



United States
Department of
Agriculture

**Natural
Resources
Conservation
Service**

National Science and
Technology Consortium

NRCS Institutes Product Catalog January 1999



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“Working Trees for Livestock (Agroforestry: Silvopasture in the Southeast)”

This four-page brochure was developed jointly by NRCS and the U.S. Forest Service for field office use. It provides information on integrating forest land with livestock operations in the Southeastern United States. For more information, contact Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

Assessment Tools

“A New Look at Local Resource Inventory and Assessment, The Johnson County Iowa Pilot Project”

This material is from the Inventory Coordination and Collection Site Leaders Conference, January 27-29, 1998, Laughlin, NV. For more information, contact Bob Dayton. Tel (515) 294-7789. Email bdayton@iastate.edu. Or download the information from <http://www.statlab.iastate.edu:80/survey/NRIAI/>.

CARE - Cost And Returns Estimator

The Natural Resources Inventory and Analysis Institute (NRIAI) maintains the CARE crop budget program and the crop budget Website. The CARE system’s budget generating capabilities are useful for agencies providing farm financial planning and program assistance, as well as loan analysis. CARE also has wide usage as the economic partner with point, field, regional and national environmental models like EPIC, SWAP, AGNAPS and HUMUS. The thousands of CARE budgets on the Website include management operations, machinery and input costs for growing most crops by tillage system for 63 regions of the country. These budgets provide a starting base for developing individual budgets for local use. Full documentation, model software and budgets for 48 states are available on the Web at <http://waterhome.tamu.edu/care/index.html>. NRCS employees are encouraged to add their agency or local university/extension budgets to this Website. Contact David Buland. Tel (254) 770-6522. Email buland@brcsun0.tamu.edu.

“County Economic, Agriculture, and Environmental Health Index”

The objective of this study is to explore using existing national databases such as NRI and NASS statistics to evaluate counties on an MLRA basis, with standards or thresholds unique to each MLRA’s agriculture community and its natural resources. A pilot test of this procedure is underway. The partners in this study are the NRIAI and Soil Quality Institute personnel, with assistance from NRCS scientists in Temple, TX. For additional information, contact Lee Norfleet. Tel (334) 844-4741x176. Email norfleet@eng.auburn.edu. Or contact Dave Buland. Tel (254) 770-6522. Email buland@brcsun0.tamu.edu.

IMPLAN Input-Output Economic Modeling

IMPLAN (IMpact Analysis for PLANning) is an economic input-output model and database to determine economic impacts on local, county and state areas. IMPLAN provides fast estimates of the economic and social impacts of conservation program implementation in measures (dollars of sales, local taxes received, jobs created) that nonagricultural decision-makers can understand. Several NRCS case studies are on the Social Sciences Institute Website <http://people.nrcs.wisc.edu/insite/>.

Contact David Buland. Tel (254) 770-6522. Email buland@brcsun0.tamu.edu.

Inventory, Planning and Assessment Tool (IPAT) Prototype

IPAT is an experiment involving hand-held computers for mobile conservationists. The prototype facilitates the collection, assimilation and transmission of natural resource inventory information (SWAPA +H) for woodland, pasture land and cropland. IPAT is currently being tested by NRCS Missouri. For more information, source code and program documentation, contact Bob Dayton. Tel (515) 294-7789. Email bdayton@iastate.edu. Or visit the Natural Resources Inventory and Assessment Institute's Website <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

Soil Quality Card Design Manual

The *Soil Quality Card Design Manual* gives instructions and procedures for conducting farmer focus sessions and developing local cards. The Soil Quality/Health Card is a qualitative field assessment tool developed by farmers for farmers. It is a do-it-yourself rating guide for farmers to monitor soil quality from year to year or to compare practices. Conservationists can use it in locally-led conservation, education and information activities with farmers. The procedures and *Manual* were developed by the Soil Quality Institute in collaboration with Oregon State University, Oregon State University Cooperative Extension, the University of Maryland and NRCS partners in state and field offices in OR, MD, MT, ND and NM. The *Manual* will be available soon on the Web <http://www.statlab.iastate.edu/survey/SQI/sqiinfo.shtml>.

Soil Quality Card – Willamette Valley, Oregon

This Soil Quality Card was developed by farmers in the Willamette Valley of Oregon. It is a do-it-yourself rating guide for farmers to monitor soil quality from year to year or to compare practices. It was developed by the Soil Quality Institute in collaboration with Oregon State University, Oregon State University Cooperative Extension, SWCDs and NRCS state and field offices in OR. For a booklet of 50 cards, contact Publications Orders, Extension and Station Communications, Oregon State University, 422 Kerr Administration, Corvallis, OR 97331-2119. Fax (541) 737-0817.

Soil Quality Field Kit

The Soil Quality Field Kit, adapted from the ARS Soil Health Kit, is designed for use by NRCS field offices, SWCDs and ag consultants. Soil measurements made with the kit are pH, electrical conductivity, soil nitrate-N, soil bulk density/water content, soil respiration, infiltration rate, aggregate stability, soil stability, earthworms and soil morphological observations. The Soil Quality Institute has developed an Instruction Manual and Interpretative Guide to accompany the kit. Instructions for building the kit and both the manuals are available on the Website <http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml>.

“Blending Buffers with Business”

This four-page job sheet developed by the Grazing Lands Technology Institute (GLTI) provides a landscape plan where four individual farmers cooperate by integrating conservation measures and diversifying their farming operations to accomplish what each farmer cannot do alone. For more information, contact Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

Conservation Planning

Community Conservation Toolbox (CTools 98)

CTools 98 is a turn-key conservation information system that can be used to carry out area-wide conservation planning. It can be deployed in a client-server or Web-server Windows environment. Although in an early stage of development, it is being designed to help locally-led conservation planning groups make decisions about conserving natural resources. Check out what’s new by going to the following Website <http://people.nrcs.wisc.edu/socsciinstitute>. Click on “Economics” and then click on “What’s New” for the most recent updates regarding development of this software.

“Conservation Planning -- The Art of Communication”

This seven-page booklet was developed by the Grazing Lands Technology Institute from a paper written by Howard Passey. It was created to help field office personnel communicate the idea of conservation planning with the landowner. It is available to NRCS personnel only. For more information, contact Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

Cost Effective Analysis (IWR-Plan)

This decision support software application was designed to assist conservation planners and analysts carry out cost effectiveness analysis for area-wide conservation planning. This software uses Windows 95. The application can be downloaded at the following Website <http://www.wrc-ndc.usace.army.mil/iwr/iwrplan/iwrplan.htm>. This site includes extensive instructions which explain how to use the IWR-Plan.

Soil Quality-Agronomy Technical Notes

This is a series of two to four page documents describing the effects of conservation practices on soil quality. The notes are intended for NRCS field office use.

The topics include:

| | |
|--|---------------------|
| “Cover and Green Manure Crop Benefits on Soil Quality” | (Technical Note #1) |
| “Conservation Crop Rotation Effects on Soil Quality” | (Technical Note #2) |
| “Effects of Residue Management, No-till on Soil Quality” | (Technical Note #3) |
| “Effect of Soil Quality on Nutrient Efficiency” | (Technical Note #4) |
| “Herbicides” | (Technical Note #5) |
| “Legumes and Soil Quality” | (Technical Note #6) |

These technical notes are available from the Website <http://www.statlab.iastate.edu/survey/SQI/agronomy.shtml>.

Soil Quality Information Sheets

These one-page, full-color information sheets are useful for employees, districts, agriculture consultants, producers and others as an introduction to soil quality. The National Soil Survey Center prepared the information sheets in cooperation with the Soil Quality Institute and the National Soil Tilth Laboratory, Agricultural Research Service, USDA.

Current topics include:

| | |
|--|---------------|
| “Soil Quality – Introduction” | (April, 1996) |
| “Indicators for Soil Quality Evaluation” | (April, 1996) |
| “Soil Quality Indicators: Organic Matter” | (April, 1996) |
| “Soil Quality Indicators: Soil Crusts” | (April, 1996) |
| “Soil Quality Indicators: Aggregate Stability” | (April, 1996) |
| “Soil Quality Indicators: pH” | (May, 1998) |
| “Soil Quality Indicators: Infiltration” | (May, 1998) |
| “Soil Quality Resource Concerns: Soil Erosion” | (April, 1996) |
| “Soil Quality Resource Concerns: Sediment Deposition on Crop Land” | (April, 1996) |
| “Soil Quality Resource Concerns: Compaction” | (April, 1996) |
| “Soil Quality Resource Concerns: Salinization” | (May, 1998) |
| “Soil Quality Resource Concerns: Pesticides” | (May, 1998) |
| “Soil Quality Resource Concerns: Available Water Capacity” | (May, 1998) |
| “Soil Quality Resource Concerns: Soil Biodiversity” | (May, 1998) |

For more information, contact Gary Muckel. Tel (402) 437-4148. Email gmuckel@nssc.nrcs.usda.gov. The sheets are available on the Web <http://www.statlab.iastate.edu/survey/SQI/sqiinfo.shtml>.

