Encouraging Customers to Conserve

HWWA Conference 2019 Glenn Barnes



Premise

We are stewards of a precious and limited resource

It is up to us to improve the efficiency of water use by our customers by allowing access for necessary water use and limiting discretionary water use

Necessary Water Use



Necessary for Modern Life





Necessary for Modern Life



Necessary for Business & Industry





Discretionary Water Use









That Other Discretionary Use...

• Leaks within the household or business



Main Conservation Strategies

- Help customers use less water
- Ask customers to use less water
- Price water to encourage conservation







Customer Service ~	Water Board \sim	Water Quality \checkmark	Conservation \checkmark	News & Projects 🗸	Community ~	Pay Online	Contact	٩	
Conservation Resources									

Conservation Resources

The Department of Water Supply's Water Conservation Program aims to provide our customers islandwide with the tools, ideas and programs to successfully conserve and use water wisely.

Water, Our Most Precious Resource

Produced by the Hawai'i Department of Water Supply



Source: https://www.hawaiidws.org/conservation-resources/

General | Water Board | Conservation | Services | Water Quality | Water Plan 2020 | Site Map | Site Overview |



Water has no substitute.... Conserve it!

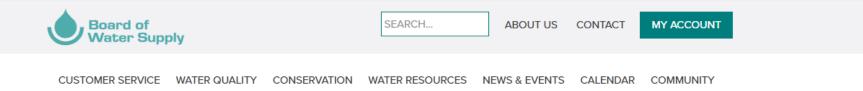
Rules & Regulations | Forms & Applications | Customer Account Portal | Board Meetings / Agendas | Contact Us | Press Releases |

Conservation Info	Free Water Conservation Fixtures	
2013 Detect-A-Leak Week	Free Low Flow Fixtures!	
Free Fixtures Water Conservation	To help our customers conserve more water and money, the Department of Water is offering free low flow fixtures.	余 玉
In the Bathroom	To receive these low flow fixtures, please fill out our <u>Low Flow Fixture Data Form</u> . This form needs to be filled out and turned in to the Department. Bring the completed form to the Department of Water and turn it into the Public Relations Specialist of the Administration Division.	
In the Kitchen	If you have any questions regarding the fixtures, please call the Public Relations Specialist at (808) 245-5461.	
Indoor/Outdoor Plants Leaks and Detection	The <u>Low Flow Fixture Data Form</u> is in the Adobe PDF format. It requires the Adobe Reader in order to open the file. If you don't have the Adobe Reader click on the Adobe icon below. This will take you to the Adobe website where you can download it for free.	
Leak Detection Hints Xeriscape	This format requires the Acrobat Reader from Adobe.	
Conservation Tips (PDF)		A Company of the second

Source: http://www.kauaiwater.org/conservation_free.asp

COUNTY OF MAUI DEPARTMENT OF WATER SUPPLY WATER RESOURCES & PLANNING		I'm Looking For		
About Us	Conservation	Water Use & Development Plan	Watershed Protection	Source Protection
Rain Barrel Catchi	ment Program Form	Home , Conservation , Water Conservation , Rain Barrel Program Giveaway		Quick Links • Water Bill Information & Payment Options
		We are currently out of rain barrels. Should you wish to submit an a will be included on the waiting list. We will contact you as soon as t available. Mahalo! Rain Barrel Catchment Program The County of Maui Department of Water Supply is excited to anno Barrel Catchment Program. As part of our continued efforts to prom on our island, we are currently giving away free 50-gallon, eco-frient made by Rain Water Solutions Inc. while supplies last. Eco-Friendly Benefits Rain barrels provide water conservation benefits to households and eco-friendly way. Your participation will not only help you reduce yo help reduce stormwater runoff. Additionally, incremental capture an help our communities be more resilient through drought and prever property.	 <u>Outdoor Water Use in the U.S.A. (EPA)</u> <u>Hawaii Rainwater Catchment Systems Program (UH Manoa)</u> View All 	
		Gardening Studies conducted by the Environmental Protection Agency (EPA) I		

Source: <u>https://waterresources.mauicounty.gov/154/Rain-Barrel-Program-Giveaway</u>



CONSERVATION PROGRAM

WaterSmart Program

The BWS WaterSmart program is an initiative aimed at helping to ensure a sustainable water supply by promoting water conservation, a key objective in the BWS Water Master Plan. Through WaterSmart, participating BWS residential customers get online and mobile access detailed information about their water use and customized water-saving tips and recommendations for their household.

