

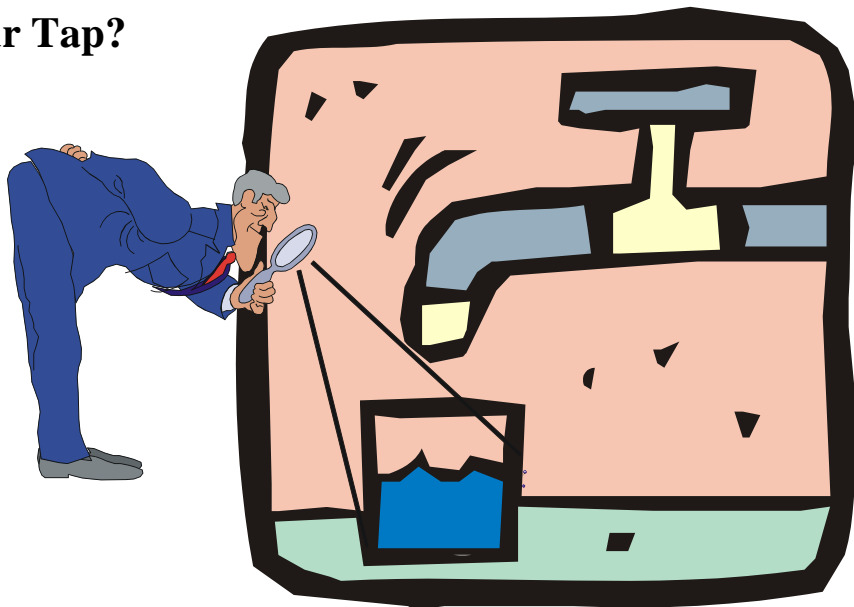
**SCIENCE FAIR COORDINATORS: Please announce, disseminate to schools, and post.**

## Have You Ever Wondered About the Water Coming from Your Tap?

*What's in My Water?*

*Where Do These Contaminants Come From?*

*How are Contaminants Removed From My  
Water?*



**If You Have and Are Interested in Learning More About Drinking  
Water/Groundwater Quality and Protection...**

### **In the 2005-2006 School Year Issue of the Hawaii Water for Kids - State Science Fair:**

48 <sup>th</sup> State Science Fair (2005) Awards for Groundwater/Drinking Water . . . . .	2
2005-2006 Science Fair Calendar . . . . .	3
Potential Science Fair Projects involving Drinking Water/Groundwater . . . . .	4
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END NOTE: Groundwater Poster Available . . . . .	7

This newsletter is also available on the Safe Drinking Water Branch website at:  
[www.hawaii.gov/health/environmental/water/sdwb](http://www.hawaii.gov/health/environmental/water/sdwb)

**...Then Consider a Science Fair Project!!**

In our continuing effort to promote groundwater and drinking water in the Hawaii Education System, the Department of Health, Safe Drinking Water Branch participated in the 2005 Hawaii State Science Fair. One of the key elements to a successful groundwater and drinking water program is the education and awareness of the public. One of the best ways to educate the public is by educating students about our water resources. By funding activities such as providing awards to the State Science Fair, we hope to further student interest in science and the utilization and protection of our water resources.

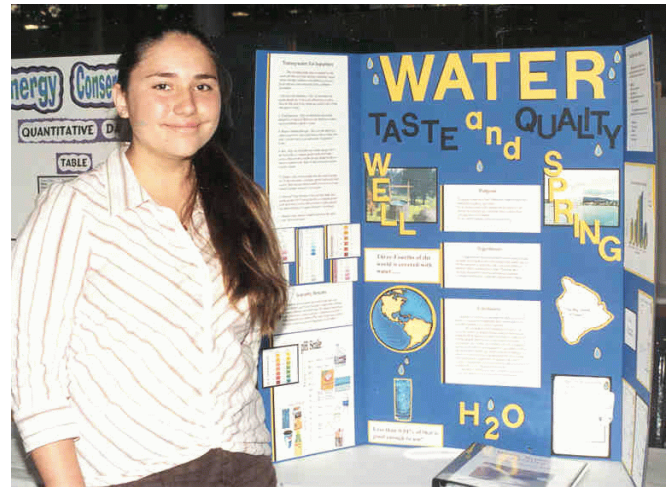
In this our second year of participation, the Safe Drinking Water Branch judges selected the following winning projects:

