WCC-40 Minutes

Meeting was held on October 7-8, 2002 at San Angelo, Texas. Members in attendance included:

Paul Tueller- Nevada, Neil West- Utah, David Pyke-USGS, Oregon, Kirk McDaniel- New Mexico, Rod Heitschmidt- ARS, Montana, Jim Jacobs- Administrative Advisor, Wyoming, Bill Barker-North Dakota, Steve Bunting- Idaho, Clayton Marlow, Montana,

Others in attendance:

Lance Vermier, ARS, Montana, Bruce Jones, EPA, Nevada

Members not in attendance included: Barbara Allen-Diaz, California; Larry Bryant, USFS; Dennis Child, Colorado; Mike Smith, Wyoming; Bill Krueger, Oregon; Linda Hardesty, Washington; Pat Johnson, South Dakota; Mort Kothmann, Texas; Maria Fernandez-Gimenez, Arizona.

Advisor's comments

Means to achieve better participation from the federal land management agencies was discussed. It was suggested that Dennis Thompson replace Larry Bryant as the Forest Service member.

Members need to get information on accomplishments and publications to Jim Jacobs.

State and agency reports

Paul Tueller (Nevada) discussed the current hiring freeze in effect at UNR and how it may affect the vacant positions. The Nevada Arid Rangeland Initiative (NARI) was described. The intent of the special grant is to initiate and coordinate research activities to address high priority issues and concerns relating to the management and protection of the public lands and natural resources of the Great Basin.

Bruce Jones (EPA) outlined the current focus areas of the EPA that are particularly related to western rangelands. Current programs include:

- Assessing nutrient and sediment loading models through remote sensing
- Reconstruction of historical conditions and assessment of landscape change in the San Pedro River Basin
- Grazing-drought-fire impact studies on the USDA-ARS Jornada Experimental Range
- Hyperspectral imagery on Sevietta LTER
- Riparian habitat assessment of the San Pedro River

Bill Barker (North Dakota) indicated that Kirby is interim department chair and they are currently searching for new chair. The College has changed its name to the College of

Agriculture, Natural Resources and Food Safety. Outside grants continue to be their primary source of research monies.

Rod Heitschmidt (ARS) reported that USDA-ARS Fort Keogh Livestock and Range Research Laboratory has recently hired new staff members and that they are adding an emphasis in weed ecology. They are hoping to begin an upgrade of the present facilities.

Clayton Marlow (Montana) said that they have recently been given approval to grant a PhD degree in animal and range sciences. Mike Tess has recently become the department head. Most range research is funded through collaborative efforts.

Neil West (Utah) indicated that reorganization of the College of Natural Resources has been completed and that range sciences is now included in the Department of Forestry, Range and Wildlife Sciences. They are now working through the effects of reorganization at the departmental levels. Much of their research is interdisciplinary in nature.

Dave Pyke (USGS-Oregon) said the program continues to grow slowly. A recent research plan for federal lands included within the Interior Columbia Basin Ecosystem Management Plan has been completed. He can be contacted for a copy of that document. They continue to work on research related to:

- Fire rehabilitation
- Intermountain restoration
- Global climate change
- Rangeland health issues

Kirk McDaniel (New Mexico) indicated that are currently recruiting for one position. The department has recently had two retirements and will likely lose one of those positions. Research emphases include:

- Riparian restoration of the Pecos River
- Rangeland restoration ecology
- Riparian ecology

Jim Jacobs (for Mike Smith, Wyoming) said that Ann Hild will re-sample Herb Fissure's exclosure sites (100-150 sites) located across Wyoming.

Steve Bunting (Idaho) reported that the current financial situation has resulted in a reorganization of the University colleges. Reorganization of the college may be necessary in the next year. A hiring freeze is now in place. The College of Natural Resources has a new dean (Steven Daley Laursen). Kendall Johnson will retire in December 2002. Research emphases are rangeland restoration, weed ecology, fire ecology, and riparian ecology.

Maria Fernandez-Gimenez (Arizona) submitted in absentia a written list of current research efforts at the University of Arizona.

Old business

NRCS and BLM representatives to WCC-40: The committee needs to take more initiative to see that the appropriate people are notified of the meeting. Jim Jacobs will contact federal people in relation to next year's meeting.

