ing toward the goal and objective of taking care of our rangeland resources.

Society Emblem and Motto

I have always been intrigued by the Society emblem, "*The Trail Boss*," and how it became the official emblem and motto of the Society. In the 1949 Annual Report to the Society, the

Secretary suggested a need for an emblem and motto. When Frederic Renner received a typewritten copy of the program for the 1950 Annual Meeting for printing, he responded. Renner attached a photograph of Charles M. Russell's drawing of "*The Trail Boss*" to the program instructing the printer to reproduce it in the center of the printed program cover. The 1950 program with the *The Trail Boss* drew favorable attention and permission was obtained from Renner to use it as the Society emblem. *The Trail Boss* was registered in the office of the Commissioner of Patents as the official trademark of the American Society of Range Management. Renner, who was an authority on Russell's life and work, felt the drawing expressed qualities which were particularly appropriate to the newly formed Society. Importance of strong leadership, the necessity of all hands working together, and a willingness to travel uncharted trails.

The Texas Section of the SRM

A Sample of Highlights and Women's Contributions

Currently there are 20 sections within the Society and the Texas Section is one of the largest with more than 500 members. Organized in 1950, Harold F. Heady was elected as the first chairman. By 1954 there were 159 members and the section published their first newsletter. The first Youth Range Camp was held in Junction, Texas in August 1955 with A.H. Fred Walker and R.Q. Jake Landers, Jr. as camp directors; 14 boys attended. In 1958, the Texas Section recognized V. A. Young, Head of the Range and Forestry Department, Texas A & M, for his "Outstanding Contribution to Range Management." Through the years the section's highest award has been given to ranchers, agency personnel, researchers and teachers.

Two Texas Section women have been recipients of the Outstanding Young Range Professional Award. Melony C. Sikes, who was Soil Conservation Service Range Conservationist, from Hondo, was presented the Outstanding Young Range Professional Award during the 1995 Annual Meeting. Sikes was active on numerous Texas Section committees and served as editor of the section newsletter Grassroots. In 1996, Dr. Karen Launchbaugh, Lubbock, received the same award during the 1996 SRM Annual Meeting in Wichita, Kansas. Launchbaugh was an assistant professor at Texas Tech University for more than three years, where she taught range management courses and was a coach for the range plant identification team. She has recently moved to the University of Idaho where she is an assistant professor.

Another Texas section member Colleen Schreiber, Ag Editor for the West Texas Livestock Weekly, San Angelo, currently serves as a director on the Board.

During the 1995 SRM Annual Meeting, in Phoenix, Texas section member Jenny Pluhar was presented the Fellow Award which is bestowed upon members in recognition of exceptional service to the Society and its programs. Pluhar, a range consultant, lives with her family in Canyon, Texas, was the first woman member of the Texas Section Board of Directors and she currently serves as secretary. She also serves on the editorial board for the SRM publication *Rangelands*. An active society member for 16 years, she has served on numerous society and section committees as a member and chairperson: with youth as a director at the Texas Section Youth Range Workshop, and the Society's Student Affairs Committee. Under her direction and leadership, the SRM Masonic Scholarship was initiated and continues to grow in prestige. The student-professional interaction, *Tapping the Top*, was her brainchild and is a program that matches students with professionals in their field of interests. Pluhar's work with the High School Youth Forum, Plant Identification and Undergraduate Range Management Exams, and awards given by various federal agencies to winners in these events, are all examples of her other efforts. She is a volunteer 4-H leader and plant team coach. She coauthored the book entitled *Texas Range Plants*, which was written to assist 4-H, FFA, and others with identification of range plants economically important to Texas rangelands.

Jan (Duck) Wiedemann has been a member of the Society for Range Management since 1977, has served as Administrative Assistant in the Denver headquarters office, and was Executive Secretary (Acting) 1982–1983. She has been Archivist for the Texas Section since 1988, serves on the SRM History, Archives, and Library Committee and is currently on the Rangelands Editorial Board. Wiedemann lives in Vernon, Texas and is currently assisting in writing a 25-year history of the Vernon Regional Junior College. Her B.S. in Secondary Education is from Oklahoma State University.

