

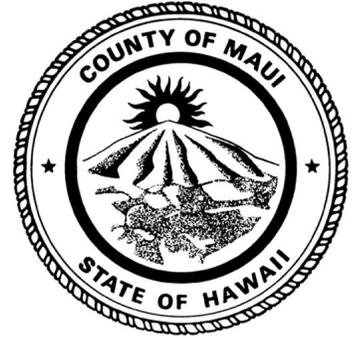
# Maui Soil & Water Conservation Districts Annual Report



**INTERNATIONAL YEAR  
OF FORESTS • 2011**



**DLNR Division of Water and Land Management  
and  
USDA Natural Resources Conservation Service  
Serving  
West Maui SWCD  
Central Maui SWCD  
Olinda-Kula SWCD  
Hana SWCD**



**OFFICE OF THE MAYOR**

County of Maui  
200 South High Street  
Wailuku, Maui, Hawaii 96793

## **A MESSAGE FROM MAYOR ALAN M. ARAKAWA**

Aloha Kakou,

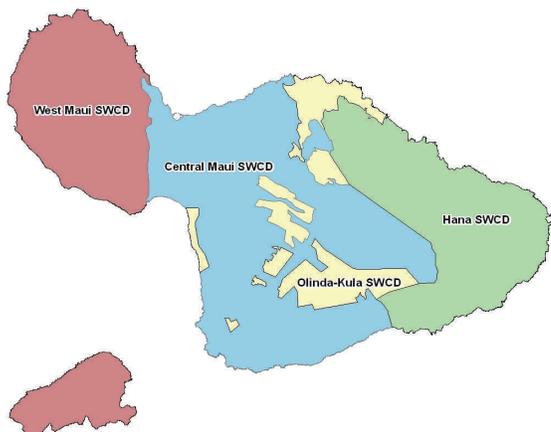
On behalf of the people of the County of Maui, it is my pleasure to once again congratulate the Maui Soil and Water Conversation Districts on their efforts to preserve our islands' most precious resources- land and water.

For decades, the Maui Soil and Water Conversation Districts have been providing our community with important educational and outreach programs. Their efforts to protect our natural resources are greatly appreciated, especially in these challenging times of increased demand and diminished availability.

Mahalo to the Maui Soil and Water Conservation Districts for their commitment to conservation, and congratulations on another successful year.

  
Alan M. Arakawa  
Mayor, County of Maui

## *Hawaii Association of Conservation Districts Island of Maui VP Message*



The role of the Soil & Water Conservation Districts is to carry out programs for the conservation of soil and water; to prevent soil erosion; control floodwaters and sediment damages; and assist farmers, ranchers, and all private landusers in making the best use of their natural resources through proper landuse planning, design and implementation of best management practices, and use of federal funded farm programs. The Districts' responsibilities also include reviewing Maui County drainage and erosion control plans for land use changes, developments and subdivisions. (Chapter 20.08.080 Grubbing and Grading Permit Review). The Districts also assist in environmental education of the general public

through school programs, and other methods of recognition for conservation minded citizens.

There are 16 Soil & Water Conservation Districts in the State of Hawaii. The SWCD Boards operate on a voluntary basis. The Island of Maui consists of Central Maui, Hana, Olinda-Kula, and West Maui. The SWCDs of Hawaii are legally constituted, self-governing units of the State of Hawaii, organized under Hawaii Soil & Water Conservation District Law, Chapter 180, Hawaii Revised Statutes. Our purpose is to conduct soil and water conservation activities within their respective boundaries on the islands of Maui and Kahoolawe.

In partnership with the USDA Natural Resources Conservation Service (NRCS), the SWCDs are poised to meet the needs of local agricultural producers and the community through conservation planning, and technical assistance with Best Management Practices (BMPs) or conservation practices. In some instances, an agricultural producer with an approved conservation plan may be eligible to receive financial assistance through the USDA-NRCS Farm Bill to implement the conservation practices identified on their conservation plan.

The 2008 Farm Bill called attention to the need for forestry assistance. On May 19, 2011, a Memorandum of Understanding between the Department of Land and Natural Resources, Hawaii Association of Conservation Districts, the Natural Resource Conservation Service and U.S. Forest Service was signed. Through the MOU, the Partners will work to improve the coordination and delivery of forestry assistance programs to all eligible forest owners, and to enhance the consistency and implementation of recommended forestry practices. This collaboration will allow the Partners to improve forestry assistance as well as use available funding for program delivery more efficiently.

The SWCDs assist local agricultural producers with grading, grubbing and stockpiling concerns. Under paragraph C of Chapter 20.08.030 of the Maui County Soil and Sedimentation Control Ordinance, District cooperators with a SWCD approved conservation plan can apply for an exemption to the County's grading, grubbing and stockpiling ordinance. The Maui SWCDs also provide conservation planning assistance to agricultural producers leasing land from the State of Hawaii.

Conservation work is an ongoing task that cannot be done alone. We truly appreciate the ongoing support we receive from DLNR, USDA-NRCS, U.H. Cooperative Extension Service, Mayor Alan Arakawa, Maui County Council Members, Dept. of Public Works and Environmental Management, Office of Economic Development, Dept. of Health, Coastal Zone Management, Maui County Farm Bureau, and Tri-Isle Resource Conservation and Development.

Best wishes goes out to retiring USDA-NRCS PIA Director, Larry Yamamoto.

We will also miss Paul Elia, former chairman of the Molokai-Lanai SWCD.

Sincerely,

Jo Loyce Kaia

HACD Island of Maui Vice President



# CONSERVATION

*In the Community*



2010 Maui County Land Judging Contest—the participants pose for a group picture with Waikapu valley in the background

## *Mahalo to Our Volunteers*



**Score Keepers:** Edna Kong, Earth Team Volunteer; Norman Nagata, UH-CTAHR; Elskin Allan and Leo Smock-Randall, NRCS; Richard Sylva, CMSWCD and Pamela Kantarova, Earth Team Volunteer; Rose Matsumoto, Earth Team Volunteer; Carl Hashimoto, NRCS; and Wes Nohara, WMSWCD



## **Proctors**



James Ino, Retired NRCS Soil Conservationist; David Mabey, NRCS Soil Conservationist visiting from Logan, Utah ; and John Powley, UH-CTAHR

The 2010 Island of Maui Land Judging Contest had participants from Baldwin, Maui, Lahainaluna, Seabury Hall, Kamehameha, and St. Anthony High School. The students used their knowledge of physical soil properties and factors affecting land and classification to evaluate 3 sites for the contest.