Updates on assessment, inventory and monitoring developments

- ARS has been developing a monitoring approach for ranchers. Is primarily a bottom approach to developing monitoring methodology. (Lynn James, coordinator)

- Sustainable Rangeland Roundtable (SRR) is developing a list of indicators for sustainable ecosystems. Will complete a report on project in near future. (Tom Bartlett, coordinator)

- Rangeland Environmental Assessment Program (REAP) is a SRM program with BLM support. Is developing a list of indicators if sustainable management. Program assumes that ranchers have a management plan from which they are working. They would request a consultant to do a 3-5 day assessment and to write the report.

- Heinz Report has been concluded and is available on the web (http://www.heinzctr.org/ecosystems/grass/index.shtml). Committee concluded that little data at the national level is available on which to determine an assessment.

- EPA is currently developing Best Management Practices for rangelands with regards to nutrients, toxics and sediments. A national rangeland assessment should be completed by the end of the year. They are also finding consistently collected data at the national level difficult to find.

New business

Election of officers- Bill Barker was elected as vice-chair/secretary. Steve Bunting will chair the meeting in 2003.

The next meeting will be held in Reno, NV on October 6-8, 2003. Paul Tueller will be in charge of local arrangements. This meeting will be held in conjunction with WCC-55. The primary focus of the meeting will be preparation for the WCC_40/WCC-55 sponsored symposium in 2004.

Dave Pyke discussed a survey that is being made to assess the potential protocols for evaluating the nation's rangelands. All members will receive a copy of this survey to complete and return.

Joint meeting with WCC-55

Discussed the format and subject of a WCC-40/WCC-55 jointly sponsored symposium to be presented at the Society for Range Management Annual Meeting in Salt Lake City in 2004.

Potential symposium subjects considered included:

- Assessment of rangelands from the local to national scale
- Social issues related to rangeland assessment
- Ecological and economic sustainable rangeland management

After some discussion it was decided to develop a symposium on "Societal Affects on Sustainable Rangeland management of Private and Public Lands". Clayton Marlow and Ers Kreuter will coordinate the symposium. An initial presentation of the symposium will be given at the next WCC-40/WCC-55 meeting in Reno, NV in October 2003.

Reports from Arizona, New Mexico State University, University Nevada-Reno, and North Dakota State University were distributed at the meeting. Reports from USDA ARS Fort Keogh LARRL Miles City are incorporated into accomplishments and publications.

Following is the report from Oregon State University-Oregon Invests! the accountability database of the OSU College of Agricultural Sciences [Environmental/Economic/Social Profiles are on a scale of -3 to +3. A blank means that category is not applicable in this case.]:

Alternative Winter Management of Beef Cattle
DelCurto, Timothy, Animal Sciences, Eastern Oregon Ag Res Cntr
Vavra, Martin, Rangeland Resources, Eastern Oregon Ag Res Cntr
Environmental: 1 Economic: 3 Social:
The project evaluates alternatives to costly, traditional hay growing for winter cattle feeding, including stockpiled forage (i.e., deferred grazing) and use of crop residues (e.g., grass seed straw). Various supplementation strategies to optimize intake and utilization of low-quality forages are tested.

Cattle Grazing Dispersion Methods and Riparian Ecosystems
DelCurto, Timothy, Animal Sciences, Eastern Oregon Ag Res Cntr
Vavra, Martin, Rangeland Resources, Eastern Oregon Ag Res Cntr
Tanaka, John A., Ag & Resource Economics, Eastern Oregon Ag Res Cntr
McInnis, Michael L., Rangeland Resources, Eastern Oregon University
Environmental: 3 Economic: -1 Social: 2
Improved cattle dispersion techniques are being investigated with the goal of protecting riparian areas. Alternative management strategies are evaluated both for their effect on cow/calf weight, condition, and reproductive efficiency and for their potential reduced impact on riparian ecosystems. The project is also studying grazing systems that promote more uniform herd distribution by using forested rangelands.

Business Management for Oregon Dairies
Gamroth, Michael, Animal Sciences, Campus
Gangwer, Mike I., Animal Sciences, OSU Extension Marion County
Downing, Troy, Animal Sciences, OSU Extension Tillamook County
Peters-Ruddell, Amy, Rangeland Resources, OSU Extension Coos County
Environmental: 1 Economic: 3 Social: 1
This program provides education and tools to make wise economic decisions that are interrelated with good stewardship in dairy farming. One important tool is a computer spreadsheet program that allows farmers to compare the costs of farm-grown blended commodities with commercially produced feed.

