an osmonics membrane – the original designer and manufacturer of the Reverse Osmosis. Replacement parts and filters are readily available since they are a most standard size and configuration.

### 5.1 Approach

The first step in water treatment should almost always be a sediment filter to remove sediment as sediment and silt can cause damage to most appliances, including water softeners or reverse osmosis. We recommend the Big Blue Bag Vessel with a 1 micron filter bag. This will remove most any particles that you can see.

The second step is an automatic backwashing carbon filter with Redox media to remove chlorine and taste and odor. The Redox provides a bacteria stat effect and gives longer life and improved performance to the activated coconut carbon which removes VOC's and THM's.

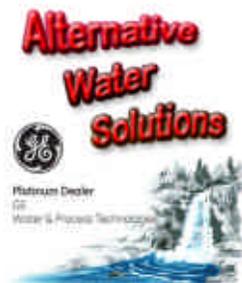
The household water should be treated 100% by the water softener (both hot and cold) since much of the benefit of soft water is lost with



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even a small mix of hard water. The softener is best installed with outside irrigation lines bypassed or taken off before the water softener treatment. Plants do not do well with higher concentrations of sodium in the water. The softener is equipped with a built in bypass for emergency situations.

The Reverse Osmosis for the drinking water (necessary to remove the sodium for drinking water) can be mounted in the mechanical room (recommended) or under the kitchen sink. We can also install this to include a line to the fridge or other drinking water facilities such as espresso machines or coolers. Installation costs are slightly higher for such installations.



*Service  
is our  
middle  
name*



### 5.2 Benefits

The Big Blue Bag Filter is over 10 times as efficient as cartridge filters of the same size. Although the cost is a bit higher at the outset the replacement costs of the filter is 1/5<sup>th</sup> of the cost of cartridge filters. The bag filters cause less pressure and flow loss.

High Flow Redox with Coconut Carbon filter

- Highly effective chlorine removal
- Effective Volatile Organic Chemical removal (taste and odor)
- has full 1" high flow through valve and media
- Coconut Carbon (food grade)
- Bacteriostat to reduce bacteria and virus risk

The Ultra Max softener

- looks great (chrome sleeve finish)
- uses 30% less salt,
- has full 1" high flow through valve and media
- lifetime warranty
- most dependable control valve in the industry (GE quality)

The Puroline Reverse Osmosis

- authentic name brand parts (osmonic, john quest)
- standard size filters
- 50 gal/day production
- 3/8" high flow line and faucet
- Energy Recovery pump increases pressure and increased efficiency of up 400%
- Saves up to 80% of water wastage

Alternative Water Solutions puts all of our customers on a computer generated service follow up program. We call you to remind you of upcoming service needs.

Water treatment systems that are not functioning correctly can be more of a hazard than no system at all.

## 6 Schedule

In order to implement this plan Alternative Water Solutions would need 50% of the cost of the full project paid up front in order to procure equipment. The equipment would then be ordered and installed within a time frame of three days to two weeks from payment.



The balance of payment for equipment and installation will be made at the time of installation.

A full assessment of the performance of the equipment would be made after 30 days of operation.

### 6.1 Qualifications

Alternative Water Solutions has been working with “Alternative” Treatment Solutions for 15 years. Although only a small company we have established ourselves as both innovative and effective in applications of water treatment solutions in domestic, industrial and commercial water treatment applications.

At Alternative Water Solutions we pride ourselves in providing the highest quality of follow up service.

The Vulcan treatment system is supplied by CWT International, a company that is fully international and considered to be the front runner in supplying physical water treatment systems. Their support and warranties are the best, as their product is of the highest in quality. The Vulcan system is completely incased in acrylic and comes with a manufacturers 10 year warranty.

An impressive number of companies use CWT treatment solutions in Europe and internationally to solve their hard water issues.

Some of the companies CWT has equipped are listed below.

Alcatel

Bayer-Leverkusen

BOSCH

DaimlerChrysler

Dynamit Nobel

Hyatt Hotels

Mc Donald’s

Mövenpick

SHELL

Siemens

Universität München

Viessmann

Volkswagen

#### Vulcan – Quality Made in Germany

- 25 years of experience in the field of water treatment
- International 10-year warranty
- More than 50.000 satisfied customers world-wide



10 Years  
Warranty

Made in  
Germany

Some of the local companies utilizing Electronic and EMF water treatment technologies from Alternative Water Solutions

**Starbucks**

**Tim Horton’s**

**Sun Wave Center (Salmon Arm)**

**Blacks Mechanical**

Physical Water Treatment vs. Traditional Water Treatment by Alternative Water Solutions

**Merritt Ice Arena**

**Pure Water Clinic (Kamloops)**

**School District 83**

**Big Dutchman Dairy**

# Gegenbauer

Facility Management seit 1925.