**Elyssa Correia**  
**St. Joseph Jr. and Sr. High School**  
**“Water Taste and Quality”**

Tested ground water and spring water from the Big Island for parameters that may affect the taste of water. Conducted blind taste test of the ground water and spring water.

**Selected for: Outstanding Individual Junior Research Project in any subject category related to drinking water and ground water.**

**Received Certificate of Achievement, \$100 Cash Award.**

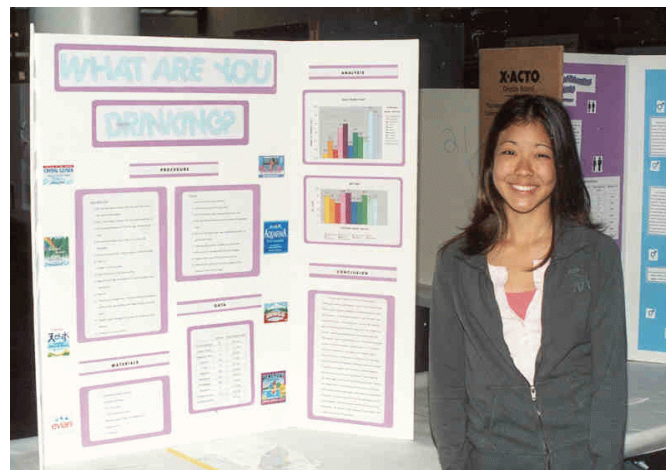


**Lauren Furumoto**  
**Mid-Pacific Institute**  
**“What Are You Drinking”**

Tested bottled, tap, and filtered water for pH and hardness. Hardness tested by measuring the height of soap bubbles generated.

**Selected for: Outstanding Individual Junior Research Project in any subject category related to drinking water and ground water.**

**Received Certificate of Achievement, \$100 Cash Award.**

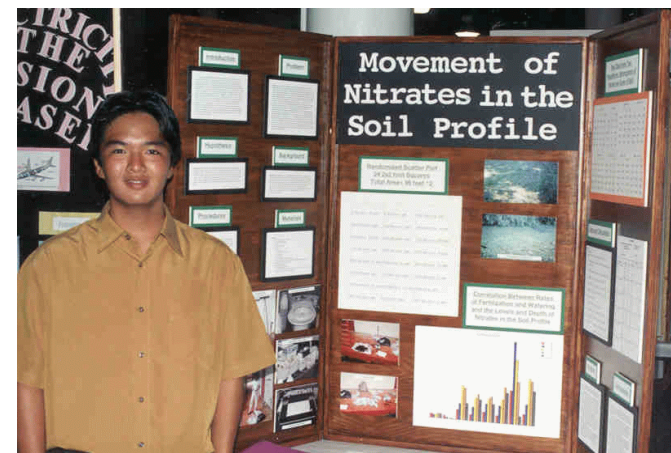


**Andrew Abe**  
**Pearl City High School**  
**“Movement of Nitrates in the Soil Profile”**

Determined the Correlation Between the Rates of Fertilization and Watering on the Concentration and Depth of Nitrates in the Soil Profile.

**Selected for: Outstanding Individual Senior Research Project in any subject category related to drinking water and ground water.**

**Received Certificate of Achievement, \$200 Cash Award.**



**August - October**

Science Fair **workshops** for teachers and district science fair personnel/ Workshops are strongly recommended for new teachers or first time participants. Call 956-7930 or e-mail [acadsci@hawaii.edu](mailto:acadsci@hawaii.edu) to request a workshop.