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Jan Wiedemann currently serves on the Editorial Board of *Rangelands*

BUILDING ON OUR HERITAGE

Omaha, Nebraska 1999

Cooperation in the Great Plains

Doug Whisenhunt

The History:

The matrix plant community of the Nebraska Sandhills is mixed grass prairie that overlies 20,000 square miles of sand dunes in north central Nebraska. The region is dissected by several major river systems and is home to innumerable lakes, streams and wetlands, sporting a proliferation of associated floral and faunal communities. Some of the unique expressions of the hydrological components of the Sandhills are wetlands with peat soils called **fens**.

A fen has organic soils composed of peat and muck accumulated over thousands of years. Peat consists of partially decomposed plant roots, stems, and leaves. Muck originates from similar material, but is more highly decomposed. The high organic content of these soils helps distinguish fens from marshes and wet meadows, which occur mainly over mineral soils. Fens are supplied by groundwater that, having passed through mineral soils is rich in nutrients. This provides a more flora friendly environment and allows development of highly diverse plant communities. Fern thickets, sedge mats, shrub thickets, cattails, bulrushes, common reed, and prairie cordgrass are all natives of the fens. Cottongrass (*Eriophorum polystachion*), and buckbean (*Menyanthes trifoliata*), are two of the twelve species considered rare in Nebraska that are components of fen communities.

These areas of lush vegetation have historically attracted the attention of local ranchers. Noting the high productivity of the organic soils, many landowners endeavored to drain the fens to facilitate hay and forage production. Ditching to regulate the water level has been used with varying degrees of success, often dependent on the local hydrology. On many fens, intentional introduction of high-producing exotic forage species, mowing, and lowering of the water level has degraded the native and rare plant communities significantly.

The dynamics of ditching the fens aren't well understood, but have been compared to cutting a trench in a sponge that is suspended in a pan of water. Even after ditching, haying and grazing are difficult and time consuming, resulting in marginal economic benefits. Sandhills ranchers as a whole are arguably some of the best land managers in the world, possessing a strong sense of regional pride, stewardship, and a genuine interest in the welfare of the land. Many ranchers hold these wetlands in high regards, and few want to see them completely dried up, both because of a loss of forage and hay value and a loss of wildlife habitat. A growing awareness of the uniqueness of Sandhills fens by the scientific and conservation communities, and a corresponding interest in compatibility of fens with livestock operations by the ranching industry provides a climate ripe for cooperative conservation projects on these sites.

The Nature Conservancy is an international, non-profit, private conservation organization dedicated to maintaining the biodiversity of our environment through habitat preservation. The Nebraska chapter recognized the need and opportunity to cooperate with private landowners to restore and research Sandhills fens. To this end, State Director Vince Shay approached the **Sandhills Task Force**. The Sandhills Task Force is an interacting group of landowners and government personnel brought together by the Nebraska Cattlemen and the U.S. Fish and Wildlife Service to address the resource management needs of the Sandhills. The Sandhills Task Force

Beaver dams are natures contribution to the project

and The Nature Conservancy have formed a working partnership and acquired the Jumbo and Pullman Valley Sandhills fens in south central Cherry County [figure 1]. The acquisition of the property was made possible by a grant from the **Nebraska Environmental Trust Fund**, an entity that redistributes a portion of the proceeds of the Nebraska lottery to conservation activities in the state.

The Project:

- The goals of the project are to:
- Acquire and restore two Sandhills fens
- Use this project as a research vehicle to ascertain the compatibility of restored fens with modern Sandhills livestock operations
- Explore alternative uses of restored fens that provide comparable economic return to producers
- Quantify the economic loss incurred by producers if conservation or user groups restore a fen to allow possible compensation
- Return the land to private ownership with easements in place to protect the restored fens
- Establish a Sandhills Conservation Fund to be used by the Sandhills Task Force to engage in additional regional conservation activities

The Jumbo Valley Preserve lies approximately 30 miles north of Whitman, Nebraska, in south-central Cherry County [figure 1]. The fens on this ranch are approximately 300 acres each, with the Jumbo Valley Fen lying in Jumbo Valley, just to the north of the Pullman Valley Fen, which lies in Pullman Valley [figure 2]. The Jumbo is fed on the West End by Mud Creek and exits the fen on the East

Explaining a Vibra-core sample.