The program is sponsored by the Soil and Water Conservation Districts in cooperation with USDA-NRCS and U.H. Cooperative Extension Service. It provides 8th-12th grade students with a fun way to learn about local soil and water resources and ways to recognize resource concerns and how to address them with conservation practices.

At this year's island contest, the 4-H Dirt Devils, a team of students from Seabury Hall had the highest team score and moved on to compete against Pohala High School at the State Land Judging Contest that was held on Oahu. The 4-H Dirt Devils also out scored the Big Island team which earned them an opportunity to compete in the National Land Judging Contest in Oklahoma.

Due to an out pouring of community support from local businesses, family, and the Soil & Water Conservation Districts of Hawaii, the Dirt Devils raised enough funds to participate in the National Contest.

Thank you to everyone that is involved with the Land Judging Contest and to everyone that has supported this program.

## Land Judging Contestants Return Home With 3 National Awards



4-H Dirt Devils Advisor Daryl Yamada with team 1 (top row, l-r): Ashley Malek, Devin Vinoray, Jared Shimada, and Taylor Hori; and team 2 (bottom row, l-r): Justine Malek, Coleby Hanisch, Tyler Yamada, and Haley Murayama

OKLAHOMA CITY, OK — Two 4-H Dirt Devils teams from Seabury Hall has returned home after participating in the 60th annual National Land and Range Judging Contest in Oklahoma City. The group competed in the nation's top land judging event at a site near Oklahoma City.

Members of the 4-H Dirt Devils tested their individual and team skills against other land and range judging teams from approximately 38 states across the nation by evaluating land characteristics like topsoil, subsoil, slope and plant life. They were also required to recommend treatment to improve the land's adaptability for certain purposes like producing crops, raising cattle or building homes.



In the Land Judging 4-H competition, the 4-H Dirt Devils (team 1, sponsored by the Soil & Water Conservation Districts) placed 4<sup>th</sup> overall.

Ashley Malek ranked 8<sup>th</sup> out of 86 for top individual score.

In Homesite Evaluation, Tyler Yamada, 4-H Dirt Devils, team 2, placed first in the individual category.



Following the awards presentation, contest cochairman and co-emcee Russell Pierson, age 99, was recognized with a standing ovation for participating in 59 of the 60 years of the contest. Don Bartolina, contest coordinator, was also acknowledged for 50 years of participation in the contest.

Following the presentation of the honoree award, contest cochairman Russell Pierson urged teens and adults alike to commit themselves to a better environment for future generations. "I ask you to apply these land and range judging skills in ways that will help ensure this country remains "America the Beautiful," said Pierson.

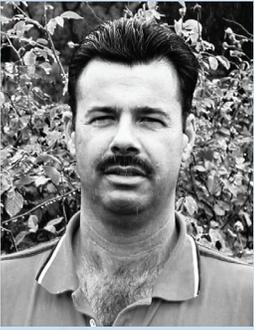
### *Special Thanks Goes Out To The Following Agencies, Businesses, and Individuals*

Maui Economic Development Board . Tri-Isle RC&D . Ulupalakua Ranch  
 Haliimaile Pineapple Company . Gilbert Edo . Henry Rice, Kaonolulu Ranch  
 Haleakala Ranch . Paul Koehler, Monsanto . A&B Foundation  
 Wes Nohara, Puu Kane Farms LLC . Dave Oka, UH CTAHR Experiment Station  
 Ken Kaneshiro . Leo Smock-Randall . James Robello  
 Hawaii Association of Conservation Districts  
 Central Maui SWCD . West Maui SWCD . Olinda-Kula SWCD . Mauna Kea SWCD  
 Ka'u SWCD . Hamakua SWCD . Waiakea SWCD . Windward Oahu SWCD  
 Puna SWCD . West Kauai SWCD . East Kauai SWCD

*Your support in helping the 4-H Dirt Devils with travel expenses to compete in Oklahoma was greatly appreciated.*



## West Maui Soil & Water Conservation District



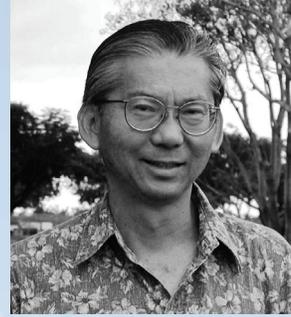
**James Nobriga**  
Chairman



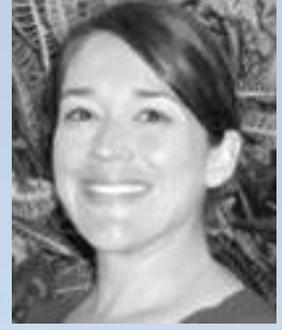
**Ian Swezey**  
Secretary



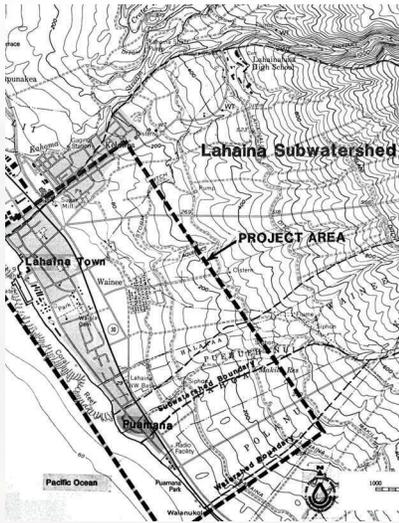
**Kimo Falconer**  
Treasurer



**Howard Hanzawa**  
Director



**Megan Webster**  
Director

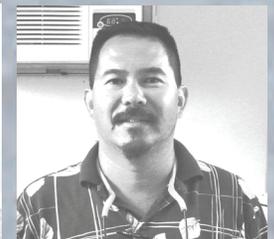


**The Lahaina Watershed Project** is a USDA-NRCS watershed project authorized under the Watershed Protection and Flood Prevention Act, Public Law 83-566. Sponsored by the County of Maui, Department of Public Works, and the West Maui Soil and Water Conservation District, this project will provide a 100-yr. level of flood protection to residential and commercial areas in the southern part of Lahaina town and will protect the marine environment by reducing the amount of sediment being discharged to the ocean. The planned two-mile long diversion channel will protect approximately 200 homes, 35 condominiums, 160 commercial buildings and four public facilities which are located within the 100-year floodplain.