Feedlot Trials
Mills, Randy, Animal Sciences, OSU Extension Umatilla County
Knutson, Devon, Animal Sciences, OSU Extension Malheur County
Carr, Jay, Animal Sciences, OSU Extension Baker County
Zollinger, William, Animal Sciences, Campus
Broderick, Bill , Rangeland Resources , OSU Extension Morrow County
Environmental: Economic: 3 Social:
This program familiarizes producers with marketing options beyond the ranch gate by giving them the opportunity to retain ownership of a representative sample of their calves through the feedlot stage. The program also keeps and analyzes feedlot and carcass data and reports results back to producers, allowing them to understand the advantages of retained ownership.

Extension Water Quality
Miner, Ron, Bioengineering, Campus
Buckhouse, John, Rangeland Resources, Campus
Sullivan, Dan M., Crop & Soil Science, Campus
Godwin, Derek, Bioengineering, OSU Extension Marion County
Minshew, Hudson, Crop & Soil Science, OSU Extension Marion, Polk & Yamhill
Glick Andrews, Gail, Bioengineering, Campus
Burris, Frank, Fisheries & Wildlife, OSU Extension Curry County
Holbert, Mary, Fisheries & Wildlife, OSU Extension Lincoln County
Lambert, Beth, Fisheries & Wildlife, OSU Extension Tillamook County
Gamroth, Michael, Animal Sciences, Campus
Environmental: 3 Economic: 2 Social: 2
This program is an integrated research, education and Extension effort in Oregon and the Pacific Northwest. Supported by research, the program educates homeowners, farmers, ranchers, and dairies about ways to protect well water supply, manage cattle near riparian zones, adjust nutrient application rates, improve animal management in the Tualatin Basin, and reduce fecal coliform in Tillamook Bay.

Alfalfa and Forage Production Trials in Central Oregon

Bohle, Mylen, Crop & Soil Science, Central Oregon Ag Research Cntr
Clark, Donald R., Crop & Soil Science, Klamath Experiment Station
Deboodt, Tim, Rangeland Resources, OSU Extension Crook County
Hannaway, David B. , Crop & Soil Science, Campus

Environmental: 1 Economic: 3 Social:

Among the many research and demonstration projects are alfalfa variety, seeding rate, and fall dormancy trials; potassium and sulfur rate effects on alfalfa production; sulfur effects on soil PH, species composition, and forage production; and dryland agro/eco-zone grass legume species tests. trials help farmers optimize their planting and maintenance decisions subject to their particular situations.

Protecting Groundwater While Optimizing Nitrogen Applications for Forage

Hart, John, Crop & Soil Science, Campus
Pirelli, Gene, Animal Sciences, OSU Extension Polk County
Porath, Marni , Rangeland Resources, OSU Extension Lake County
Bohle, Mylen, Crop & Soil Science, Central Oregon Ag Research Cntr
Carr, Jay, Animal Sciences, OSU Extension Baker County
Downing, Troy, Animal Sciences, OSU Extension Tillamook County
Filley, Shelby , Crop & Soil Science, OSU Extension Douglas County
Peters-Ruddell, Amy, Rangeland Resources, OSU Extension Coos County

Environmental: 2 Economic: 3 Social: 1

This study focuses on the timing of nitrogen fertilizer application using the "T-Sum 200 method." The recommendation is that the initial nitrogen be applied when the cumulative air temperatures above 0ºC from January 1 reach a total of 200ºC. This method is being tested in various climatic regions of Oregon, including high rainfall, frozen soil/cold, and drier/warmer climates.

Evaluating Methods to Control Blackberries and Establish Native Vegetation in Riparian Areas

Minshew, Hudson, Crop & Soil Science, OSU Extension Marion, Polk & Yamhill
Bennett, Max , Crop & Soil Science, OSU Extension Jackson County
White, George R., Rangeland Resources, Southern Oregon Res & Ext Cntr

Environmental: 2 Economic: 1 Social:

This study proposes to test the effectiveness of goat browsing on the invasive blackberry shrub with its low-density, shallow root system, that offers no streambank protection in riparian areas, crowds out native vegetation, and prevents the establishment of newly planted riparian trees.

