Hawai‘i’s Rainwater Catchment Services Directory

Published by: Hawai‘i Rainwater Catchment Systems (HRCS) Association – 2007 –

www.hrcs.us / hawaii-catchment@earthlink.net
Welcome to the first edition of the Hawai‘i Rainwater Catchment Systems (HRCS) Association’s “Rainwater Catchment Services Directory”.

We hope you find this directory useful for your water catchment needs. I invite you to also use our web site at www.hrcs.us to obtain other valuable information on rainwater catchment.

HRCS has invited all of the people and businesses that we are aware of in our community to participate in this booklet, but not all chose to participate, even when we offered free listings. Our first directory includes mostly service providers from the Big Island, but we plan to expand the directory for all of the Hawaiian Islands in future additions.

The purpose of our association is to promote rainwater catchment systems as a viable drinking water source, and to distribute credible information for health, safety, technology and services.

I invite you to join our association. Go to www.hrcs.us and click on membership and join today!

Mahalo nui loa to all of our existing members for your valuable support of HRCS!

Please feel free to e-mail us at hawaii-catchment@earthlink.net with your thoughts or suggestions.

With Aloha,

Scott D. Leonard
## Table of Contents

<table>
<thead>
<tr>
<th>Category</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notices</td>
<td>4</td>
</tr>
<tr>
<td>How to Place an Ad</td>
<td>5</td>
</tr>
<tr>
<td>Architects / Designers</td>
<td>6</td>
</tr>
<tr>
<td>Associations</td>
<td>8</td>
</tr>
<tr>
<td>Cleaners / Maintainers</td>
<td>9</td>
</tr>
<tr>
<td>Government Agencies</td>
<td>13</td>
</tr>
<tr>
<td>Inspectors</td>
<td>14</td>
</tr>
<tr>
<td>Installers</td>
<td></td>
</tr>
<tr>
<td>- Gutters</td>
<td>17</td>
</tr>
<tr>
<td>- Tanks</td>
<td>18</td>
</tr>
<tr>
<td>- Treatment / Purification</td>
<td>20</td>
</tr>
<tr>
<td>Labs</td>
<td>23</td>
</tr>
<tr>
<td>Plumbers</td>
<td>25</td>
</tr>
<tr>
<td>Roofers</td>
<td>26</td>
</tr>
<tr>
<td>Suppliers</td>
<td></td>
</tr>
<tr>
<td>- Chemicals</td>
<td>27</td>
</tr>
<tr>
<td>- Cleaning</td>
<td>28</td>
</tr>
<tr>
<td>- Gutters</td>
<td>30</td>
</tr>
<tr>
<td>- Pipe</td>
<td>31</td>
</tr>
<tr>
<td>- Pumps</td>
<td>32</td>
</tr>
<tr>
<td>- Roofs</td>
<td>35</td>
</tr>
<tr>
<td>- Tank Covers</td>
<td>37</td>
</tr>
<tr>
<td>- Tanks</td>
<td>38</td>
</tr>
<tr>
<td>- Treatment / Purification</td>
<td>43</td>
</tr>
<tr>
<td>Testers</td>
<td>48</td>
</tr>
<tr>
<td>Water Haulers</td>
<td>50</td>
</tr>
</tbody>
</table>
Purpose
The purpose of this directory is to be a single-point resource that owners of water catchment systems can use to find businesses that provide services for water catchment systems.

Public Service Statement
Even though this directory is assembled by HRCS, it is the user of this directory who is responsible for investigating who provides the best service and who will adequately and reliably meet their needs. HRCS does not recommend any person or business listed in this directory. No evaluation criteria were used to evaluate individuals or companies listed in this directory. Should you decide to use this directory you agree to indemnify, defend and hold harmless HRCS Association, its officers, directors, partners, suppliers or support agencies against all losses, expenses, damages and costs, including attorney's fees, resulting from any liability resulting from any service provider selected from this directory.

Customer References
We recommend that you obtain at least three quotes and three references to help in your evaluation.

Errors or Omissions
In the event HRCS makes a mistake in an ad, HRCS will correct the error and waive the advertising fee for that advertiser in the next edition.
How to Place an Ad

If you are a business that is providing a service to rainwater catchment systems in Hawai‘i, then you should be in this directory. This directory offers you the opportunity to advertise your services under several categories. You may want to purchase a full page or half page ad that describes your main business and then describe each particular service under separate listings that refer back to your larger ad.

It is our goal to distribute this directory to real estate agents, homeowner associations, service providers, the University’s Cooperative Extension Office and the county building department. That is a pretty wide distribution for your business! This is a book that catchment users want, so be sure you are included.

To place an ad in our next directory, please go to www.hrcs.us and select publications.
Attention “Owner/Builders”

We design state-of-the-art Catchment Systems from appropriate roofing material thru catchment tank selection.

Our Specialty:
- New Construction
- Near-Ocean Two-story Homes
- Unobtrusive Systems in Custom Colors
- Environmentally correct

Let us know about your project at:
catchment@backin10.com
Two-thirds of the earth’s surface is covered with seas and oceans. How much of the world’s water is suitable for human use?