“Sustainability” Technical Note 1

This note provides general information on the practice of sustainable agriculture. Definitions are provided as well as detailed discussions which illustrate its major components including productivity, environmental quality and ecological function, socioeconomic viability and other characteristics such as ecological, economic and social diversity. The note is enriched by four case studies describing how farmers from Hawaii, California, Georgia and Nebraska are using principles of sustainability in their enterprises. Contact Stefanie Aschmann. Tel (402) 437-5178x43. Email Saschmann@aol.com.

Conservation Tillage

NRCS Institutes Product Catalog

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Cooperative Ventures

Fisheries – Automated Information

This section lists products from an interagency project to make state-collected fisheries data available to analysts.

“The Multi-State Aquatic Resources Information System”. 1998. Beard, T.D., D. Austen, S.J. Brady, M.E. Costello, H.G. Drewes, C.H. Young-Dubovsky, C.H. Flather, T.W. Gengerke, C. Larson, A.J. Loftus, M.J. Mac. *Fisheries* 23(5):14-18.

“Multi-State Aquatic Resources Information System - Information Management for the Future”. 1997. Brady, S.J., C.H. Flather and A. Loftus. Annual Meeting of the Soil and Water Conservation Society. Toronto, Canada. Abstract available at: <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

Other

Refer to other products in this catalog to identify numerous cooperative ventures which are listed in separate categories.

Economics

CARE - Cost And Returns Estimator

Natural Resources Inventory and Analysis Institute maintains the CARE crop budget program and the crop budget Website. The CARE system's budget-generating capabilities are useful for agencies providing farm financial planning and program assistance, as well as loan analysis. CARE also has wide usage as the economic partner with point, field, regional and national environmental models like EPIC, SWAP, AGNAPS and HUMUS. The thousands of CARE budgets on the Website include management operations, machinery and input costs for growing the most crops by tillage system in 63 regions of the country. These budgets provide a starting base for developing individual budgets for local use. Full documentation, model software and budgets for 48 states are available on the Web <http://waterhome.tamu.edu/care/index.html>. NRCS employees are encouraged to add their agency or local university/extension budgets to this Website. Contact David Buland. Tel (254) 770-6522. Email buland@brcsun0.tamu.edu.

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"Grazing Lands Economics – Made Simple:

Understanding Internal Rate of Return and Net Present Value"

This 13-page booklet developed by the Grazing Lands Technology Institute was written for field office personnel to provide a simple view of some complex economic principles. For more information, contact Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

IMPLAN (Input-Output Economic Modeling)

IMPLAN (IMPact Analysis for PLANning) is an economic input-output model and database to determine economic impacts on local, county and state areas. It has wide application for regional, state and RC&D offices. IMPLAN provides fast estimates of the economic and social impacts of conservation program implementation in measures (dollars of sales, local taxes received, jobs created) that nonagricultural decision-makers can understand. Several NRCS case studies are on the Social Sciences Institute Website <http://people.nrcs.wisc.edu/insite/>. Contact David Buland. Tel (254) 770-6522. Email buland@brcsun0.tamu.edu.

Enterprise Diversification

“Blending Buffers with Business”

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Farm and Ranch Enterprises

This Grazing Lands Technology Institute newsletter about grazing land enterprises is distributed to NRCS offices and other interested parties. For more information, contact Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

“Grazing Lands Enterprise Diversification”

This tri-fold brochure developed by the Grazing Lands Technology Institute (GLTI) discusses why landowners are diversifying and what the GLTI is doing to help. For more information, contact Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

Farm Bill Programs

NRCS Institutes Product Catalog

“Conservation and the 1996 Farm Bill - Social Factors Influencing Implementation of Programs” Booklet and Poster

This poster and booklet identify social obstacles and strategies to overcome them for CRP, EQIP, WRP, WIP, FPP and Grazing Lands. The materials were developed with strategies to increase Farm Bill participation in each district, particularly by part-time farmers or absentee owners. To obtain copies, contact the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov.

“Soil Quality Considerations in the Conversion of CRP Land to Crop Production”

This presentation discusses the beneficial effects of CRP on soil quality, the concerns of returning CRP land to crop production and alternative systems to protect the soil quality benefits obtained from 10 years of grass cover. The presentation was made at CRP-96 Conference, “Preparing for Future CRP Land use in the Central and Southern Great Plains”, Amarillo, TX (October, 1996). The paper from this presentation is available from the Website <http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml>.

•Unless otherwise specified, all of the following products on pages 8 and 9 can be obtained by contacting Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

“Conservation Planning -- The Art of Communication”

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“Dairy Farmer Profitability Using Intensive Rotational Stocking”

This publication addresses the economic benefits of intensive rotational grazing compared to continuum pasture, hay and corn silage. It is a reprint of a 16-page brochure.

Farm and Ranch Enterprises

This Grazing Lands Technology Institute newsletter about grazing land enterprises is distributed to NRCS offices and other interested parties.

Grazing Land Applications User's Guide

This 414-page guide developed by Texas A&M is available through the Grazing Lands Technology Institute (Version 2.0.3 Unix and Dos).

“Grazing Lands Economics – Made Simple: Understanding Internal Rate of Return and Net Present Value”

This 13-page booklet developed by the Grazing Lands Technology Institute was written for field office personnel to provide a simple view of some complex economic principles.

“Grazing Lands Enterprise Diversification”

This tri-fold brochure developed by the Grazing Lands Technology Institute (GLTI) discusses why landowners are diversifying and what the GLTI is doing to help.

Grazing Lands Roundup

This newsletter is published three to four times per year by the Grazing Lands Technology Institute and distributed to all NRCS offices and other interested parties.

Grazing Lands Technology Institute Brochure

This tri-fold brochure explains the Institute's organization, mission and responsibilities.

“Introduction to Microbiotic Crusts”

The Grazing Lands Technology Institute and the Soil Quality Institute developed this 13-page booklet which provides the latest information to landowners and NRCS staff on microbiotic crusts and how they impact soils, hydrology and plant communities.

Inventorying, Classifying, and Correlating Juniper and Pinyon Communities in the Western United States

This 39-page booklet developed by the Grazing Lands Technology Institute provides guidance during all progressive soil surveys and during ecological site description development or revision in the inventorying, classifying and correlating of Juniper and Pinyon ecosystems into ecological sites.

National Range and Pasture Handbook

Developed by the Grazing Lands Technology Institute for field office use, this handbook has 11 chapters on subjects such as Ecological Sites and Forage Suitability Groups, Inventorying and Monitoring, Livestock Nutrition, Husbandry, and Behavior Wildlife Management, Enterprise Diversification, Economics and Conservation Planning.

Nutrition Videos

The Grazing Lands Technology Institute, in cooperation with Texas A&M University, has developed two videos on animal nutrition. Both videos are training tools to help the viewer understand animal nutrition and its importance in production and conservation on grazing lands.

Pasture Prophet

This newsletter, developed by the Grazing Lands Technology Institute, is published intermittently and distributed to all NRCS offices and other interested parties.

Prescribed Grazing Using Grazing Land Applications Software (DOS User's Guide)

This 79-page guide was developed by the Grazing Lands Technology Institute for field office personnel using the forage supply and demand portion of the Grazing Lands Applications (GLA) software.

“Sampling Vegetation Attributes”

Developed by an interagency group, this reference material will help determine what kind of sampling technique to use and how to set up and run monitoring studies.

“Soil Changes Following 18 Years of Protection From Grazing in Arizona Chaparral” Paper

This paper is from a study that compared changes in physical and chemical properties of a chaparral soil protected from grazing for 18 years. It describes these changes relative to succession and threshold paradigms. The reference to this paper is:

Brejda, John J. 1997. “Soil Changes Following 18 Years of Protection From Grazing in Arizona Chaparral”. *The Southwestern Naturalist* 42 (4): p. 478-487.

“Utilization Studies of Residual Measurement”

Developed by an interagency group, this reference material aids in the development and operation of studies to help determine utilization of grazing resources.

“Working Trees for Livestock (Agroforestry: Silvopasture in the Southeast)”

This four-page brochure was developed jointly by NRCS and the U.S. Forest Service for field office use with information on intergrating forest land with livestock operations in the Southeastern United States.