Progress on the Lahaina Watershed Project continues with the recent construction completion of Phase 1. This phase consists of an ocean outlet, Honoapiilani Highway culvert, sediment basin, and grass-lined diversion channel. Phase 2A which consists of a culvert at Hokiokio Place is currently under contract for construction. With the release of funding from the Federal Highways Administration this year, the County will be advertising for proposals for the construction of Phase 2B which consists of about 3,000 feet of grass-lined diversion channel extending from the upstream end of Phase 1 to Hokiokio Place. The design for Phase 3, which consists of the Kauaula Stream Debris Basin, is scheduled to be completed in September 2011.

By Mike Hayama  
USDA-NRCS

### Associate Directors



**Wes Nohara, Martin Luna, Daniel Ornellas, Marlon Domingo, Lance Nakamura, and Dave Minami**

## West Maui SWCD Field Trips



Site visit at the Kaheawa Wind Farm to discuss best management practices for phase II, and follow-up on concerns in phase I of the project.

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## Site Inspection of the Lahainaluna Flood Control System



Mahalo to the County Public Works Crew for all of your support in helping the Maui SWCDs.

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Field visits of the Lahaina Bypass Project Phase I & II as it relates to the Temporary Flood Control Project and grading and grubbing concerns

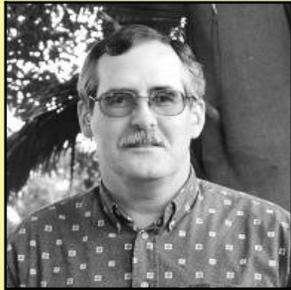




## Central Maui SWCD



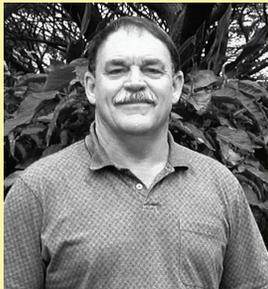
Doug MacCluer  
Chairman



Randall Moore  
Secretary



Scott Meidell  
Treasurer



Reny Platz  
Director



Bobby Brooks  
Director



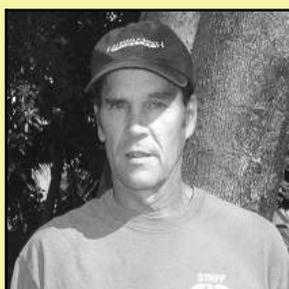
Jimmy Gomes  
Director



Wes Nohara  
Associate



Darren Strand  
Associate

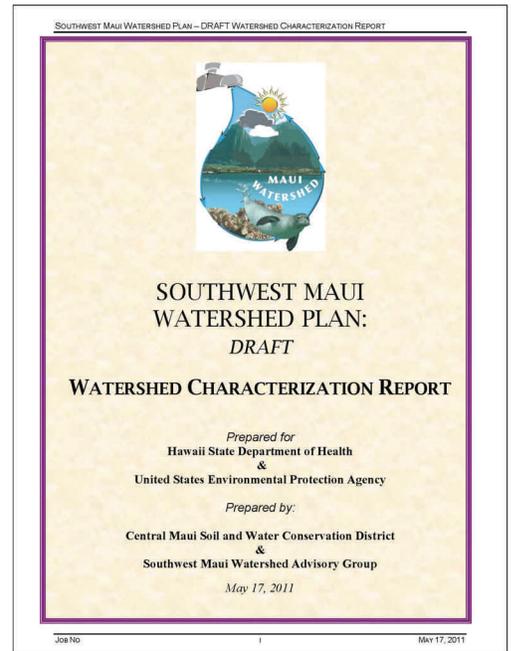


Richard Sylva  
Associate

## UPDATE ON THE SOUTHWEST MAUI WATERSHED PLAN

The Central Maui SWCD sponsored Southwest Maui Watershed Plan (SMWP) continues into its second year. The SMWP addresses water quality issues in 3 watersheds on Haleakala's southwest flank—the Hapapa, Wailea and Mooloa watersheds. The Watershed Advisory Group (WAG) and Steering Committee (SC) have been

meeting regularly to identify water quality issues within the project boundary, receive input from the community, and to gather and review data for the Watershed Characterization Report. Several members of the WAG and SC have contributed their time and effort to author sections of the report and to present data in an easy to understand spatial and graphical format. This process is a truly collaborative effort bringing together members of the community, private industry professionals and members of local, state and federal government.



### SMWP Public Meeting Photo Highlights



## *Hawaii Hazard Mitigation Project*

The **Kula Storm Water Reclamation Study** is conducted as a part of the Hawaii Hazard Mitigation Project. The KSWRS will evaluate and prepare alternatives for capturing and storing storm-water for use by agricultural producers to alleviate drought impacts in the Kula region. The Study will also include an inventory and assessment of agricultural water needs; agricultural water sources and facilities; and identify economic, social, and environmental issues associated with the implementation of agricultural drought mitigation measures in the Kula region. The Study will also identify and evaluate alternatives to improve agricultural water supply and distribution to farmers and ranchers.

The KSWRS is being conducted by the Central Maui Soil and Water Conservation District (CMSWCD) in support of the Hawaii Hazard Mitigation Plan, Hawaii Drought Mitigation Program, and the County of Maui Drought Mitigation Strategy. The Hawaii Drought Mitigation Program is administered by the State of Hawaii Commission on Water Resources Management (CWRM). Funding is provided by Act 238, SLH 2007 State Appropriation. The CMSWCD has acquired technical assistance from the USDA Natural Resources Conservation Service (NRCS) to conduct data collection, technical analyses, and study report preparation.