The website has a list of **mentors** for science fair students. Please encourage your students to take advantage of this service. <http://www.hawaii.edu/acadsci/mentors/html>

**October - December**

Request **certificates** for school and district fair participants. Certificates will only be provided to schools that plan to enter the district and state fair.

**January - February**

School and District Science Fairs (Contact your District Fair Coordinator for Fair Dates)

**District Fair Coordinators Contact Information:**

East Hawaii	Jamie Nekoba	974-4888
West Hawaii	Kathy Ishii	327-4781
Kauai	Barbara Baker	274-3185
Maui	Ron Okamura	984-8020
HAIS	Dan Nelson	532-2431/440-7423
Leeward	Stephen Nakano	677-6638
	Fred Nakaguma	487-3098
Windward	Amy Watanabe	271-3908 (cell)
	Donna Therrien	233-5720

- *School Science Fairs* must be completed before the District Science Fair entry deadline. Contact the coordinator to find out the entry deadline and district science fair dates.
- *Schools with no district science fair* must schedule their fairs so they meet the State Science Fair entry deadline.

**February**

Entry deadline for the **Hawaii State Science & Engineering Fair 2006** is Monday, February 20, 2006.

**April 3-6, 2006**

**Hawaii State Science and Engineering Fair**

**Monday, April 3**  
**Tuesday, April 4**  
**Wednesday, April 5**

Registration/Exhibit Set-up	12noon - 6 pm
HAS Judging (Round 1 & 2)	8:15 am - 3:30 pm
School Visitation	8 am - 2 pm
Public Viewing	8 am - 7 pm
Awards Ceremony	4:30 pm

**Water Quality**

*Water Taste and Quality (2004 and 2005 winner)*

*Analyses of Five Different Test on Our Drinking Water (2004 winner)*

*What Are You Drinking (2005 winner)*

Investigating Hawaii's Drinking Water/Groundwater Quality

Private Well Water Quality

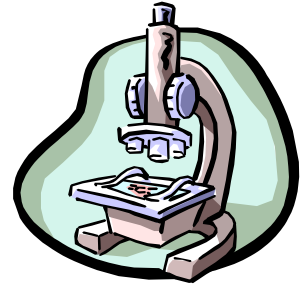
Chlorine Levels in Drinking Water

The Amount of Dissolved Salt in Drinking Water

Bacteriological Examination of Water?

Chemical Composition of School Water: Is The Drinking Water up to EPA Standards

Corrosion - the effect of water on metal



**Pollution Treatment**

Plants: A productive Alternative for Removing Contaminants from Contaminated Soils.

Pristine Water and the Hawaiian Lawn: Can They Co-exist?

Electrokinetic Remediation vs. Phytoextraction: Which process is more effective in the removal of metals contamination from soil?

How Farming Practices Affect Water Quality



**Water Treatment**

*Binchotan - A Unique Charcoal (2004 winner)*

Nitrate Removal from Drinking Water

The Use of Biofiltration for the Decontamination of Water

Non-Chemical Water Disinfection

What is the Best Way to Purify Water? Water Purification

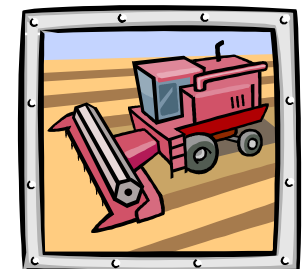
Producing Drinking Water from Final Effluent for Tomorrow's Needs

**Water Conservation**

Irrigation Scheduling: Efficiency in Water Use

Which Mulch is Best for Conserving Water While Growing Plants?

What is the Best Irrigation System?



**Hydrology/Geology**

Water Retention of Different Soils: Do Different Types of Soil Hold Different Amounts of Water?

What Type of Soil Filters Water Best?

The Effects of Different Soil Substrates on Water Percolation and Drainage

Groundwater carbonate and isotope hydrology



**Others**

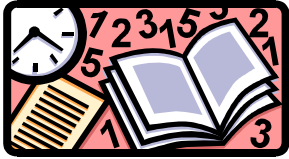
*Movement of Nitrates in the Soil Profile (2005 winner)*

Creating a Computer Program to Teach Water Education

Is Recycled Water Really Safe?

