



### *A Note from the Director*

This is the first of our quarterly reports for the new fiscal year. Despite budget uncertainties throughout the Agency, we are finding that our specialists are fully booked with training and technical assistance projects. We hope that only a limited number of currently scheduled training sessions will have to be cancelled due to State travel fund restrictions. We are beginning to experiment with the newly installed videoconferencing equipment and are optimistic about this technology.

Several areas of conservation technology support have been in demand recently. Rick Fasching is winding up a heavy training workload on the new wind erosion prediction system. Pest management and IPM assistance requests have increased recently. Sarah Brown, who started working with us last fall under a contribution agreement, has numerous requests from across the country on organic agriculture training. The topic of energy conservation has been a large workload and there is still much work remaining at the State level to have new energy-related practice standards, scenarios, payment schedules, and guidance in place for the FY12 programs cycle.

In terms of our personnel, we did not have any specialists retire this January. However, we did lose Stacy Mitchell, our Public Affairs Specialist, whose position was reassigned to the NHQ Communications Staff. Although Stacy still maintains her office at the Center, we will not be able to draw on her skills and talents as much as we would want. We wish her well in her new position.

We hope you find this report useful. And, as always, please let me know how we can better serve you.

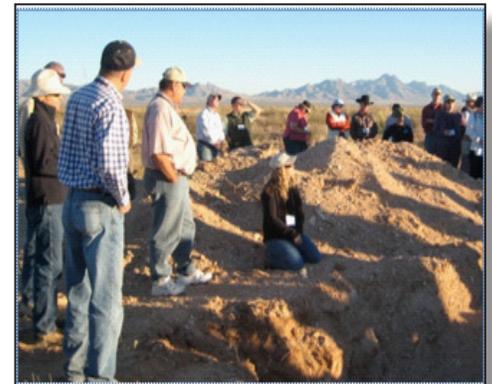
*- Bruce Newton*

For contact information on WNTSC specialists, check our website at <http://www.nrcs.usda.gov/about/ntsc/west/contacts.html>.

### Core Team Highlights

#### Interagency Training Effort on Ecological Site Descriptions Launched

NRCS, BLM, and the Forest Service are collaborating in a series of training sessions for field level professionals on the development of Ecological Site Descriptions. This training effort is an outgrowth of the Interagency Ecological Site Handbook for Rangelands which, for the first time, lays the foundation for a single ecological classification system and description of vegetative sites as well as how they transition from one state to another. It is anticipated that field staff from each agency will work collaboratively in the field to develop ESD's for ecosystems that cross agency boundaries.



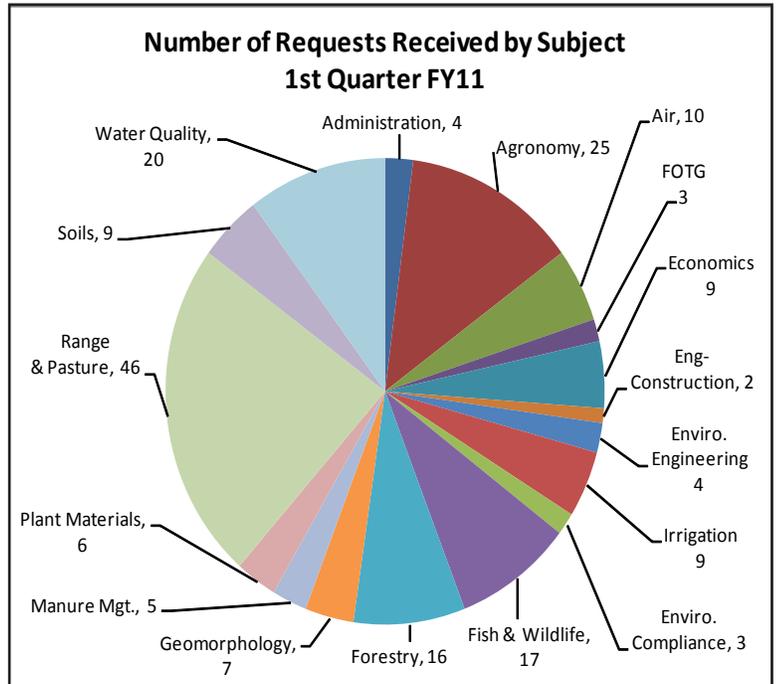
*Photo by Aleta Rudeen, Society for Range Management*

