

**County of Maui
Department of Water Supply**

COMMUNITY GARDENS



EDUCATION



WATER CONSERVATION

Department of Water Supply Garden Projects

Native Xeriscape in Maui County	1
Maui Nui Botanical Gardens	2
Hokama's Garden	3
Pomaika'i School Garden	4
CWD and Bioponic Phytoceuticals Community Greenhouse	5
Lahainaluna High School Farm	6
Ka Hale A Ke Ola Homeless Resource Center	7
Future Gardens	8

The Department of Water Supply (DWS) Water Conservation Poster Contest link is:

<http://www.mauicounty.gov/index.aspx?NID=1789>

The Department of Water Supply has available online a County of Maui Landscape Handbook:

<http://www.mauicounty.gov/index.aspx?nid=227>

By Water All Things Find Life



Native Xeriscape in Maui County

Xeriscape is a water conservation practice used for landscaping. The word “xeriscape” is a combination of the Greek word “xeros” for dry, and “landscape.” In the simplest sense, Xeriscape is landscaping with plants whose natural requirements are appropriate to the local climate. Ideally, Xeriscape can help to reduce or eliminate the need for supplemental irrigation. Xeriscape utilizes seven basic principals: planning and design; hydrozones; plant selection; soil preparation; mulching, efficient irrigation; and appropriate maintenance.

Native plants grew on Maui Nui prior to human contact. Hawaii’s native plants evolved here over millions of years, and are the plants which the first Hawaiians knew and depended on for their livelihood. These plants have evolved with animals, insects, fungi and microbes, to develop a complex network of relationships. This network is the foundation of our native ecosystems, from Mauka to Makai.

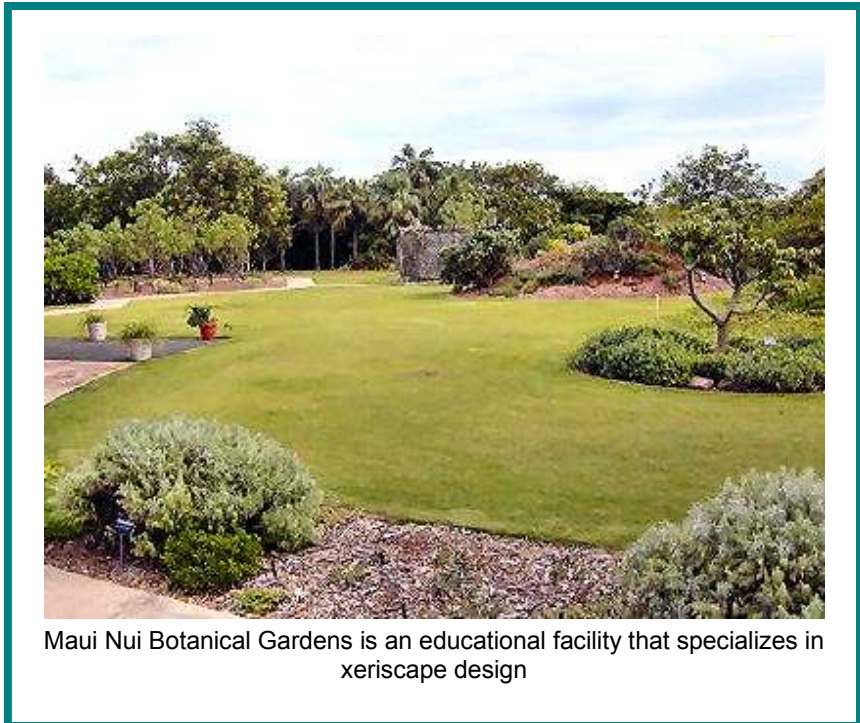


Maui Nui Botanical Gardens

The Maui Nui Botanical Gardens (MNBG) is dedicated to the protection of Maui Nui's rich native plants and cultural heritage. By collecting, cultivating, and distributing native and Polynesian-introduced plants MNBG provides people with a gathering place to see and understand the important relationship these plants have to our economic, social, and cultural livelihoods. Through partnerships, they expand the reach of their activities to many of Maui Nui's managed

native habitats as well as schools, hula halau, and other civic and not-for-profit groups. MNBG provides an exciting opportunity for public education outreach through the interpretation of the living collection (native and Polynesian-introduced plantings in the Gardens) and the hiring of local cultural practitioners to demonstrate and teach their crafts to visitors of the Gardens.

