#### *Ali'i 5-TECH<sup>+</sup> Pure* Water Quality System™

By AAA BestWater Co.

FIVE (5) 'State-of-the-Art' Water Treatment/Purification Technologies combined to Filter, Soften, Condition, Clean & Purify your household's water supply

Filtration — Adsorption — Ion Exchange — Micron Filtration — Reverse Osmosis Purification (Our most popular system selection among homeowners)

| (our most p  |   |   |  |  |  |  |  |
|--|---|---|--|--|--|--|--|
| STAGE ONE<br>Whole-House System<br>Down-Flow Filtration/Purification<br>with OPTI-CARB 1200+™<br>Cleans, Polishes & Purifies<br>with<br>Filtration &<br>GAC Adsorption<br>TECHNOLOGIES | STAGE TWO<br>Whole-House System<br>Softening/Conditioning<br>with NON-SOLVENT RESIN<br>Cleans, Filters, Softens, Conditions<br>with<br>Filtration &<br>ION Exchange<br>TECHNOLOGIES | STAGE THREE<br>Kitchen Sink Purification System<br>Drinking & Food Preparation Water<br>Purification with SQC3<br>Cleans, Filters, Polishes, & Purifies<br>with<br>Micron Filtration, Carbon Adsorption,<br>& Reverse Osmosis<br>TECHNOLOGIES |  |  |  |  |  |
|  |   |   |  |  |  |  |  |
| *Low Cost *Lifetime Warranty   |   |   |  |  |  |  |  |
| 🗡 USER-FRIENDL Y 🕇   | 🛛 NO HASSLE 🗡 RELIABLE  | 🛪 LOW MAINTENANCE   |  |  |  |  |  |
|  | <b>* PATENTED FEATURES</b>  |   |  |  |  |  |  |
|  | BestWate<br>A Kama`aina Company Since   |   |  |  |  |  |  |

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## "Is something wrong with my water?"



#### **POISONING THE WELL**

Hawai'i's Groundwater becomes contaminated when toxic material from pesticides, herbicides, insecticides, termite ground treatment, old military leaking underground fuel storage tanks, old commercial leaking underground fuel storage tanks, old military buried chemical drums and toxic waste dumps, old commercial buried chemical drums, community landfills, fuel oil spills from leaking fuel oil transmission lines, waste injection wells, etc., reaches an aquifer. The pollution often forms a "plume" that often goes undetected.



From: State of Hawai'i Department of Health 8/3/89 To: All Interested Parties Subject: Groundwater Contamination

#### Subject: Groundwater Contamination

"... we have found evidence that our precious drinking water supply has been contaminated. Traces of man-made chemicals have been found in the groundwater supply of certain Oahu and Neighbor Island areas. ..."

JOHN C. LEWIN, M. D., Director of Health

From: State of Hawai'i Department of Health 6/29/88

Honolulu Advertiser Advertisement

To: To the Hawai'i Community

Subject: Hawai'i Environmental Health Bulletin

"... what is considered safe [federal and state <u>standards</u>] > today may not be considered safe tomorrow. ..."

"... as a matter of policy, the United States Environmental Protection Agency has taken the position that an increased cancer risk can be expected to occur at any level.

Therefore, there is no "safe" level of exposure for carcinogenic agents...."

JOHN C. LEWIN, M. D., Director of Health

#### Cancer causing agents (CARCINOGENS),

such as VOCs (Volatile Organic Compounds), & DBPs (Disinfection Byproducts), are now found in most of Oahu's water supplies.

#### *Today,* over 191 wells on Oahu are contaminated with many different VOCs — Virtually all the wells that can service most of Oahu's areas:

We have received the 2005 Report (most recent available) on the **GROUNDWATER CONTAMINATION** on **Oahu**, from the *State of Hawaii Department of Health*, published 7/06. According to the report all the water coming into your home meets the Federal & State standards. *The big issue is* <u>the STANDARDS</u>. — <u>Click Here ></u>

## The report shows that the wells that can service Oahu, can contain at least <u>TWELVE</u> (12) <u>known VOC Contaminants</u>:

Atrazine — <u>Click Here ></u> Benzene — <u>Click Here ></u> CTC (Carbon Tetrachloride) — <u>Click Here ></u> DBCP (1,2, Dibromo3-chloropropane) — <u>Click Here ></u> DCP (1,2-Dichloropropane) — <u>Click Here ></u> Desethyl Atrazine — <u>Click Here ></u> Dieldrin — <u>Click Here ></u> EDB (Ethylene dibromide) — <u>Click Here ></u> MTBE (Methyl Tert-Butyl Ether) — <u>Click Here ></u> PCE (Tetrachloroethylene) — <u>Click Here ></u> TCE (Trichloroethylene) — <u>Click Here ></u> TCP (1,2,3-Trichloroporpane) — <u>Click Here ></u>

*NOTE:* <u>Volatile Organic Compounds</u> (VOCs) can be <u>absorbed through the skin's</u> <u>pores and inhaled while taking a Shower</u>, <u>Bath</u>, <u>Washing Hands or Dishes at the Sink</u>, <u>and Standing over a Heated Pot of Water while Cooking</u>! When you take a Shower or Bath, you could be getting as much exposure to these contaminants as drinking a couple of glasses of water!

... and ... The BOWS reports show that virtually all the water distributed throughout Oahu, <u>Contains as many as THREE</u> (3) <u>different known DBPs</u>: — <u>Click Here</u> ≥ HAA5 (Total Haloacetic Acid), TTHMs (Trihalomethanes) & Bromoform

This report also shows the possible non-carcinogenic <u>Health effects</u> & EPA <u>Carcinogen</u> (<u>Cancer Causing</u>) <u>Rating</u> for exposure to those particular Contaminants. <u>Please review</u>, with your spouse, <u>the entire enclosed information</u>.

> When you review the <u>entire enclosed information</u>, you will understand why we recommend you include a Whole-House GAC Filter/Purification System — <u>Click Here</u> ≥ as part of any Water Treatment Systems you install in your home.

Please see the following pages, and Equipment Brochures.

In April 1983, local TV news programs, reported that the Mililani Wells were contaminated with FOUR different VOCs (Volatile Organic Compounds) >. That was the first time any well contamination was revealed to the public. What the public didn't know at that time, was that the Hawaii Department of Health and Honolulu Board of Water Supply already new in February of 1981, that the Mililani Wells were contaminated with VOCs. ... and, they also new, as far back as April of 1977, of the first known well contamination on Oahu, that occurred in Waipahu — with extremely high levels of VOC contamination. The Hawai'i Department of Health and Honolulu Board of Water Supply did not reveal to the public what they knew about well contamination until many years later, and then only limited information was revealed to the public. The facts were only fully revealed to the public in 1993, not by the State, or City, or the Hawaii Department of Health, but by the NATURAL RE-SOURCES DEFENSE COUNCIL / 1993 Publication 'Groundwater In Hawai'i' ] This publication is a must read for every resident of Oahu — anyone who reads this publication will be shocked and appalled to find out what wasn't revealed to them by the responsible agencies at the time the extent of contamination, the number of different contaminants, and the health effects asso*ciated with exposure to those contaminants.* To see the publication and get all the shocking facts and history of Oahu's well water contamination . click here >

Does this scenario of *government water suppliers* not revealing the extent of water contamination and related health effects to consumers, and telling the public that the water supplies are perfectly healthy and safe, *'sound familiar'*??? *Have you ever seen the movies 'Erin Brockovich'* with *Julia Roberts* and 'A Civil Action' with John Travolta?

*Today*, over 191 wells on Oahu are contaminated with many different VOCs— Virtually all the wells that can service most of Oahu's areas: North Shore-Mokuleia, Waialua, Haleiwa, Waimea, Pupukea, Sunset Beach; Wahiawa; Mililani Town; West Oahu-Waianae; Kapolei-Ko'Olina, Makakilo, Ewa, Ewa Beach; Waipahu-Royal Kunia, Village Park, Waikele, Seaview, Crestview, Waipio; Pearl City; Aiea; Foster Village; Salt Lake; Moanalua Valley; Kalihi; throughout town to Wilder area; McCully; Kaimuki; St. Louis Heights; Palolo Valley; Maunalani Heights; Wilhelmina Rise; Diamond Head; Kahala; and East Oahu-Waialae Nui, Kalani Valley, Waialae Iki, Aina Haina, Hawailoa Ridge, Niu Valley, Kuliouou, Hahaione Valley, Mariners Ridge, Port Lock, Hawaii Kai, Kalama Valley, Queens Gate; & Waimanalo.

*In addition,* virtually all the water distributed throughout Oahu, contains up to THREE different <u>DBPs</u>. > *In addition,* virtually all the water distributed throughout Oahu, contains various levels of <u>NITRATE</u>. >

Please see the following pages for current information on the Water Quality Issues for your area . . .