Over time, the expectation is that each agency will use ESD information in conservation planning regardless of who developed the ESD. The first session, held in Las Cruces, NM, November 16-18, 2010, was geared for senior to middle-level managers from each agency from across the country. The three subsequent sessions will be geographically focused and oriented more toward field staff. The Society for Range Management is coordinating the training sessions which will be held this spring and summer.

For more information about Interagency EDS Training, please contact **Pat Shaver**, WNTSC rangeland management specialist, at [pat.shaver@por.usda.gov](mailto:pat.shaver@por.usda.gov), or 503.273.2407.

# An Analysis of WNTSC Assistance First Quarter FY2011

Location	All Requests	>20 Hours
AK	3	1
AZ	1	0
CA	6	2
CO	3	2
ID	2	2
MT	4	2
NV	3	2
NM	3	2
OR	12	8
PIA	7	6
UT	5	4
WA	5	3
WY	3	1
West Multi-State	37	24
East Region	6	4
Central Region	10	7
NHQ	21	14
National	47	40
<b>Total</b>	<b>178</b>	<b>128</b>



Status	Number
Completed	86
In Progress	86
Not Started	6
<b>Total</b>	<b>178</b>

For more information on Assistance Requests, please contact Russ Hatz, WNTSC National Technical Specialist at [russ.hatz@por.usda.gov](mailto:russ.hatz@por.usda.gov) or 503.273.2428.

## Core Team Highlights continued:

### Oregon Sagebrush Identification and Management Course

Oregon NRCS sponsored the third Sagebrush Identification and Management Course in Burns, Oregon in October. Under the leadership of Bob Gillaspy, Oregon State Rangeland Management Specialist, and Jeremy Maestas, Oregon State Wildlife Biologist, over 50 NRCS and partner conservationists from five Western States participated in the three-day course. WNTSC Rangeland Management Specialist **Pat Shaver**, and Wildlife biologist, **Wendell Gilgert** supported the course by covering the identification, life

history, requirements, restoration, and management of 11 sagebrush species found in southeastern Oregon.



*Wendell Gilgert teaches sagebrush identification & life history.*

The course is designed to support the Sage-Grouse Initiative by assuring that NRCS field and partner conservationists know and understand the sagebrush ecosystem that supports the sage-grouse and other associated wildlife species. There are plans to offer the course in Idaho, Colorado, and possibly Nevada later this summer and fall.

## Riparian ESD Training in Kansas

WNTSC rangeland management specialist **Jeff Repp** and WNTSC fisheries biologist **Kathryn Boyer** travelled to Pratt, Kansas to help Kansas NRCS develop riparian

Ecological Site Descriptions in the Central Rolling Red Plains (MLRA 78C). In addition to KS NRCS Field and State staff, Jeff and Kathryn were joined by Homer Sanchez, Dwain Daniels, and Richard Weber of the CNTSC;



*Students inventory stream health*

Mark Mosley (ESD Quality Assurance Specialist from MO 9); and personnel from USFWS. The Team formulated concepts for the ESD that occurs on the Steward Creek riparian complex and associated and/or similar creeks in the Gypsum Hills. Upon completion, ESDs will be used to identify, inventory, assess, manage, monitor, restore, and predict biological change. The effort at Steward Creek has helped the Agency develop protocols and guidelines for creating these complex ecological site descriptions.