This is just a fraction of the many drinking water/groundwater topics and ideas that may be explored. Other topics, issues, and project exist and can be found in the many source of information that is available to you.

**SOME SOURCES OF INFORMATION ON SCIENCE FAIR PROJECTS INVOLVING  
GROUNDWATER and DRINKING WATER**



The following sources of information may provide you with ideas for developing your drinking water/groundwater-related science fair projects.

**U.S. Environmental Protection Agency website:** [www.epa.gov/kids](http://www.epa.gov/kids), [www.epa.gov/students](http://www.epa.gov/students), and [www.epa.gov/highschool/water.htm](http://www.epa.gov/highschool/water.htm)

**U.S. Geological Survey website:** [www.usgs.gov/education](http://www.usgs.gov/education)

**Hawaii Academy of Science website:** [www.hawaii.edu/acadsci/hssef/hssef.html](http://www.hawaii.edu/acadsci/hssef/hssef.html)  
[www.hawaii.edu/acadsci/hssef/resource.htm](http://www.hawaii.edu/acadsci/hssef/resource.htm)

**OTHER WEB SITES WITH WATER SCIENCE EDUCATION INFORMATION**

**American Water Works Association:** [www.waterdata.com/youthed.htm](http://www.waterdata.com/youthed.htm)

**Educating Young People About Water:** [www.uwex.edu/erc/ey paw](http://www.uwex.edu/erc/ey paw)

**Give Water a Hand:** [www.uwex.edu/erc/gwah](http://www.uwex.edu/erc/gwah)

**Project Wet:** [www.montana.edu/wwwwet](http://www.montana.edu/wwwwet)

**Water Education Foundation:** [www.water-ed.org](http://www.water-ed.org)

**Watercourse:** [www.montana.edu/wwwwater](http://www.montana.edu/wwwwater)

**WET in the City:** [www.wetcity.org](http://www.wetcity.org)

**GOOD LUCK and WE'LL SEE YOU AT THE 2006 (49<sup>th</sup>) HAWAII STATE SCIENCE FAIR!**



**2006 STATE SCIENCE FAIR AWARDS FOR GROUNDWATER/DRINKING WATER  
TO BE AWARDED BY THE SAFE DRINKING WATER BRANCH**

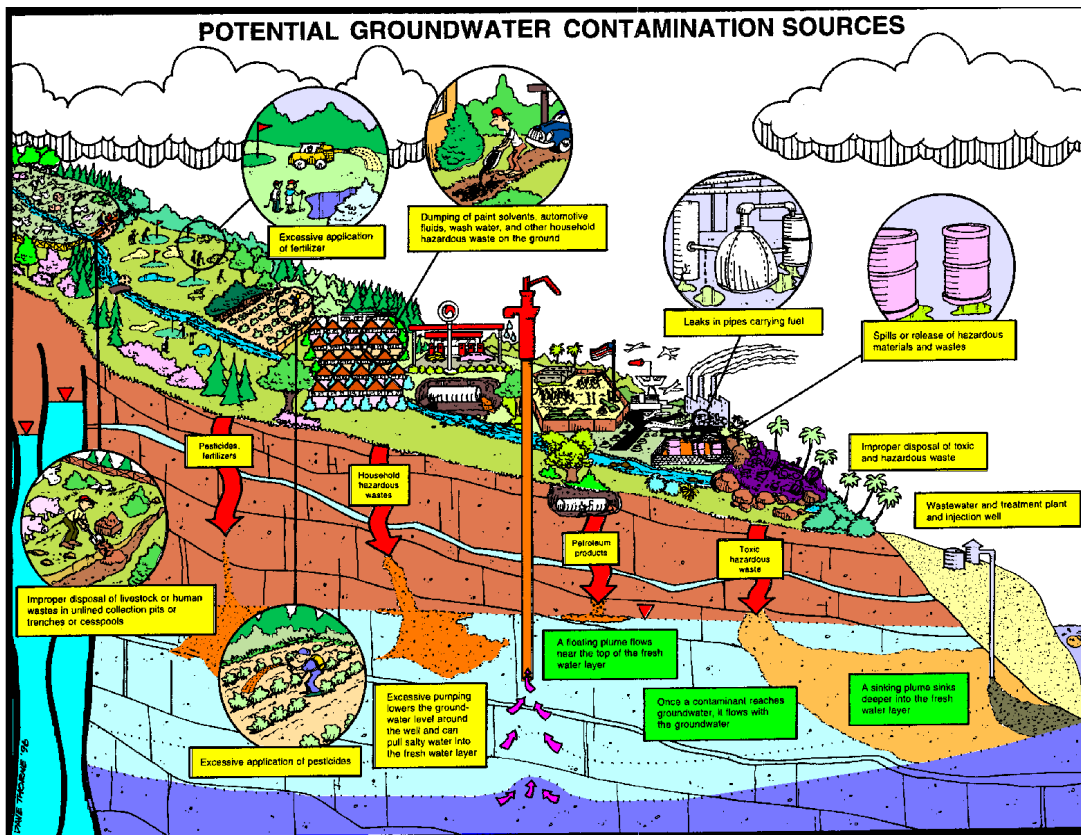
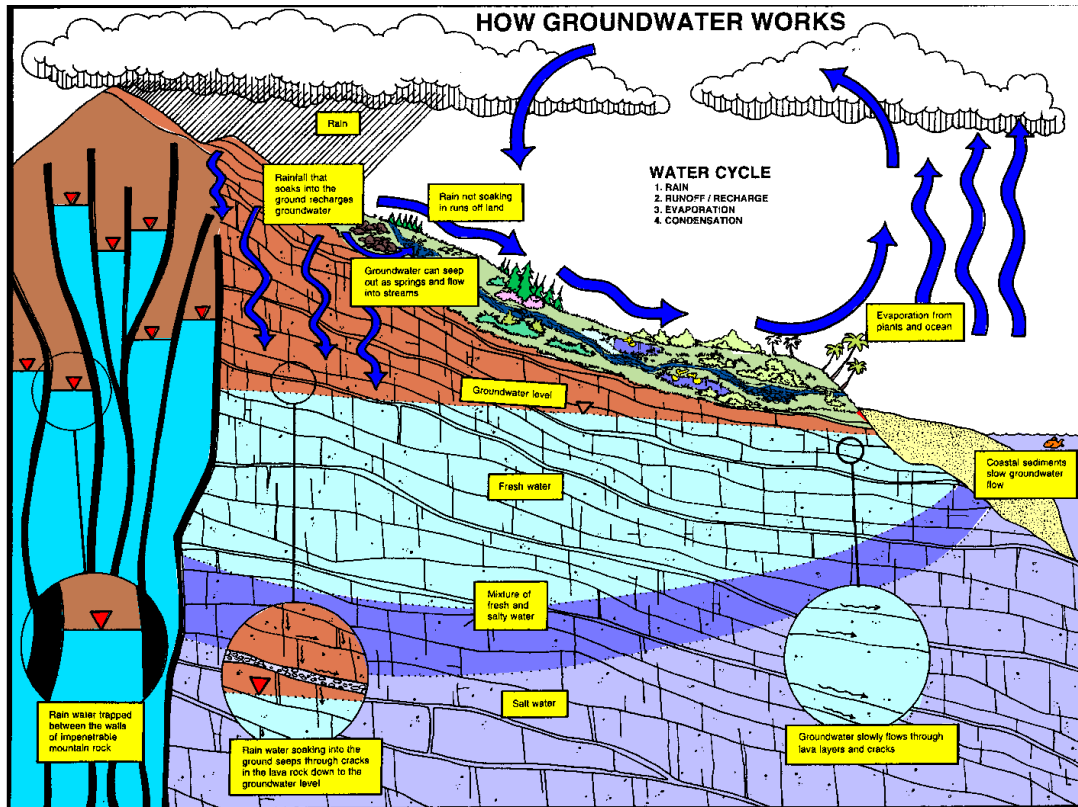
For the 2006 (49<sup>th</sup>) Hawaii State Science Fair, the Safe Drinking Water Branch will present awards for Groundwater/Drinking Water projects in the following categories:

<u>No.</u>	<u>Division</u>	<u>Description of Award &amp; Special Conditions</u>	<u>Categories</u>
1	SR	Certificate, \$200 Savings Bond or Cash Award.	1-14
2	SR	Certificate, \$100 Savings Bond or Cash Award. <b>First and second place awards for outstanding individual projects in any subject category related to drinking water/groundwater and/or groundwater protection.</b>	
3	JR	Certificate, \$100 Savings Bond or Cash Award.	1-14
4	JR	Certificate, \$50 Savings Bond or Cash Award. <b>First and second place awards for outstanding individual projects in any subject category related to drinking water/groundwater and/or groundwater protection.</b>	
5	JD	Certificate, \$50 Savings Bond or Cash Award <b>Outstanding individual project in any subject category related to drinking water/groundwater and/or groundwater protection.</b>	1-14
6	OD	Certificate, \$ 100 Savings Bond or Cash Award <b>Outstanding team project in any subject category related to drinking water/groundwater and/or groundwater protection.</b>	00
7	TA	Certificate, \$200 Savings Bond or Cash Award. <b>Outstanding teacher who promotes learning of environmental science (especially as it relates to drinking water/groundwater and/or groundwater protection.) Based on interviews with drinking water/groundwater project students.</b>	



The Safe Drinking Water Branch reserves the right to not provide awards in Divisions/Categories in which there are no qualifying projects. We further reserve the right to provide multiple awards in Divisions/ Categories where there are multiple outstanding projects.

**TEACHERS:** Would you like copies of this poster for your classroom.



To obtain copies, contact: *Safe Drinking Water Branch, Department of Health*  
 919 Ala Moana Blvd., #308  
 Honolulu, HI 96814  
 Attention: Science Fair Project  
 or call (808) 586-4258.

The Safe Drinking Water Branch is committed to and will continue to work with the Hawaii Academy of Science, District Science Fair Coordinators, and teachers to increase interest in the Environmental Sciences as it relates to drinking water/groundwater quality and protection, as part of the Science Fair Program.

Please send your suggestions/ideas, questions or comments to:

STATE SCIENCE FAIR 2006  
Safe Drinking Water Branch  
State Department of Health  
919 Ala Moana Blvd., Room 308  
Honolulu, Hawaii 96814

Fax us at (808) 586-4351,  
Attn: "STATE SCIENCE FAIR 2006- Safe Water"

SDWB WEB SITE:  
[www.hawaii.gov/health/environmental/water/sdwb.html](http://www.hawaii.gov/health/environmental/water/sdwb.html)



**LINDA LINGLE**  
Governor of Hawaii

**CHIYOME LEINAALA FUKINO, M.D.**  
Director of Health

**LAURENCE K. LAU**  
Deputy Director for  
Environmental Health



We provide access to our activities without regard to race, color, national origin (including language), age, sex, religion, or disability. Write or call our Affirmative Action Officer at Box 3378, Honolulu, HI 96801-3378 or at (808) 586-4616 (voice) within 180 days of a problem.

**Hawaii Water for Kids**  
**State Science Fair (2005-2006 School Year)**  
Safe Drinking Water Branch  
Environmental Management Division  
Hawai'i Department of Health  
919 Ala Moana Boulevard, Room 308  
Honolulu HI 96814

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**SCIENCE FAIR COORDINATORS:**  
Please announce and post.

If we have mistakenly sent you this newsletter, please forward it to the appropriate staff.