Chemical: Volatile Organic Compounds



**Chemical description** 

#### What are volatile organic compounds?

Organic compounds are chemicals that contain carbon and are found in all living things. Volatile organic compounds, sometimes referred to as VOCs, are organic compounds that easily become vapors or gases. Along with carbon, they contain elements such as hydrogen, oxygen, fluorine, chlorine, bromine, sulfur or nitrogen.<sup>1</sup>

A volatile organic compound is an organic compound which has a boiling point below that of water and which can easily vaporize or volatilize.<sup>2</sup>



## **Volatile Organic Compounds (VOCs) in Drinking Water**

Drinking water containing high levels of volatile organic compounds (VOCs) may be harmful to human health. VOCs are a class of chemicals that have important properties in common: They evaporate, or vaporize, readily (they are volatile), and they contain carbon (and are therefore called organic).

#### **Health Concerns**

Volatile organic compounds may have a variety of harmful health effects. ... Drinking water containing one or more VOCs at levels above standards should not be consumed. In addition, because little is known about the additive effects of these chemicals, special attention should be paid to detecting and eliminating VOC sources if two or more chemicals are found in water. In any case, sources of VOC contamination should be eliminated if possible.

... Keep in mind, however, that VOCs may also enter the body through skin absorption or through inhalation of water vapor. ... POE treatment systems are recommended for VOC removal to ensure that all water used for drinking, cooking, cleaning, and bathing is free of contamination.<sup>3</sup>

### How will VOCs be removed from my water?

The following treatment method has been approved by the EPA for removing VOCs: Granular activated charcoal (GAC)<sup>2</sup>

[AAA BestWater Co's *OPTI-CARB 1200+*<sup>TM</sup> is a 'superior' Premium Grade extra hard highly microporous '<u>coconut shell' granular activated charcoal</u> specifically manufactured for '*optimum*' VOC adsorption.]

<sup>3</sup>[Prepared by: Gregory D. Jennings and Ronald E. Sneed *Extension Specialists, Biological & Agricultural Engineering,* Mary Beth St. Clair, *Extension Specialist, Toxicology,* Published by: North Carolina Cooperative Extension Service]

<sup>&</sup>lt;sup>1</sup>National Library of Medicine

<sup>&</sup>lt;sup>2</sup>Environmental Protection Agency (EPA)

**OPTI-CARB 1200+**<sup>™</sup> is a superior '**Premium Grade**' Granular Activated Carbon (GAC), exclusively available in Hawaii from AAA BestWater Co. (The

standard industry abbreviation for *Granular Activated Carbon* is 'GAC'.) *OPTI-CARB 1200+*<sup>™</sup> is an exclusive Trademark of AAA BestWater Co.

The '*specifications*' for **OPTI-CARB 1200+™** Granular Activated Carbon were selected and designed by AAA Best-Water Co. *specifically* to be the most effective method to



remove VOCs (*VOCs such as pesticides, insecticides, herbicides, termiticides, fumigants, solvents, & gas additives*), from a household's water supply. [(VOC) is the scientific abbreviation for '*Volatile Organic Compound*' that is used by the scientific community, the **EPA** (Environmental Protection Agency), and the **DOH** (Hawaii Department of Health).]



Volatile Organic Compounds (VOCs) can be absorbed through the skin's pores and inhaled while taking a Hot Shower, Hot Bath, Washing Dishes, and Standing over a Heated Pot of Water while Cooking!

It has been said that *while taking a hot shower or bath,* the amount of volatile compounds inhaled or absorbed through the skin, can be the equivalent of drinking two quarts of water with the same level of contaminant. *Even washing dishes in hot water, or standing over a pot of water while cooking, can give you the same exposure.* 



## AAA BestWater Co.

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- Continued on Following Pages -

## Virtually all the water distributed throughout Oahu, contains up to THREE different <u>DBPs</u>

### What are Disinfection By-Products (DBPs)?

Water is chlorinated by the Honolulu Board of Water Supply to fight bacteria. Unfortunately, the chlorine is very reactive and easily combines with naturally occurring organic material to form **DIS-INFECTION BY-PRODUCTS (DPBs)**, such as **HAA5 (Total Haloacetic Acid)**, and **Trihalometh-anes (TTHMs)**. **TTHMs** are a group of four chemicals: **chloroform**, **bromoform**, **bromodichloro-methane** and **dibromochloromethane**.

It is these trihalomethanes that you are more likely to see at the tap than you would chlorine depending on where you are located within the water distribution system. The farther away from the treatment plant the more likely you will have trihalomethanes in your water as the time the water must travel within the distribution systems allows the chlorine to react.

In December 1998, the EPA enacted the stage 1 Disinfectants and Disinfection By-Products Rule. This rule lowered the maximum contaminant lever (MCL) for TTHMs (Total Trihalomethanes) from 100 ppb to 80 ppb. Ground water systems were requested to comply with Stage 1 Disinfectants and Disinfection By-Products Rule by January 2004.

#### What are the health risks associated with DBPs?

**Here is the EPA's statement:** "EPA's main mission is the protection of human health and the environment. When carrying out this mission, EPA bases its decisions on the best available science. However, EPA must often make regulatory decisions with less than complete information and with uncertainties in the available information. EPA believes that consistent with public health protection goals of the SDWA, it is appropriate and prudent to err on the side of public health protection when there are indications that exposure to a contaminant may present risks to public health, rather than take no action



until risks are unequivocally proven. Such is the case with the Stage 2 DBPR. The best available science indicates that <u>cancer</u>, <u>reproductive and developmental risks</u> may be associated with exposure to DBPs and disinfected drinking water." ... "While recognizing these uncertainties, EPA believes that the weight of evidence represented by the available epidemiology and toxicology studies on disinfected water and DBPs continues to support a concern for health risk and a protective public health approach to regulation of DBPs."

"A number of epidemiology studies have been conducted to investigate the relationship between exposure to disinfected water and adverse effects like cancer or developmental and reproductive outcomes. While EPA cannot conclude there is a causal link between exposure to chlorinated surface water and cancer, **some epidemiology studies have suggested an association, albeit small, between <u>bladder</u>, <u>rectal</u>, and <u>colon</u> <u>cancer</u> and long term exposure to chlorinated surface water. Although there are fewer published epidemiology studies that have been conducted to evaluate the possible relationship between drinking water and reproductive and developmental effects, recent studies report increased risks for <u>low</u> <u>birth weight</u>, <u>term low birth weight</u>, <u>birth defects</u>, <u>miscarriage</u>, and <u>still birth</u> to women <b>exposed to chlorinated surface water and elevated concentrations of TTHM.** <u>As with</u> <u>cancer</u>, although EPA cannot conclude at this time that there is a causal link between exposure to chlorinated water or DBPs and reproductive and developmental effects, <u>there is a troubling indication of an</u> <u>association</u>. Furthermore, <u>developmental effects may occur after short durations of</u> <u>exposure</u>." Here is the EPA's statement (continued):

"...the Agency believes the weight of evidence presented by the available epidemiological studies on chlorinated drinking water and toxicological studies on individual DBPs support EPA's concern about a potential health hazard."

"After reviewing the science, all committee members expressed concern for potential health risks to pregnant women and their fetuses from DBPs..."

**Ozonation:** Ozonation is used for disinfection in some Bottled Water production.

Here is the EPA's statement regarding Ozonation: "...if bromide ion is present in the raw water halogenated DBPs may be formed. These brominated DBPs appear to pose a greater health risk than non-brominated DBPs."

#### How am I Exposed to Disinfection By-Products (DBPs)? BY INGESTION

Drinking Water , or Beverages & Food Prepared with Chlorinated Water,

and,

May be found in BOTTLED WATER that uses Ozonation for disinfection.

Honolulu Board of Water Supply Distribution System Monitoring for Disinfection By-Products, 5/31/06 & 5/23/07 Reports REGION 3 (Ewa-Waianae-Waipahu System) — Tested by the State Dept. of Health

| Contaminant                  | Average   | Maximum   | MCL (Maximum Contaminant Level)<br>Allowed | MCLG<br>(GOAL) |         |
|------------------------------|-----------|-----------|--|----------------|---------|
| Bromoform                    | 1.087 ppm | 2.300 ppm | Not Yet Available                          | 0              | 5/31/06 |
| TTHMs (Trihalomethanes)      | 1.087 ppm |           |  | Not Applicable | 5/31/06 |
| HAA5 (Total Haloacetic Acid) | 0.255 ppm | 1.300 ppm | 60.000 ppm                                 | Not Applicable | ]       |

**NOTE:** A system in compliance with an MCL could have TTHM or HAA5 occurrences well above the MCL. What is reported to the public is the running annual average. DBPs can peak above regulated levels. There are <u>Health Risks with short durations of exposure to DBPs</u>.