In partnership with the County of Maui Department of Water Supply, Office of Economic Development, and the Parks and Recreation Department, MNBG incorporates water conservation techniques like Xeriscaping, and provides a place where people can learn about money saving water conservation methods.



Maui Nui Botanical Garden website: www.mnbg.org/home.html

Hokama's Garden

The theme of the demonstration garden at the Hokamas building is "ahupua'a." The different garden zones are integrated and interact, representing native watershed while blending in technology behind the scenes. This is the main theme that some call "contrived nature." Taro aquaponics represents traditional lo'i agriculture with modern techniques, promoting technology and science. Native plants were selected for their aesthetics as well as historical use in traditional craft making and potential for modern diversified agriculture on Maui. The garden showcases a selection of plants from all the zones from mauka to makai.



The Hokamas garden being toured by Saint Anthony Grade School Children



Water barrels are used to capture rain water and AC condensate for irrigation at the Hokama's Garden

A solar powered irrigation system that utilizes AC condensate and rainwater catchment is employed. Zero potable water is used. Water features are re-filled using rainwater catchment and AC condensate overflow.

The native plant garden is located at 59 Kanoa Street in Wailuku,. The site is sloped, which provided an opportunity to locate the plants to demonstrate the concept of "ahupua'a" from "mauka" to "makai." The native sea level plants are located at the bottom of the Hokama garden incline, and the upper elevation plants are situated at the highest reach of the garden.

Pomaika'i Elementary School Garden

The “Green Dream” outdoor classroom project is a garden space at Pomaika'i Elementary. The garden was created through the collaborative effort of Community Work Day, Department of Water Supply, and Pomaika'i families. The garden was established in March 2011 and continues to grow. The goal was to provide a garden setting to support “hands on” experience outside the classroom for all Pomaika'i students.

Pomaikai Green Dream Website: http://pomaikai2.k12.hi.us/~greendream/green_dream/welcome.html



The crew came out and worked very hard to build the garden classroom for Pomaikai



The benches and garden are ready for students at Pomaikai Elementary

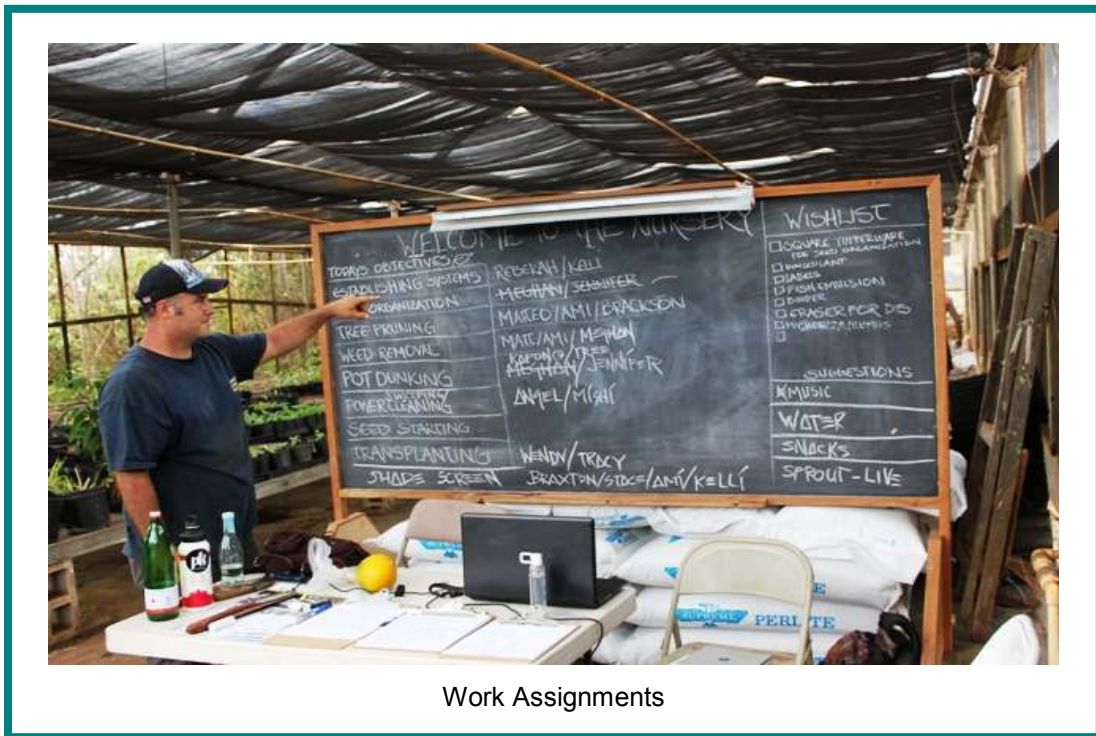
Community Work Day and Bioponic Phytoceuticals Community Greenhouse