Answer on page 51.
Associations

American Rainwater Catchment Systems Association (ARCSA)
ARCSA
P.O. Box 12521
Austin, TX 78711-2521
www.arcsa-usa.org

The International Rainwater Harvesting Alliance
Maison Internationale de l’Environnement II,
Chemin de Balexert 7-9
CH-1219 Chatelaine, Geneva, Switzerland
Tel: +41 22 797 41 57 / 58   Fax: +41 22 320 88 57
www.irha-h2o.org   e-mail: secretariat@irha-h2o.org

Hawai‘i Rainwater Catchment Systems Association
550 Akolea Road, Hilo, HI 96720-1511
www.hrcs.us
e-mail: Hawaii-catchment@earthlink.net
Cleaners / Maintainers

Catchment Cleaning
- Got bluish green stains on your porcelain?
- Balance Your Tank Water
- Keep Your Water Clear
- Pump Installs and repairs
- Monthly Water Maintenance

960-1026 ask for Chris
www.poolbrite.net
Cleaners / Maintainers (cont)

Rain Water
CATCHMENT CLEANING & SERVICE

965-6453
PAAOA, HI.

“Caring About Today’s Water For Tomorrow”

* PROFESSIONAL CLEANING, MAINTENANCE AND INSPECTIONS
* FILTRATION AND UV PURIFICATION
* CATCHMENT COVERS AND SUPPORT SYSTEMS
* WATER PUMPS AND PRESSURE TANKS
* QUALITY CORRUGATED STEEL WATER TANKS
* REPLACEMENT LINERS

Locally Owned and Family Operated

Maiva, Craig & Brandon Blaisdell
Certified Pool & Spa Operator #: 96-106183

PH: 965-6453 Fax: 965-6650 Cell: 938-5231
Cleaners / Maintainers (cont)

Big Island Catchment Cleaning
Removal of Debris & Sediment
No Water Loss
Tank & Filter Installation
Reliable & Quality Service
Call: (808)756-3033

Big Island Pool Service
P.O. Box 284, Pahoa, Hawaii 96778
965-6500
Claire Rubens
Cleaning and Maintaining
Water Catchments & Swimming Pools for 22 years

Gregg’s Handyman Service
HCR1 Box 5280, Kea’au, HI 96749
(808) 982-9838

See ad on page 21.
### Cleaners / Maintainers (cont)

<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
<th>Phone Numbers</th>
<th>Services</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Koba Pumps</strong></td>
<td>13-3423 Maile St., Pahoa, HI 96778</td>
<td>(808) 965-1498</td>
<td>Catchment cleaning.</td>
<td>See ad on page 32.</td>
</tr>
<tr>
<td><strong>Akamai Pure Water Systems</strong></td>
<td>P.O. Box 552, Pahoa, HI 96778</td>
<td>(808) 965-9000 (808) 895-7609</td>
<td>See ad on page 43.</td>
<td></td>
</tr>
<tr>
<td><strong>Water Works</strong></td>
<td>741 Kanoeluhua, Hilo, HI 96720</td>
<td>(808) 933-9111</td>
<td>Web: <a href="http://www.waterworkshawaii.com">www.waterworkshawaii.com</a> E-mail: <a href="mailto:info@waterworkshawaii.com">info@waterworkshawaii.com</a></td>
<td></td>
</tr>
</tbody>
</table>

An automatic dishwasher uses approximately 9 to 12 gallons of water while hand washing dishes can use up to 20 gallons.
How many people globally are without access to a safe water supply and modern sanitation facilities? Answer on page 51.
Inspectors

Scott D. Leonard
(808) 895-4320

Paliuli Home Inspection

550 Akolea Road
Hilo, Hawaii 96720

scott@paliuli.biz
www.paliuli.biz

Integrated testing of water catchment systems.

Go to www.paliuli.biz to learn more or call me.

Certified by:

"Delivering Details that Make the Difference"
Inspectors (cont)

Gregg’s Handyman Service
HCR1 Box 5280, Kea’au, HI 96749
(808) 982-9838
See ad on page 21.

Island Inspections
P.O. Box 6566 Hilo, HI 96720
(808) 969-9070
Home inspector. www.islandinspections.com

Hawaiian Isles Inspections
(808) 982-5575 fax
hawaiianisleinsp@aol.com
On time and accurate home and commercial inspections.
Inspectors (cont)

<table>
<thead>
<tr>
<th>Pololei Labs - Water Quality Testing Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 Pauahi St., Suite 203, Hilo, HI 96720</td>
</tr>
<tr>
<td>(808) 938-0560</td>
</tr>
<tr>
<td>Expertise in rainwater catchment systems inspection &amp; water testing. See ad on page 24.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rain Water Catchment Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.O. Box 433, Kea'au, HI 96749</td>
</tr>
<tr>
<td>(808) 965-6453</td>
</tr>
<tr>
<td>See ad on page 10.</td>
</tr>
</tbody>
</table>

How many gallons of water are needed to grow one kilogram of rice and one kilogram of chicken and beef?

Answer on page 51.