### How will **DBPs** be Removed from My Water?

#### **Best Available Technology (BAT):**

Granular activated carbon (GAC) under the SDWA is the best available technology (BAT) for removing DBPs. SOURCE: EPA Guidance Manual, M-DBP simultaneous Compliance

AAA BestWater Co's <u>exclusive</u> OPTI-CARB 1200+<sup>TM</sup> is a 'superior' Premium Grade extra hard highly microporous '<u>coconut shell' granular activated charcoal</u> manufactured for 'optimum' DBP adsorption, and long life. The AAA BestWater Co's (POE) Whole-House GAC Filter/Purification System contains the proper amount and type of GAC to handle the household flow rates, for the contact time required for the GAC to 'adsorb' the DBPs, thereby filtering <u>all</u> the water throughout your home.

**OPTI-CARB 1200+**<sup>™</sup> meets AWWA Standard B-600-74, ANSI/NSF Standard 61 and Food Chemicals Codex Standards for drinking water applications.





Many of the types of *pesticides, insecticides, herbicides, termiticides, fumigants, solvents, & gas additivies* found in Oahu's ground water supplies are considered "VOLATILE" [Volatile Organic Compounds (VOCs)], and therefore will release from the water when they are heated and exposed to the air. In their volatile state, *these compounds can be absorbed through the skin and inhaled.* 

#### POISONING THE WELL

Hawaii's Groundwater becomes contaminated when toxic material from pesticides, herbicides, insecticides, termite ground treatment, old military leaking underground fuel storage tanks, old commercial leaking underground fuel storage tanks, old military buried chemical drums and toxic waste dumps, old commercial buried chemical drums, community landfills, fuel oil spills from leaking fuel oil transmission lines, waste injection wells, etc., reaches an aquifer. The pollution often forms a "plume" that often goes undetected.



- Continued on Following Pages -



A Kama`aina Company Since 1983

#### Coconut Shell Carbon: OPTI-CARB 1200+™

is a 'superior' **Premium Grade** extra hard highly microporous coconut shell carbon specifically manufactured for 'optimum' VOC adsorption.





The 'specifications' for **OPTI-CARB 1200+™** Granular Activated Carbon were also selected and designed by AAA BestWater Co. to be the most effective method to remove DBPs (Disinfection Byproducts). Naturally Occuring Organic Backgrounds (NOBs) reacting with <u>chlorine</u> during the disinfection process create chlorinated chemicals commonly referred to as Disinfection Byproducts (DBPs).

Common DBPs of concern are Chloroform, HAA5 (Total Haloacetic Acid), and Trihalomethanes (TTHMs), *because they are suspected carcinogens (cancer causing agents)*. [All water supplies on Oahu used for human consumption *are disinfected with <u>chlorine</u>* by the Board of Water Supply, as required by the DOH & EPA.]

- Continued on Following Pages -

AAA BestWater Co.

A Kama`aina Company Since 1983

The '*specifications*' for **OPTI-CARB 1200+**<sup>™</sup> were selected and designed as a result of **AAA BestWater Co.'s** extensive research on the different '**GAC**' *types, grades, sizes and qualities,* and **AAA BestWater Co.'s** consultation with '**GAC**' development technicians and scientific experts on the most effective way of removing the **VOC**s & **DPB**s found in Hawaii's water supplies.

**OPTI-CARB 1200+**<sup>™</sup> is manufactured with the most current scientifically accepted 'GAC' *technology* and most advanced *production methods*, and shipped directly to AAA BestWater Co., where it is then assembled into the AAA-*Pure OPTI-CARB 1200+*<sup>™</sup> GAC *Down-Flow* Filter/Purification System, at AAA BestWater Co.'s local facility.

The AAA-Pure OPTI-CARB 1200+<sup>TM</sup> GAC Down-Flow Filter/Purification System with OPTI-CARB 1200+<sup>TM</sup> is designed to be *the most optimally effective way* to meet Hawaii's water contamination concerns — *namely*, the Non-Cancer Causing Health Effects, as well as, the Increased Cancer Risk from exposure to several — *or even just one* — of the many VOCs found in Hawaii's water supplies. The most recent scientific research available has indicated that, when combining just TWO (2) VOCs together, the effects of the body being exposed to two (2) VOCs together can be as much as <u>1,000 times more</u> <u>dangerous</u> as being exposed to just one 'VOC'. (There are some areas of Oahu where *residents are being exposed to as many as EIGHT (10) known VOCs.*)

However, it is possible that there are other unknown VOCs in the water supplies, in addition to the known VOCs, because they are not being tested for, nor looked for by the local DOH (Dept. of Health), because they are not required to by the Federal Government, and also due to the lack of funding within the appropriate Federal and Hawaii government agencies. [The EPA currently regulates only 85 substances. Of those 85 regulated substances, only 52 are for Organic Chemicals— such as pesticides, insecticides, herbicides, termiticides, fumigants, solvents, & gas additives. That's less than 52 of the 4,500 registered pesticides, insecticides, & herbicides used in Hawaii. (SOURCE: Supervisor of the State's Drinking Water Program, Honolulu, Sunday Star-Bulletin & Advertiser, November 16, 1986.) And, that's not counting all the other types of toxic substances used by business, industry and the military in Hawaii.] Click Here >

**NOTE: VOC** levels in Hawaii's water supplies used for human consumption are within either the EPA or Hawaii DOH's MCL's (maximum contaminant levels.) *However*, the big question is, *do we really know if those standards are truly safe? Are you willing to have your family* — your children — *exposed to that many VOCs even at those contaminant levels?* <u>Click Here</u> >

- Continued on Following Pages -



A Kama`aina Company Since 1983

## Pesticide combinations add up to big trouble

#### Associated Press

WASHINGTON - Pesticides that by themselves have been linked to breast cancer and male birth defects are up to 1,000 times more potent when combined, according to a study.

#### A federal environmental official called the finding astonish-

**ing''** and said if it is confirmed in other labs, it could force a revolution in the way environmental effects of chemicals are measured.

The study centered on endosulfan, dieldrin, toxaphene and chlordane, all pesticide chemicals that are known to turn on a gene that makes estrogen in animals.

Estrogen is a hormone that controls formation of female organs. A surplus of the hormone has been linked to breast cancer and, to malformation of male sex organs.

By themselves, the pesticides have only a very weak effect on the estrogen gene, said John A. McLachlan of Tulane University, leader of a team that tested the chemicals. "If you test them indi-

#### *"These findings are* Astonishing"

Dr. Lynn Goldman, Environmental Protection Agency

### "But when we put them in combination, their potency Jumped up 500 to 1,000-fold."

McLachlan said it was expected that combinations of the chemicals would be additive; that is, the effects of two chemicals together would equal the sum of the effects of the chemicals alone.

"Instead of one plus one equaling two, we found in some cases that one plus one equals a thousand."

The study is being published today in the journal Science.

"These findings are astonishing," said Dr. Lynn Goldman, chief of the Environmental Protection Agency's Office of Prevention, Pesticides and Toxic Substances.

"The policy implications are enormous about how we screen environmental chemicals for estrogen effects."

#### State of Hawaii's Department of Health Groundwater Contamination Maps 2005 Department of Health REPORT ... States the following

"The 2005 Maps show that groundwater contamination continues to occur in Hawai'i. In most cases, once a groundwater source has been contaminated, it remains contaminated for many years. These maps identify locations where certain groundwater contaminants have been detected and confirmed in water sources. The Maps show that a few wells that were previously not contaminated by a particular chemical have now shown positive detections of chemicals known to be present in nearby wells."

[State of Hawaii Dept. of Health Groundwater Contamination Maps Report 2005]

"The 2005 Maps identify organic and other chemical contaminants that have been detected and confirmed in drinking water wells and select non-potable wells throughout the state. Groundwater can become contaminated through natural processes, but anthropogenic, or human-induced, contamination poses more serious problems. Contaminants may come from herbicides, pesticides, industrial solvents, and other sources which are applied, spilled, or leaked into the ground. Groundwater contamination is a significant concern because nearly all of Hawaii's drinking water comes from groundwater sources."

"Some contaminated wells may not be reported because of lack of confirmed data, or the wells have not been tested. The contamination levels in the report refer to reported levels of contamination on a specific sampling date. Levels of groundwater contamination may fluctuate for a number of reasons, including actual diminishing or increasing levels of contamination, chemical breakdown of contaminants, variability in sampling and analytical methods, the effects of pumping rates, and other factors."

(SOURCE: 2005 State of Hawai'i Department of Health Groundwater Contamination Maps for the State of Hawai'i, distributed, July 2006-*Most recent available*)

*Did you know*? The Hawaii State Dept. of Health has stated that "... what is considered safe [federal and state <u>standards</u>] ≥ today may not be considered safe tomorrow. ..."