## Use of Ceptometer Improves PMC Accuracy and Efficiency

**Jim Briggs**, WNTSC Plant Materials Specialist, organized a training workshop on the use of a ceptometer,

a tool that measures plant canopy light interception. Staff from Colorado, California, Arizona,



*PMC Specialists learn to use ceptometer*

Nevada, New Mexico, Montana, Idaho, and Washington Plant Material Centers participated in that training. Agriculture Research Service scientists from Temple, Texas provided the training held at the Lockeford, CA, Plant Material Center (PMC) in January. Scientists in the

Conservation Effects Assessment Project (CEAP) use ceptometer-collected data to improve the accuracy of ALMANAC, a program which models conservation effects on grazing lands. PMC managers see the use of the ceptometer as a means to increase the efficiency of PMC conservation plant development work.

## Boyer Receives Secretary of the Interior's "Partners in Conservation" Award

Kathryn Boyer, WNTSC fisheries biologist, participated in the Desert Fish Habitat Partnership (DFHP) Annual Meeting in Moab, UT in November. During the meeting, key members of the DFHP Steering Committee

were awarded the Secretary of the Interior's "Partners in Conservation" Award which recognizes those who make exceptional contributions in achieving conservation goals through collaboration and partnering.

The 2010 Partners in Conservation Award was presented to Boyer and to personnel from the Bureau of Land Management, Nevada Department of Wildlife, Utah Division of Wildlife Resources, and New Mexico Game and Fish, in recognition of their exemplary cooperative efforts to conserve, restore, and enhance the aquatic and riparian habitats of native fish.



*Kathryn Boyer, WNTSC fisheries biologist, receives "Partners in Conservation Award."*

## Hawaii Soils Staff Provided Training

**Steve Campbell**, WNTSC soil scientist, recently visited Hawaii to provide technical assistance and training on the delivery of technical soil services to NRCS field personnel and external customers. Steve trained Cindy Stiles, new Hawaii assistant state soil scientist, and Bob Gavenda, acting Hawaii state soil scientist, on the Soil Data Viewer ArcGIS tool, the Soil Survey Access database,



*Bob Gavenda (left) and Steve Campbell examine soil in a sugar cane field on Maui.*

Cont. from page 3

and Web Soil Survey. Cindy, Bob, and Steve also spent time in the field examining soils and land management practices on the islands of Maui and Oahu.

## Micro-Scale Anaerobic Digestion

Typically, agricultural producers in the United States use anaerobic digesters for energy production and odor reduction on large confined animal feeding operations. Usually, the produced biogas powers electrical generators,

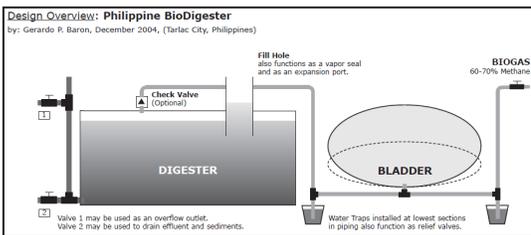


Small Piggery, Pohnpei, Federated States of Micronesia

with some heat recovery for hot water production. Installation costs can range from a quarter of a million to several million dollars. However, in other parts of the world, agricultural producers use small-scale digesters to provide gas for heating, cooking, and lighting. Installation costs may range from a few hundred to several thousand dollars.

**Charles Zuller**, WNTSC environmental engineer, and **William Boyd**, Manure Management Team Leader, ENTSC, Greensboro, North Carolina, are providing technical support to a team of NRCS personnel working with limited resource farmers in the Western Pacific to produce biogas from piggeries (usually less than a dozen pigs) for cooking.

An acceptable digester design has to be durable, easily maintained, and affordable. The Philippine BioDigester, shown below, while pushing the envelope of affordability, seems to be the best alternative to-date. Additional research is underway.