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NRCS Resource Inventories and the Science and Technology Consortium. Interagency Meeting of the Forest Service’s Strategic Inventory and Monitoring Institute Advisory Team

This is an abstract of the Team’s meeting in Ft. Collins, CO. Abstract available at <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>. For more information, contact Steve Brady. Tel (970) 498-1744. Email sbrady@tasc.usda.gov.

Resource Inventory Software for Personal Digital Assistants (PDAs)

This mobile resource data entry solution was developed and implemented for the 1996 soil quality pilot project, the 1996 and 1997 special NRI and the 1997 foundation NRI. Improved data quality and overall data collection efficiency have been demonstrated. For more information, contact Dean Thompson. Tel (515) 294-8177. Email deano@iastate.edu. Or download it from the Natural Resources Inventory and Analysis Institute’s Website <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

The 1997 National Resources Inventory (NRI)

The NRI has collected three new data elements that will be useful to those interested in ecological and water quality attributes. The new data elements are Overland Flow, Habitat Composition and Configuration and Shoreline Characterizations. For more information, contact Dean Thompson. Tel (515) 294-8177. Email deano@iastate.edu.

Tutorials for Training Natural Resource Survey Data Gatherers for The 1997 National Resource Inventory

The Natural Resources Inventory and Analysis Institute has developed tutorials on the Web to train natural resource survey data gatherers. The addresses are <http://www.statlab.iastate.edu/survey/NRIAI/NEW-TON> and <http://www.statlab.iastate.edu/survey/NRIAI/TRAINING/training>. For more information, contact Dean Thompson. Tel (515) 294-8177. Email deano@iastate.edu.

Wetlands Training Materials

These are training materials for Point Module IX – Wetlands, 1997 National Resource Inventory and can be downloaded from <http://www.ftw.nrcs.usda.gov/nri/training.html>.

Wildlife Habitat Inventories

This section lists products resulting from analysis of NRI data to make wildlife habitat interpretations for NRCS or interagency reports.

“Using The National Resources Inventory in Wildlife Habitat Assessments”. Brady, S. J. and C. A. Kertis. 1997. Pages 55-63 in H. R. Barrett (ed.) Proceedings: Organization of Fish and Wildlife Information Managers 5th Annual Conference. Reston, VA. (contact: sbrady@tasc.usda.gov).

“Range-wide Trends of Northern Bobwhite (*Colinus virginianus*): Land Use Patterns and Population Trends”. Brady, S. J., C. H. Flather and K. E. Church. 1997. In Birkan, M., L. M. Smith, N. J. Aebischer and P. Robertson (eds.) Perdix VII: International Symposium on Partridges, Quails, and Pheasants. Gibier Faune Sauvage 14: (in press).

“Grassland Nesting Birds and Agricultural Land Use Patterns” (in press). Brady, S.J. and C.H. Flather. Proceedings of the XXIIIrd Congress of the International Union of Game Biologists (September 1997). Gibier Faune Sauvage x:xx-xx. Abstract available at <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

“Using The NRI for Wildlife Habitat Assessment”. Brady, S.J. 1996. Midwest Pheasant Study Group, University of Illinois, Champaign. Abstract available at <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

“Bird Diversity and Agricultural Land Use Patterns”. Brady, S.J. and C.H. Flather. 1996. Soil and Water Conservation Society Annual Meeting, Keystone, CO. Abstract available at <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

“Wildlife Habitat Indicators”. Brady, S.J. 1996. Ecosystem Indicators Summit meeting convened for the “State of the Land” appraisal by NRCS staff in Washington, D.C. Summary available at <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

Wildlife Habitat Training Materials

These are training materials for Point Module V – Habitat Composition and Configuration and can be downloaded from <http://www.ftw.nrcs.usda.gov/nri/training.html>.

“Dairy Farmer Profitability Using Intensive Rotational Stocking”

This publication addresses the economic benefits of intensive rotational grazing compared to continuum pasture, hay and corn silage. It is a reprint of a 16-page brochure. For more information, contact Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

“Industrialization of Agriculture - Technical Report Release 5.1”

This is the first of two reports. It is a description and set of maps that spatially illustrate the concentration of poultry, hogs, beef and forestry operations by county. These factors are associated with minority and poverty county composition. For more information, contact the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov.

“Industrialization of Agriculture - Technical Report Release 6.1”

This second report provides descriptions of four counties in two southeastern states. The report provides recommendations to field staff on how to effectively work with the poultry and hog industries. Contact the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov.

Nutrition Videos

The Grazing Lands Technology Institute, in cooperation with Texas A&M University, has developed two videos on animal nutrition. Both videos are training tools to help the viewer understand animal nutrition and its importance in production and conservation on grazing lands. Contact Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

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Locally-Led Conservation

“An Assessment of Sociocultural Factors Influenced by the Implementation of the Moloka`i Agricultural Community (MAC) Project, Moloka`i, Maui County, Hawai`i”

This publication examines successes and challenges to implementing the MAC Project, a locally-run program that dispenses federal funds to low-income farmers in Moloka`i, HI. Success factors are highlighted and discussed, as well as the continuing challenges to implement this popular program. This project is an example of a locally-led conservation effort that provides an excellent “real-world” model combining customer needs with federal natural resource conservation efforts. This document is available on the Web <http://people.nrcs.wisc.edu/socsciinstitute>. Contact the Social Sciences Institute - Grand Rapids. Tel (616)942-1503. Email ssinter2@po.nrcs.usda.gov.

Community Conservation Toolbox (CTools 98)

For more information on this conservation information system, go to the Conservation Planning section, page 3.

Conducting Small Group and Focus Group Meetings - Resource Book Release 1.1

This resource book is to be used as a tool for identifying community leaders and their leadership styles and to identify ways to involve key people in the conservation process. It teaches how to identify features of group meetings and identify skills helpful in facilitating meetings. Contact the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov.

“Conservation Partnerships: Indicators of Success - Technical Report Release 7.1”

This report is a summary of recent research that investigated indicators of success in watershed partnerships. Contact the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov.

“Developing Your Skills to Implement Locally-Led Conservation”

The Social Science Institute, in cooperation with Michigan State University and others, has developed this training program to help you and your organization acquire the tools to implement locally-led conservation programs. You may select from the following nine modules to tailor the training to your needs:

Addressing Community Issues - developing strategies for tackling community issues.

Community Issues Identification - identifying communities of interest, their constituents and their issues.

Community Profiling - using demographics to profile your communities, document community needs and support funding requests.

Conflict Management - learning to identify positive and negative aspects of conflict. Helping individuals and groups achieve consensus.

Effective Community Facilitation - learning facilitation skills to build community and solve problems.

Networks & Collaborations - understanding community collaborations. Looking for partners. Developing teams.

Outreach to Underserved Audiences - developing strategies for reaching diverse audiences including women in agriculture. Ensuring the participation of all groups as a requisite for successful locally-led conservation initiatives.

Power in Communities - understanding forms of power and participation. Identifying and accessing community power structures.

The Nature of Community - building interest in conservation by defining and understanding the nature of communities.

Contact Barbara Wallace. Tel (616) 942-1503. Email bwallace@po.nrcs.usda.gov. There is also additional information on the Website <http://people.nrcs.wisc.edu/socsciinstitute>.

“Guidance for Soil and Water Conservation Districts in Setting Locally-Led Natural Resource Priorities” Draft

This provides Soil and Water Conservation Districts with guidance on involving farmers and ranchers, community leaders, partners and customers in identifying natural resource priorities in communities. Contact the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov.

Locally-Led Conservation

NRCS Institutes Product Catalog

Guidebooks

These six guidebooks were developed by the National Association of Conservation Districts, the National Association of State Conservation Agencies and the Natural Resource Conservation Service in 1994. These guidebooks are also included in the SSI publication *Guidance for Soil and Water Conservation Districts in Setting Locally-Led Natural Resources Priorities*. The titles of the guidebooks are:

Building Alliances
Reaching Out to Minority Farmers
Information Gathering Techniques
Media Relations
Conflict Management
Leadership Identification and Group Dynamics

For more information, contact the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov.

People, Partnerships and Communities Series

These are “how-to” summaries of two to four pages describing a social sciences skill. Topics will continue to be added to this ongoing series. The following topics are available:

- PPC-1 “Focus Groups”
- PPC-2 “Reading the Land: How to Include Historical Information About Farms and Conservation Plans”
- PPC-3 “Looking Good on Television”
- PPC-5 “Running Effective Meetings”
- PPC-6 “Listening Skills”
- PPC-10 “Running Public Meetings”
- PPC-11 “Prioritizing Issues or Concerns Using the Paired Comparison Technique”
- PPC-12 “Conflict Management”
- PPC-13 “Dealing With Difficult People”
- PPC-14 “Designing Surveys for Conservation”
- PPC-16 “Managing Change and Transition”
- PPC-17 “Requesting and Preparing for a Meeting With a Community Leader”
- PPC-19 “Creating Effective Relationships With the Media”
- PPC-22 “Defining Communities: An Issue Based Approach”
- PPC-24 “Conducting ‘Rapid Resource Appraisals’ of Watersheds”
- PPC-36 “Using Budgets in Conservation”
- PPC-37 “Using Cost Estimates in Conservation”
- PPC-38 “Cost Effectiveness Analysis”

Contact the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov. Or download these information sheets from the Social Sciences Institutes Website <http://people.nrcs.wisc.edu/socsciinstitute>.