"... as a matter of policy, the United States Environmental Protection Agency has taken the position that <u>an increased cancer risk can be</u> <u>expected to occur at any level</u>. Therefore, <u>there is no "safe" level of</u> <u>exposure for carcinogenic agents....</u>"

(SOURCE: Director, State Dept. of Health Advertisement, The Honolulu Advertiser, June 29, 1988)

<u>The 2003, 2004 & 2005 Maps reports includes the following:</u> <u>Exposure to the known VOCs in Hawaii's water supplies</u> have been reported by the *EPA* and the Hawaii *DOH* <u>to include the following known health effects</u>:

Increased Risk of CANCER
 Increased Risk of BREAST CANCER

- Liver Damage
- Kidney Damage
- Bladder Damage
- Changes in Adrenal Glands
- Respiratory System Damage
- Cardiovascular System Problems
- Heart Damage
- Retinal Degeneration
- Anemia
- Decreased Red Blood Cells

- Muscle Degeneration
- Stomach Damage
- ► Gastrointestinal Tract Damage
- Nervous System Damage
- Central Nervous System Depression
- Chromosome Aberrations
- Reproductive System Problems
  & Difficulties
- Anti-Fertility Effects
- ► Male Reproductive System Problems
- Malformation of Male Sex Organs

Are you willing to risk the known health effects associated with exposure to the VOCs in your water supply?

## *ноw тне* AAA-*Pure OPTI-CARB 1200+* <sup>™</sup> GAC *Down-Flow* Filter/Purification System with *OPTI-CARB 1200+* <sup>™</sup> *WORKS:*

## Activated Carbon has been designated by the U. S. EPA as the best available technology for reducing all types of synthetic chemicals.

**STEP 1:** City water enters the control valve and flows down through the media tank.

**STEP 2:** With a "DOWNFLOW" process, your water is filtered and purified as it passes through acres and acres of surface area of AAA BestWater Co.'s exclusive *OPTI-CARB* 1200+<sup>*m*</sup>, a specially graded, *highly-activated* Granular Activated COCONUT SHELL BASED Carbon, to achieve optimum performance in reducing a wide range of chemical

substances. With its enhanced adsorption of synthetic organic chemicals & Volatile Organic Compounds (VOCs), like Atrazine, Alachlor, Ametryn, Benzene, Carbon tetrachloride (CTC), Chlordane, DBCP, DCP, Desethyl Atrazine, Dieldrin, EDB, PCE, TCE, TCP, and other Pesticides, Herbicides, Termiticides, Fumigants, Solvents, & Gas Additives, as well as Chlorine, & DBPs, such as Chloroform, Trihalomethanes (TTHMs), and HAA5 (Total Haloacetic Acid), as well as LEAD &Taste & Odor — the Carbon, thereby purifies all the water for bathing, cooking & drinking in the home. — *Then*, in addition, as the water passes through the system with its "DOWNFLOW" process, it also filters and clarifies the water by trapping dirt, rust, and sediment, *in both* the Carbon bed and a special Filter Media at the bottom of the bed. — and therefore, a wide range of health concerns can be addressed.



**STEP 3:** After the water has been completely filtered it exits the Media tank through the riser pipe and out the control valve. It then enters the Whole-House Water Softening System, providing quality conditioned water through-out your home.

**STEP 4:** When necessary, at selected intervals, the VALVE — Backwashes the charcoal bed — all *AUTOMATICALLY* — while you are sleeping. This process **re-grades the carbon**, and *flushes out* **trapped dirt**, **rust** and **sediment**, which are *back washed* and *flushed* out of the system and *down the drain*. This will help insure that your carbon always performs to its maximum efficiency and capacity. Gives you *clear*, *polished*, *purified water* without time-consuming manual maintenance. AUTOMATIC BYPASS — Diverts water to bypass the treatment tank during backwashing. Gives you uninterrupted water flow — so you're never without water.



#### System STAGE ONE

AAA-*Pure* Fully Automatic Whole-House Down-Flow Filtration/Purification System with OPTI-CARB 1200+™

Cleans, Polishes & Purifies

with

Filtration & GAC Adsorption TECHNOLOGIES



Whole-House Coconut Shell Carbon-GAC

**Down-Flow FILTER/PURIFICATION System** 

Comes with Manufacturer LIFETIME WARRANTY\*

MINERAL CONTAINER (GAC TANK): LIFETIME WARRANTY VALVE BODY: LIFETIME WARRANTY ELECTRICAL PARTS: LIFETIME WARRANTY

### Quality Water Filtering Control

#### ...your key to efficiency, reliability, and savings

### The 5600

- Is a highly accurate and reliable clock type control that provides backwashing regeneration on a pre-programmed basis. Once the timing cycle is set, it delivers economical, fully-automatic operation. Smooth operation and easy maintenance are other features.
- 12-day clock initiated backwashing.
- 6-cycle adjustable down-flow filtering control is efficient and reliable.

- Combines rugged construction with contemporary design to filter water in style.
- Modular design makes disassembly a snap; simplifies maintenance.
- Customize installation choosing from wide range of options.
- Valve body is molded from glass-reinforce Noryl<sup>®</sup> for exceptional strength and durability.
- Flow rate is up to 20 gpm.





water filtering control

#### Modular construction and quality components deliver reliable system performance

#### HEAVY-DUTY POWERHEAD

The heart of the system features a single heavy-duty motor. It is used in timing backwash cycles and costs very little to operate. Uses only about 10 cents per month in electricity.





CONTROL VALVE

TREATMENT TANK The treatment tank contains the **OPTI-CARB 1200+™** — specially graded, highly-activated, **Granular Activated COCONUT SHELL BASED Carbon** — that removes synthetic organic chemicals & Volatile Organic Compounds (VOCs), like DBCP, TCP, TCE, DCP, Carbon-tetrachloride, Atrazine, EDB, PCE, Chlordane, Dieldrin, Alachlor, Ametryn, and other pesticides, insecticides, herbicides, termiticides, fumigants, solvents, & gas additivies, as well as *Chlorine* and DBPs such as Chloroform and Trihalomethanes (THMs), and also Taste & Odors — the Carbon, thereby purifies all the water for bathing, cooking & drinking in the home.



**ONE-PIECE VALVE BODY** This space-age plastic valve provides exceptional service life, strength and durability.



**BY-PASS VALVE** This valve enables you to by-pass the filtering system if desired.

### "Who makes the best down-flow water filter system and water softener system components?"

#### Fleck valves and Structural tanks are the brands you can trust.

The best components make the best filter systems. The valve and tank used in your Down-Flow GAC Filter System and Water Softener System are key to its durability and performance. Fleck valves and Structural tanks have been leaders in the water industry for over 50 years. Both have been designed to provide you with the latest technology and highest quality standards possible.

The Fleck and Structural brands are part of Pentair Water Treatment, a subsidiary of Pentair, Inc., a multi-billion dollar diversified manufacturer headquartered in Minnesota. Global in scope, Pentair water treatment has additional facilities in Wisconsin, Ohio, Belgium, France, Italy, India, Taiwan and China.

> Key to the exceptional quality and performance of all Fleck's products is it's patented piston-seal-spacer technology. This technology has proven so long lasting, Fleck found it still working in a 38-year-old valve in Waveland, Indiana.







A Kama`aina Company Since 1983



"There is no substitute for Pure Water" Honolulu Board of Water Supply

# AAA BestWater Co.

#### System STAGE TWO

## AAA-Soft

Fully Automatic Whole-House Water Softener/Conditioner System with NON-SOLVENT RESIN

Cleans, Filters, Softens, Conditions

with

#### Filtration & ION Exchange TECHNOLOGIES



#### Whole-House Water Softening/Conditioning System

Comes with Manufacturer LIFETIME WARRANTY\*

NON-SOLVENT Softening RESIN: LIFETIME WARRANTY MINERAL CONTAINER (RESIN TANK): LIFETIME WARRANTY SALT STORAGE CONTAINER (BRINE CABINET): LIFETIME WARRANTY VALVE BODY: LIFETIME WARRANTY ELECTRICAL PARTS: LIFETIME WARRANTY

#### What is the <u>single most important component</u> of your Water Softener System?

<u>It is the WATER SOFTENING RESIN</u>: It is the 'cation' RESIN which performs the 'softening' function of your system, by removing the water impurities that cause 'Hard Water'. If your RESIN fails, you will no longer be able to 'soften' your water.

## What is the most important <u>HEALTH</u> & <u>SAFETY</u> feature of the water softening RESIN?

**SOLVENT FREE RESIN**: The RESIN should be manufactured *without the use of solvents*, and should not give off solvents into the softened water.

This is why we have selected a *NON-SOLVENT* Strong Cation Resin for our Water Softening System.

**The RESIN** is a *NON-SOLVENT*, premium grade, cross-linked, strong cation resin, for water softening and demineralization, <u>which is manufactured without</u> <u>the use of a solvent</u>. <u>This process eliminates any solvent leachables</u>.

