NRCS
Natural Resources
Conservation Service

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West National Technology Support Center

First Quarter Report
FY2009

A Note from the Director

As the song goes, "Everything old is new again…" And so things are at the West NTSC. The end of the 1st quarter of FY09 and the beginning of a new calendar year means the beginning of a new administration and changes in leadership for NRCS. Those changes could mean a change in focus for NRCS conservation efforts. President Obama is already telling Americans that one area of focus will be energy. That will bring additional attention to some of the conservation practices that NRCS supports.

This year also brings personnel changes for us. Three of our Core Team members retired the end of December – Tom Gohlke, Terry Aho, and John Copeland. With them went years of experience and knowledge that will be missed. We hope to fill these positions soon. I have always been extremely proud of the staff we have at the WNTSC and have no doubt that will continue as we replace experienced members of our team. We ask for your patience as we work through the hiring process.

We are trying a new approach to technology transfer this year--one to two-hour Net Meeting training sessions. The topics were selected by the West Region Technology Work Group and the training is provided by WNTSC staff and outside experts. Results to-date have been mixed. We have had technical problems setting up the seminars and challenges aligning the level of the material with the audience. However, we think this approach holds promise and ask you to be patient as we figure out how to use it effectively.

As always, please let us know how we can better serve you.

- Bruce Newton

Core Team Highlights

Personnel Changes

The start of the new fiscal year and the end of the calendar year found the WNTSC dealing with staff losses. December 29, 2008 was the last day of work for 3 staff members who have made significant contributions to SCS/NRCS both here at the WNTSC as well as over the years. **Terry Aho**, our soil scientist, retired with over 34 years of federal service; **John Copeland**, national technology specialist, retired with 32 years with the the Agency; and **Tom Golke**, agronomist, retired with 35 years of federal service.

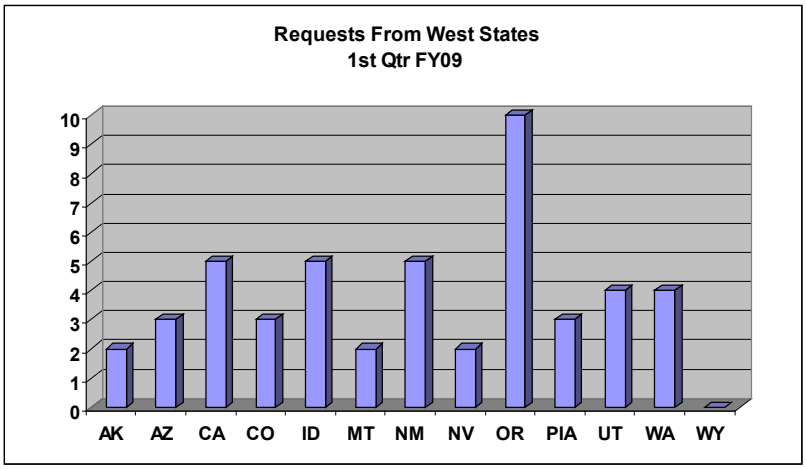
While none of the gentlemen wanted to be feted with banquets, speeches, and the symbolic gold watch, they did allow us to take them to lunch and comment on photos of them through the years. Aho, Copeland, and Golke are congratulated on their years of service to America's farmers and ranchers. They will definitely be missed. Efforts to fill those positions are underway and we hope to post advertisements soon.

Tom Gohlke, John Copeland, and Terry Aho display their collective 101 years of service.

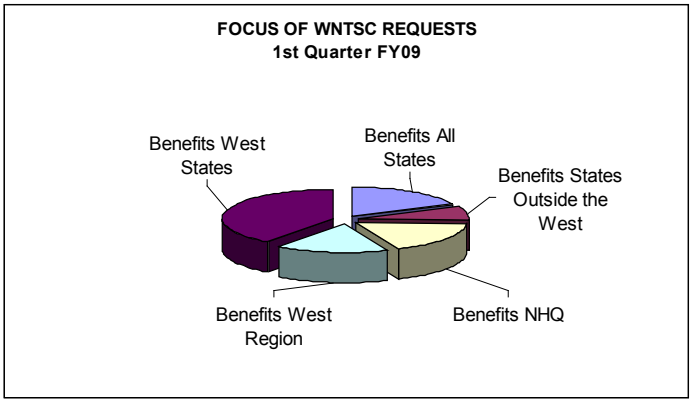
An Analysis of WNTSC Assistance

FY09 1st Qtr All WNTSC Requests			
Requested	In Progress	Ongoing	Completed
135	154	49	108