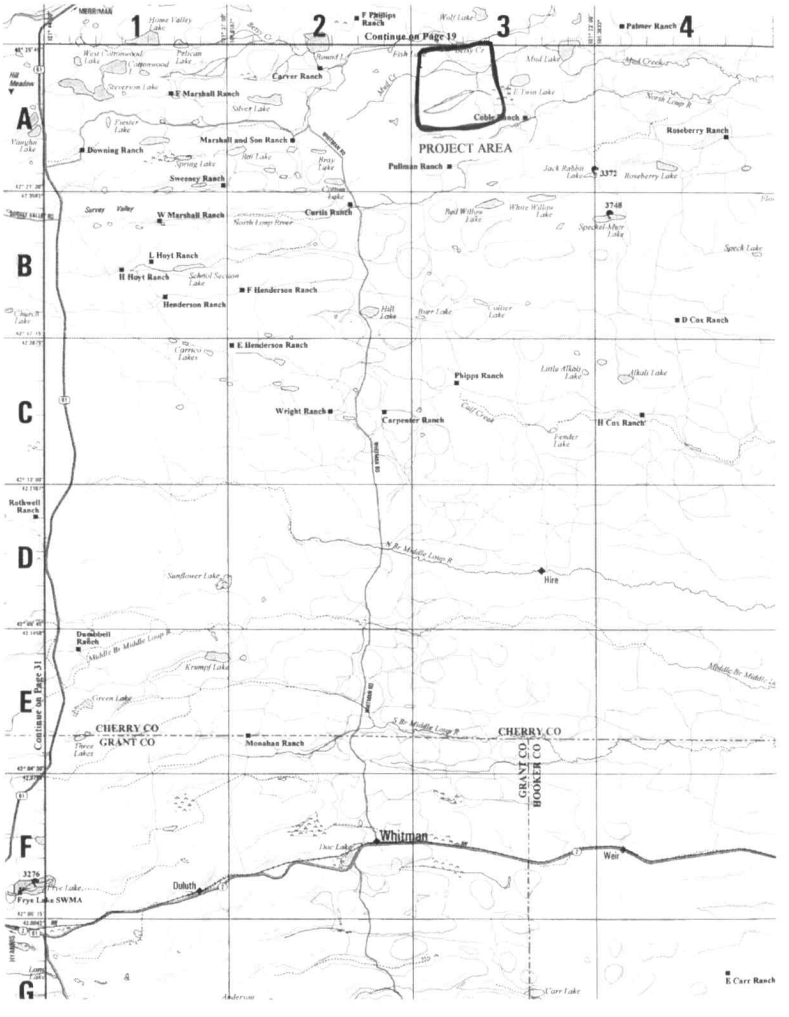

Fig. 1. *Map to Jumbo Valley*

End of the valley. It is joined here by the out-flow from the Pullman, and the combined flow enters Mud Lake and eventually feeds the North Loup River. The Pullman Fen has no apparent overland source and is thought to be fed exclusively from groundwater. A large dune lies between the two fens. The Nature Conservancy acquired the 3,827-acre ranch and its two fens, immediately reselling 1,100 acres not involved in the project. The proceeds of this and the eventual sale of the project site will be used to establish the **Sandhills Conservation Fund**. The grazing and haying rights of remaining property are being leased to neighboring ranchers Stan Huffman and Glen Coble and Sons, with the generated revenue being applied to research and restoration expenses.

Biological Inventory and Monitoring:

The project is currently in the second year of its projected five-year duration. Baseline data have been or are being gathered from various components to facilitate assessment of current conditions, and allow tracking of the system's responses to the restoration efforts. Future monitoring will provide data on these responses.