#### Meets the Most Exacting Requirements Of the Residential Water Treatment Industry

Produced to meet the following Standard and Compliance:

• FDA regulation CFR Section 21 §173.25 Compliant.

**IMPORTANT NOTE:** We are the only Hawaii company that uses a **NON-SOLVENT Resin** in it's **Water Softening System**. Other Water Softener Systems on the market here use standard type resins that <u>are manufactured with solvents</u>, and can <u>leach solvents</u> <u>into your water</u> in the water softening process.

(The old adage — "You get what you pay for" — certainly applies here!)

**<u>RESIN</u>** LIFETIME WARRANTY: Our Water Softener System comes with a non-prorated <u>LIFETIME WARRANTY</u> on the NON-SOLVENT Resin!

## with SOFT WATER you and your family can LIVE BETTER and get MORE VALUE from your money!!!

## SOFT WATER as an investment.

Few household appliances can match the return you'll get from your investment in soft water. There are real savings in soaps and detergents, longer-lasting

clothes and linens —real pleasures in soft water baths, showers and shampoos . . and most welcome lightening of nearly every household cleaning task.

Soft water is a pleasure for the whole family ... and an investment every family can afford. Let us show you a plan that will fit your budget and give you all the *wonderfully soft water* your family needs!



They all work better, last longer, stay cleaner with soft water. There is no hard water soap curd to gum up the works . . . because all of the wear- and workcausing sediment flows away with a soft water rinse.





solar systems

piping, drains

water heaters

No scaled-up water heater, no choked-up piping plagues soft water households. Scaleforming hardness never reaches piping and appliances . . And there is no soap and detergent curd to clog up traps and drains.

## new experiences

Personal Grooming with Soft Water



#### BATHING

Clean skin imparts a feeling only soft water baths and showers can let you experience. Free of tenacious, invisible soap film, your skin comes alive. Truly clean skin is healthier, softer, too . . . And looks it.



#### SHAMPOOING

Clean, soft, lustrous hair — truly your crowning glory — is yours with soft water shampoos. Hard water soap curd clings to hair, gives it a dull, lifeless cast and a stiff or gummy coating. The abundance of rich bubbly suds that comes naturally with soft water puts an end to stringy, sticky hair . . . and eliminates any need for special rinses.

#### SHAVING

A soft water shave lets you come as close as you're likely to get to enjoying cutting off whiskers. Soft water makes soap the smooth, beard-softening lubricant it is supposed to be. And the rinse that takes the soap away—really away—is a fine start toward a good day all around.

WATER QUALITY ASSOCIATION NATIONAL HEADQUARTERS AND LABORATORY 4151 NAPERVILLE ROAD • LISLE, ILLINOIS 60532 312/369-1600



## "Is something wrong with my water?"

#### Most water contains more than water.

Almost all of the water found in the U.S. is hard water. Hard water is water that is contaminated with dissolved minerals – like calcium, magnesium, sulfur, iron, lead and limestone – that can have a negative impact on you, your household and your pocketbook. Depending on where you live, contaminants from sewage, industrial waste and agricultural run-off can also seep into your water supply.

#### Hard water produces scale.

If there are stains or buildup on your sinks and bathtubs ... if you have to use large amounts of soap to clean dishes or



Hard water produces a scaly buildup which can clog pipes and appliances.

wash your hair ... or if your water tastes or smells odd, you probably have hard water. If left untreated, the minerals in hard water will cause yellow stains on plumbing fixtures and be deposited as scale, eventually clogging plumbing and shortening the life of appliances like washing machines, water heaters and dishwashers. Scale deposits not only cut down on the efficiency of these appliances, they cost you money, increasing both energy and maintenance bills.

#### Water softeners eliminate the effects of hard water.

They "soften" the water by removing the calcium and magnesium found there, extending the useful life of water heaters, washing machines, dishwashers, coffeemakers, humidifiers and household plumbing systems *by as much as 30*%.



Hard water can cause yellowish stains on toilets, bathroom fixtures and clothing making them much harder to clean. Hard water can also cause skin irritation.



Evaporation

Air pollution

STR

Oceans

In the air, water vapor can mix with sulfur from smokestacks, forming an acid which will eventually fall back to earth as rain, sleet, hail or snow.

As water passes through the surface of the earth to the water tables below, it dissolves minerals and other substances it may encounter, including PCBs, bacteria, fertilizers and insecticides.

Even after reaching a home, water can continue to dissolve such things as lead from the solder in plumbing pipes.



A water softener in your home will make you feel better bathing, improve the taste of water, and allow soaps and detergents to clean better.

## "Can I actually feel a difference between hard and soft water?"

With softened water, soaps lather better and clean more completely.



## Soft water makes a difference you can feel and see, all over the house.

In the Bathroom: Your soap and shampoo will lather better. Your hair and skin will feel noticeably cleaner, softer, and not as dry. And there will be no soap scum or mineral deposits to clean off sinks, showers, tubs and toilets.

*In the Laundry:* Clothes will be softer, cleaner, whiter and brighter. Plus they will last longer. Using soft water and pure soap products *increases the life* of clothing, towels and linens *up to 33%*. Without hard water service issues, washing machines last longer, too.

*In the Kitchen:* Dishes will clean up more easily, and be *spot free*, without the gray film glasses get when etched by mineral-laden water. Plus *hands will feel softer* and look better.

*Throughout the House:* Water-using appliances will *last longer* and run better. Why? Because hot water heaters, washing machines and dishwashers used with hard water can *wear out 30% faster*.



Over time, soft water savings can really add up. For instance, conditioned water not only delivers greater washing power, it reduces the amount of soap you nee to use by up to 70%. In fact, the Bureau of Statistics found that between 17 and 20.8 cents of every dollar are spent on cleaning products. Soft water can reduce that bill by up to 65%. It can also eliminate extra rinse cycles and hot water. Plus using less detergent, household cleaners and chemicals is better for the environment.

*The bottom line? Soft water can save you thousands of dollars.* 



The most durable and best performing water softeners are those built with Fleck valves and Structural tanks.

## "How does a water softener work?"



Water Softener





#### Softening water is a 4-step process.

- The body of a water softener is a tank filled with resin beads. These beads are covered with sodium ions-(If you use Salt-{Sodium Chloride} to make a brine solution), or, covered with potassium-(If you use Potassium Chloride to make a brine solution). [NOTE: Any Water Softener can use either Salt-{Sodium Chloride} <u>OR</u>, Potassium Chloride.] As hard water passes through, the resin beads act like a magnet, attracting the calcium and magnesium ions (hardness) in exchange for either the sodium or potassium ions-(depending if you use either Salt-{Sodium Chloride} <u>OR</u>, Potassium Chloride).
- 2) Eventually the resin beads become saturated with mineral ions and have to be "re-charged." This process is called regeneration, and is conducted by the control valve on the top of the tank. The control valve is the brain of the system.
- During regeneration, a strong brine solution is flushed through the resin tank, bathing the resin beads in a stream of sodium or potassium ions-(depending if you use either Salt-{Sodium Chloride} <u>OR</u>, Potassium Chloride), which replace the accumulated calcium and magnesium ions (hardness).
- 4) The brine solution, carrying the displaced calcium and magnesium ions, is then flushed down the drain by fresh water. The regenerated resin beads can be used again and again.



Fleck control valves are designed to meet rigorous fatigue standards, passing 250,000 pressure cycles at up 190 psi, as well as 10,000 complete regeneration cycles. Structural fiberglass tanks offer a 10-year manufacturer's warranty, the best in the business. Plus, only Structural fiberglass tanks feature an injection-molded inlet for leak-free seals.

## "Who makes the best water softener components?"

#### Fleck valves and Structural tanks are the brands you can trust.

The best components make the best softeners. The valve and tank used in your softener are key to its durability and performance. Fleck valves and Structural tanks have been leaders in the water industry for over 50 years. Both have been designed to provide you with the latest technology and highest quality standards possible.

The fleck and Structural brands are part of Pentair Water Treatment, a subsidiary of Pentair, Inc., a multi-billion dollar diversified manufacturer headquartered in Minnesota. Global in scope, Pentair Water Treatment has additional facilities in Wisconsin, Ohio, Belgium, France, Italy, India, Taiwan and China.

Key to the exceptional quality and performance of all Fleck's products is it's patented piston-seal-spacer technology. This technology has proven so long lasting, Fleck found it still working in a 38-year-old valve in Waveland, Indiana.

Dealer

AAA BestWater Co. 454-2666



## Modular construction and quality components deliver reliable system performance

#### HEAVY-DUTY POWERHEAD

The heart of the system features a single heavy-duty motor. It is used in timing regeneration cycles and costs very little to operate. Uses only about 10 cents per month in electricity. BRINE TANK The brine tank is the salt reservoir that is used in refreshing the system's resin bed.

