FINAL REPORT FOREST SERVICE GRANT NO. 05-DG-11020000-063

Period covered by this report: July 15, 2005 through December 31, 2006

NOTE: Please review the following information and revise/complete as necessary.

Issued to: Trees, Water, & People

Address:633 Remington, Fort Collins, CO 80524

Congressional District Number: 4

Project Name: Honoring Mother Earth: Engaging Native Americans in Community Reforestation

Contact Person/Principal Investigator: Name: Richard W. Fox Mailing Address:Same as above Phone Number: (970) 484-3678 Fax Number: (970) 224-1726 E-mail Address: richard@treeswaterpeople.org

Your Organization's internet home page address:

Date of Award: July 15, 2005

Grant Modifications: N/A

Date of Expiration: September 30, 2006

Funding: Federal Share: \$24,157 plus Grantee Share: \$24,157 = Total Project: \$48,314

FS Grant Manager: Susan Ford

Address:USDA Forest Service, State & Private Forestry, P.O. Box 25127, Lakewood, CO 80225 Phone Number: (303) 275-5742Fax Number: (303) 275-5754E-mail: <u>sbford@</u> <u>fs.fed.us</u>

Please provide an abstract on your project and its results. This abstract will be posted on the NUCFAC internet site. (approximately 200 words or less).



Trees, Water & People

Helping communities establish sustainable forests and watersheds

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Honoring Mother Earth

Planting Windbreak and Shade Trees on Native American Communities

Abstract:

Trees, Water & People has been working on the Pine Ridge reservation in South Dakota for five years. During that time we have organized four community tree planting programs and are working on our fifth.

The winters there are long and bitter with a fierce north wind that sometimes forms ice *inside* Lakota family's homes. The summers are extremely hot and most of the homes have no shade trees.

Many Lakota live in substandard homes or trailers unsuited for the extreme weather found on the northern Great Plains. They spend an exorbitant amount of their income on their utility bills, often foregoing food or medicine in order to just stay warm and survive.

TWP works to improve their lives by helping them to reduce their utility bills, and providing them with more livable homes by planting trees as family windbreaks, installing solar heat systems and educating them to integrate renewable energy tools and techniques into their lives and cultural traditions.

Our NUCFAC funded project allowed us to document our tree planting program and distribute the resulting workbook, video and resource guide to other tribes and organizations throughout the Great Plains in order to stimulate additional Native American tree planting programs.

Project Objectives:

• To create and distribute an audio-visual workshop that was specifically designed for Native American reservation communities and took into consideration and highlighted their traditional cultural beliefs and how they support community tree planting efforts.

The *goals* of this workshop are:

- To educate reservation communities in the practical fundamentals of community forestry, specifically how to:
 - o Plan windbreak and shade tree planting projects designed to reduce the impact of harsh environmental conditions and high utility costs
 - o Implement those projects
 - o Care for the trees planted in the reservation communities



• To utilize the tree planting project to provide the reservation residents a new and creative opportunity to reclaim, revitalize and reconnect to traditional cultural values of caring for the land and for their communities.

Objectives met successfully:

- The audio-visual workshop was created and distributed as planned. The educational Packet (attached) consists of a:
 - Video (and/or DVD) showing how traditional Native American (Lakota) cultural beliefs play into developing a tree planting program
 - Handbook which shows the step by step procedure to developing a successful tree planting program
 - Resource DVD that provides additional information and resources regarding tree planting and tree care.

Our staff and videographer spent a lot of time discussing the project and interviewing various Native American participants in our program and we have captured many unique tales and perspectives that will capture the hearts and interest of other Native American community leaders. We also had the video/CD narrated by Lakota elders to augment impact.

Objectives not met:

All objectives and goals were met

List the major research or policy findings of your project?

This was not specifically a research or policy finding project.

If not apparent in the above, or if your project did not involve research, how did the project increase the knowledge we have about urban forestry? How did (will) the public benefit?

The public will benefit in two ways:

- We have gained more insight and knowledge about how Native Americans view trees and their responsibilities to the environment, their children and their communities and we will take those insight forward with us as we develop additional tree planting programs.
- Additionally, we have captured these insights in the form of interviews, stories and comments from Lakota elders that we anticipate will find more acceptance with other Native American tribes. As we distribute and continue to publicize the workshop, we will stimulate other tribes to institute tree planting programs while also educating foresters and the general public about Native American beliefs and perspectives about Mother Earth and the environment.

What recommendations might you make for community foresters or others who might benefit from your project?

Recognize that working with Native American communities will take new and different approaches and incentives in order to be successful and that there are different reasons why tree planting is important to them.

- They often have a tremendous *need* for *targeted* reforestation that is often more urgent than in non-reservation communities.
- Planting to reduce utility bills is an important incentive and in some cases a literal life saver.
- Most Native American traditional belief systems are based on a reverence and respect for Mother Earth (i.e. "the environment"). This cultural perspective provides them with a natural interest in forestry and reforestation and provides foresters with a tremendous opportunity to involve and engage Native American communities.