Source: Economic and Social Commission for Asia and the Pacific
Kilauea volcano releases 350 metric tons per day of sulfur dioxide (SO₂) during eruptive pauses, and 1850 metric tons per day during active eruption. When the SO₂ combines with water molecules in the atmosphere, the result is acid rain which is corrosive and harmful to plants. Rain is considered acidic when it has a pH less than 5.6. The acidity can be neutralized by adding baking soda to your catchment tank. A pH value of 7.0 is neutral.
Installers – Tanks

**Hawaii Catchment Co., LLC.**
18 Years Experience
Corrugated Tanks • Pools • Dome Frame Cover Support
Liners • Covers • Tarps • Pumps
Water Purifiers • Water Test Kit
Water Tank Installation & Services
982-8888
16-643 Kipimana St. #19
Shipman Business Park • Keaau

**Big Island Catchment Cleaning**
P.O Box 1401, Pahoa, HI 96778
(808) 756-3033
We install tanks. See ad on page 11.

**Big Island Tanks, Inc**
81-991A Keopuka Road, Kealakekua, HI 96750
(808) 323-3555
We install tanks. See ad on page 39.
Installers – Tanks (cont)

**Gregg’s Handyman Service**  
HCR1 Box 5280, Kea‘au, HI 96749  
(808) 982-9838  
See ad on page 21.

**Island Catchment Company** - Maku‘u & 33rd St.  
15-1934 33rd St., Kea‘au, HI 96749  
(808) 982-8282  
Web: [www.islandcatchment.com](http://www.islandcatchment.com)  
E-mail sales@islandcatchment.com

**Paradise Pools**  
15-2058 19th Ave, Kea‘au, HI 96749  
(808) 982-6701  
www.Paradisepools.citymax.com

**Water Works**  
741 Kanoelehua, Hilo, HI 96720  
(808) 933-9111  
Web: [www.waterworkshawaii.com](http://www.waterworkshawaii.com)  
E-mail info@waterworkshawaii.com

If any of your faucets are leaking drop after drop, how much water is lost from each tap day after day?  
*Answer on page 51.*
AMERICAN WATER PURIFICATION, INC.

PURIFIERS FOR CATCHMENT AND WELLS

* ULTRAVIOLET STERILIZERS
* REVERSE OSMOSIS
* WATER SOFTENERS
* WHOLE HOUSE WATER TREATMENT

AUTHORIZED STERILIGHT AND PURA DEALER

SERVICE YOU CAN RELY ON - QUALITY YOU CAN TRUST

HILO 935-3930 KONA 331-2424
1266 KAMEHAMEHA AVE. (HILO IRONWORKS BLDG.)

WWW. PUREWATERHAWAII.COM

WE ACCEPT VISA MASTERCARD DISCOVER AMERICAN EXPRESS
Installers – Treatment (cont)

Big Island Catchment Cleaning
P.O. Box 1401, Pahoa, HI 96778   (808) 756-3033
See ad on page 11.

Hawaii Catchment Company
16-643 Kipimana St. #19, Kea'au, HI 96749
(808) 982-8888
See ad on page 18.

Akamai Pure Water Systems
P.O. Box 552, Pahoa, HI 96778
(808) 965-9000   (808) 895-7609
See ad on page 43.

Big Island Catchment Cleaning
P.O Box 1401, Pahoa, HI 96778
(808) 756-3033
We install treatment systems.
See ad on page 11.

Gregg's Handyman Service
Prompt Professional Service
All Trades – With Integrity
HILO TO PUNA
*CALL: 443-3713 (Cell) or 982-9838 (Home)*

Services include cleaning, inspection, installation of tanks and water testing.
### Installers – Treatment (cont)

<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
<th>Phone</th>
<th>Web</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Island Catchment Company</td>
<td>Makuʻu &amp; 33rd St. 15-1934 33rd St., Keaʻau, HI 96749</td>
<td>(808) 982-8282</td>
<td><a href="http://www.islandcatchment.com">www.islandcatchment.com</a></td>
<td><a href="mailto:sales@islandcatchment.com">sales@islandcatchment.com</a></td>
</tr>
<tr>
<td>Koba Pumps</td>
<td>13-3423 Maile St., Pahoa, HI 96778</td>
<td>(808) 965-1498</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mountain Slope Water</td>
<td>180 E. Wakea, Kahului, HI 96732 (Maui)</td>
<td>(808) 893-0377</td>
<td><a href="http://www.mountainslopedwater.com">www.mountainslopedwater.com</a></td>
<td></td>
</tr>
<tr>
<td>Rain Water Catchment Service</td>
<td>P.O. Box 433, Keaʻau, HI 96749</td>
<td>(808) 965-6453</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Works</td>
<td>741 Kanoelehua, Hilo, HI 96720</td>
<td>(808) 933-9111</td>
<td><a href="http://www.waterworkshawaii.com">www.waterworkshawaii.com</a></td>
<td><a href="mailto:info@waterworkshawaii.com">info@waterworkshawaii.com</a></td>
</tr>
</tbody>
</table>

Integrated treatment systems. See ad on page 32.
Labs

Certified or Approved by the Hawai‘i Department of Health, State Laboratories Division

Aecos Laboratory, Inc. / Microbiology
(HI DOH supplemented Copper and Lead testing)
45-939 Kamehameha Highway, Suite 104
Kaneohe, HI 96744
(808) 234-7770

Test America
Chemical Contaminants
99-193 Aiea Heights Drive, Suite 121, Aiea, HI 96701
(808) 486-5227

Why should you advertise in the Hawai‘i Rainwater Catchment Service Directory?