Soil Quality Card Design Manual

The *Soil Quality Card Design Manual* gives instructions and procedures for conducting farmer focus sessions and developing local cards. The Soil Quality Health Card is a qualitative field assessment tool developed by farmers for farmers. It is a do-it-yourself rating guide for farmers to monitor soil quality from year to year or to compare practices. Conservationists can use it in locally-led conservation, education and information activities with farmers. The procedures and *Manual* were developed by the Soil Quality Institute, in collaboration with Oregon State University, Oregon State University Cooperative Extension, University of Maryland and NRCS partners in state and field offices in OR, MD, MT, ND and NM. The *Manual* will be available soon on the Web.

The Leader In You Training Tapes

For more information on these two-hour training tapes, see the Training section, page 25.

Nutrient Management

“An Introduction to Waterborne Pathogens in Agricultural Watersheds”

This summarizes the nature and behavior of the more common pathogenic organisms found in ground water, streams and rivers. It includes the diseases they may cause and management considerations for their control at the source and within watersheds. Contact the water quality specialist. Tel (802) 656-1036.

“Dispelling Common Myths about Phosphorous in Agriculture and the Environment” Technical Paper

This note was prepared by Dr. Andrew N. Sharpley of ARS, University Park, PA. It summarizes in general terms the concerns, common myths, forms of phosphorous in the soil, the process of soil phosphorous increases and the loss of phosphorous in runoff. It also presents techniques for minimizing such losses. For more information, contact Stephanie Aschmann. Tel (402) 437-5178x43. Email Sachmann@aol.com.

“Phosphorus In Agriculture” Technical Pamphlet

This pamphlet describes the importance of phosphorus in plant growth, the environmental impacts and the management of agricultural phosphorus. It is available on the Website <http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml>.

Soil Quality-Agronomy Technical Notes

This is a series of two to four-page documents describing the effects of conservation practices on soil quality. The notes are intended for NRCS field office use.

The topics include:

| | |
|--|---------------------|
| “Cover and Green Manure Crop Benefits on Soil Quality” | (Technical Note #1) |
| “Conservation Crop Rotation Effects on Soil Quality” | (Technical Note #2) |
| “Effects of Residue Management, No-till on Soil Quality” | (Technical Note #3) |
| “Effect of Soil Quality on Nutrient Efficiency” | (Technical Note #4) |
| “Herbicides” | (Technical Note #5) |
| “Legumes and Soil Quality” | (Technical Note #6) |

These technical notes are available from the Soil Quality Institute Website <http://www.statlab.iastate.edu/survey/SQI/agronomy.shtml>.

The Watershed Ecosystem Nutrient Dynamics Model (WEND)

WEND is an easy-to-use evaluation tool designed to: characterize the magnitudes and relationships among the various phosphorus fluxes inside and across a watershed boundary; identify activities where more efficient phosphorus uses may be possible in a watershed; provide an indication of a watershed’s carrying capacity for phosphorus and evaluate the impact of various management scenarios over time on the sustainable nutrient condition of the watershed. Modules are currently under development for some agricultural sectors. For project information, contact David Anderson. Tel (402) 437-5178x46. Email danderso@unlinfo2.unl.edu. Or contact Stefanie Aschmann. Tel (402) 437-5178x43. Email Saschmann@aol.com.

Outreach Tools

•The products on these pages can be obtained by contacting the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov. Or, download them from the Social Sciences Institute Website <http://people.nrcs.wisc.edu/socsciinstitute>.

“An Assessment of Sociocultural Factors Influenced by the Implementation of the Moloka`i Agricultural Community (MAC) Project, Moloka`i, Maui County, Hawai`i”

This publication examines successes and challenges to implementing the MAC Project, a locally-run program that dispenses federal funds to low income farmers in Moloka`i, HI. Success factors are highlighted and discussed as well as continuing challenges to implement this popular program. This project is an example of a locally-led conservation effort that provides an excellent “real-world” model combining customer needs with federal natural resource conservation efforts.

“Conservation and the 1996 Farm Bill - Social Factors Influencing Implementation of Programs” Booklet and Poster

This poster and booklet identify social obstacles and strategies for overcoming the obstacles for CRP, EQIP, WRP, WIP, FPP and Grazing Lands. The materials were developed with strategies to increase Farm Bill participation in each district, particularly by part-time farmers or absentee owners.

“Definitions of Key Outreach Concepts”

This electronic publication defines outreach, underserved customers, outreach strategy, limited resource farmers and ranchers, socially disadvantaged farmers, communities and groups.

“EQIP Funding for Historically-Underserved Individuals and Groups”

This briefing paper addresses why, in addition to increasing financial assistance through EQIP funds, education, training and technological assistance must be addressed relative to underserved populations. Successful examples are highlighted.

“Process for Identifying Limited-Resource Farmers and Ranchers - Technical Note Release 2.1”

This provides explanation of the five characteristics and the process used to identify limited resource farmers and ranchers.

“Talking Conservation: What We Say! What the Public Hears!”

This is a qualitative report and executive summary based on focus group research. The purpose is to identify words that we, as conservationists, should use to maximize the public’s understanding and support of conservation issues. This report was produced in conjunction with the public affairs office of NACD.

Women in Agriculture: Changing Roles & Current Outreach Techniques -- Technical Note Release 3.2

Targeted to field staff, this provides tips on identifying women landowners and operators, and reaching out to potential women customers. Included is contact information for women’s organizations and Website addresses.

Working with Asian and Hispanic Limited Resource Farmers and Ranchers - Technical Report Release 4.1

This guide provides a checklist to determine the needs in working with limited resource farmers, as well as a bibliography of useful publications serving limited resource farmers.

Plant Materials

Inventorying, Classifying, and Correlating Juniper and Pinyon Communities in the Western United States

This 39-page booklet, developed by the Grazing Lands Technology Institute, provides guidance during all progressive soil surveys and during ecological site description development or revision in the inventorying, classifying and correlating of Juniper and Pinyon ecosystems into ecological sites. Contact Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

“Empowerment in NRCS: What Works! - Technical Report Release 3.1”

This report develops a profile of the characteristics of empowerment for employees and organizations. It provides a better understanding of how NRCS managers might empower their employees in order to serve agency customers more fully. Contact the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov.

“Influence of Social Trends on Agricultural Natural Resources”

As part of the third RCA, the Social Sciences Institute and RCA staff cosponsored a symposium called “Influence of Social Trends on Agricultural Natural Resources”. The symposium produced a series of seven Working Papers. Each Working Paper contains two or more separately-authored papers along with a summary of the symposium. Overall, there are 19 papers. The authors, experts in their fields, not only summarize the current state of their topics, but also make forecasts 10 and 50 years in the future.

The subjects of the Working Papers are as follows:

- Working Paper 19A “Public Attitudes and Farmers’ Perceptions”
- Working Paper 19B “Community, Social Capital, and Conservation”
- Working Paper 19C “Megatrends: Banking & Finance and Biotechnology”
- Working Paper 19D “Property Rights, Conservation, and Ecosystem-Based Assistance”
- Working Paper 19E “National and State Perspectives”
- Working Paper 19F “Politics and the Environment”
- Working Paper 19G “Water Quality, Social Trends and Future Policy”

Contact the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov.

“Interested in Better Wetlands?”

The Iowa Association of Conservation Districts, in cooperation with the NRCS Social Sciences Institute and NRCS-Iowa, surveyed Iowa farmers to determine their likelihood of adopting practices to enhance their wetlands. This brochure discusses results, plus provides a copy of the survey instrument. Contact the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov.

“Stewardship, Spirituality and Natural Resources Conservation: A Short History - Technical Report Release 2.2”

This discusses the history of stewardship, how stewardship has changed in the 20th century and the conflicting forces that will impact stewardship in the decades ahead. Contact the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov.

Soil Biology

Soil Biology Primer

The *Soil Biology Primer* is an introduction to the living soil system for NRCS field staff, partners and customers. This full color set of nine pamphlets describes the importance of soil organisms and the soil foodweb to soil productivity and water and air quality and addresses how soil organisms are affected by management practices. The *Primer* is a collaborative effort of the Soil Quality Institute, an Oregon State University soil ecologist and soil entomologist, an Ohio State University earthworm ecologist and numerous other scientists. Contact Arlene Tugel. Tel (505) 646-2660. Email atugel@nmsu.edu.