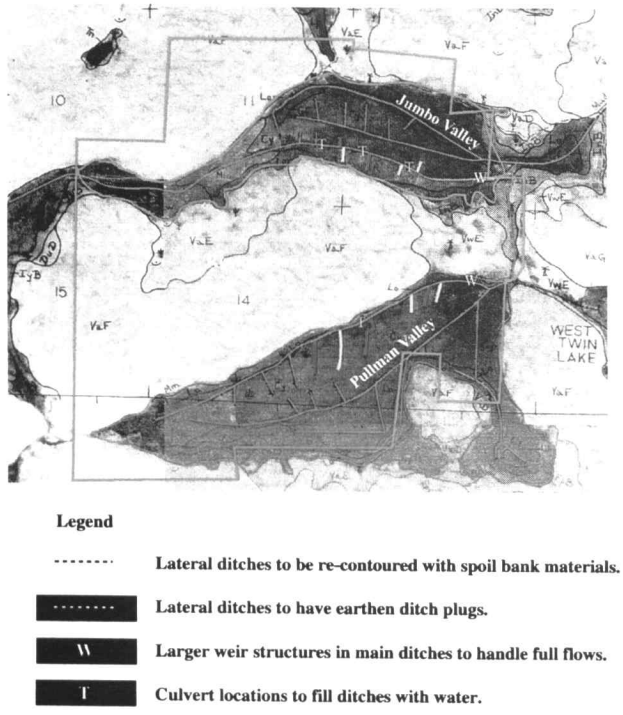

Fig. 2. *Jumbo Valley Preserve*

Vibra cores, soil pits and ground-penetrating radar are being used to map the depth and distribution of sand layers within peat deposits. This will provide information about the past climates and weather events associated with the development of the fens. The area is being monitored for pre- and post-restoration water levels, water chemistry, and water sources in the system. This will give us insight into the hydrological interrelations of the current situation and monitor any changes caused by restoration of the fen. To facilitate this study, samples are being collected from 29 shallow and six deep well pizeometer clusters installed for this purpose. Existing windmills and flows are also being sampled in this effort. Baseline survey data is being collected for livestock forage, breeding birds, and American burying beetles. Additional research efforts include, recording the changes in the livestock forage base during fen restoration, classification and description of the pre-restoration plant communities, description of the population characteristics and habitat abundance of several state listed fish species, and the diversity of *Odonata* [dragon/damselflies] in the fens.

A high-resolution, pre-restoration image of plant communities is being formed through aerial photography, and the preserve is being surveyed for the federally threatened Western prairie white-fringed orchid. A range inventory of the associated uplands is also being conducted. The original data collection process will be duplicated at appropriate intervals for all studies that remain germane to the project.

Restoration:

The Nature Conservancy and the Sandhills Task Force convened a fen restoration team of project researchers, state, federal and private biologists and land managers, federal engineers, and local ranching partners to address the issues accompanying the proposed restoration of the fens. The following strategies are the core team's interpretations of the input gathered from the meeting.

Hydrology:

Implement active restoration on both fens by a series of small control structures along the south ditch of Jumbo Valley, and the north ditch of Pullman Valley. Plug one or more laterals connected to the controlled ditches in the Jumbo and Pullman Valleys, alternated with re-contoured ditches to allow comparison of the two reclamation methods. The fill material for the plugs

Erecting a protective structure around a pizeometer.

Using geographical positioning system (GPS) to map the project site.

and contours will be the existing spoil piles from the ditches. A plug will be 50 to 100 feet long, while recontouring will mean to fill the entire ditch.

Beaver will not be introduced to increase the damming activity of the fens, but existing and pioneer populations will not be hampered.

Vegetation:

The vegetative component of the system will be managed to encourage increase of the species characteristic of the Sandhills fens and will involve expanding native populations while suppressing non-native species. Fire, grazing, and haying will be the primary management tools.

Part of the project team.

By adhering to this restoration method, we will be able to:

- Complete the monitoring necessary to validate our research studies while minimizing impacts on the current haying and grazing practices
- Measure the influence of local dunes on the fen hydrology
- Control the rate of hydrologic change rather than risk potentially cataclysmic flooding of the fen systems

After restoration, the remaining portion of the preserve will be sold back to the neighboring ranchers with conservation easements in place. These easements will be designed to prevent future ditching, and preserve the integrity of the fens. The proceeds of this sale will be put into the Sandhills Conservation Fund to be redistributed by the Sandhills Task Force for additional conservation projects in the Sandhills. This type of project is The Nature Conservancy's long-term vision for most conservation actions in the Sandhills. The ranching community retains fee ownership of the lands, and the objectives of the conservation community are served. The Sandhills Task Force plays a vital role in the area through providing leadership that promotes good resource management and forges an important link between the ranching and conservation interests.

This project serves as a model of cooperation between private landowners, private conservation groups, state and federal agencies, and research institutions. This scenario creates a win-win situation where each entity, by working cooperatively as a team, accomplishes its individual goals, and the collective goals of the group.

Author is with the Nature Conservancy, Western Nebraska Projects Office, North Platte, Nebraska.