The Community Work Day (CWD) and Bioponic Phytoceuticals Community Greenhouse was originally designed and used as a tomato hydroponics facility. For several years it was not used until a collaboration of the DWS, CWD, and Bioponic Phytoceuticals developed it into a functioning hydroponics facility. Native and edible plants are grown from seed in the greenhouse to utilize in various gardens. Plant material was gathered from nurseries, farms, personal donations, and the wild.



Volunteers cleaning up the greenhouse

The garden is also used to propagate trees through the use of advanced grafting techniques. In the near future the Department of Water Supply will be working with Bioponic Phytoceuticals to re-establish the aeroponics facility as a community resource.



Work Assignments

Lahainaluna High School Farm

Rich in tradition and culture, Lahainaluna High School today is one of a few public boarding schools in the nation, and the oldest high school west of the Mississippi River. It is the home of the first printing press in Hawaii, and printed the first newspaper west of the Rockies, *ka Lama*, in Hawaiian at Lahainaluna on February 14, 1834.

Maui County Department of Water Supply, Community Work Day, and Lahainaluna High School is spearheading a project to revitalize the agriculture department at the high school. DWS personnel trained Lahainaluna high school students to develop irrigation systems based on sound irrigation principals. The farm is a total of about 5 acres consisting of native plant gardens and a fruit tree orchard. The native garden was designed to provide seed stock to an assortment of community groups who propagate native plants for the West Maui Region. Future projects include re-circulating agriculture, taro loi, and native plant reforestation on over 600 acres of Lahainaluna High School Department of Education land.



Lahainaluna wins the award for volunteer biggest turnout.



After a hard day's work, the garden is blessed with rain.

Ka Hale A Ke Ola Homeless Resource Center Garden

DWS conducted a Pilot Toilet Retrofit Program in 2009 where eighty 3.5 gallons per minute (gpm) toilets were retrofitted to High Efficiency Dual Flush - 0.8 & 1.6 gpm.

Two years later, DWS and the Community Work Day group participated in a courtyard garden installation of native plants and edibles. DWS, SynLawn and The Rock landscaping were responsible for 900 square feet of SynLawn installed where cultural activities such as hula lessons are held. Benefits of SynLawn include no water used for maintenance, the product is dirt free and is LEED (Leadership in Energy and Environmental Design) certified.

The SynLawn installation labor and some material for this project was donated by Jim LoBianco of SynLawn and Burt Ferguson of The Rock Landscaping.



Jim LoBianco, far right, of SynLawn donated time, labor and material.



The keiki enjoy their hula lessons on the beautiful SynLawn in the courtyard at Ka Hale A Ke Ola .

Future Gardens

- University of Hawaii Maui College Garden and Aquaponics Facility
- Maui High School
- Lokelani Intermediate School
- King Kekaulike High School