Soil Quality

“Assessment of Soil Quality” Workshop Presentation

This presentation discusses the assessment of soil quality at various levels of scale ranging from the farm or field level to the regional or national level. A review of the definition of soil quality is presented with a discussion on soil quality indicators, reference values and soil quality assessments. The presentation was made at the workshop on Long-term Research on Soil, Water, and Nutrient Management, Columbus, OH. It is available from the Soil Quality Institute Website <http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml>.

County Economic, Agriculture, and Environmental Health Index

The objective of this study is to explore, using existing national databases, such as NRI and NASS statistics, and to evaluate counties on an MLRA basis with standards or thresholds unique to each MLRA's agricultural community and its natural resources. A pilot test of this procedure is underway. The partners in this study are the NRIA and Soil Quality Institute personnel with assistance from NRCS scientists in Temple, TX. For additional information, contact Lee Norfleet. Tel (334) 844-4741 x176. Email norfleet@eng.auburn.edu. Or David Buland. Tel (254)770-6522. Email buland@brcsun0.tamu.edu.

“Farmer Workshops for Locally-Developed Conservation Tools” Soil Quality Cards

This training session prepares NRCS field and state staff and Conservation Partners to conduct farmer-conservationist participatory workshops and to develop local soil quality/health cards. The basic principles of farmer participatory action and learning are presented. A step-wise approach to lead farmers to identify soil quality indicators, develop a rating system and design a local soil quality/health card is practiced by participants. Activities to enhance facilitation skills for farmer meetings and locally-led conservation are included. Strategies to market and develop local soil health cards will be developed. Contact Arlene Tugel. Tel (505) 646-2660. Email atugel@nmsu.edu.

“Introduction to Microbiotic Crusts”

This 13-page booklet developed by the Grazing Lands Technology Institute and the Soil Quality Institute provides the latest information to landowners and NRCS staff on microbiotic crusts and how they impact soils, hydrology and plant communities. Contact Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

“Phosphorus In Agriculture” Technical Pamphlet

This pamphlet describes the importance of phosphorus in plant growth, the environmental impacts and the management of agricultural phosphorus. It is available on the Soil Quality Institute Website <http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml>.

“Quantification of Soil Quality” Paper

The paper discusses various approaches to quantifying soil quality and recommends a framework for measuring and assessing soil quality. A review of the definition, indicators and indices of soil quality, minimum data sets and effects of scale are presented. This paper was prepared for an international symposium on Carbon Sequestration in Soils held in Columbus, OH, July 22-26, 1996.

The reference to this paper is :

Seybold, C.A., M.J. Mausbach, D.L. Karlen and H.H. Rogers. 1998. Quantification of Soil Quality. p. 387-404. *In*: R. Lal, J.M. Jimble, R.F. Follet and B.A. Steward (eds.) *Soil Processes and The Carbon Cycle*. Advances in Soil Science. Chapt, 27. CRC Press, Boca Raton, FL.
Contact Arlene Tugel. Tel (505) 646-2660. Email atugel@nmsu.edu.

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The *Soil Biology Primer* is an introduction to the living soil system for NRCS field staff, partners and customers. This full color set of nine pamphlets describes the importance of soil organisms and the soil foodweb to soil productivity and water and air quality and addresses how soil organisms are affected by management practices. The *Primer* is a collaborative effort of the Soil Quality Institute, an Oregon State University soil ecologist and soil entomologist, an Ohio State University earthworm ecologist and numerous other scientists. Contact Arlene Tugel. Tel (505) 646-2660. Email atugel@nmsu.edu.

“Soil Changes Following 18 Years of Protection From Grazing in Arizona Chaparral” Paper

This paper comes from a study that compared changes in physical and chemical properties of a chaparral soil protected from grazing for 18 years and describes these changes relative to succession and threshold paradigms.

The reference to this paper is:

Brejda, John J 1997. “Soil Changes Following 18 Years of Protection From Grazing in Arizona Chaparral”. *The Southwestern Naturalist* 42 (4): p. 478-487.

Contact Arlene Tugel. Tel (505) 646-2660. Email atugel@nmsu.edu.

“Soil Quality – A Multitude of Approaches” Presentation

This presentation describes the soil quality concept and approaches to soil quality assessment. The presentation was the keynote address at the Kearney Foundation Symposium, “California Soil Quality: From Critical Research to Sustainable Management”, March 1997. It is available from the Soil Quality Institute Website <http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml>.

Soil Quality-Agronomy Technical Notes

This is a series of two to four page documents describing the effects of conservation practices on soil quality. The notes are intended for NRCS field office use.

The topics include:

| | |
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| “Cover and Green Manure Crop Benefits on Soil Quality” | (Technical Note #1) |
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| “Effect of Soil Quality on Nutrient Efficiency” | (Technical Note #4) |
| “Herbicides” | (Technical Note #5) |
| “Legumes and Soil Quality” | (Technical Note #6) |

These technical notes are available from the Soil Quality Institute Website <http://www.statlab.iastate.edu/survey/SQI/>.

Soil Quality Card Design Manual

The *Soil Quality Card Design Manual* gives instructions and procedures for conducting farmer focus sessions and developing local cards. The Soil Quality/Health Card is a qualitative field assessment tool developed by farmers for farmers. It is a do-it-yourself rating guide for farmers to monitor soil quality from year to year or to compare practices. Conservationists can use it in locally-led conservation, education and information activities with farmers. The procedures and *Manual* were developed by the Soil Quality Institute, in collaboration with Oregon State University, Oregon State University Cooperative Extension, the University of Maryland and NRCS partners in state and field offices in various states. The *Manual* will be available on the Web soon <http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml>.

Soil Quality Card – Willamette Valley, Oregon

This Soil Quality Card was developed by farmers in the Willamette Valley of Oregon. It is a do-it-yourself rating guide for farmers to monitor soil quality from year to year or to compare practices. It was developed by the Soil Quality Institute in collaboration with Oregon State University, Oregon State University Cooperative Extension, SWCDs and NRCS state and field offices in OR. For a booklet of 50 cards, contact Publications Orders, Extension and Station Communications, Oregon State University, 422 Kerr Administration, Corvallis, OR 97331-2119. Fax (541) 737-0817.

Soil Quality Clipart

The SQI designed several clipart images to represent soil and its many functions (infiltration, nutrient cycling, productivity, structural support, filtering and buffering, partitioning water and solute flow). Also available is a set of images depicting farmers using the soil health card. These black and white graphics are available for free use. Images can be downloaded from the SQI Website <http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml>. The files are also available via anonymous ftp at <ftp://ftp.nstl.gov/software.sqclip.agronomy.shtml>.

“Soil Quality Considerations in the Conversion of CRP Land to Crop Production”

This presentation discusses the beneficial effects of CRP on soil quality, the concerns of returning CRP land to crop production and alternative systems to protect the soil quality benefits obtained from 10 years of grass cover. The presentation was made at CRP-96 Conference, “Preparing for Future CRP Land use in the Central and Southern Great Plains”, Amarillo, TX (October, 1996). The paper from this presentation is available from the Website <http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml>.

Soil Quality Field Kit

The Soil Quality Field Kit, adapted from the ARS Soil Health Kit, is designed for use by NRCS field offices, SWCDs and ag consultants. Soil measurements made with the kit are pH, electrical conductivity, soil nitrate-N, soil bulk density/water content, soil respiration, infiltration rate, aggregate stability, soil stability, earthworms and soil morphological observations. The Soil Quality Institute has developed an Instruction Manual and Interpretative Guide to accompany the kit. Contact Arlene Tugel. Tel (505) 646-2660. Email atugel@nmsu.edu.

Soil Quality Information Sheets

These one-page, full-color information sheets are useful for employees, districts, agriculture consultants, producers and others as an introduction to soil quality. The National Soil Survey Center prepared the information sheets in cooperation with the Soil Quality Institute and the National Soil Tilth Laboratory, Agricultural Research Service, USDA.