INJECTOR / DRAIN MODULE This component controls line flows and brine injection. It is easily accessible for cleaning. **ONE-PIECE VALVE BODY** This space-age plastic valve provides exceptional service life, strength and durability.

> METER MODULE (Optional) The meter module is a simple mechanical device that monitors and registers water usage, initiates regeneration.

**RESIN TANK** The resin tank contains the filtering media of the system that removes impurities and conditions your water supply.

CONTROL VALVE

BY-PASS VALVE (Optional) This valve enables you to by-pass the conditioning system if desired.

### Quality Water Conditioning Control

#### ...your key to efficiency, reliability, and savings

#### The 5600 Econominder

- Saves up to 50% on salt, saves water and reduces sewerage taxes, too.
- Simple and dependable mechanical meter monitors water usage even during power failure and initiates regeneration only when needed.
- Uses considerably less water by automatically regenerating only when regeneration is needed. Unnecessary regenerations are eliminated by a simple, mechanical meter that monitors the water you use.



- Modular design makes disassembly a snap; simplifies maintenance.
- Flow rate is up to 20 gpm.
- 6-cycle adjustable down-flow brining control is efficient and reliable.
- Valve body is molded from glass-reinforce Noryl<sup>®</sup> for exceptional strength and durability.
- Choose from a wide range of options to customize installation.



## THE 5600 ECONOMINDER<sup>®</sup>

Demand regeneration control



Conditioned WATER



Soap saver Hard water impairs the cleansing strength of detergents. Conditioned water not only delivers greater washing power, it reduces soap requirements (up to 70%). Protects your washing machine at the same time.

#### does make a difference

Many water supplies contain hardness minerals (calcium and magnesium). These minerals form a scale and create problems in water heaters, washing machines, dishwashers, coffee makers, humidifiers and plumbing systems. The modern and efficient water conditioning system described in this brochure eliminates hard water problems. It removes calcium and magnesium from your water supply by filtering it through a resin softening medium. Salt is used to revitalize the system periodically to provide soft water for your daily needs. The control for this system is designed and engineered to give you reliable operation and conserve the water and salt required in the regeneration process. Take a close look at all of the advantages shown here and you'll find that conditioned water makes a refreshing difference in your life and will save you money now and in the years ahead.

> **Money stretcher** The cost of your cleaning supplies will drop dramatically with conditioned water because you'll use less soap . . . fewer harsh chemicals and detergents . . . to get the job done.

**Clothes** brightener Clothes last longer; come out fresher, cleaner and softer when washed in conditioned water. Colors stay brighter, too.

kitchen

**Dish sparkler** Tired of streaks and spots on glassware and dishes? Conditioned water eliminates the problem, and helps your dishwasher last longer, tool



Red, roughened hands are usually the by-product of hard water. Conditioned water caresses, doesn't irritate.

utility room

Hot water guard Conditioned water adds longer life to your water heater by minimizing the scale build up created by hard water minerals. Saves you money, too. Less energy is required (17% to 21%) to heat water in tanks without a scale build up.



**Pipe protector** Over a period of time scale forms to clog your plumbing. As the pipes clog, water flow is restricted and water pressure can be reduced dramatically. A water conditioning system minimizes this headache.



Faucet preserver Hard water scale corrodes and plugs valves in water-using appliances. Shortens service life and costs you money.

bathroom

#### Face saver Say good-bye to razor burn as your razor glides smoothly over your soft water conditioned face. Both your skin and blades will last longer.





**Body refresher** Bring conditioned water to your bath or shower and you'll feel a refreshing difference. You'll wash "really clean" faster and without soap build up on your skin. You'll come away more relaxed and refreshed than ever before.

Hair pamperer A conditioned water shampoo revives hair color and makes it more radiant and manageable.

general leaning

**Stain eliminator** All bathroom fixtures benefit from conditioned water. There will be no more unsightly rings, stains or mineral build up to darken your porcelain or your day.





Scrubbing helper Washing floors, tile, woodwork goes much easier and faster with conditioned water because it eliminates the film and soap scum that hard water causes.

### System STAGE THREE <u>click here ></u>

## Kitchen Sink Purification System Drinking & Food Preparation Water Purification

Cleans, Filters, Polishes, & Purifies with Micron Filtration, Carbon Adsorption, & Reverse Osmosis TECHNOLOGIES

A Reverse Osmosis Membrane reduces Total Dissolved Solids (TDS), including Lead, Nitrate, Trivalent Chromium, Hexavalent Chromium, Chromate, Mercury, Cadmium, Chloride, Barium, Fluoride, Sodium, Aluminum, Strontium, Calcium, Sulfate, Boron, Cyanide, Arsenic<sup>+3</sup>, Arsenic<sup>+5</sup>, Magnesium, Bicarbonate, Boron, Cyanide, Arsenic<sup>+3</sup>, Arsenic<sup>+5</sup>, Magnesium, Bicarbonate, Phosphate, Potassium, Iron, Manganese, Copper, Nickel, Zinc, Silver, Selenium, & Radioactivity; as well as Biological<sup>2</sup> Contaminants such as Bacteria<sup>2</sup>, Protozoa<sup>2</sup>, Amoebic Cysts<sup>2</sup>, Giardia<sup>2</sup>, Cryptosporidium<sup>2</sup>; as well as Particulate Contaminants such as Asbestos, Sediment/Turbidity.



Model SQC3
#### **BENIFIT:** Reduces Contaminants from your Drinking Water, Ice Cubes & Food Preparation Water

#### **Reduces Inorganic Contaminants such as:**

#### ☑ <u>NITRATE</u>:— Why is nitrate in drinking water a problem?

Nitrate can affect red blood cells and reduce their ability to carry oxygen to the body.

In most adults and children these affected blood cells rapidly return back to normal. However, the blood cells of infants who are given water with high levels of nitrate (or formula, & foods made with high levels of nitrate contaminated water) may develop a serious health condition due to the lack of oxygen. This condition is called methemoglobinemia or "blue baby syndrome." Some scientists think that diarrhea can make this problem even worse.



Blue baby syndrome is a rare but sometimes fatal disease that occurs primarily during the first four months of life. Symptoms include a blue discoloration of the lips, nose, and ears. Other symptoms include crying, vomiting and diarrhea.

Some studies have found an increase risk of <u>spontaneous abortion</u> or <u>certain birth defects</u> if the mother drank water high in nitrate. Women who are pregnant or who are trying to become pregnant should not consume water that is high in nitrate.



The Honolulu Board of Water Supply has reported Nitrate levels up to 4.700 ppm, in REGION 3 (Ewa-Waianae-Waipahu System). However, <u>Nitrate levels may rise quickly for</u> short periods of time because of rainfall or agricultural activity. Virtually all the water distributed throughout Oahu, contains various levels of <u>NITRATE</u>.

## <u>NOTE</u>

<u>U.S.</u> mcl Standard for <u>Nitrate</u>: 10 ppm (Maximum Contaminant Level) <u>Germany</u> mcl Standard for <u>Nitrate</u>: 4.4 ppm (Maximum Contaminant Level) <u>S. Africa</u> mcl Standard for <u>Nitrate</u>: 4.4 ppm (Maximum Contaminant Level) <u>European Economic Community</u> mcl Standard for <u>Nitrate</u>: 5.6 ppm (Maximum Contaminant Level)

The U.S. STANDARD is Half as Protective >

As Other Countries' Standards!!!!

"There is no substitute for Pure Water" Honolulu Board of Water Supply

Can you put a price on 'peace-of-mind'?

You get <u>Fresh</u>, Filtered, Purified Water at your Tap and Refrigerator Dispenser, . . . of a quality better than most 'bottled water'.

Virtually all the water you'll need for food preparation, beverages, drinking water & ice.

Including all these **BENEFITS**, for a cost of about 28¢ a DAY!

#### Reverse Osmosis Purification BENIFIT: Reduces Contaminants from your Drinking Water, Ice Cubes & Food Preparation Water

#### **Reduces Inorganic Contaminants such as:**

✓ Total Dissolved Solids (TDS):— TDS is what gives your water it's heavy minerally taste. The higher the TDS the worse the water tastes. Based on our monthly, periodic testing of our customers water in the Ewa Beach areas, TDS levels have ranged from 350 ppm to over 600 ppm. The EPA Secondary Drinking Water Standard for TDS is a maximum of 500 ppm.

Sodium:— Ideal for people with sodium restricted diets Reduces excess sodium intake linked to heart disease and hypertension Compliments homes with sodium in the water supply... reduces sodium to insignificant levels

**Fluoride:**— The Honolulu Board of Water Supply has reported Fluoride levels up to 2.900 ppm, in REGION 3 (Ewa-Waianae-Waipahu System).