## **Study Organization**

### **Consultant Team**

- Mink & Yuen, Prime Contractor
- Oceanit, Sub consultant
- Kubo Engineering, Sub consultant

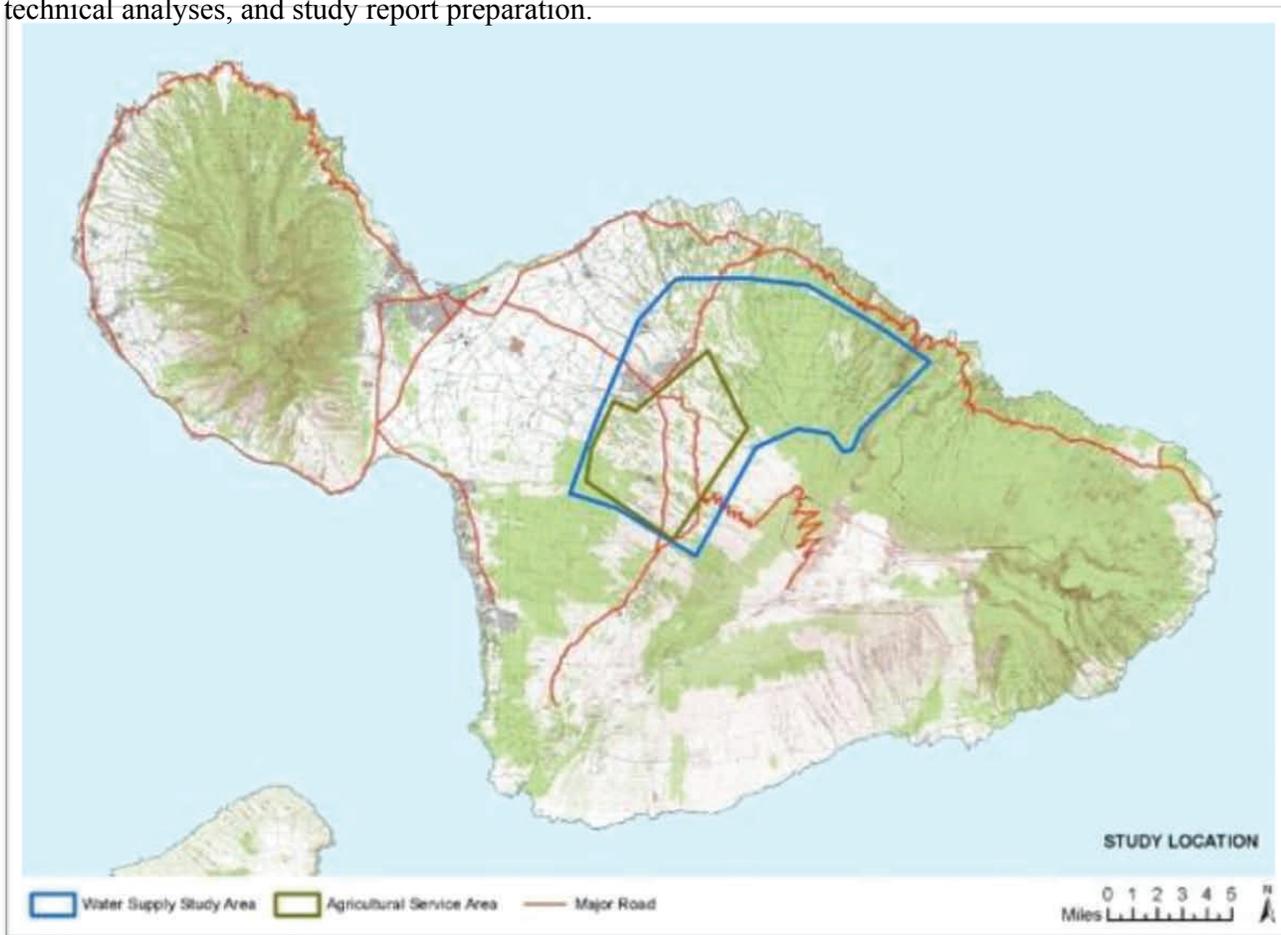
### **Five Deliverables**

- \* Existing Conditions Report
- \* Drought Mitigation Resource Analysis
- \* Alternatives Identification and Analysis
- Draft System Development Assessment
- Final Development Assessment

\*available for review



*Consultant Team on field trip with Central Maui SWCD and County Department of Water Supply Staff*



# OLINDA KULA SOIL AND WATER CONSERVATION DISTRICT



**Garret Hew, Director; Paul Otani, Chairman; and Alan Nago, Director**



**Neil Nakamura  
Secretary-Treasurer**



**Clark Hashimoto  
Director**



**Robin Shimabuku  
Associate Director**



**Eddie Perreira  
Associate Director**

## **Upcountry Maui Watershed Project Update**

By Mike Hayama, NRCS

The Upcountry Maui Watershed Project is an agricultural water distribution system which will ultimately transmit non-potable water from a bypass at the Olinda Water Treatment plant to agricultural users in the Upper Kula area. The system will consist of a main distribution pipeline with 8 laterals to convey water downhill to agricultural users.

Progress continues with the recent award of contracts for design and construction. A construction contract was awarded this year for the Distribution Pipeline, Phase VII, consisting of approximately 3850 feet of 16-inch diameter pipe and 1400 feet of 12-inch diameter pipe. A contract was also awarded for the design of the Kaonoulu and Waiohuli Laterals.

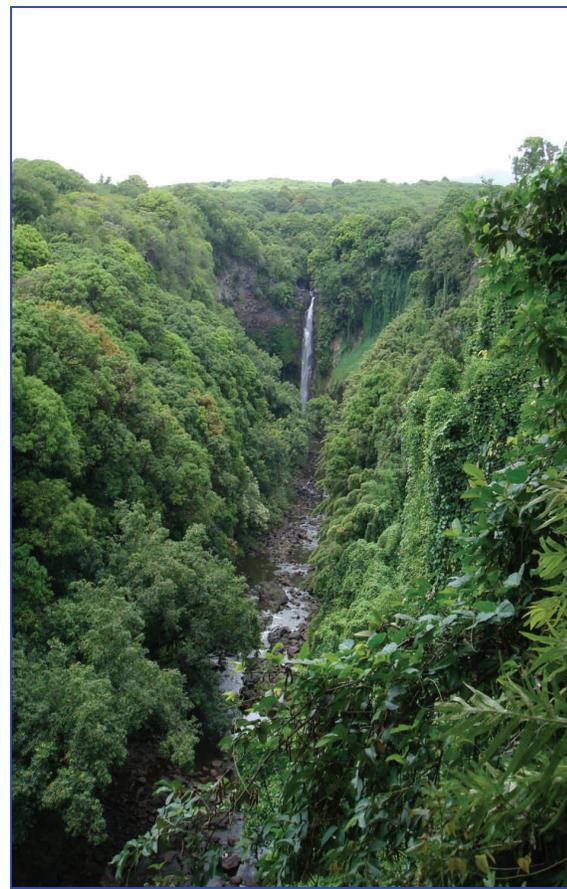
Currently under construction are the Distribution Pipeline, Phases IV, V, VIA, and the Pulehuiki Lateral. Designs are still in progress for the Kealahou Lateral, the Waiakoa Lateral, and the Distribution Pipeline, Phases VIB and VIC. Extension of the main distribution pipeline to the Keokea Lateral is still in the planning phase.