Gegenbauer Health Care Services GmbH • c/o St. Joseph Krankenhaus •  
Bäumerplan 24 • 12101 Berlin

Firma

Christiani Wassertechnik GmbH  
Charlottenstraße 18

10117 Berlin

14. April 2008

**Vulcan S 250**

Dear Mr. Christiani,

we are as a facility management company responsible for the maintenance and repairs inside the St. Joseph Hospital in Berlin. Due to the hard water in Berlin we used to have very bad problems with scale incrustations on the sanitary equipment. The maintenance and cleaning of the 2.500 shower equipment and bathrooms alone was at very high costs.

Since a couple of months we have the Vulcan S 250 installed inside the hospital. We can identify a considerable benefit of the unit installed. We can barely see any scale deposits on the shower heads for example any more now. This saves manpower and costs of the exchange of sanitary equipment.

We can honestly recommend the unit installed by CWT GmbH.

Mit freundlichen Grüßen

John Behrens  
(Servicemanager)

**Gegenbauer  
Health Care Services  
GmbH**

c/o St. Joseph Krankenhaus  
Bäumerplan 24  
12101 Berlin

**Ihr Ansprechpartner**

John Behrens  
Gegenbauer Health Care Services  
GmbH  
im St. Joseph Krankenhaus  
Bäumerplan 24  
12101 Berlin

## 7 Costs

Equipment description	Application	Location	Total
20" Big Blue Bag Vessel	1" head with relief valve and 1 micron nominal filter	At water entry point	\$485.00
Chlor Redox / Backwashing Coco Carbon filter	1" Logix control valve with Redox media guard and 1.5 cu ft of Coconut Carbon	2 <sup>nd</sup> step in water treatment	\$1495.00
Vulcan 5000	Treats water up to 2" pipe on heat exchange recirculation line	Hardness treatment for all water supply	\$1,795.00
Calmat 100	Inline booster for hot water	optional	\$735.00
Installation	Install supplies		\$285.00
Total	Includes installation of Vulcan systems	Total basic with 15% discount or With booster (15% discount)	\$3,500.00 or \$4,120.00

(Full suggested retail = \$4795) above price discounted 15%

Plus applicable taxes

**Why spend \$\$\$ on yesterdays technology when you can invest in the future.**

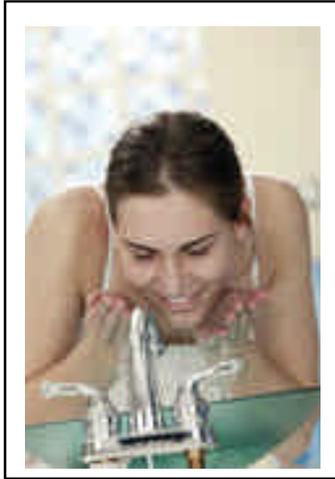
Go Green Or...



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Ultra Max 2100 water softener	1" High Flow control valve with soft water regeneration and Rescare	After irrigation water bypassed	\$1,695
Puroline PL50T50	50 gallon / day Reverse Osmosis ~ ERP1000	400% increased efficiency	\$550
Installation	Install supplies		\$300
Total	Includes installation	After discount of 15%	\$3,900.00

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(Full suggested retail = \$4525)    above price discounted by 15%    plus applicable taxes



### 8 Conclusion

Water is essential for life and will no doubt be the most expensive and precious commodity in the world.

By reducing the need of salt and chemicals you will be taking a significant step to improving our environment here in the Okanagan.

Another benefit this proposed upgrade is the enhanced “health” of the water for the users – both people and mechanical.

Undoubtedly an important issue is the one of savings both in dollars and also for the environment. By removing the need for soft water salt use is eliminated and water wastage will be a fraction of what it is currently.

We at Alternative Water Solutions look forward to a long relationship with you as a customer.

Contact info: **Alternative Water Solutions, #2 4311 25<sup>th</sup> Ave, Vernon, BC**

**250-260-4499**

**Orlin Toews – [orlint@shaw.ca](mailto:orlint@shaw.ca)**

**or**

**Charles Rivard - Sales Technician**

The above is Alternative Water Solutions best pricing for an order of one system only. The above price is already discounted by 15% from full retail.

In the case of multiple orders of 3 or more placed and paid at the same time we would offer a 20% discount from full retail or in other words – a 6% discount from this proposal.