- It is a single source document for users.
- It has wide distribution to buyers of catchment systems.
- It is cheap advertising.
Non-certified Labs

University of Hawaii Manoa’s Agricultural Diagnostic Svcs (Metals, Heavy metals, minerals, nitrates, nitrogen, salinity, pH) (Samples shipped to Manoa on Tues mornings from the Hilo Extension Office) / 875 Komohana St. Hilo, HI 96720 (808) 981-5199  (808) 981-5211

Aecos Laboratory, Inc.
74-5602 Alapa St. # 656
Kailua-Kona, HI 96740

(808) 329-8411
Plumbers

No plumbers have requested a listing in the directory at this time. To help you find a plumber you can go to any of the following three Big Island phone book web sites:

www.HTYellowPages.com
www.yourislandpages.com
www.theparadisepages.com

Test your water knowledge

True or False

1) More things can be dissolved in sulfuric acid than in water.
2) Rainwater is the purest form of water.
3) It takes more energy to heat water at room temperature to 212°F then it does to change 212°F water to steam.
4) Water boils quicker at Volcano, HI. than at the beach.
5) Raindrops are tear-shaped.

Answers are on page 51.
Source: http://ga.water.usgs.gov/edu/sc3.html
How much rain can your roof catch?

A square foot of horizontal surface receives approximately 0.625 gallons of water with each inch of rain fall. Surfaces that slope, like your roof, catch less water per square foot of surface area. So it is not the area of roof surface that you need to measure, but the roof’s “footprint”, the area of ground under it. Measure the sides of your house from eave to eave. Multiply the length times the width to get the square footage of the catchment surface. Multiply that amount times 0.625 to find the total gallons the roof can catch per inch of rain.
### Suppliers – Chemicals

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Address</th>
<th>Phone</th>
<th>Website</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Island Catchment Company</td>
<td>Maku‘u &amp; 33rd St. 15-1934 33rd St., Keaʻau, HI 96749</td>
<td>(808) 982-8282</td>
<td><a href="http://www.islandcatchment.com">www.islandcatchment.com</a></td>
<td><a href="mailto:sales@islandcatchment.com">sales@islandcatchment.com</a></td>
</tr>
<tr>
<td>Orchidland General Store</td>
<td>16-125 Orchidland Dr., Keaʻau, HI 96749</td>
<td>(808) 966-6711</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trojan Lumber Company</td>
<td>199 Makaala St., Hilo, HI 96720</td>
<td>(808) 935-9711</td>
<td><a href="http://www.trojanlumber.com">www.trojanlumber.com</a></td>
<td></td>
</tr>
<tr>
<td>Volcano True Value</td>
<td>19-3984 Old Volcano Road, Volcano, HI 96785</td>
<td>(808) 967-7969</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Works</td>
<td>741 Kanoelehua, Hilo, HI 96720</td>
<td>(808) 933-9111</td>
<td><a href="http://www.waterworkshawaii.com">www.waterworkshawaii.com</a></td>
<td><a href="mailto:info@waterworkshawaii.com">info@waterworkshawaii.com</a></td>
</tr>
</tbody>
</table>

We sell chemicals for water catchment systems.
Suppliers – Cleaning

**Big Island Catchment Cleaning**
P.O Box 1401, Pahoa, HI 96778
(808) 756-3033

We sell cleaning supplies. See ad on page 11.

**Island Catchment Company** - Maku‘u & 33rd St.
15-1934 33rd St., Kea‘au, HI 96749
(808) 982-8282
Web: [www.islandcatchment.com](http://www.islandcatchment.com)
E-mail [sales@islandcatchment.com](mailto:sales@islandcatchment.com)
## Suppliers – Cleaning (cont)

**Orchidland General Store**  
16-125 Orchidland Dr., Kea’au, HI 96749  
(808) 966-6711

**Trojan Lumber Company**  
199 Makaala St., Hilo, HI 96720  
(808) 935-9711  
[www.trojanlumber.com](http://www.trojanlumber.com)  
We sell cleaning supplies.

**Volcano True Value**  
19-3984 Old Volcano Road, Volcano, HI 96785  
(808) 967-7969

**Water Works**  
741 Kanoelehua, Hilo, HI 96720  
(808) 933-9111  
Web: [www.waterworkshawaii.com](http://www.waterworkshawaii.com)  
E-mail: info@waterworkshawaii.com

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Use this size of an ad for each category of service you provide and have it direct your customer to your larger full or half page ad.
## Suppliers – Gutters

<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
<th>Phone</th>
<th>Web Address</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Island Catchment Company</strong></td>
<td>Maku’u &amp; 33rd St.</td>
<td>(808) 982-8282</td>
<td><a href="http://www.islandcatchment.com">www.islandcatchment.com</a></td>
<td><a href="mailto:sales@islandcatchment.com">sales@islandcatchment.com</a></td>
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<td><a href="http://www.waterworkshawaii.com">www.waterworkshawaii.com</a></td>
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## Suppliers – Pipe

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<td><a href="mailto:info@waterworkshawaii.com">info@waterworkshawaii.com</a></td>
</tr>
</tbody>
</table>

### How much water do you use?

How long will the catchment water last? Depends on your unique usage. Here is a rough idea:
- **Drinking and Cooking:** 1 gal/day/person
- **Washing Dishes:** 3 gal/day/person
- **Toilet Flushing:** 16 gal/day/person
- **Washing Clothes:** 10 gal/day/person
- **5 minute shower:** 25-50 gal/day/person

A household of two could use as much as 110 - 160 gallons/day or 3300 - 4800 gallons/month.
Suppliers – Pumps

Big Island Tanks, Inc
81-991A Keopuka Road, Kealakekua, HI 96750
(808) 323-3555

We provide pumps. See ad on page 39.