Project sponsors include the OKSWCD, NRCS, State Department of Agriculture, and the Maui County Department of Water Supply.

## Hana Soil and Water Conservation District



Directors (l-r) JoLoyce Kaia, Scott Crawford, Annette Smith, and Sue Cuffe



The Hana SWCD Boards of Directors are volunteers from the Hana community that provide assistance reviewing conservation plans for East Maui agricultural producers and landowners. The Hana SWCD Directors are advocates of soil and water conservation and can offer recommendations on best management practices to address resource concerns. The Hana SWCD convenes once a month to discuss soil and water conservation issues in the Hana area and uses these meetings to review conservation plans of Hana SWCD cooperators.



Kahului Field Office's Cooperator, Randy Pisano, in the Hana SWCD talks with Drew Stout, Civil Engineer. Drew is from the Waimea Service Center on Hawaii Island and is one of the Engineers assisting the Kahului Field Office while the position is vacant. In this case, Drew will be designing a Seasonal High Tunnel structure with gutters for Randy that will drain into 55 gallon barrels, and the overflow will safely outlet into a nearby intermittent stream.

***District Conservationist Message***

The cooperative efforts between the USDA-NRCS Kahului Field Office and the Maui SWCD personnel provided technical assistance to more than fifty –five land owners and operators this year. The 2008 Farm Bill Program and Environmental Quality Incentive Program (EQIP) addresses soil, water, air, plants and animals at various levels of resource treatments on grassland, non-industrial forest land, organic and conventional cropland. Currently the 2011 EQIP funding reserved for the island of Maui is greater than \$1,500,000.00. The Agricultural Management Assistance (AMA) Program addresses resource concerns related to agricultural production on cropland, hay land, pastureland, rangeland, grassland, and non-industrial private forest land. The 2011 AMA funding reserved for the island of Maui is greater than \$12,000.

The Farm Bill programs require that each participant enter into an agreement to practice and maintain their operations according to NRCS standards and specifications. Currently the NRCS Kahului Field Office manages over 100 active Farm Bill conservation plans which results in soil savings, coral reef and marine health, reduction of sedimentation, improving of endangered species habitat, control of invasive species, reforestation of native riparian buffers and declining habitats.

The Hawaii Conservation Reserve Enhancement Program (CREP) is a federal-state partnership developed to encourage conservation and environmentally sound practices on degraded lands. The Kahului USDA-Farm Service Agency (FSA), Department of Land & Natural Resources (DLNR) - Division of Forestry and Wildlife and NRCS are partnering together to help agricultural landowners address specific environmental issues on their property. CREP will reduce sedimentation and nutrient runoff, improve coral reef health and marine diversity, and restore riparian forest and wetland buffers by planting primarily native vegetation and controlling non-native invasive species. NRCS, FSA & DLNR are currently working with landowners to improve their resource concerns.

We welcome William Fitzgerald (Bill). Bill filled the vacancy as Soil Conservationist. Bill's prior USDA-NRCS assignment was in Estherville, Iowa. Leo Smock-Randall filled the vacancy as Maui County Resource Conservationist.

I would like to thank all of our partners for their continued support throughout the years. NRCS recognizes and appreciates the support and efforts of Maui Soil and Water Conservation Districts, Hawaii Association of Conservation Districts, Maui County Farm Bureau, Mayor Alan Arakawa, Maui County Council Members, Department of Public Works and Environmental Management, Department of Health, Department of Land and Natural Resources, UH Cooperative Extension Service, Maui Invasive Species Committee, Environmental Protection Agency, USDA- Farm Service Agency and the Tri Isle Resource Conservation & Development.

Mahalo & Aloha,  
  
Ranae Ganske-Cerizo  
District Conservationist

**Bill Fitzgerald**



I come to the Kahului Field Office from the Dickinson/Emmet Shared Management Unit in Spirit Lake and Estherville, Iowa where I was a Soil Conservation Technician for the past 3 years. I started working in conservation as a District Technician in the Spirit Lake FO for 3 years. I then became a CREP Field Specialist for a ten county area in Northwest Iowa

where I handled landowner contacts and oversaw construction of large watershed wetlands for the purpose of denitrifying tile drained water. I also filled my time during that stint as a WAE in the Estherville FO. After 2 years I took the SCT position in Estherville.

I received my BS in biology and chemistry from Briar Cliff University in Sioux City, Iowa and had graduate study in Environmental Health with a water quality emphasis at the University of Minnesota. I later completed an AS degree in GIS Technology at Iowa Lakes Community College.

In my free time I enjoy being active in the outdoors and look forward to hiking and cycling Maui and fishing the surf and beaches here.

## Kahului Field Office Staff



Ranae Ganske-Cerizo  
NRCS District Conservationist



Leo Smock-Randall  
NRCS Resource Conservationist



Kahana Stone  
NRCS Soil  
Conservationist



Bill Fitzgerald  
NRCS Soil  
Conservationist



Andrea Thompson  
NRCS  
Soil Conservation Aide



Carl Hashimoto  
NRCS  
Soil Conservation  
Technician



Michael Brady  
NRCS  
Outreach Liaison



John Astilla  
SWCD Conservation Specialist

Maggie Kramp  
SWCD Administrative Assistant



The Natural Resources Conservation Service partners with Soil & Water Conservation Districts (SWCDs) and others to provide technical and some cost-share assistance to private landowners. Our main goal is to protect, enhance and preserve our soil, water, air, plants and animals using sound science and expertise. Participation in our programs is voluntary.