Current topics include:

| | |
|--|---------------|
| “Soil Quality – Introduction” | (April, 1996) |
| “Indicators for Soil Quality Evaluation” | (April, 1996) |
| “Soil Quality Indicators: Organic Matter” | (April, 1996) |
| “Soil Quality Indicators: Soil Crusts” | (April, 1996) |
| “Soil Quality Indicators: Aggregate Stability” | (April, 1996) |
| “Soil Quality Indicators: pH” | (May, 1998) |
| “Soil Quality Indicators: Infiltration” | (May, 1998) |
| “Soil Quality Resource Concerns: Soil Erosion” | (April, 1996) |
| “Soil Quality Resource Concerns: Sediment Deposition on Crop Land” | (April, 1996) |
| “Soil Quality Resource Concerns: Compaction” | (April, 1996) |
| “Soil Quality Resource Concerns: Salinization” | (May, 1998) |
| “Soil Quality Resource Concerns: Pesticides” | (May, 1998) |
| “Soil Quality Resource Concerns: Available Water Capacity” | (May, 1998) |
| “Soil Quality Resource Concerns: Soil Biodiversity” | (May, 1998) |

For more information, contact Gary Muckel. Tel (402) 437-4148. Email gmuckel@nssc.nrcs.usda.gov. The sheets are also available on the Web <http://www.statlab.iastate.edu/survey/SQI/sqiinfo.shtml>.

Soil Quality Reference Soils

The Soil Quality Institute (SQI) and Auburn University collaborated to establish a set of 27 soils for use as a standard reference set for soil quality research. The soils were selected on the basis of acreage, land use, economics and environmental importance. A U.S. map of the reference soils can be viewed from the “Soil Quality Reference Soils” link on the SQI homepage <http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml>.

“Soil Rating for Plant Growth (SRPG)” Report

This report details the SRPG rating system for arraying soils according to their inherent productivity and suitability for crops. The computerized rating system is suitable for national level bid evaluations. The report was developed for the Soil Quality Institute in conjunction with the National Soil Survey Center. For additional information, contact H. Ray Sinclair, Jr. Tel (402) 437-5699. This report is also available from the Website <http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml>.

“Soil Resilience/Soil Quality” Conference Presentation

This presentation addresses the concept of soil resilience and its relationship to soil quality. It presents the concept of resilience as it pertains to soils and provides a review of the literature on its assessment and quantification. The presentation was made at the National Cooperative Soil Survey Conference in Baton Rouge, LA, June 16-20, 1997. The paper from this presentation is available from the Website <http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml>.

“The Soil Quality Concept” Booklet

This booklet contains eight key papers on the concepts of soil quality. It provides information and references on soil quality for NRCS staff and is valuable as background information to support the integration of soil quality with conservation planning and natural resource inventory activities of the agency.

Instructions for building the kit and both the manuals are available on the Web <http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml>.

Stream and River Restoration

“Applying Geomorphic Principles to Sands and Low Plasticity Silts in the Sugar Creek Watershed Project” Case Summary Report

This report summarizes a project undertaken in Oklahoma to evaluate an existing PL-566 project for potential improvements using geomorphic principles. The report discusses the creek’s geomorphic evolution and describes in detail the data and resources necessary to develop a regional curve and conduct a channel survey. It also details problems specific to restoring stability in an incised channel system. For more information, contact Ray Riley. Tel (919) 513-1419. Email ray_riley@ncsu.edu.

“Examining a 1930s Restoration of the Winooski River Watershed, Vermont” Case Summary Report

This report documents the effects of an extensive watershed restoration effort in the 1930s known as “Project Vermont”. The restoration involved the use of livestock exclusion, biotechnical streambank practices and the planting of more than 2,268,000 trees. Additionally, 189 farmers cooperated in developing conservation plans for their operations. The report documents the success of this 55+ year old effort. Contact Carolyn Adams. Tel (206) 616-5724. Email houston@geology.washington.edu.

Fisheries – Automated Information: This section lists products from an interagency project to make state-collected fisheries data available to analysts:

“The Multi-State Aquatic Resources Information System”. 1998. Beard, T.D., D. Austen, S.J. Brady, M.E. Costello, H.G. Drewes, C.H. Young-Dubovsky, C.H. Flather, T.W. Gengerke, C. Larson, A.J. Loftus, M.J. Mac. *Fisheries* 23(5):14-18.

“Multi-State Aquatic Resources Information System - Information Management for the Future”. 1997. Brady, S.J., C.H. Flather and A. Loftus. Annual Meeting of the Soil and Water Conservation Society. Toronto, Canada. Abstract available at <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

“County Economic, Agriculture, and Environmental Health Index”

The objective of this study is to explore using existing national databases such as NRI and NASS statistics to evaluate counties on an MLRA basis with standards or thresholds unique to each MLRA’s agricultural community and its natural resources. A pilot test of this procedure is underway. The partners in this study are the Natural Resources Inventory and Analysis Institute and Soil Quality Institute personnel, with assistance from NRCS scientists in Temple, TX. For additional information, contact Lee Norfleet.

Tel (334) 844-4741x176. Email norfleet@eng.auburn.edu. Or David Buland. Tel (254)770-6522. Email buland@brcsun0.tamu.edu.

“Sustainability” Technical Note 1

This note provides general information on the practice of sustainable agriculture. Definitions are provided, as are detailed discussions that illustrate its major components, including productivity, environmental quality and ecological function, socioeconomic viability and other characteristics such as ecological, economic and social diversity. The note is enriched by four case studies describing how farmers from HI, CA, GA and NE are using principles of sustainability in their enterprises. Contact Stefanie Aschmann. Tel (402) 437-5178x43. Email Saschmann@aol.com.

Training

“An Overview of Stormwater Management in the Portland, OR Metro Area”

This publication is a documentation of a training session held in April, 1997, for a few partners and NRCS urban conservationists to review nontraditional techniques for stormwater and riparian area management. It focuses on the area’s approach to urban growth management and stormwater management from the diverse viewpoints of the City of Portland, METRO (the regional government), Clackamas County and the Unified Sewerage Agency. Contact Carolyn Adams. Tel (206) 616-5724. Email houston@geology.washington.edu.

“Developing Your Skills to Implement Locally-Led Conservation”

The Social Science Institute in cooperation with Michigan State University and others have developed a training program to help you and your organization acquire the tools to implement locally-led conservation programs. You may select from nine modules to tailor the training to meet your needs. See the description of these modules in the Locally-Led section, page 13. Contact Barbara Wallace. Tel (616) 942-1503. Email bwallace@po.nrcs.usda.gov.

“Farmer Workshops for Locally-Developed Conservation Tools” Soil Quality Cards

This training session prepares NRCS field and state staff and conservation partners to conduct farmer-conservationist participatory workshops and to develop local soil quality/health cards. The basic principles of farmer participatory action and learning are presented. A step-wise approach to lead farmers to identify soil quality indicators, develop a rating system and design a local soil quality/health card is practiced by participants. Activities to enhance facilitation skills for farmer meetings and locally-led conservation are included. Strategies to market and create local soil health cards will be developed. Contact Arlene Tugel (505) 646-2660. Email atugel@nmsu.edu.

Grazing Land Applications User's Guide

This 414-page Guide, developed by Texas A&M, is available through the Grazing Lands Technology Institute (Version 2.0.3 Unix and Dos).

Contact Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

NUTBAL (Nutritional Balance Analyzer) Training

Nutritional Workshops are conducted by the Grazing Lands Technology Institute throughout the year at various locations around the country, in cooperation with Texas A&M University. This training is designed to train NRCS personnel in the use of the NUTBAL software when they work with landowners. NUTBAL is part of the FOCS Grazing Land Applications software that concerns the relationship between forage quality and animal well-being. If you would like to attend a workshop, contact Arnold Norman.

Tel (817) 334-5232. Email anorman@ftw.nrcs.usda.gov.

Nutrition Videos

The Grazing Lands Technology Institute, in cooperation with Texas A&M University, has developed two videos on animal nutrition. Both videos are training tools to help the viewer understand animal nutrition and its importance in production and conservation on grazing lands.

Contact Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

Prescribed Grazing Using Grazing Land Applications Software (DOS User's Guide)

This 79-page Guide was developed by the Grazing Lands Technology Institute for field office personnel using the forage supply and demand portion of the Grazing Lands Applications (GLA) software.

Contact Larry Butler. Tel (817) 509-3220. Email lbutler@ftw.nrcs.usda.gov.