Source: https://www.boardofwatersupply.com/conservation/bws-conservation-program

Ask Customers to Use Less Water



Ask Nicely

Contact: Jeffrey T. Pearson, P.E., Director (808) 270-7834 / water.supply@mauicounty.gov

Department of Water Supply Declares Stage 1 Water Shortage; Upcountry Customers Asked to Voluntarily Cut Water Use by 10 Percent

Effective immediately, the Department of Water Supply is declaring a Stage 1 water shortage for all customers in Upcountry covering the areas of Haiku, Makawao, Olinda, Pukalani, Kula, Haliimaile, Omaopio/Pulehu, Keokea/Waiohuli, Ulupalakua and Kanaio due to a potential for reduced surface water flows and drier conditions this summer.

The state drought monitor spring forecast predicts a 70 percent chance of El Nino conditions for Hawaii. Spring forecasts tend to be less accurate with respect to later forecasts. El Nino conditions generally mean higher warmer ocean water temperatures causing drier conditions statewide. There is also a possibility that our next wet season, which normally begins in October, may be dry as well.

During the Stage 1 water shortage, all Department of Water Supply customers are being requested to voluntarily reduce water consumption by 10 percent by only using water when necessary and implementing water conservation measures, such as:

 Water your lawn only when needed, reduce automatic irrigation time, water when the sun is down to avoid evaporation

Mandate

January 9, 2018

WATER CONSERVATION NOTICE

AFFECTED AREAS: NORTH KONA, HAWAI'I

Due to the completed repair of Keōpū Deepwell in North Kona, the Department of Water Supply is downgrading the water restriction to a voluntary conservation and requesting consumers in the affected areas to reduce your daily water usage by 10%. Listed are some ways to conserve water to reach the 10% goal:

- Wash full loads of laundry only.
- Wash full loads of dishes only.
- Serve drinking water only when requested.
- Do not let the faucets or shower run unnecessarily.
- When bathing, use water only to wet and rinse off.
- Do not fill the bathtub.
- Use a glass when brushing your teeth.
- Do not flush toilets unnecessarily.
- Use a broom instead of a water hose for cleaning.
- Use a spray nozzle on water hoses to reduce wasteful water use.
- Use drinking water wisely.
- Check your irrigation system and fix any broken sprinkler heads or reposition sprinkler heads

The Conservation Money Problem

• We make money by selling water. If we help, ask or mandate that customers use less, we get less revenue



Price Water to Encourage Conservation



Some Strategies

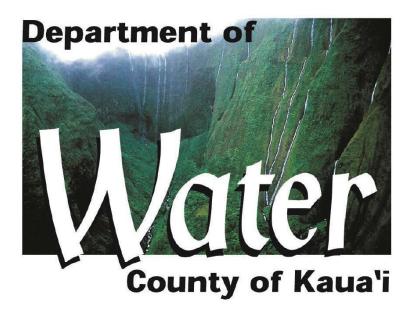
- Charge a higher amount for outdoor use or charge more during seasons of higher use or charge more during drought
- Put more emphasis on the volumetric charge than the base charge
- Charge a higher rate for water, either at all levels of usage or at higher levels of usage

Increasing Block Rates



COUNTY OF MAUI DEPARTMENT OF WATER SUPPLY WATER RESOURCES & PLANNING





DEPARTMENT OF WATER SUPPLY

Board of Water Supply City and County of Honolulu

Issue with Increasing Block Rates



CONSTRUCTION - SEPTEMBER 23, 2014

Uniting Families Under One Roof

Paula Bender



Chances are good that when additions or a major overhaul are made to a Hawaii home, the goal is to accommodate multiple generations on the same property.