Our area of coverage includes:

East Area:

- State of Hawaii
- Territory of American Samoa

West Area (formerly Pacific Basin Area):

- Territory of Guam
- Commonwealth of the Northern Mariana Islands
- Federated States of Micronesia
- Republic of Palau
- Republic of the Marshall Islands

[www.pia.nrcs.usda.gov](http://www.pia.nrcs.usda.gov)

# 2008 Farm Bill



## Conservation Programs

**Conservation Technical Assistance (CTA)** provided directly to farmers, ranchers, and other eligible entities, such as conservation planning, technical consultation, and assistance with design and implementation of conservation practices

### **Environmental Quality Incentives Program (EQIP)**

- EQIP Agricultural Water Enhancement Program
- EQIP Conservation Innovation Grants

offers financial and technical assistance to agriculture and forestry producers to promote agricultural production, forest management, and environmental quality as compatible goals

### **Wildlife Habitat Incentives Program (WHIP)**

assists landowners to develop and improve wildlife habitat on private or Tribal land

### **Agricultural Management Assistance (AMA)**

provides cost-share and incentive payments to agricultural producers to voluntarily address issues, such as water management, water quality, and erosion control by incorporating conservation practices into their farming operations

### **Farm and Ranch Lands Protection Program (FRPP)**

Provides matching funds to help State, tribal, or local governments and non-governmental organizations purchase development rights to keep productive farm and rangeland in agricultural uses

### **Wetlands Reserve Program (WRP)**

is a voluntary, non-regulatory, incentive-based program that helps private landowners, farmers and ranchers protect and restore wetlands on their property

For More Information, visit:

- Your local USDA Service Center
- Your local conservation district
- <http://www.nrcs.usda.gov>

**John Astilla, Conservation Specialist...**

As the Conservation Specialist for the Maui Soil and Water Conservation Districts, I serve the landowners and agricultural producers of Maui's 4 SWCDs: Hana, West Maui, Central Maui and Olinda-Kula. My task is to assist landowners and agricultural producers, also known as District cooperators, manage and conserve their natural resources—soil, water, air, plants, and animals. The ultimate goal for this effort is to empower District cooperators to better manage their land in order to sustain the life of land in perpetuity. The effect of this effort is better, or cleaner water quality along Maui's coastline by helping District cooperators reduce or eliminate runoff from their land. For instance, by helping Farmer Keone reduce the amount of sediment leaving his farm with the appropriate conservation practices, that means less sediment entering Maui's drainage ways and near shore waters. The conservation planning process is the tool used to help District cooperators. This process identifies issues, or resource concerns, on the land and helps me provide science-based recommendations to address those concerns that fit within the cooperator's objectives and ability. My relationship with the cooperator doesn't end with the completion of the conservation plan. I keep in touch with the cooperators and conduct follow up visits to ensure that they are able to effectively implement their conservation plans. In some instances, when a cooperator is eligible and interested, I assist them with applying for financial assistance through the USDA-NRCS Farm Bill to reduce the costs of implementing their conservation plan.

In addition to conservation planning, I have been assisting the Central Maui SWCD with their Southwest Maui Watershed Plan. This planning process will characterize and identify water quality issues in the Hapapa, Wailea and Mooloa watersheds. This watershed based plan will give the communities of these 3 watershed access to much needed funding to implement projects to address water quality issues.

Over the past 3 years I have been working with high school students in the Conservation Awareness Program, a University of Hawaii developed curriculum that teaches students the physical properties of soil, factors affecting land use in Hawaii, and recommended conservation practices for different land uses.



Above: Assisting Baldwin High School students prepare for the Conservation Awareness Program's Land Judging contest.

Middle: Conservation practice implemented to reduce runoff and sedimentation coming from a horse pasture..

Bottom: Game-Proof fencing and native plant shelterbelt reduces impacts from feral ungulates and provides habitat for endemic wildlife and pollinators, reduces erosion concerns.

## A Focus on Forests

by John Astilla

Hawaii's forest ecosystems are very diverse; this can be attributed to the amount of rainfall that falls in an area and the elevation in which it is found. These ecosystems provide a diverse habitat for plant and animal species as well as support the lifestyle and culture of island residents. For Hawaiians, the forests were viewed as the realm of their akua –gods, deities and spirits– and were viewed as deeply spiritual places. Forests were not entered or their resources harvested without asking for permission and attention given to show respect to all the beings that dwelled within. The prayer below illustrates the reverence Hawaiians had for the forest.

*Noho ana ke akua i ka nahelehele.  
I alai ia e ke kiohuohu, e ka ua koko,  
O na kino malu i ka lani,  
Malu e hoe.  
E hooulu aku ana ia ulu kupu,  
Ia ulu noho, ia ulu kini o e akua,  
Ulu i ke kapa kanaka.  
Kahea ke akua kiai pali,  
E wikiwiki, e holoholo, e na kaa loa,  
Maile, ki ke 'kua ke ano mai.  
E ulu, e ulu, i ko kahu  
Ia ka hookapuhi noa.*

The gods dwell in the woodlands.  
Hidden away in the mist, in the low hanging  
rainbow.  
O beings sheltered by the heavens,  
Clear our path of all hindrance.  
We call to [the gods of] growth to inspire us,  
To the [woodland] dwellers for inspiration,  
to the hosts of gods for inspiration,  
To be given to the dwelling place of [us]  
human beings.  
The guardian god of the hills calls  
To hasten to hurry, to speed along the way,  
The maile and ki thickets are the dwelling  
places of these revered ones.  
Inspire us, inspire and dwell on your altar,  
Give us the lithe freedom of an eel.

(Puku'i 1936 in Barrere et al. 1980)

Despite the spiritual status that forests were elevated to, the forests could not escape the pressures of a growing human population and introduction of non-native vegetation and animals. By

the time Westerners arrived in Hawaii, they observed that forests started at middle elevations a considerable distance from the coast. Large expanses of forested lands were cleared for agriculture and human settlement. Non-native vegetation began to compete with native trees and shrubs for resources and rodents that were introduced to Hawaii devoured native tree and shrub seeds. After Western contact, rapid change to forest land took place. Goats, sheep and cattle were introduced to Hawaii, and because of a royal kapu (taboo) that protected the herbivores, their numbers quickly increased and so did the impacts of soil compaction and grazing of new forest growth. The kapu was eventually lifted to allow commoners to supplement their diet, but damage to the environment was clear – or muddy, depending on how you look at it. As the number of feral ungulates grew and their food sources shrank, the animals began expanding onto steeper slopes, increasing erosion in upper watershed areas.

The disappearance of forest land also meant the disappearance of the functions they provided to the watershed. The leaf litter from native trees protected soil from the damaging effects of rain, the root system of trees and shrubs increased soil infiltration and soil stability, and the forest vegetation reduced the nutrient load of runoff. With these functions gone, streams that once ran year round became more intermittent, and when they did run, water rushed through the watershed in muddy, erosive flows. Realizing the importance of forest lands, early reforestation efforts were underway during the latter parts of the 1800's. Not only did tree plantings increase, but feral ungulates were also being controlled with fencing.