The Leader In You Training Tapes

Tapes of previous satellite broadcasts are available for loan. To borrow any of the following two-hour tapes, contact:

*Ray Ledgerwood
NACD Pacific Region Office
NE 1615 Eastgate Blvd. Suite B
Pullman, WA 99163-5609
(509) 334-3453

*NRCS State/other Training Coordinators

*Barbara Wallace
NRCS Social Sciences Institute
1550 East Beltline, Suite 245
Grand Rapids, MI 49506
(616) 942-1503

“Negotiation Skills: The Key to Managing Your Career”

“The Secret of “Real Change” - Not What You Think”

“Swim with the Sharks: How to Outsell, Outmanage, Outmotivate and Outnegotiate Your Competition”

“Just in Time Leadership: How to Lead an Organization Through a Period of Transition”

“The Coming Age Wave: Implications for the Future of Work, Marketing, and Sales”

“Sacred Cows Make the Best Burgers”

“Be Direct!: Make Your Direct Marketing Pay”

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“Building Nimble Organizations for Turbulent Times”

“Putting Power, Punch and Pizzazz into Your Presentations”

“The Rise of the Phoenix Organization”

“Connective Leadership: Managing Diversity and Interdependence”

“Dealing with Difficult People: Resolving Conflicts with Ease”

Training

The Leader In You Training Tapes Flyer

Everyone is a leader! These tapes are for people at all levels of The Conservation Partnership who are interested in enhancing their leadership skills. Training is provided by nationally known authors and experts. This four-page flyer lists the available training tapes and provides a description of each two-hour tape. The tapes are available for a two-week viewing period. Contact the Social Sciences Institute - Grand Rapids. Tel (616) 942-1503. Email ssinter2@po.nrcs.usda.gov.

Tutorials for Training Natural Resource Survey Data Gatherers for the 1997 National Resource Inventory

The Natural Resources Inventory and Analysis Institute has developed tutorials on the Web to train natural resource survey data gatherers. The addresses are <http://www.statlab.iastate.edu/survey/NRIAI/NEW-TON> and <http://www.statlab.iastate.edu/survey/NRIAI/TRAINING/training>.

For more information, contact Dean Thompson. Tel (515-294-8177). Email deano@iastate.edu.

Wetlands Training Materials

These training materials for Point Module IX – Wetlands, 1997 National Resource Inventory can be downloaded from <http://www.ftw.nrcs.usda.gov/nri/training.html>.

Wildlife Habitat Training Materials

These training materials for Point Module V – Habitat Composition and Configuration can be downloaded from <http://www.ftw.nrcs.usda.gov/nri/training.html>.

Urban Conservation

An Overview of Stormwater Management in the Portland, Ore. Metro Area

This publication is documentation of a training session held in April, 1997, for selected partners and NRCS urban conservationists to review nontraditional techniques for stormwater and riparian area management. It focuses on the area's approach to urban growth management and stormwater management from the diverse viewpoints of the city of Portland, METRO (the regional government), Clackamas County, and the Unified Sewerage Agency.

Contact Carolyn Adams. Tel (206) 616-5724. Email houston@geology.washington.edu.

An Introduction to Waterborne Pathogens in Agricultural Watersheds

This summarizes the nature and behavior of the more common pathogenic organisms found in ground water, streams and rivers; the diseases they may cause; and management considerations for their control at the source and within watersheds. Contact the water quality specialist. Tel (802) 656-1036.

Dispelling Common Myths about Phosphorous in Agriculture and the Environment - Technical Paper

This note was prepared by Dr. Andrew N. Sharpley of ARS, University Park, Pa. It summarizes in general terms the concerns, common myths, forms of phosphorous in the soil, the process of soil phosphorous increases and the loss of phosphorous in runoff. It also presents techniques for minimizing such losses. For more information, contact Stephanie Aschmann. Tel (402) 437-5178x43.

Email Sachmann@aol.com.

Soil Quality Field Kit

The Soil Quality Field Kit, adapted from the ARS Soil Health Kit, is designed for use by NRCS field offices, SWCDs and ag consultants. Soil measurements made with the kit are pH, electrical conductivity, soil nitrate-N, soil bulk density/water content, soil respiration, infiltration rate, aggregate stability, soil stability, earthworms and soil morphological observations. The Soil Quality Institute has developed an Instruction Manual and Interpretative Guide to accompany the kit. Instructions for building the kit and both the manuals are available on the Web

<http://www.statlab.iastate.edu/survey/SQI/sqihome.shtml> .

The Watershed Ecosystem Nutrient Dynamics Model (WEND)

WEND is an easy-to-use evaluation tool designed to: characterize the magnitudes and relationships among the various phosphor fluxes inside and across a watershed boundary; identify activities where more efficient phosphorous uses may be possible in watershed; provide an indication of a watershed's carrying capacity for phosphorous and evaluate the impact of various management scenarios over time on the sustainable nutrient condition of the watershed. Modules are currently under development for some agricultural sectors.

For project information, contact David Anderson. Tel (402) 437-5178x46.

Email danderso@unlinfo2.unl.edu. Or contact Stefanie Aschmann. (402) 437-5178x43.

Email Saschmann@aol.com.

“Ecosystem Analysis at the Watershed Scale” Federal Guide for Watershed Analysis

This publication was prepared under the direction of the Regional Interagency Executive Committee. The committee has representation from the federal and state agencies and Native American tribal organizations. It contains a detailed discussion of a six-step process for evaluating basic ecological conditions by addressing core topics. This is a reference prepared specifically for the Pacific Northwest, but has substantial utility in other regions.

Contact Lyn Townsend. Tel (206) 616-8414. Email townsend@u.washington.edu.

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WEND is an easy-to-use evaluation tool designed to: characterize the magnitudes and relationships among the various phosphor fluxes inside and across a watershed boundary; identify activities where more efficient phosphorous uses may be possible in watershed; provide an indication of a watershed’s carrying capacity for phosphorous and evaluate the impact of various management scenarios over time on the sustainable nutrient condition of the watershed. Modules are currently under development for some agricultural sectors. For project information, contact David Anderson. Tel (402) 437-5178x46.

Email danderso@unlinfo2.unl.edu. Or contact Stefanie Aschmann. (402) 437-5178x43.

Email Saschmenn@aol.com.

“Turning the Corner - The Don Watershed Report Card”

This publication was prepared by the Don Watershed Regeneration Council in Toronto, Ontario, Canada. It illustrates a concept devised by a group of stakeholders to document the conditions of its watershed through the use of a “report card”. The technique could be adapted for use in other watershed projects.

Contact Carolyn Adams. Tel (206) 616-5724. Email houston@geology.washington.edu.

Watershed Health Indicators

Cropland Health Worksheet

This field scale tool is designed to help field conservationists who have some agronomic background make rapid visual assessment of cropland health with minimal equipment or training. The worksheet was tested during the spring of 1998. It will be available for broader distribution and use in the fall of 1998.

Contact Stefanie Aschmann. Tel (402) 437-5178x43. Email Saschmann@aol.com.

The Watershed Ecosystem Nutrient Dynamics Model (WEND)

WEND is an easy-to-use evaluation tool designed to: characterize the magnitudes and relationships among the various phosphor fluxes inside and across a watershed boundary; identify activities where more efficient phosphorous uses may be possible in watershed; provide an indication of a watershed’s carrying capacity for phosphorous and evaluate the impact of various management scenarios over time on the sustainable nutrient condition of the watershed. Modules are currently under development for some agricultural sectors. For project information, contact David Anderson. Tel (402) 437-5178x46.

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Wetlands

“Hydric Soils Interactive” CD-Rom

This CD is stand-alone and has all the necessary files on it to run on either Windows 3.1 or Windows 95 operating systems. “Hydric Soils Interactive” presents graphics, pictures and animation which explain landscape formation, landscape hydrology, wetland recharge-discharge relationships and the genesis and description of soil morphology related to wetness. Contact Mike Whited. Tel (402) 437-8178x37. Email wetsoil@aol.com.

Hydrology Tools for Wetland Determination

The NRCS Conservation Engineering Division and the Wetland Science Institute (WLI) have recently published and distributed copies of *Hydrology Tools for Wetland Determination*. The document was first issued as Chapter 19 of the *Engineering Field Manual* in August of 1997. To meet the expected demand for the publication from other agencies and the public, additional copies have been published jointly by the Conservation Engineering Division and the Wetland Science Institute. Copies have been distributed to NRCS state offices and to other agencies with wetland responsibilities. Copies of the document can be obtained on a limited basis by contacting Paul Rodrigue. Tel (601) 232-2973. Email rodigue@sedlab.olemiss.edu.

Mid-Atlantic Hydric Soils Indicators

This field guide is a product of the Mid-Atlantic Hydric Soil Committee and is an attempt to consolidate the “Field Indicators of Hydric Soils in the United States” and provide a more specific, user-friendly, regionalized guide to hydric soil identification. The Wetlands Sciences Institute (WLI) is represented on the committee and participated in the development and funding of the guide.

This is a more detailed, fully-illustrated, regionalized set of hydric soil field indicators for the Mid-Atlantic region, Gulf and Atlantic Coastal Plain, and the NRCS wetland teams. Contact Leander Brown. Tel (301) 497-5939. Email leander_brown@usgs.gov.