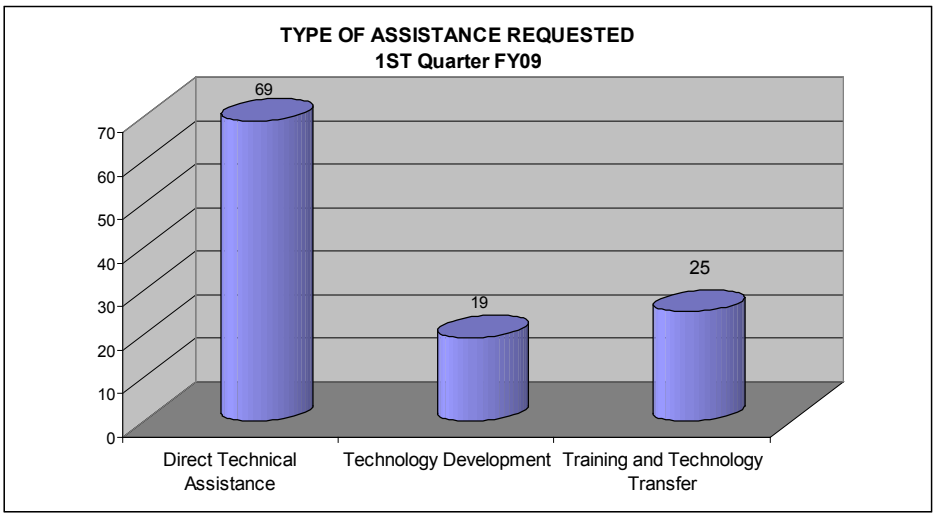
Note: Requests that benefit multiple States are tallied in each State's individual totals but count as only one request under the WNTSC total. (For example, a request for training for employees from 3 States would show as one request in the chart at left and one for each of the States in the graph below.)



Over half of requests for 1st Qtr FY09 were for West Region States; either individually or in groups.



The majority of this quarter's requests provided Direct Technical Assistance to States.



For more information or to track a specific request, visit the Assistance Tracker web site at http://ssiapps.sc.egov.usda.gov/RequestTracker/Default.aspx.

Helping People Help the Land

Wendell, Wildlife, and the White House

Wendell Gilgert, WNTSC Core Team Biologist, was invited to participate in the White House Conference on North American Wildlife Policy held in Reno, Nevada. Not since Theodore Roosevelt led a White House effort to develop policy related to North American fish and wildlife over 100 years ago, has such an event taken place. Breakout sessions were led by Department Secretarys and Agency heads including NRCS Chief **Arlen Lancaster**. Each attendee participated in two break-out sessions where they provided input for new and existing fish and wildlife policy, especially for our nation's hunting heritage. Gilgert offered several points to insure that western private lands perspectives were represented.

Comments were also presented by President Bush (through a satellite feed), Vice President Cheney, Secretary of Interior Dirk Kempthorne, and Secretary of Agriculture Edward Schafer.

Nevada - Riparian Ecological Site Descriptions

One important activity in the first quarter of FY09 was the Riparian Ecological Site Description (ESD) Workshop in Reno, NV. **Jeff Repp**, GLCI Rangeland Management Specialist, and **Barry Southerland**, Fluvial Geomorphologist, have been participating on a national team charged with identifying concepts and procedures for the development of these site descriptions. The session focused on gathering consensus for riparian complexes -- a different approach to ecological sites. It also focused on incorporating stream dynamics into the State and Transition models as the overall driver for site dynamics.