Hawaii Catchment Company
16-643 Kipimana St. #19, Kea‘au, HI 96749
(808) 982-8888

We supply pumps. See ad on page 18.
### Suppliers – Pumps (cont)

<table>
<thead>
<tr>
<th>Supplier Name</th>
<th>Address</th>
<th>Phone</th>
<th>Website</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rain Water Catchment Service</td>
<td>P.O. Box 433, Kea‘au, HI 96749</td>
<td>(808) 965-6453</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Island Catchment Company</td>
<td>15-1934 33rd St., Kea‘au, HI 96749</td>
<td>(808) 982-8282</td>
<td><a href="http://www.islandcatchment.com">www.islandcatchment.com</a></td>
<td><a href="mailto:sales@islandcatchment.com">sales@islandcatchment.com</a></td>
</tr>
<tr>
<td>Orchidland General Store</td>
<td>16-125 Orchidland Dr., Kea‘au, HI 96749</td>
<td>(808) 966-6711</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volcano True Value</td>
<td>19-3984 Old Volcano Road, Volcano, HI 96785</td>
<td>(808) 967-7969</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Suppliers – Pumps (cont)

Water Works
741 Kanoehue, Hilo, HI 96720
(808) 933-9111
Web: www.waterworkshawaii.com
E-mail info@waterworkshawaii.com

Do you know who the water gods are?

1) In Hindu mythology, the rain god is known as:
   a. Vishnu
   b. Indra
   c. Brahma
   d. Shiva

2) Who is the Roman god of rain?
   a. Pluto
   b. Mercury
   c. Jupiter
   d. Neptune

3) Who is known as the weather god in Greek mythology?
   a. Zeus
   b. Helios
   c. Thor
   d. Adonis

4) In Hawaiian mythology who governs water as a source of life?
   a. Ku
   b. Lono
   c. Kāne
   d. Lakakane

Answers are on page 53.
Source: http://www.pitara.com/activities/quiz/online.asp?game=Water
## Suppliers – Roofs

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Address</th>
<th>Phone</th>
<th>Web</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HPM Building Supply – Custom Metal Roofing</strong></td>
<td>16-166 Melekahiwa St., Kea’au, HI 96749</td>
<td>(808) 966-5661</td>
<td><a href="http://www.custommetalroofing.us">www.custommetalroofing.us</a></td>
</tr>
<tr>
<td><strong>Island Catchment Company</strong></td>
<td>15-1934 33rd St., Kea’au, HI 96749</td>
<td>(808) 982-8282</td>
<td><a href="http://www.islandcatchment.com">www.islandcatchment.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>E-mail <a href="mailto:sales@islandcatchment.com">sales@islandcatchment.com</a></td>
</tr>
<tr>
<td><strong>Orchidland General Store</strong></td>
<td>16-125 Orchidland Dr., Kea’au, HI 96749</td>
<td>(808) 966-6711</td>
<td></td>
</tr>
<tr>
<td><strong>Trojan Lumber Company</strong></td>
<td>199 Makaala St., Hilo, HI 96720</td>
<td>(808) 935-9711</td>
<td><a href="http://www.trojanlumber.com">www.trojanlumber.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>We sell roofing material.</td>
</tr>
<tr>
<td><strong>Volcano True Value</strong></td>
<td>19-3984 Old Volcano Road, Volcano, HI 96785</td>
<td>(808) 967-7969</td>
<td></td>
</tr>
</tbody>
</table>
Suppliers – Roofs (cont)

Water Works
741 Kanoelehua, Hilo, HI 96720
(808) 933-9111
Web: www.waterworkshawaii.com
E-mail info@waterworkshawaii.com

Don’t forget the fire department!

- Take firefighting into consideration when planning your catchment system. Check with your local fire department.
- Some fire insurance companies require a specific size of catchment tank, usually 10,000 gallons.
- A 1200 sf dwelling requires about 2570 gallons of water to extinguish a fire.*
- A 2000 sf home takes 3429 gallons.*

* According to the National Fire Protection Association
Suppliers – Tank Covers

**Rudy’s Shade, Inc.**

Specializing in:
- greenhouse shade
- plastics
- truck covers
- catchment covers
- custom tarps
- rework

Mailing Address: 16-711 Milo Street, Keaau
P.O. Box 5390 Phone: 808.966.7028
Hilo, Hawaii 96720 Fax: 808.966.7053
 Owners: Rudy and Amparo Castro

**Akamai Catchment Covers**
P.O. Box 6664, Hilo, HI 96720
(808) 982-6059

Custom fiberglass covers for tank sizes 12’ to 28’ diameter.

**Hawaii Catchment Company**
16-643 Kipimana St. #19, Kea‘au, HI 96749
(808) 982-8888

We supply pumps. See ad on page 18.

**Water Works**
741 Kanoelehua, Hilo, HI 96720
(808) 933-9111

Web: [www.waterworkshawaii.com](http://www.waterworkshawaii.com)
E-mail [info@waterworkshawaii.com](mailto:info@waterworkshawaii.com)
Western Red Cedar Water Cistern

A Natural Beauty

- 3000, 6500, and 9000 gallon sizes.
- 25 mil flexible, potable plastic liner.
- Corrosion proof hoops and hardware.
- Pre-shingled cedar roof panels.
- Traditional stave and hoop construction.