In keeping with those early reforestation efforts, several programs have been initiated to assist landowners with restoring native forest habitat. One such program, the Conservation Reserve Enhancement Program (CREP), is a partnership between the USDA-Natural Resources Conservation Service (NRCS), USDA-Farm Service Agency (FSA), and the State of Hawaii Department of Land and Natural Resources Division of Forestry and Wildlife (DOFAW). Through Conservation Reserve Enhance Program (CREP), program participants can

receive technical and financial assistance to voluntarily remove crop and pasture land from agricultural production and convert the land to native tree, shrubs, and grasses. The goal of CREP is to restore the functions of a forest such as reducing runoff and erosion, providing habitat for native wildlife, increasing groundwater recharge, and protection of riparian zones. Examples of conservation practices that can be planned to address these goals are access control fencing, tree/shrub site preparation, tree/shrub establishment, riparian forest buffer, upland wildlife habitat management. In addition to CREP, the USDA Farm Bill also offers landowners with an incentive to restore forest habitat on private land. The Non-Industrial, Private Forestry Initiative that is a component of the 2008 Farm Bill Environmental Quality Incentive Program (EQIP) and the Wildlife Habitat Incentive Program (WHIP) offer several options for landowners to bring back the Hawaiian forest. These programs offer an opportunity for private forestland owners to implement conservation and management practices that will improve the health and productivity of their forests, prevent soil erosion and improve habitat for at-risk wildlife species. Current landowners that are participating in these programs are very excited to bring back native forests on their property. Beyond restoring the functions of a healthy forest, these landowners understand the intrinsic value of reestablishing a part of Hawaiian culture and society – a way to reconnect themselves and the community around them to something that was a foundation of Hawaiian life. According to Robert Bence, Farm Manager for Hawaii Sustainable Farms in Kula, who is implementing a native forest restoration project on the 9 acre farm, “by learning from the past and using the technology of the present, we hope to help protect the future. Beyond following organic growing practices, we understand the countless benefits of a native habitat reforestation project to the overall health of the surrounding land and thus the economic success of the farm.”

Although these programs address the restoration of native habitat, the programs have different rules as to how they can be implemented. Contact your local NRCS office to find out which program would be more suited to your objectives and your property. The NRCS and FSA can be reached at 808-871-5500.



Beginning phases of a dry land forest restoration project. The site is dominated by wili wili trees, *Erythrina sandwicensis*. Although not federally listed as Threatened and Endangered, dry land forest habitat and the wili wili are considered rare and declining. During the summer, buffel grass and haole koa were managed in this stand of wili wili.



Game-Proof fencing was installed during the beginning phase of the native forest restoration at Hawaii Sustainable Farms. The NRCS approved fence will deter axis deer from impacting native forest species that include koaia, hala pepe, aalii, and ilima.

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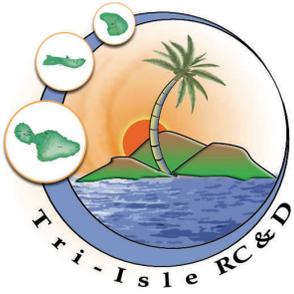


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An advertisement for Maui Soda &amp; Ice Works, Ltd. The background is a black and white photograph of a mountainous landscape with a small white building and a road. Overlaid on the image are several product images: a Coca-Cola bottle with a yellow lei, a Seagram logo, a Dr Pepper logo with "23 YEARS OF BLENDING" below it, a smartwater bottle, and a vitamin water bottle. At the bottom, the text reads "Maui Soda &amp; Ice Works, Ltd. serving our Valley Isle since 1888..."

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serving our Valley Isle since 1888...



## TRI-ISLE RESOURCE CONSERVATION AND DEVELOPMENT COUNCIL, INC.

WESLEY NOHARA, PRESIDENT

### Who We Are

The Tri-Isle RC&D Council is a community-based non-profit 501(c)(3) organization. Our mission is to improve the quality of life of the people of Maui by encouraging and assisting local leadership to develop and carry out activities that conserve and sustain our natural, human, cultural and economic resources.

The Council is governed by a 15-member volunteer Board of Directors representing all areas of Maui County.

#### Contact Us or Donate to:

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Lana'i Watershed Protection  
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*A community of partnerships that values and conserves our natural resources as it acts to build an economy to enrich the lives of our residents.*

### What We Do

The Tri-Isle Council Resource Conservation and Development Council, Inc. (TIRCD or RC&D) and its partners performed 134,000 hours of volunteer work in 2010. These partners conducted an additional 225,000 hours of paid work in natural resource conservation, community and economic development, cultural activities, education of adults and children, and an assortment of related activities.

Tri-Isle provides a mechanism for local residents to work together and actively solve economic, environmental, and agricultural problems. We help utilize the abilities, knowledge and energy of local volunteers to get projects done. Interested groups may approach Tri-Isle for project sponsorship by submitting a project for consideration by the TIRCD Council.

The Council has taken a strong leadership role in community economic development, water quality issues, and environmental projects. Tri-Isle RC&D has over 150 active granted projects totaling over \$12 million. The main project purposes include protecting and promoting wise use of the islands' natural resources, providing opportunities for locally-led community improvement measures, and assisting sustainable agricultural and alternative energy initiatives.

### History

In 1962, Congress established a unique program within the U.S. Department of Agriculture that empowered rural communities to improve themselves while protecting and developing their natural resources. Last year, the RC&Ds nationwide surpassed the 100,000 mark of successfully completed projects. Local councils would provide direction, planning, coordination, and implementation of specific projects within their boundaries.

The focus on local direction and control made Resource Conservation and Development one of the most successful rural development programs of the Federal Government. Three hundred seventy-five RC&D areas had been authorized throughout the country. Congress eliminated funding in April 2011 for the federal side of the partnership, but RC&Ds continue as independent non-profit corporations that will continue assisting local residents in addressing resource concerns for their locale.

# Selected Activities and Accomplishments

## Management and Work Training

*Fundamental Five* provides training for nonprofit management under a grant by Office of Hawaiian Affairs. Bookkeeping, volunteer management, fundraising, legal and insurance concerns, financial literacy are topics addressed. *Teens-on-Call* is a year round program which has provided meaningful work and life skills training to over 1,500 at-risk teenagers in Maui County over the past 16 years

## Environmental

TIRCD runs the Lana'i Redemption & Recycle Centers on Lana'i. TIRCD's partners work to provide education and direct assistance in Maui County.