Seed Production of Native Rangeland Plant

Sexton, Peter, Crop & Soil Science, Central Oregon Ag Research Cntr
Doescher, Paul S., Rangeland Resources, Campus

Butler, Marvin, Crop & Soil Science, Central Oregon Ag Research Cntr
Environmental: 2 Economic: 2 Social:
This project seeks to increase seed of promising local ecotypes of native range plants, identify methods of weed control for these new seed crops, and find optimum planting dates for several grasses of interest. The work will not only help rangeland restoration efforts where seed is in short supply, but also may provide an alternative crop for central Oregon farmers.

Rangeland and Watershed Management

Borman, Michael, Rangeland Resources, Campus
Deboodt, Tim, Rangeland Resources, OSU Extension Crook County
Environmental: 3 Economic: 2 Social: 2

The Rangeland and Watershed Management working group is developing a database of temperatures on selected streams, learning how to identify the natural rate and extent of temperature fluctuations, focusing on stewardship in management with respect to both watershed functions and riparian influences, and working with those who develop regulations. It also provides riparian assessment training and a weed education program.

Rangeland Resources Extension

Borman, Michael, Rangeland Resources, Campus
Buckhouse, John, Rangeland Resources, Campus
Krueger, William C., Rangeland Resources, Campus
Environmental: 3 Economic: 3 Social: 2

The program addresses natural resource issues, including water quality, improved grazing monitoring, and juniper management. It provides essential input to the DEQ (water quality standards), the BLM (grazing standards and guidelines), the Cattlemen's Association (watershed education), and the Coordinated Resource Management Planning Group (resolving conflicts).

Watershed Research on Oregon's Rangelands

Buckhouse, John, Rangeland Resources, Campus
Environmental: 3 Economic: 3 Social: 1

This project concentrates on erosion potential, erosion prevention, streambank sloughing, and water quality as related to vegetation/soil complexity and land use management strategies, on the semiarid rangelands of eastern Oregon. It provides Oregonians and others with scientifically-based information on watershed relationships, while offering a baseline for riparian management and grazing strategy throughout the West.

Mobile Solar-Powered Livestock Management

Chamberlain, David J., Rangeland Resources, OSU Extension Harney County
Environmental: 3 Economic: 2 Social: 2

This program is demonstrating the use and effectiveness of strategically located mobile solar-powered livestock watering and temporary electric fencing system to divert livestock away from

some overused riparian areas north of Burns in Harney County. So far, the system is proving successful and cost effective on one large ranch in the area.

Hybrid Poplar Growth Study

Deboodt, Tim, Rangeland Resources, OSU Extension Crook County
Fitzgerald, Stephen, Forest Resources, OSU Extension Central Oregon Region
Crowe, Fred, Botany & Plant Pathology, Central Oregon Ag Research Cntr
Environmental: 2 Economic: 2 Social: 1

The purpose of the project was to demonstrate hybrid poplars for logs (not pulp) as a possible alternative crop for area growers. Careful records were kept. Results are being conveyed to producers interested in growing poplars. It is particularly important to make them aware of the problems and challenges that were encountered.

Physiological Ecology of Native Species for Restoring Degraded Rangelands

Doescher, Paul S., Rangeland Resources, Campus
Svejcar, Tony, Rangeland Resources, Eastern Oregon Ag Res Cntr
Miller, Richard F., Rangeland Resources, Eastern Oregon Ag Res Cntr
Environmental: 3 Economic: 2 Social: 1

This project evaluates various native plant species (e.g., Idaho fescue, squirrel tail) for their suitability in revegetating deterioriating range and forestlands, i.e., for their ability to compete with weeds, tolerate grazing, and restore themselves on these lands.

Ecology and Restoration of Southwestern Oregon Foothill Rangelands

Johnson, Douglas E., Rangeland Resources, Campus
Borman, Michael, Rangeland Resources, Campus
Environmental: 3 Economic: 2 Social: 2

This project is studying the nonnative, aggressive annual weeds that are detrimental to forage available for livestock and wildlife and threaten native plant communities. With a focus on improving southwestern Oregon rangelands, the goal is to find native or naturalized plant species that, under the right conditions, can be used for range improvement and restoration.