Sometimes the reasons are economic: Grown children with their own kids can't afford a big enough home, so they move in with Mom and Dad. Sometimes quality of life drives the decision: The older generation wants to live at home, but needs care or wants to babysit the grandchildren, so everyone lives together. Whatever the reason, local builders are serving the need.

"As builders, we have focused our basic design platform to start with the concepts of family living with three or even four generations," says Marshall Hickox, president and chief administrative officer of HomeWorks Construction Inc. "Our job is to design and create homes with independent spaces to allow privacy for all the residents, but include common areas to share and create a symbiotic household."

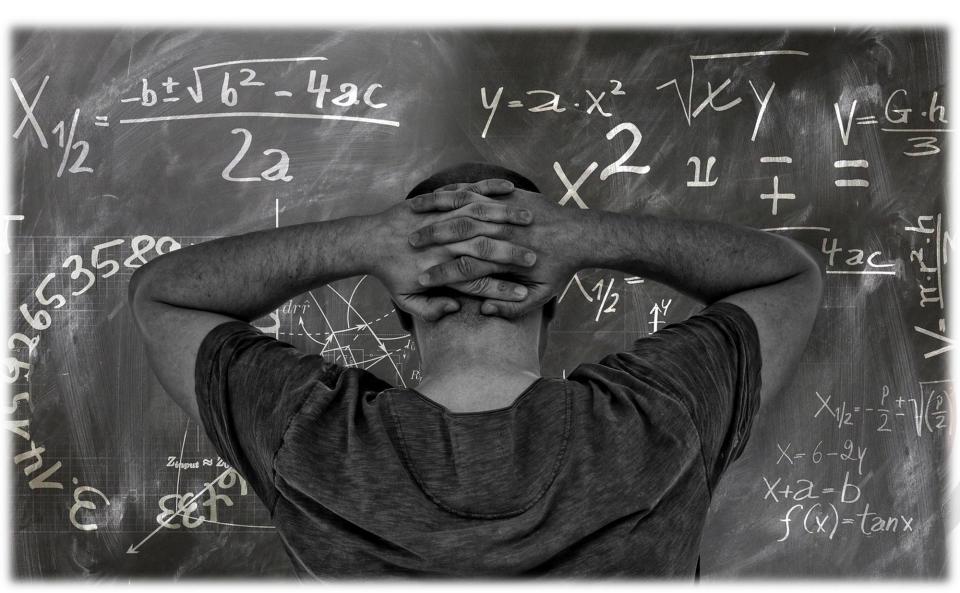
Christin Sumida is a vound mother teacher at Aies Flementary School and wife

Source: <u>https://www.hawaiibusiness.com/uniting-families-under-one-roof/</u>

Budget Based Rates

Source: https://www.cvwd.org/198/Rates

Yes, This Takes Some Effort...



http://budgetbasedrates.com/

BUDGET BASED RATES

Implementation Phasing & Timing | Setting a Budget | Variances & Long Term Maintenance | Internal Communication | Customer Outreach Support & Service | Financial & Billing Info | Rate Structure Design | Who We Are

Water Budget-Based Rates:

A Tutorial for Considering a Budget-Based Water Rate Structure

Water Budget-Based Rates, or BBRs, are also known as Water Budgets, Allocation-Based Rates, Conservation-Based Rates, Efficiency-Based Rates, and Sustainable Rates. BBRs are an innovative, progressive approach to managing customer demands, while minimizing revenue impacts to water agencies. The purpose of this website is to provide a practical, usable Resource Guide featuring case studies on developing and implementing BBRs – such examples of successes and challenges may help stimulate other agencies throughout the State in establishing similar rate structures.

This How-To Resource Guide was prepared through contributions and information from water districts that have direct experience in implementing BBRs.

Find out more about the agencies involved at Who We Are »

The following pages provide an overview of the various experiences of the districts as they set about implementing BBRs, from calculating water budgets, to public acceptance, billing systems, and legality.

<u>See Benefits of Budget-Based Rates</u> for a summary of some of the reasons an agency may choose to consider BBRs and case studies on the effectiveness of BBRs in promoting water conservation.









Don't Forget Real Water Loss



Encouraging Customers to Conserve

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