**Chromium:**— The Honolulu Board of Water Supply has reported Chromium levels up to 9.000 ppm, in REGION 3 (Ewa-Waianae-Waipahu System).

✓ Sulfate:— The Honolulu Board of Water Supply has reported Sulfate levels up to 31.000 ppm, in REGION 3 (Ewa-Waianae-Waipahu System).

✓ Radioactivity:— The Honolulu Board of Water Supply has reported Radium 228 levels up to 0.576 ppm, in REGION 3 (Ewa-Waianae-Waipahu System). The MCLG (Maximum Contaminant LeveL Goal) is 0.000 ppm. The Honolulu Board of Water Supply has reported Beta/ Photon Emitters levels up to 4.100 ppm, in REGION 3 (Ewa-Waianae-Waipahu System). The MCLG (Maximum Contaminant LeveL Goal) is 0.000 ppm.

☑ Lead ☑ Sodium ☑ Chloride ☑ Copper ☑ Other Inorganic Contaminants

- Reduces Biological Contaminants such as:
   Amoebic Cysts Protozoa Giardia
- Reduces Particulate Contaminants such as:
   Asbestos I Sediment I Turbidity

Reduces Chlorine

"There is no substitute for *Pure Water*" Honolulu Board of Water Supply

# Can you put a price on 'peace-of-mind'?

You get <u>Fresh</u>, Filtered, Purified Water at your Tap and Refrigerator Dispenser, . . . of a quality better than most 'bottled water'.

Virtually all the water you'll need for food preparation, beverages, drinking water & ice.

Including all these **BENEFITS**, for a cost of about 28c a DAY!

#### **Reverse Osmosis Purification BENIFITS:**

#### The Many Uses For Reverse Osmosis (R.O.) Water

NOTE: You should now use the R.O. Water for <u>ALL</u> your <u>Food Preparation</u>, <u>Drinks</u>, <u>Beverages</u>, and <u>Ice</u>.

- You can now use 25% to 50% less Coffee, Tea, Cocoa, Frozen Concentrate Juices, etc., any beverages you mix with water: Use less of the product or more water... Test how far you can stretch it with each product. Your beverages will not only taste better, you'll also be saving \$\$\$ 25% to 50% of your \$\$\$.
- Use it for soup, or to cook your rice, pasta, peas, beans, etc. Everything will not only look better, but taste better too!

#### **Drinking Water**

- Improves tastes and odor
- Less expensive and more healthful than alternative beverages
- Vital to every bodily function
- Cleanses toxins that effect our well being
- 6-8 glasses of water recommended by medical professionals

#### **Cooking Water**

- Removes chemical additives, mineral salts, and organic impurities which interfere with natural food flavors
- Plentiful, continuous supply provides economical source for all cooking needs...too costly for bottled water
- Reduces annoying scale build-up on pots an pans

#### Juices, Coffee and Tea

- Coffee and tea provide more flavor
- Juices and other beverages taste fresher
- Use up to 25% less ingredient, no distasteful impurities to mask

#### Vegetables, Soups and Sauces

- Removes impurities which taint natural flavors
- Vegetables will be tastier, more tender and cook in less time
- Soups and sauces are more robust and provide bolder taste when prepared with pure ingredient water

#### Ice Cubes

- Crystal clear ice cubes enhance taste and appearance of beverages
- Salt free ice cubes are harder and last longer
- No residue left in your mixed drinks

#### Refrigerator/Icemaker Hookup

- Simple connection to provide a continuous source of chilled water and ice
- Convenient access for child dispensing

#### Baby Formula

- Ideal for preparation of baby food and formula
- Protect infants most susceptible to hazards of water contaminants, especially nitrates, heavy metals and toxic
   Organics

- Continued On Next Page -

#### **Reverse Osmosis Purification BENIFITS:**

#### The Many Uses For Reverse Osmosis Water Continued . . .

#### **Low Sodium Diets**

- Ideal for people with sodium restricted diets
- Reduces excess sodium intake linked to heart disease and hypertension
- Compliments homes with sodium in the water supply... reduces sodium to insignificant levels

#### Weight Loss Diets & Exercise Programs

- Reduces excess mineral salts in tap water which contribute to increased body fluids and weight
- Compliments weight loss programs
- Ideal for replenishing body fluids lost through exercise programs

#### Pets

• Ideal for mixing with dry pet food...and filling their water bowl

#### **Plants**

- Reduces salt concentration in soil to maintain healthful plant growth
- Supports natural osmosis of organic elements and bacterial nutrients in soil
- Extends life of cut flowers

#### **Household Cleaning**

- Improves effectiveness of cleaning concentrates by reducing interference caused by dirt and mineral salts
- Reduces residue of spots and streaks

#### **Steam Irons**

- Reduces internal scale buildup and clogged steam vents
- Improves operation efficiency and energy consumption
- Extends steam iron service life

#### **Humidifiers**

- Virtually eliminates dirt, rust and mineral salt deposits caused by regular tap water
- Protects humidifier mechanism and extends life
- Reduces energy consumption and improves operating efficiency
- No filter can make these claims

#### Auto Batteries & Radiators

- Reduced radiator scale and corrosion for better functioning cooling system
- Extends battery life with reduced mineral salts

#### **Photographs**

• Prevents spots and streaking on delicate film emulsions caused by particulate matter or mineral salts

• Ideal for final film rinse. Substitutes rinse aid chemicals (i.e. Photoflo)

#### **Automobile Window Wash Dispensers**

*Here is a suggestion:* Make a Automobile 'Window Washing Solution' as follows: Mix the Reverse Osmosis Purified Water with your <u>Dish Washing Liquid</u> and put into your car window wash dispenser. It's great to wash your car windows — windows will be cleaner than ever before!

## Including all these **BENEFITS**, for a cost of about 28¢ a DAY!

Continued on following pages . . .

## **Concerned About Your WATER?**



STOP! . . . Wasting your money on 'bottled water' !!!

## We have the solution to all your water quality concerns:

 We have Reverse Osmosis Water Purification systems for your drinking — food preparation — refrigerator water & ice cubes

 System independently Tested & Certified by NSF International for Health Effects: Inorganic Contaminant Reduction & More

#### Why Reverse Osmosis Purification?

- Water Tastes so much Better I ce Cubes are Clearer Everything mixed with water tastes so much better: Coffee, Tea, Frozen Concentrate Juices, Concentrate Drinks, Hot Chocolate, Soups, Foods prepared & cooked with R.O. Water . . .
- Rice is fluffier, with no starchy film on rice or pot, when cooked in R.O. water . . .
- No starchy film on Pasta or pot, when cooked in R.O. water . . .
- Peas and beans don't shrivel, looks better, tastes better when cooked in R.O. water . . .
- Foods cooked or made with R.O. water look and taste better . . .
- No scale in coffee pots, when using R.O. water . . .
- Save 25% to 50% on Coffee, Tea, Concentrate Juices/Drinks & Drink mixes, when using R.O. water . . .



A Kama`aina Company Since 1983







AAA BestWater Co. Your Hawaii Dealer Phone: 454-2666

#### Home Reverse Osmosis (RO) Drinking Water Systems

a 3M company

31

SQC Reverse Osmosis Series 22-33 Gallons a Day Line Pressure Systems

THE SANITARY QUICK CHANGE (SQC)

 SIMPLY THE HIGHEST QUALITY DRINKING WATER BY THE BEST DESIGNED SYSTEM IN THE INDUSTRY

Crustal Clear

SQC Series

The Water Factory Systems SQC Reverse Osmosis Series provides the most complete and compact online filtration package.

NEAT AND SLIM. The SQC patented Sanitary Quick Change cartridges provide easy replacement, with no tools and no spills. You just twist them in or out. The System's compact size allows you to put it easily under a kitchen sink.

The SQC Series is tested and certified by NSF International and may be used on municipal and private water supplies.

SIMPLY GREAT PERFORMANCE. The SQC 2,3 and 4 Systems combine premium depth filters with high performance carbon and a Reverse Osmosis Membrane for unsurpassed performance in eliminating unwanted contaminants from drinking water.

# All systems come with a 10-year system Warranty and two-year Warranty on the membrane.

Reverse Osmosis (RO) is the leading technology for removing suspended and dissolved matter and contaminants from drinking water that are listed on the back side. Please refer to product specification sheet for details.