Philippine BioDigester

## WEPS Rollout Continues

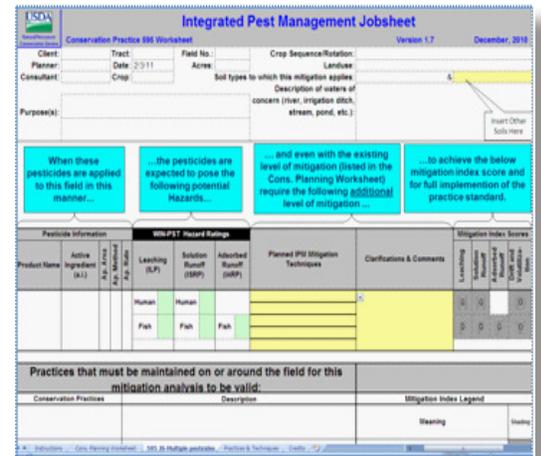
**Rick Fasching**, WNTSC agronomist, spent a week providing WEPS (Wind Erosion Prediction System) training to approximately 48 field and area office staff at three locations in Idaho - including Idaho Falls, Burley, and Boise. Since the WEPS rollout last summer, Rick has provided 11 of the 13 West Region States with training on the new erosion prediction model which replaces older wind erosion prediction tools.

For more information about WEPS, please contact Rick Fasching, WNTSC agronomist at [richard.fasching@por.usda.gov](mailto:richard.fasching@por.usda.gov) or 503.273.2425.

## New Tool Tracks Pesticide Use Mitigation

In December, **Giulio Ferruzzi**, WNTSC agronomist, completed preliminary work on a draft tool that will track pesticide mitigation efforts consistent with the new Integrated Pest Management, Standard #595 requirements.

The workbook allows users to track existing pesticide mitigation, determine



if more mitigation is needed, and, if so, indicates how much more is needed to meet the Standard #595 requirements. Giulio helped the Pacific Island Area tailor the workbook to meet their needs and has demonstrated the workbook to other states. He feels there is sufficient interest to begin work on a National Template.

For more information about this workbook, please contact Giulio Ferruzzi, WNTSC Agronomist, at [giulio.ferruzzi@por.usda.gov](mailto:giulio.ferruzzi@por.usda.gov) or 503.273.2429.

## Fluvial Geomorphology Courses Get off the Ground

In October, **Kip Yasumiishi**, WNTSC civil engineer, and **Barry Southerland**, fluvial geomorphologist with the WNTSC National Technology Development Team for Water Quality and Water Quantity, as well as Chuck

Cont. on page 5

Schmitt (NRCS WY), and Nathaniel Todea (NRCS UT) provided the first session of the new course, *Applications in Fluvial Geo-*



*Chuck Schmitt - SCE Wyoming instructing at the Clear Creek Training Site*

*morphology*, the first of a planned four-course series. Twenty-six students, composed mostly of NRCS engineers, planners, and soil conservationists, completed exercises in surveying stream channel dimension, pattern, profile, and bedload-size distribution on Clear Creek in Buffalo, WY. Channel evolution models, geomorphic stream classification, principles in hydraulics and hydrology, and other topic areas were presented, discussed and demonstrated in the field.

## Air Quality and Atmospheric Change Team Highlights



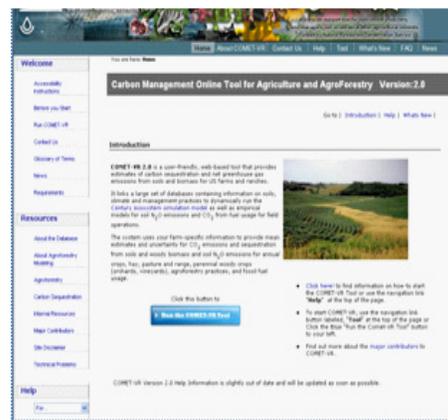
### Air Quality and Atmospheric Change Team Delivers COMET-VR Version 2.0

On December 15, NRCS Chief Dave White announced the release of an enhanced and expanded version of the online carbon sequestration and greenhouse gas estimation tool, officially known as COMET-VR 2.0. The new version of COMET-VR, developed by the WNTSC Air Quality and Atmospheric Change (AQAC) Team, the NRCS Climate Change Program Leader, and the Colorado State University Natural Resource Ecology Laboratory (CSU-NREL), helps producers estimate carbon sequestration and nitrous oxide emissions associated with a variety of on-farm management practices.