Forest Lumber Cooperage

Ph (250) 642-4899 • Fax (250) 642-3466 • info@forestlumber.com
2810A Ramsden Rd RR#2, Sooke BC V0S 1N0 Canada

www.forestlumber.com
Next time…

consider a half page ad.


**Suppliers – Tanks (cont)**

**Big Island Catchment Cleaning**
P.O Box 1401, Pahoa, HI 96778  
(808) 756-3033  
We sell tanks. See ad on page 11.

**Hawaii Catchment Company**
16-643 Kipimana St. #19, Kea‘au, HI 96749  
(808) 982-8888  
We sell tanks. See ad on page 18.

**Pahoa Battery & Propane**
In the Pahoa Market Place  
(808) 965-9499; fax (808) 965-1973  
See ad on page 28.

**Rain Water Catchment Service**
P.O. Box 433, Kea‘au, HI 96749  
(808) 965-6453  
See ad on page 10.

**Chem-Tainer of Hawaii**
16-118 Li‘i Li‘i Street, Kea‘au, HI 96749  
1-800-870-5494.  
Catchment tanks.  
Web: [www.chemtainerofhawaii.com](http://www.chemtainerofhawaii.com)
### Suppliers – Tanks (cont)

<table>
<thead>
<tr>
<th>Supplier Name</th>
<th>Address</th>
<th>City, State, Zip Code</th>
<th>Contact Info</th>
<th>Web/App</th>
</tr>
</thead>
<tbody>
<tr>
<td>Island Catchment Company</td>
<td>15-1934 33rd St., Kea‘au, HI 96749</td>
<td>(808) 982-8282</td>
<td>Web: <a href="http://www.islandcatchment.com">www.islandcatchment.com</a> E-mail: <a href="mailto:sales@islandcatchment.com">sales@islandcatchment.com</a></td>
<td></td>
</tr>
<tr>
<td>Mountain Slope Water</td>
<td>180 E. Wakea, Kahului, HI 96732 (Maui)</td>
<td>(808) 893-0377</td>
<td>Web: <a href="http://www.mountainslopowater.com">www.mountainslopowater.com</a></td>
<td></td>
</tr>
<tr>
<td>Orchidland General Store</td>
<td>16-125 Orchidland Dr., Kea‘au, HI 96749</td>
<td>(808) 966-6711</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacific Watertank Supply</td>
<td>16-175 Melekahiwa, Kea‘au, HI 96749</td>
<td>(808) 966-5431</td>
<td></td>
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</tr>
</tbody>
</table>
## Suppliers – Tanks (cont)

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Address</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pete Jr.’s Services</td>
<td>RR3 Box 1299, Pahoa, HI 96778</td>
<td>(808) 982-8835</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>Volcano True Value</td>
<td>19-3984 Old Volcano Road, Volcano, HI 96785</td>
<td>(808) 967-7969</td>
</tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Works</td>
<td>741 Kanoelehua, Hilo, HI 96720</td>
<td>(808) 933-9111</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Web: <a href="http://www.waterworkshawaii.com">www.waterworkshawaii.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E-mail: <a href="mailto:info@waterworkshawaii.com">info@waterworkshawaii.com</a></td>
</tr>
</tbody>
</table>

**YOUR BUSINESS CARD COULD HAVE BEEN HERE!**
Suppliers – Treatment

Akamai Pure Water Systems
Sales & Service Islandwide 7 Days A Week
Low Cost Highest Quality Complete Residential & Commercial Systems

- Whole House Filtration with Ultraviolet Disinfection (UV)
- Under the Sink Systems / Reverse Osmosis Filters, Parts, & Supplies
- Customized Separate Component Configurations

- Safely Drink Your Catchment Water
- Remove Bad Taste & Chemicals from Any Water Source

UV technology provide a 99.999% bacteria kill rate without chemical agents.

PURA’s patented water systems with carbon filtration kill and remove micro-organisms such as E-Coli, Coliform, Viruses, Hepatitis, etc.

Properly configured systems remove cryptosporidium, giardia cysts, leptospirosis, and cleanses the water by eliminating sediments, chlorine, chlorine byproducts, pesticides, herbicides, benzene, and other chemicals.

Let me educate you about filtration and recommend the correct system for your needs. Don’t take chances with you and your loved ones’ health.

Call for a No-Obligation-Quote at your home or business. We will beat any legitimate or advertised written price from any other source or company.

- Savings of 20% or more off list price on ALL Systems and Filters

Big Island of Hawaii Original Authorized Dealer of: PURA ® & Hydrotech ® Water Purification Systems & Filter Products

(808) 965-9000  (808) 895-7609
Email: akamaiwater@yahoo.com
P.O. Box 552, Pahoa, Hawaii, 96778

Note: Any drinking water system of any configuration is not intended to be used for the treatment of water that is microbiologically unsafe or of unknown quality without proper disinfection either before or after the system.
### Suppliers – Treatment (cont)