Restoration of Native Plant Diversity on Deteriorated Semi-Arid Rangelands

Krueger, William C., Rangeland Resources, Campus
Miller, Richard F., Rangeland Resources, Eastern Oregon Ag Res Cntr
Svejcar, Tony, USDA-ARS, Eastern Oregon Ag Res Cntr
Larson, Larry, Rangeland Resources, Eastern Oregon University
McInnis, Michael L., Rangeland Resources, Eastern Oregon University
Kiemnec, Gary, Crop & Soil Science, Eastern Oregon University
Perry, Dave, Forest Science, Campus

Winner, Bill, Botany & Plant Pathology, Campus
Eddleman, Lee E., Rangeland Resources, Campus
Environmental: 3 Economic: 2 Social: 1

The goal of this 10-year research project is to improve the vegetative diversity of some 7 million acres of BLM land in the Great Basin and Columbia Plateau. It is critically important to discover appropriate methods to restore these lands, particularly in the face of increasingly harsh climatic regimes.

Water and Land Relationships across Oregon's Ecological Provinces

Krueger, William C., Rangeland Resources, Campus
Stringham, Tamzen K., Rangeland Resources, Campus
Environmental: 3 Economic: 2 Social: 2

This project consists of many studies of stream conditions and their relationship to surrounding land (and agriculture) across Oregon's diverse ecological provinces. Basic studies include stream morphology, shade effectiveness, and thermal environment. Management strategy studies include irrigation and water temperature, land use and water temperature, riparian pastures in the Willamette Valley.

Eastern Oregon Rangeland Weed Research

Larson, Larry, Rangeland Resources, Eastern Oregon University
Kiemnec, Gary, Crop & Soil Science, Eastern Oregon University
McInnis, Michael L., Rangeland Resources, Eastern Oregon University
Environmental: 2 Economic: 3 Social:

This project studies the ecology of rangeland weeds and develops information and technology for their management. One approach is to make use of the competitive ability of desirable vegetation to limit encroachment of weed species. Demonstration areas and research results train landowner groups, while presentations inform various land management agencies.

Environmental and Management Impacts on Eastern Oregon Stream

Characteristics
Larson, Larry, Rangeland Resources, Eastern Oregon University
Borman, Michael, Rangeland Resources, Campus
Environmental: 2 Economic: 3 Social: 2

Well over half of Oregon's 14,000 listed stream miles are listed for exceeding the current water temperature standard. This project is conducting field experiments designed to partition the natural from the anthropogenic contributions found within eastern Oregon's stream water quality patterns. Initially, the research is looking at the potential influences of elevation and thermal environment on stream temperature.

Facilitative Grazing Management

McInnis, Michael L., Rangeland Resources, Eastern Oregon University
Vavra, Martin, Eastern Oregon Ag Res Cntr

Larson, Larry, Rangeland Resources, Eastern Oregon Ag Res Cntr
Environmental: 2 Economic: 2 Social:
Approaches to grazing large herbivores that enhance sustained productivity of rangeland ecosystems while optimizing livestock production outputs are being sought. The possibilities for desirable and undesirable seed dispersion by grazing animals are being tested, as well as their potential for weed control. So far, testing is still being done in the digestive ability lab.

Ecology and Management of Western Juniper in Oregon

Miller, Richard F., Rangeland Resources, Eastern Oregon Ag Res Cntr
Eddleman, Lee E., Rangeland Resources, Campus
Environmental: 2 Economic: 0 Social: 2

This long-term research project stems from concerns about the rapid expansion of western juniper onto other types of rangeland, the associated decline in forage resources for livestock, and potentially adverse effects on watershed function. Various experiments that involve cutting juniper and observing vegetative responses over time are being conducted throughout eastern and central Oregon.

History, Ecology, and Management of Western Juniper and Associated Shrub Lands

Miller, Richard F., Rangeland Resources, Eastern Oregon Ag Res Cntr
Eddleman, Lee E., Rangeland Resources, Campus
Svejcar, Tony, USDA-ARS, Eastern Oregon Ag Res Cntr
Bates, Jon , Rangeland Resources, Eastern Oregon Ag Res Cntr
Environmental: 3 Economic: 1 Social: 1

This project will describe the 20th century expansion of western juniper and determine its causes; evaluate the impacts of newly developed juniper woodlands and the effects of juniper removal on resource values; and develop a GIS information base to relate various site factors to juniper growth rates, invasion potential, erosion potential, and plant community structure.