“This is a user-friendly tool that any conservation-minded landowner can employ to evaluate their greenhouse gas emissions,” Chief White said. “Once producers have a better sense of their carbon footprint, they can choose to make changes within their

operations that will enhance the environment for their families as well as their local communities.”

You can access the new version of the tool at <http://www.comet2.colostate.edu/>. Similar to the original version, COMET-VR 2.0 is easy to use and connected to state-of-the-art models that help farmers and ranchers evaluate on-farm greenhouse gas emissions and sequestration options. Version 2.0 improves on the first version of COMET-VR by estimating reductions in nitrous oxide emissions from agricultural practices that improve the efficiency of fertilizer and manure applications.



In addition, COMET-VR 2.0 features expanded scenario options for agroforestry, orchard, and vineyard applications. It is compatible with national and international standards including the Environmental Protection Agency’s U.S. greenhouse gas annual inventory that documents greenhouse gas emissions nationwide. COMET-VR 2.0 is applicable to all agricultural lands in the contiguous 48 states.

For more information about COMET-VR 2.0, please contact Adam Chambers, COMET-VR Project Leader on the AQAC Team at [adam.chambers@por.usda.gov](mailto:adam.chambers@por.usda.gov) or 503.273.2410.

## Energy Team Highlights



### A ‘New Form’ of Energy for NRCS

Historians generally credit Galileo and Leibniz with advancing the theory that energy is neither created nor destroyed. While Chief White didn’t break the laws of physics, his decision in August 2010 to formally recognize energy resource concerns has certainly given it a new form within NRCS. Adding energy to the list of planning resource concerns has provided the impetus to integrate energy into the

NRCS planning process. Small steps are planned for FY2011 with a complete roll-out targeted for FY2012.

To date, most of the Energy Team's work has been behind the scenes, working with USDA to define the NRCS role in the Department's energy strategy. The Team has worked with Headquarters and NRCS State contacts to identify needed actions, tools, and training to implement the EQIP energy initiative and support general conservation planning for landowners who are seeking to use energy more efficiently or interested in 'creating' their own.

#### *New and Revised Practice Standards Address Energy*

Recently, the Energy Team and others from National Headquarters reviewed the existing Conservation Practice Standards to identify those with potential to address the new energy resource concerns. As a result of their efforts, the National Conservation Practices Standards Subcommittee (NCPSS) has issued for review two new energy-related practice standards and revisions to 30 existing practice standards.

Energy Conservation and Efficiency (Standard 374) will replace On-farm Equipment Efficiency Improvements (also numbered 374). While the bulk of the standard remains unchanged, "energy conservation and efficiency", replaces "greenhouse gas emissions reductions" as the primary purpose. Renewable Energy Production (Standard 671) will replace Interim Practice Conservation Power Plant (Standard 716), a practice used in several states for renewable energy production for on-farm use.

Proposed changes to the 30 existing standards up for review either add energy as a purpose or strengthen the energy-related criteria or consideration statements. The proposed changes will help facilitate the integration of energy resource concerns into the NRCS planning process.

## **Water Quality and Quantity Team Highlights**



The week of November 14<sup>th</sup>, Clarence Prestwich and Peter Robinson provided training on Drip/Micro Irrigation Design and Center pivot irrigation design. Twenty-seven students from Nebraska and Oklahoma attended the course in Stillwater, OK.

The students spent 2 days of classwork on the drip/micro system, learning about water quality issues,

soil-plant-water relationships, drip system components, system hydraulics, and filtration. The students then spent 2 days on Center pivot design, learning system layout, sizing, system hydraulics, pumps, and nozzle selection.



*Peter Robinson describes drip system components*

The classwork included hands-on activities and demonstrations with pumps, sprinklers, and drip equipment. The course qualifies as CEU's for PE licenses and Irrigation Association certifications.

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