Multiple Attribute Recognition System for Hydrophytes (MARSH)

MARSH is a computerized, illustrated key used to aid field biologists in identifying wetland plants in collaboration with traditional tools. The key allows for the identification of species obtained in the *1998 National List of Plant Species that Occur in Wetlands*. The MARSH project was a collaborative effort led by the U.S. Fish and Wildlife Service and others. Contact Norman Melvin. Tel (301) 497-5933. Email norman_melvin@usgs.gov.

NRI Wetlands Inventory

These are the results of analyses of NRI data to make interpretations about wetlands.

“Classification and Inventory”. Shepard, J. P., S. J. Brady, N. D. Cost, and C. G. Storrs. 1998. Pages 3-28 in Messina, M. G. and Conner, W. H. (eds.) *Southern Forested Wetlands: Ecology and Management*. CRC Press -Lewis Publishers. 616 p.

“Changes in Wetlands on the Nonfederal Lands of the United States from 1982-92”. Brady, S.J., J.C. Melanson, and J.J. Goebel. 1996. International Wetlands Conference. International Association of Ecology, University of Western Australia, Perth. Abstract available at <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

1992 NRI Wetlands data by state and region. Brady, S.J. 1997. Facts and supporting materials for NRCS uses. Download this information from <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

Regional Guidebook for the Hydrogeomorphic (HGM) Assessment of Temporary and Seasonal Prairie Pothole Wetlands Draft

The HGM approach to functional wetlands identifies several principles that are necessary in order to develop objective models of wetland function. The principles are hydrogeomorphic classification, reference wetlands in a reference domain and collection of scientific data to scale and verify the models.

Contact Mike Whited. Tel (402) 437-5178x37. Email wetsoil@aol.com.

Regional Wetland Flora Guides

Over the last eight years the NRCS Ecological Sciences Division, NTCs and Wetland Sciences Institute (WLI) have developed and distributed to NRCS field offices these fully illustrated guides to regional wetland flora for the West, Midwest, South and Northeast. The WLI staff has been involved in the development of each of the floras. Currently, with the exception of the Northeast flora, the publications are out of print. However, limited distribution of the *Northeast Flora* can be obtained by contacting Norman Melvin. Tel (301) 497-5933. Email norman_melvin@usgs.gov.

The Field Indicators of Hydric Soils in the United States

These Indicators were developed by soil and other scientists from the private sector, the Natural Resources Conservation Service, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Environmental Protection Agency, various regional, state and local agencies and universities. They were developed in response to a need for a more accurate and complete list of indicators to identify hydric soils in the field.

Contact Russ Pringle. Tel (504) 388-1337. Email rpring1@lsuvm.sncc.lsu.edu.

Wetland Hydrology Scope and Effect Web site

The Wetlands Sciences Institute (WLI) has established a cooperative agreement with the Agricultural Research Service's National Sedimentation Laboratory (NSL) in Oxford, MS, to develop a Website to assist the field in assessing wetland hydrology. This Internet site, with the scope and effect equations programmed for use without downloading, has been established and can be accessed at <http://www.sedlab.olemiss.edu/java/tools.html>

Wetlands Insight

This newsletter of the Wetlands Sciences Institute (WLI) brings customers up to date on WLI projects, products and services. *Insight* is published twice a year and contains the most recent information on relevant meetings, training sessions and WLI activities. *Insight* is mailed to states, regions, wetland and interdisciplinary teams and partners in the private sector and agencies. Contact Billy Teels. Tel (301) 497-5936. Email billy_teels@usgs.gov.

Wetland Technical and Information Series

In order to improve the technology linkage, the Wetland Science Institute is publishing a series of technical and information articles designed to assist the field in carrying out their wetland activities. The articles are summaries or examples of recently-developed wetland technology that will help state offices provide improved technical guidance and training and field offices to improve their wetland operations (e.g., delineations, restorations, assessments, etc.). The articles will be distributed to state offices. Further distribution of the articles will be at the discretion of the state, depending on the nature of the article and the appropriate level of application. Contact Billy Teels. Tel (301) 497-5936. Email billy_teels@usgs.gov.

Wildlife Habitat

Fisheries – Automated Information: This section lists products from an interagency project to make state-collected fisheries data available to analysts.

“The Multi-State Aquatic Resources Information System”. 1998. Beard, T.D., D. Austen, S.J. Brady, M.E. Costello, H.G. Drewes, C.H. Young-Dubovsky, C.H. Flather, T.W. Gengerke, C.Larson, A.J.Loftus, M.J. Mac. *Fisheries* 23(5):14-18.

“Multi-State Aquatic Resources Information System - Information Management for the Future”. 1997. Brady, S.J., C.H. Flather, and A. Loftus. Annual Meeting of the Soil and Water Conservation Society. Toronto, Canada. Abstract available at <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

Wildlife Habitat Inventories

This section lists products resulting from analysis of NRI data to make wildlife habitat interpretations for NRCS or interagency reports.

“Using the National Resources Inventory in Wildlife Habitat Assessments”. Brady, S. J. and C. A. Kertis. 1997. Pages 55-63 in H. R. Barrett (ed.) Proceedings: Organization of Fish and Wildlife Information Managers 5th Annual Conference. Reston, VA. Contact: sbrady@tasc.usda.gov.

“Range-wide Trends of Northern Bobwhite (*Colinus virginianus*): Land Use Patterns and Population Trends”. Brady, S. J., C. H. Flather, and K. E. Church. 1997. In Birkan, M., L. M. Smith, N. J. Aebischer, and P. Robertson (eds.) Perdix VII: International Symposium on Partridges, Quails, and Pheasants. Gibier Faune Sauvage 14: (in press).

“Grassland Nesting Birds and Agricultural Land Use Patterns”. In press. Brady, S.J. and C.H. Flather. Proceedings of the XXIIIrd Congress of the International Union of Game Biologists (September 1997). Gibier Faune Sauvage x:xx-xx. Abstract available at <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

“Using the NRI for Wildlife Habitat Assessment”. Brady, S.J. 1996. Midwest Pheasant Study Group, University of Illinois, Champaign. Abstract available at <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

“Bird Diversity and Agricultural Land Use Patterns”. Brady, S.J. and C.H. Flather. 1996. Soil and Water Conservation Society Annual Meeting, Keystone, CO. Abstract available at <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

“Wildlife Habitat Indicators”. Brady, S.J. 1996. Ecosystem Indicators Summit meeting convened for the “State of the Land” appraisal by NRCS staff in Washington, D.C. Summary available at <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

Wildlife Habitat Management

This section lists products from interagency projects of wildlife habitat analyses:

“Game Harvest Trends by NRCS Regions”. Brady, S.J. and C. H. Flather. 1997. <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

“An Analysis of Wildlife Resource Trends in the United States: A Technical Document Supporting the 1999 USDA Forest Service RPA Assessment”. Flather, C. H., S. J. Brady, and M. S. Knowles. Gen. Tech. Rep. PNW-GTR-xxx. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. xx p. In review, abstract available at <http://www.statlab.iastate.edu:80/survey/NRIAI/nriai.html>.

“Vegetation Maintenance to Restore Northern Bobwhite Quail Habitat” Technical Note

This note furnishes general information about the decline of the quail population and describes in detail a herbicide wiping technology that has been used effectively in the Southeast to control woody vegetation on ditch banks, field borders, pastures, roadsides and rights-of-way without annual mowing. This practice maintains quail habitat and may also reduce drainage ditch maintenance.

Contact Hank Henry. Tel (919) 515-4181. Email hank_henry@ncsu.edu.

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Grazing Lands Technology Institute

Larry Butler

Ft. Worth, Texas

(817) 509-3220

lbutler@ftw.nrcs.usda.gov

Information Technology Institute

Emil Horvath

Ft. Worth, Texas

(817)509-3221

ehorvath@ftw.nrcs.usda.gov

Natural Resources Inventory and Analysis Institute

Dean Thompson

Ames, Iowa

(515) 294-8177

deano@iastate.edu

Soil Quality Institute

Lee Norfleet, Acting Director

Auburn, AL

(334) 844-4741

norfleet@eng.auburn.edu

Social Sciences Institute

Frank Clearfield

Greensboro, North Carolina

(336) 334-7058

clearf@ncat.edu

Watershed Science Institute

Carolyn Adams

Seattle, Washington

(206) 616-5724

houston@geology.washington.edu

Wetlands Science Institute

Billy Teels

Laurel, Maryland

(301) 497-5938

billy_teels@usgs.gov

Wildlife Habitat Management Institute

Pete Heard

Madison, Mississippi

(601) 965-5886

lph@ms.nrcs.usda.gov

Natural Resources Conservation Service

Pearlie Reed, Chief

National Science and Technology Consortium

*Thomas A. Weber, Deputy Chief for
Science and Technology*

*Lee P. Herndon, National Consortium
Scientist and Director, Institutes Division*

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