Agroforestry Systems for Western Oregon

Sharrow, Steven H., Rangeland Resources, Campus
Environmental: 3 Economic: 3 Social: 1

Under this project, forest plantation uses sheep for brush control and wildlife habitat enhancement; farm forestry grows timber in improved pasture grazed by sheep; multipurpose hardwood trees are grown for nitrogen-fixation and to increase forage production; and fast-growing hybrid pines grown in pastures may cut the timber rotation cycle by half.

Alternative Grazing Sytems for Improved Pastures in Western Oregon

Sharrow, Steven H., Rangeland Resources, Campus
Environmental: 2 Economic: 3 Social:

This project developed production systems that efficiently use sheep (and other livestock) to convert forage into products while maintaining high pasture productivity. The rotational grazing system was refined using mathematical models that determined the effects of grazing frequency, animal density, and grazing duration on forage production.

Forage Conditioning of Grasses with Livestock

Vavra, Martin, Rangeland Resources, Eastern Oregon Ag Res Cntr
Ganskopp, David , USDA-ARS, Eastern Oregon Ag Res Cntr

Environmental: 2 Economic: 1 Social: 1

Prescribed grazing management (grazing cattle until just enough soil moisture remains to allow re-growth) improves forage for wild ungulates. less mature re-growth retains its nutrient quality better into the fall and winter than do ungrazed pastures.

Integrated Production Alternatives (Timber and Red Meat) in the Blue Mt. Province

Vavra, Martin, Rangeland Resources, Eastern Oregon Ag Res Cntr
Miller, Richard F., Rangeland Resources, Eastern Oregon Ag Res Cntr

Environmental: 3 Economic: 3 Social:

Relationships among timber production, livestock grazing, wildlife and big game, and changes in plant communities for the inland forests of the Pacific Northwest are defined. Alternative production potentials are studied under various ecological and production constraints. Current work examines the influence on herbivory following logging entries in ponderosa pine and grand fir plant communities.

Livestock Use of Sagebrush, Juniper/Steppe Habitats of Eastern Oregon

Vavra, Martin, Rangeland Resources, Eastern Oregon Ag Res Cntr
Ganskopp, David, Rangeland Resources, Eastern Oregon Ag Res Cntr
Bohnert,David W., Animal Sciences, Eastern Oregon Ag Res Cntr

Environmental: 2 Economic: 1 Social: 1

To identify parameters in the physical environment that influence cattle distribution on rangelands, three pastures are being mapped. GIS and GPS technology will determine preferred grazing areas and elucidate the reasons they are preferred. Results can be used in developing more environmentally-friendly grazing management plans.

Grazing Trials: Continuous vs. Rotational Grazing Systems

White, George R., Rangeland Resources, Southern Oregon Res & Ext Cntr
Roseberg, Richard J., Crop & Soil Science, Southern Oregon Res & Ext Cntr

Environmental: 1 Economic: 2 Social:

Because of pressure on livestock producers using irrigated, cool season pastureland to increase their per acre forage production, the Southern Oregon Research and Extension Center

conducted a two-year trial comparing continuously grazed to rotationally grazed irrigated pasture. Results show that the rotationally grazed system was easier on the land and more economically profitable, despite its higher costs.

Educational Programs for Livestock Feeding Operations

Williams, John, Rangeland Resources, OSU Extension Wallowa County
Carr, Jay, Animal Sciences, OSU Extension Baker County
Mills, Randy, Animal Sciences, OSU Extension Umatilla County
Broderick, Bill , Rangeland Resources , OSU Extension Morrow County
Moegenburg, Eric , Oregon Department of Agriculture

Environmental: 2 Economic: 2 Social: 1

In spring 2000, OSU Extension agents began offering educational meetings to ranchers who have confined-animal feeding operations. In the process, developed tools that include a white paper, presentations, video tape, and educational display. They are continuing with these educational presentations statewide, as well as into some Washington and Nevada locales.

Wallowa County Nez Perce Tribe Salmon Habitat Recovery Plan and Multi-Species Habitat Strategy

Williams, John, Rangeland Resources, OSU Extension Wallowa County

Environmental: 3 Economic: 1 Social: 2

OSU Extension is a partner in implementing the Wallowa County Nez Perce Tribe Salmon Habitat Recovery Plan. The work in Wallowa County includes over 400 watershed projects. A computer-generated slide show raises awareness about the problems and approaches to solving them. Beyond the county, cooperative workshops help county governments in four states respond to, and work with, federal agencies.