## ENTIRE SYSTEM: 10 YEAR WARRANTY





# SQC<sup>®</sup> SERIES Reverse Osmosis Drinking Water System



#### DRINKING WATER CONTAMINANTS AND THEIR CONTROL WITH REVERSE OSMOSIS WATER TREATMENT TYPICAL — Nominal Rejection Performance for Reverse Osmosis

Membranes at 60 psi Net Pressure and 70°F.<sup>1</sup>

| Inorganic  | CTA*           | TFC*             |
|--|----------------|------------------|
| Contaminant  | Rejection      | Rejection        |
| Sodium   | 85-90%         | 90-95%           |
| Calcium  | 90-95%         | 93-98%           |
| Magnesium  | 90-95%         | 93-98%           |
| Potassium  | 85-90%         | 90-95%           |
| Iron <sup>2</sup>  | 90-95%         | 93-98%           |
| Manganese <sup>2</sup>   | 90-95%         | 93-98%           |
| Aluminum   | 90-95%         | 93-98%           |
| Copper   | 90-95%         | 93-98%           |
| Nickel   | 90-95%         | <b>93-98%</b>    |
| Zinc   | 90-95%         | <b>93-98%</b>    |
| Strontium  | 90-95%         | 93-98%           |
| Cadmium  | 90-95%         | 93-98%           |
| Silver   | 90-95%         | 93-98%           |
| Mercury  | 90-95%         | 93-98%           |
| Barium   | 90-95%         | 93-98%           |
| Chromium   | 90-95%         | 93-98%           |
| Lead   | 90-95%         | 93-98%           |
| Chloride   | 85-95%         | 90-95%           |
| Bicarbonate  | 85-90%         | 90-95%           |
| Nitrate <sup>3</sup>   | 40-50%         | 85-90%           |
| Fluoride   | 85-90%         | 90-95%           |
| Phosphate  | 90-95%         | 93-98%           |
| Chromate   | 85-90%         | 90-95%           |
| Cyanide  | 85-90%         | 90-95%           |
| Sulfate  | 90-95%         | 93-98%           |
| Boron  | 30-40%         | 55-60%           |
| Arsenic <sup>+3</sup>  | 60-70%         | 70-80%           |
| Arsenic <sup>+5</sup>  | 85-90%         | 93-98%           |
| Selenium   | 90-95%         | 93-98%           |
| Radioactivity  | 90-95%         | 93-98%           |
| <b>Biological &amp; Partic</b>                                   | ulate Contamir | <u>ants⁴</u>     |
| Bacteria   | ▶99%           | ▶99%             |
| Protozoa   | ▶99%           | ▶99%             |
| Ameobic Cysts  | ▶99%           | ▶99%             |
| Giardia  | ▶99%           | ▶99%             |
| Asbestos   | ▶99%           | ▶99%             |
| Sediment/Turbidity   | ▶99%           | ▶99%             |
| Organic Contamin   | ants           |                  |
| Organic molecules  |                |                  |
| with a molecular   | •              |                  |
| weight <300  | ▶99%           | ▶99%             |
| Organic molecules  | •              |                  |
| with a molecular   | 0.000          | <b>A A A A A</b> |
| weight ◀300 <sup>5</sup>   | 0-99%          | 0-99%            |
| *CTA — Celulosic Membrane<br>*TEC — Thin Film Composite Membrane |                |                  |

\*TFC — Thin Film Composite Membrane

1. This table of nominal rejection performance is for the two types of membranes used in drinking water systems operating at a net pressure (feed pressure less back pressure and osmotic pressure) of 60 psi and 77°F water temperature.

The actual performance of systems incorporating these membranes may be less due to changes in feed pressure, temperature, water chemistry, contaminant level, net pressure on membrane, and individual membrane efficiency.

- 2. While iron and manganese are effectively removed by the membrane, they also can easily foul its surface with deposits even at low concentrations. Generally, iron and manganese should be removed by other water treatment methods prior to RO treatment.
- 3. Nitrate removal depends on factors such as pH, temperature, net pressure across membrane, and other contaminants present.
- 4. While reverse osmosis membranes theoretically remove virtually all known microorganisms, including virus, they cannot offer foolproof protection when incorporated into a consumer drinking water system. Potential seal leaks and manufacturing imperfections may allow some microorganisms to pass into the treated water.

Therefore, small home RO drinking water systems should never be used as a primary means of removing biological contamination to make a water supply fit for consumption.

5. The degree of rejection of organic molecules less than molecular weight (MW) 300 depends on the size and shape of the molecule. Activated carbon is always incorporated along with reverse osmosis to insure complete removal of these lower molecular weight organic contaminants.

#### Typical 'Garage' Installation









#### Ali'i 5-TECH<sup>+</sup> Pure Water Quality System<sup>™</sup>

NISHIJO, Travis & O'BRIEN, Barbara: 91-1034 HOOKAAHEA ST., EWA BEACH (Prescott II), Installed 10/5/05 Whole-House GAC Filter/Purification System - with OPTI-CARB 1200+™ Whole-House Water Softener/Conditioner System - with NON-SOLVENT Resin SQC3 Reverse Osmosis System They also have the ULTRA Soap Super 5000 Complete Home Cleaning System

The Ali'i 5-TECH+ Pure Water Quality System: "The water tastes better. The food tastes better. We're saving money with all the laundry and cleaning products. Thank you AAA BestWater."

Savings: "The savings alone is reason enough for anyone to purchase a AAA BestWater System."

Affordability/Savings: "My family and I are very pleased with our AAA BestWater System. It is very affordable, and the savings on the cleaning and bath products alone amount to huge savings."

Easier Cleaning: "Not to mention with the soft water system, the kitchen and bathrooms, tub, sink, toilets are easier to clean and stays cleaner longer."

System Installation: "The installers were quick and very professional."

# ULTRA Soap Super 5000 Complete Home Cleaning System

ULTRA <u>"Island Sense," French Milled Bar Soap</u>: "Smells great and leaves your skin soft and smooth."

ULTRA "Island Sense" Shampoo: "Leaves your hair looking shinny and healthy."

ULTRA <u>"Island Sense," Luxury Liquid Body Soap</u>: "You can really buildup a lather with the liquid body soap. It smells nice and leaves your skin soft and smooth."

ULTRA Liquid Dish Soap: "With just a few drops you can wash a large load of dishes, plus the Dish Soap smells great and leaves your hands soft."

-Dean & Janel L., Ewa Beach (Prescott)

#### Typical 'Outside' Installation



Ali'i 5-TECH<sup>+</sup> Pure Water Quality System™

VILLAVERDE, Robert & Paula: 91-1012 KAIKANE ST., **EWA BEACH** (Ocean Point), Installed 9/19/05 <u>Whole-House GAC Filter/Purification System</u> — with OPTI-CARB 1200+™ <u>Whole-House Water Softener/Conditioner System</u> — with NON-SOLVENT Resin <u>SQC3 Reverse Osmosis System</u> They also have the ULTRA Soap Super 5000 Complete Home Cleaning System

#### Typical 'Closet' Installation



Super 5000 (6—13" Sq. Boxes)





The Kuwabara's were one of our original customers.

In July 1984, they purchased our original

Whole-House Water Softener/Conditioner & Drinking/Cooking Water Purification System's

In 2004 they demolished their original Mililani home, and built a brand new custom home. They gave away their original system, and for the new home

## Up-Graded by installing the

#### Ali'i 5-TECH<sup>+</sup> Pure Water Quality System<sup>™</sup>

KUWABARA, Dr. Dennis & Judith: 94-477 Holoniku St., MILILANI, Installed 12/24/04 Whole-House GAC Filter/Purification System — with OPTI-CARB 1200+™ Whole-House Water Softener/Conditioner System — with NON-SOLVENT Resin SQC3 Reverse Osmosis System

Time/Labor Savings: "Installing the system has proven to be a time saver by eliminating the hard water spots and bathtub rings without the usual scrubbing with special cleansers."

Laundry: "The system conditions the water in such a way that it leaves our clothes clean and soft without the use of a fabric softener."

Dry Skin: "Not only does the soft water leave your skin feeling soft and clean, but it has also helped our youngest daughter's dry skin problems to the point that she no longer requires her special skin soaps."

Saving Money: "The [free] soap not only cleans well but it rinses out completely, thereby eliminating the need for an extra rinse cycle [saving on water & electric bill)."

# ULTRA Soap Super 5000 Complete Home Cleaning System

"The [free] soap not only cleans well but it rinses out completely, thereby eliminating the need for an extra rinse cycle [saving water & electric bill)."

-Dr. Dennis & Judith Kuwabara, Mililani

# Why Choose AAA BestWater Co.

A Kama `aina Company Sincε 1983 Celebrating <u>Over A Quarter of a Century</u> Serving Hawaii ! (<u>26 Years!</u>)

# Experience Professionalism Reliability

Serving Oahu longer than any other Water Treatment Systems Dealer

✤ More experience than any other Oahu Water Treatment Systems Dealer

 More systems installed than any other Oahu Water Treatment Systems Dealer We have Installed & Serviced many, many thousands of different Systems
 Installations by: Experienced, Professional, Licensed Plumbing Contractors

Best Service

- Best Selection
- Best Prices

Best Value

Best Quality

Best Warranties

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Best Installations

**Guaranteed!** 

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