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Address</th>
<th>Phone</th>
<th>Web Link</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>American Water Purification Inc.</strong></td>
<td>1266 Kamehameha Ave. Hilo, HI 96720</td>
<td>(808) 935-3930</td>
<td><a href="http://www.purewaterhawaii.com">www.purewaterhawaii.com</a></td>
<td>See ad on page 20.</td>
</tr>
<tr>
<td><strong>Big Island Tanks, Inc</strong></td>
<td>81-991A Keopuka Road, Kealakekua, HI 96750</td>
<td>(808) 323-3555</td>
<td></td>
<td>We provide treatment systems. See ad on page 39.</td>
</tr>
<tr>
<td><strong>Hawaii Catchment Company</strong></td>
<td>16-643 Kipimana St. #19, Kea‘au, HI 96749</td>
<td>(808) 982-8888</td>
<td></td>
<td>We sell treatment systems. See ad on page 18.</td>
</tr>
<tr>
<td><strong>Rain Water Catchment Service</strong></td>
<td>P.O. Box 433, Kea‘au, HI 96749</td>
<td>(808) 965-6453</td>
<td></td>
<td>See ad on page 10.</td>
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### Suppliers – Treatment (cont)

<table>
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<tr>
<th>Supplier</th>
<th>Contact Information</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pahoa Battery &amp; Propane</strong></td>
<td>In the Pahoa Market Place</td>
<td>(808) 965-9499; fax (808) 965-1973</td>
</tr>
<tr>
<td><strong>IDA International</strong></td>
<td></td>
<td>See ad on page 28.</td>
</tr>
<tr>
<td><strong>David Fithian</strong></td>
<td></td>
<td>(808) 982-8483</td>
</tr>
<tr>
<td><strong>Water Purifier System. Ultraviolet light and carbon block filter. NSF certified at standard 53.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Island Catchment Company</strong> - Maku‘u &amp; 33rd St.**</td>
<td>15-1934 33rd St., Kea‘au, HI 96749</td>
<td>(808) 982-8282</td>
</tr>
<tr>
<td><strong>Web:</strong> <a href="http://www.islandcatchment.com">www.islandcatchment.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>E-mail:</strong> <a href="mailto:sales@islandcatchment.com">sales@islandcatchment.com</a></td>
<td></td>
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</tr>
<tr>
<td><strong>Orchidland General Store</strong></td>
<td>16-125 Orchidland Dr., Kea‘au, HI 96749</td>
<td>(808) 966-6711</td>
</tr>
<tr>
<td><strong>Volcano True Value</strong></td>
<td>19-3984 Old Volcano Road, Volcano, HI 96785</td>
<td>(808) 967-7969</td>
</tr>
</tbody>
</table>
Suppliers – Treatment (cont)

Who wrote the line, “Water, water, everywhere, nor any drop to drink.”

   a) William Shakespeare
   b) Virginia Woolf
   c) Samuel Taylor Coleridge
   d) Gilbert and Sullivan

Answer is on Page 54.

Source: http://www.pitara.com/activities/quiz/online.asp?qname=Water
### Testers

**Gregg’s Handyman Service**
HCR1 Box 5280, Kea’au, HI 96749  
(808) 982-9838  
See ad on page 21.

**Pololei Labs - Water Quality Testing Laboratory**
120 Pauahi St., Suite 203, Hilo, HI 96720  
(808) 938-0560  
Expertise in rainwater catchment water testing. See ad on page 24.

**Island Catchment Company - Maku’u & 33rd St.**
15-1934 33rd St., Kea’au, HI 96749  
(808) 982-8282  
Web: [www.islandcatchment.com](http://www.islandcatchment.com)  
E-mail: sales@islandcatchment.com
World Water Crisis!

1) The number of people dying from waterborne disease is equal to how many large passenger jets crashing every day?
   a) 8
   b) 24
   c) 46
   d) 69

2) How many people in the world do not have access to clean drinking water?
   a) 1 in 3
   b) 1 in 6
   c) 1 in 10
   d) 1 in 20

3) What proportion of the world’s major rivers are seriously polluted or depleted?
   a) 10%
   b) 25%
   c) 50%
   d) 75%

Answers are on page 54.

Source: http://news.bbc.co.uk/1/hi/sci/tech/3747588.stm
Water Haulers

Water Hauling

P.O. Box 335
Kea‘au, HI 96749
(808) 966-9373

Island Catchment Company - Maku‘u & 33rd St.
15-1934 33rd St., Kea‘au, HI 96749
(808) 982-8282
Web: www.islandcatchment.com
E-mail sales@islandcatchment.com

Paradise Pools
15-2058 19th Ave, Kea‘au, HI 96749
(808) 982-6701
www.Paradisepools.citymax.com

Water Works
741 Kanoelehua, Hilo, HI 96720
(808) 933-9111
Web: www.waterworkshawaii.com
E-mail info@waterworkshawaii.com
Answers to Questions:

Page 7: Only about 2.5% of the world’s water is fresh water. The rest is salt water. However, most of the fresh water is held in glaciers and polar icecaps or locked in deep aquifers, thus not available for human use. The result is that only about 0.25% of the world’s water, mostly in rivers, lakes and shallow aquifers, can be used to meet human needs.

Page 13: At the end of 1999, about one billion people lacked access to a safe drinking water supply, while over 2.4 billion people did not enjoy access to modern sanitation facilities. This constitutes over one third of the world’s population.

Page 16: Rice needs about 502 gallons. Rice is the most thirsty grain crop. One kilogram of broiler chicken needs 924 gallons of water, and one kilogram of beef needs a staggering 26,400 gallons of water. The animals themselves drink little of this water – most of it is used to grow their feed.

Page 19: A leaking tap can lose up to 26 gallons per day, which is the equivalent to about eight buckets of water. In a years time that one leaking tap could lose about 9,240 gallons of water.