Restoration Planting Leeward Haleakala

TIRCD works with the *Moloka'i Land Trust* on restoration, the *Kaho'olawe Island Restoration Commission* (KIRC) on culturally sensitive lands, the *Maui Nui Botanical Garden* for Earth Day activities, local government for boat sewage pumping in Ma'alea Harbor, and the Hawaiian Tourism Authority to assist local volunteer dune restoration efforts.



Fish in Fish - Roi Roundup

## Endangered Species

*The Maui Forest Bird Recovery Project*, *Pu'u O Kali Dryland Forest* and the *Leeward Haleakala Watershed* projects all seek to better manage endangered plants and animals through research, mitigation, restoration, and planning. The *Roi Roundup* is a competition devised to raise awareness of the impact of the invasive Roi on native fish species while testing the skills of divers.



Kali Dryland Forest

## Traditional Agriculture

*Wai Ke Kena* is a farm project located near the famous Jaws big wave surfing area that teaches youth plant how to cultivate taro as part of learning about native Hawaiian culture. It works with approximately 200 student volunteers and 12 adult volunteers per year. Two additional at-risk recovering adults provide additional assistance on a year-round basis.



Taro Fields

Keanae Arboretum Taro Project -- This project supports a local volunteer group, Wailuanui Hui to restore traditional taro fields. Predator fencing was completed to keep out wild pigs. A brochure was created in previous years.

## Watershed Restoration

TIRCD works with several groups active in watershed restoration: the *Leeward Haleakala Watershed Restoration Partnership*, *East Maui Watershed Partnership*, *West Maui Mountains Watershed Partnership* and the *Lanai Forest and Watershed Partnership* receive funding from the Maui County Office of Economic Development with administration by TIRCD. *Malama Maunaloa* works to protect, preserve and restore the Maunaloa watershed on O'ahu. The projects seeks to improve water quality by reducing nutrient and sediment loads currently washing into local streams, by mitigating past impacts, and planning future practices, and implementing current conservation practices designed to produce a healthier watershed.



## ADP funds assist with on-island sustainable agriculture on Moloka'i Agricultural Development

In 2010, TIRCD continued to implement Congressionally-targeted funding to develop a sustainable agricultural production in Hawai'i. These 80-20 matching grants enable producers to become more economically sustainable in a climate of economic uncertainty.

Half a million dollars of grants have been distributed to the three major islands in Maui County in a variety of projects that expanded the total capacity and efficiency of on-island production and implemented water and soil conservation measures.

## *Mahalo to Our Partners*

### Federal

**USDA Natural Resources Conservation Service** is the main technical assistance provider for the 16 SWCDs in Hawai'i.

**USDA Farm Service Agency** administers and manages farm commodity, credit, conservation, disaster and loan programs.

**U.S. Environmental Protection Agency** strives to protect human health and the environment nationwide.

**USDA Rural Development** is committed to the future of rural communities.

### State

**Department of Land & Natural Resources** has a wide range of responsibilities, ranging from land management and permitting to historic preservation and natural resources conservation.

**Department of Health - Clean Water Branch** aims to protect and improve the health and environment for all people in Hawai'i.

**University of Hawai'i Cooperative Extension Service** provides science-based information in agriculture, natural resources and human resources.

**Coastal Zone Management Program** promotes a sustainable coastal environment by building upon our heritage and inspiring island stewardship.

### County:

**The County of Maui** have been long standing supporters of the SWCDs in addition to its many services they offer.

### Non-Profit

**Hawai'i Farm Bureau Federation** promotes local farming by analyzing issues and formulating actions to ensure the future of Hawai'i agriculture.

**Tri-Isle Resource Conservation & Development** improves the capability of state and local agencies in rural areas by focusing efforts and assistance on individual producers.

## Sour Cream Coffee Cake

### Ingredients:

1/2 cup butter, softened  
1 cup sugar  
2 eggs  
1 cup sour cream  
1 teaspoon vanilla extract

2 cups all-purpose flour  
1 teaspoon baking powder  
1 teaspoon baking soda  
1/4 teaspoon salt

### Topping (mix in separate bowl):

1/4 cup sugar  
1/3 cup packed brown sugar  
2 teaspoons ground cinnamon  
1/2 cup chopped macadamia nuts

Cream butter and sugar. Add eggs, sour cream and vanilla; mix well. Combine dry ingredients; add creamed mixture. Pour half the batter into a greased 9 x 13 in. baking pan. Add 1/2 of topping ingredients; sprinkle half of topping over batter. Add remaining batter and topping. Bake at 325 degrees F for 40 minutes or until done.



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Thank you to the  
**Maui Soil & Water Conservation Districts**  
for their invaluable service to the community.

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The Maui Soil and Water Conservation Districts and the people of Maui want to express our thanks and appreciation to the following Senators and Representatives for their active support of our District's program in Maui County. Due to their efforts, the Maui Soil and Water Conservation Districts have been able to accomplish their objectives.

We are fortunate to have legislators that believe farming is the backbone of our community, and soil and water conservation program will preserve it for future generations. They have helped out our program with financial aid locally and statewide



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Pulehu, Kula, Ulupalakua



The Maui Soil and Water Conservation Districts sincerely appreciate and thank the Maui County Council Members for their active support for the SWCD program in Maui County.

The Maui County Council Members are our strongest unifying factor in the soil and water conservation movement. They help our program with financial aid and believe the soil and water conservation district program will preserve our community for future generations.

**Danny A. Mateo**  
Council Chair  
Residency Area—Molokai



**Joseph Pontanilla**  
Council Vice-Chair  
Residency Area—Kahului



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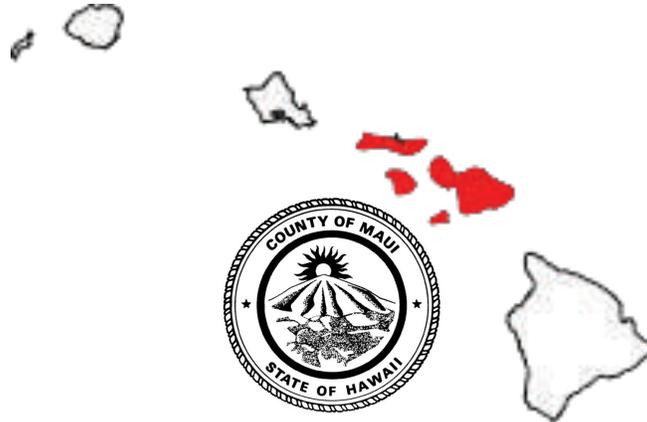


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