Several members of the WNTSC were involved, including **Lyn Townsend**, **Pat Shaver**, **Gene Fults**, **Kathyrn Boyer**, and **Wendell Gilgert**. The group worked with Dr. Tamzen Stringham of the University of Nevada-Reno (UNR), Patti Novak-Echenique (state rangeland management specialist in NV), state biologists and rangeland management specialists from the West Region, and TSPs in reviewing riparian ESDs for CA and NV. They toured riparian sites in the Tahoe National Forest and at the UNR research facility on the lower Truckee River. The effort will result in a glossary of terms for riparian ecological sites and guidelines for developing ESDs for these important and dynamic sites.

California - Ecological Site Description Work

Ecological Site Descriptions were also the focus for WNTSC specialists **Lyn Townsend**, Forester, and **Pat Shaver**, Grazing Lands Specialist, who worked with over 40 NRCS soil survey and ecological sciences specialists at a statewide Soils/ESD meeting in California. The two, along with Kendra Moseley, NRCS CA Ecologist, reviewed ecological site concepts and procedures, and upcoming changes to the Ecological Sites Information System (ESIS). Part of the session involved the exchange of information on new soil survey support technology. Dr. Brandon Bestelmeyer, USDA-ARS, Jornada Experimental Station, Las Cruces, NM also participated in the training.

Townsend and Shaver stayed on to address additonal rangeland and forestland issues for CA. Shaver worked with CA staff on rangeland sites in Joshua Tree National Park. Townsend worked with forestry specialists near Idyllwild, CA, to review field protocols to support the new ESD "forest" format that will be released later this year.

National Technology Development Team Highlights

Water Quality and Quantity Team

The Water Quality and Quantity Team (WQQT) is engaged in a number of **stream restoration activities and geomorphology support** to field offices around the country. The Cheney Lake CEAP watershed project has been the focus of one of these studies. This project will not only work to solve the resource issue for this site in Kansas, but will also provide much needed data to develop models for watershed remediation efforts throughout the country. Team members completed channel evolution and streambank sediment studies in cooperation with the NRCS Kansas State Office and the Cheney Lake Field Office. They followed these characterizations with a long-term streambank rescission study using metal pins in the bank to accurately measure annual sediment contributions. Results from this study will be used by ARS CEAP scientists as well as our own staff to run multiple watershed models.

Additional streambank restoration projects are taking place in California, Washington, and Nevada. These projects typically result in the cooperative development of hydrologic and geomorphic conservation recommendations for the site. To develop these recommendations, most projects require basic hydrology surveys, stream classification, riparian assessments, sediment yield models, and channel evolution characterizations. All of these activities can be completed with assistance from the Water Quality and Quantity Team.

On a related note, we will be providing a basic fluvial geomorphology net-meeting training session in March 2009. Anyone interested in the restoration of streams and riparian areas is invited to join.

Another area of focus for the Team has been work on the **Soil-Plant-Air-Water Field and Pond Hydrology model (SPAW)** to address the new EPA 'no discharge' requirements for manure holding ponds. (Code of Federal Regulations November 20, 2008. View the regulation at http://www.epa.gov/npdes/regulations/cafo_final_rule_preamble2008.pdf.)

SPAW is a daily hydrologic budget model for agricultural fields. The model looks at the hydrologic processes using inputs that describe the climate, soils, and crops of a particular farm field. The climate variables are the principle hydrologic inputs (daily rainfall and evaporation with optional air temperature for cold climates). That data, along with the soils and crop descriptions, determine the daily disposition of this water in and out of the soil-plant-air-water (SPAW) system. Basic hydrologic budgeting has been enhanced by the addition of an irrigation field budget (scheduling) and an inundated pond (wetland/lagoon/pond/reservoir) budget.

The rule requires SPAW or a similar water budget model be used on CAFO manure storage pond designs to analyze for no discharge. Where animals are confined in open pens, the pens can be modeled as an agricultural field. SPAW's Pond module provides a daily pond water budget based on storm runoff as well as pond inflows and outflows (auxiliary input flows, drawdown pump operations, precipitation, evaporation, and seepage). The WQQT developed a 3-CD training program for SPAW and each State should receive a copy within the next couple of weeks.

For more information on Water Quality and Quantity Team activities and products, contact Shaun McKinney, Team Leader, at shaun.mckinney@por.usda.gov or 503-273-2413.