Page 25: 1) False. Sulfuric acid might be able to dissolve a car, but water isn't known as the "Universal Solvent" for nothing! It can dissolve more substances than any other liquid. This is lucky for us... what if all the sugar in your soft drink ended up as a pile at the bottom of the glass? The water you see in rivers, lakes, and the ocean may look clear, but it actually contains many dissolved elements and minerals, and because these elements
are dissolved, they can easily move with water over the surface of the earth.

2) False. Actually, distilled water is "purer." Rainwater contains small amounts of dissolved minerals that have been blown into the air by winds. Rainwater contains tiny particles of dust and dissolved gasses, such as carbon dioxide and sulfur dioxide (yep, acid rain). That doesn't mean rainwater isn't very clean -- normally only about 1/100,000th of the weight of rain comes from these substances.

In a way, the distillation process is responsible for rainwater. Distilled water comes from water vapor condensing in a closed container (such as a glass jar). Rain is produced by water vapor evaporating from the earth and condensing in the sky. Both the closed jar and the earth (via its atmosphere) are "closed systems," where water is neither added nor lost.

3) False. First, water at boiling temperature (212° F at sea level) is not really the same as boiling water. When water first reaches boiling it has not begun to turn to steam yet. More energy is needed to begin turning the boiling liquid water into gaseous water vapor. The bonds holding water molecules as a liquid are not easily broken. It takes about seven times as much energy to turn boiling water into steam as it does to heat water at room temperature to the boiling point.

4) True. The boiling point of water gets lower as you go up in altitude. At beach level, water boils at 212° Fahrenheit. But at 5,000 feet, about where Volcano, HI is located (Volcano’s altitude is a little over 4,000 feet), water boils at 202.9° F, and up at 10,000 feet it boils at 193.7° F. This is because as the altitude gets higher, the air pressure (the weight of all that air above you) becomes less. Since there is less pressure
pushing on a pot of water at a higher altitude, it is easier for the water molecules to break their bonds and attraction to each other and, thus, it boils more easily.

5) False. When you think of a drop of falling water you probably think it looks tear-shaped. When a drop of water comes out of a faucet, yes, it does have a tear-shape. That is because the back end of the water drop sticks to the water still in the faucet until it can't hold on any more. But, using high-speed cameras, scientists have found that falling raindrops look more like a small hamburger bun! Gravity and surface tension come into play here. As rain falls, the air below the drop pushes up from the bottom, causing the drop to flatten out somewhat. The strong surface tension of water holds the drop together, resulting in a bun shape (minus the sesame seeds).

Page 34: 1) b. Indra. Indra is the chief of the Vedic Gods, and is also known as the rain God of India. His most prominent weapons are lightning and thunderbolt.

2) c. Jupiter. Jupiter is the sky God in Roman mythology. In ancient times Jupiter was worshipped with a particular ritual to send rain in the time of drought.

3) a. Zeus. In ancient Greek religion, Zeus was the weather God. He was regarded as the sender of thunder and lightning and rain and winds.

4) c. Kāne. The Hawaiian god Kāne is the procreator and the provider of the life giving elements. He is the patron of wai (fresh water) and is often associated with clouds, rain, streams and springs.
Page 47: c) Samuel Taylor Coleridge. British poet Samuel Taylor Coleridge wrote these lines in his epic poem, The Rime of the Ancient Mariner. The poem was first published sometime between 1797 and 1798.

Page 49: 1) c - 46 planes. An estimated seven million people die a year from waterborne diseases, including 2.2 million children under five. That means a child under five dies every 14 seconds.

2) b – 1 in 6. An estimated 1.1 billion people do not have access to safe drinking water, nearly two-thirds of whom are in Asia. An estimated 2.6 billion people worldwide lack access to improved sanitation.

3) c – 50%. According to WWF (formerly known as the World Wildlife Fund), there are an estimated 12,000 cubic kilometers of polluted water worldwide, which is more than the total amount contained in the world’s 10 largest river basins at any given moment.
Hawai‘i Rainwater Catchment Systems (HRCS) Association

We need you as a member of HRCS!

Whether you are a catchment user, home builder, community member, realtor, or government official, if you have any connection with rainwater catchment systems, you should be a part of HRCS Association.

What happens when you join HRCS? You will:

- Support the environment through efficient harvesting and use of a major natural resource: rainwater
- Have an opportunity to attend free educational seminars on building and maintaining better catchment systems based on developments worldwide
- Receive news and updates from a broad professional, government and academic network to help you stay informed
- Help HRCS partner with community volunteers to provide safe and healthy drinking water for the elderly and others who are unable to upgrade or maintain existing systems
- Support an association that is working hard to contribute to better community water quality

So, don’t wait! Become an HRCS association member now! Go to www.hrcs.us and click on membership.
Guidelines on Rainwater Catchment Systems for Hawaii

52 pages, color cover. ISBN 1-929325-11-8
by Patricia S. H. Macomber, Department of Natural Resources and Environmental Management, College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa.

This document is downloadable at
or
www.hrcs.us

Copies are free if downloaded or picked up from the CTAHR Extension Office. Call for the office location as it may change after Feb 2007.
Phone (808) 981-5199, fax (808) 981-5211
E-mail: macomber@hawaii.edu

Copies can be ordered by mail. Download mail order form from:
http://www.ctahr.hawaii.edu/ctahr2001/PIO/FreePubs/FreePubs09.asp#Water