Attach copies of reports, publications, or videos. If your work has been published (journals, popular press, etc.), provide where they have been published or reported and how copies can be obtained.

Attached is a copy of our:

- Handbook "Honoring Mother Earth Planting Windbreak and Shade Trees on Native American Reservations
- Instructional video (and also a DVD copy)
- Resource DVD
- Sample letter of our distribution letter
- Assorted other information about TWP and its Tribal Land Program

How were your results disseminated to the public?

• A letter was distributed to a list we developed of Tribal Colleges and other Tribal organizations and selected individuals and non-Native American organizations.

We currently have a TWP intern researching out other potential recipients and would be happy to distribute the letter to a list of community foresters.

We will also discuss potential publicity opportunities with the Society of American Foresters and other forestry related journals and publications.

What are the logical next steps or future direction of your project/research?

We anticipate other tribes will be interested in not only reviewing our materials, but also developing similar projects on their reservations. We had requested NUCFAC funding to help us respond to these inquiries and work with other tribes to develop similar programs, but that request was not funded. We will continue to look for additional funding that will allow us to help more Native American communities initiate tree planting programs.

As stated above, the TWP Tribal Lands Renewable Energy Program both plants trees and installs solar heating systems to lower utility bills and improve living conditions. We are currently expanding our efforts on both aspects to the adjacent Rosebud Reservation. The White Earth Reservation in Minnesota has also expressed interest in replicating our work in the Great lakes area and has asked us to come install a solar heater as an opening move in demonstrating our work.

We believe the potential to involve Native American communities in these ways is huge.... and we hope we have the funding and interest of the greater forestry community in expanding our efforts and approach.

List the active partners (key individuals or organizations) involved in the project:

Richard Fox — has 34 years of experience designing and implementing forestry and land conservation programs. He has directly supervised the planting of more than 27 million trees in 17 states and several reservations and more than a million additional trees internationally. He is the co-founder and National Director of Trees, Water & People and specifically manages the Tribal Lands program including direct supervision of this NUCFAC project. He has been a member of the Society of American Foresters since 1984.

Henry Red Cloud — is the direct descendent of Chief Red Cloud, the last war chief of the Lakota Sioux. His family is still well known and respected across the Great Plains. We helped Henry create *Lakota Solar Enterprises*, one of the only 100% Native American owned renewable energy companies in the United States. Henry has installed more than 120 solar heating systems as part of TWP program, and leads the on-site tree planting efforts.

Terry Burton — has 17 years experience in the communications field, including creating educational media materials for non-profit organizations. She has worked extensively as a communications consultant for Trees, Water & People community forestry project and has been directly responsible for all the technical and production aspects of the Video and DVD production as well as designing and creating the Handbook and other related materials.

Bernard Cuny — is a Lakota elder and tree nursery professional (Cuny Tree Farm) who is an expert in growing, planting and maintaining trees in the High Plains environment. He has provided native windbreak and shade trees for three of our last four tree planting seasons. As TWP's onsite forestry supervisor, he also works with reservation community groups to educate people about correct planting and tree care procedures.

Dr. Jim Meiman — is a former forestry professor at Colorado State University and is in charge of TWP's tree care and quality control efforts. Jim not only has extensive forestry education, but also is a tree farmer and wind break enthusiast.

In addition to these individuals, our TWP tree planting has depended on assistance from a variety of organizations and other individuals including the Oglala Lakota College, Youth Opportunity, District government personnel, and many other individuals and families who participated in the program and helped us present and tell this story.

Photo or Illustration: If possible, please provide a photo or illustration for our use that summarizes or represents the project. Indicate how this illustration should be credited.

Photos are provided in the enclosed materials and distribution letter. We would be happy to additionally provide these photos as .jpg or .tiff files if you request them.

If a no-cost time extension was granted for this project, why was it needed?

Video and DVD production and editing took longer than anticipated and we also had problems getting copies made. We overcame all of these obstacles though and the extra time allowed us to provide a superior product.

How would you evaluate the grant process? What changes, if any, would you recommend?

The grant process was not particularly onerous and we have no changes to recommend.

Comments considered of importance but not covered above:

No additional comments

The report was prepared by: Name: Richard Fox Title: national Director Phone Number: (970) 484-3678 Date: 1-14-07

Richard on Fot



Trees, Water & People

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December 27, 2007

Friends,

Trees, Water & People (TWP), is a nonprofit organization located in Fort Collins, Colorado. For the last four years we have been working to reduce utility bills and improve living conditions for Lakota families on the Pine Ridge reservation in South Dakota.

The weather on the Great Plains is always bitter cold during the long winter and by contrast, is extremely hot in the summertime. Along with our local partners and community leaders, we have been able to accomplish our goals through two simple but very effective approaches – both of these methods that work *with* nature in a positive way to balance out its harshness:

- Installing solar heat systems that substitute for propane or wood use that supply heat anytime the sun is out for just pennies a day instead of hundreds of dollars a month
- Planting windbreak and shade trees that cut down the impact of the fierce north winter wind and provide some shelter from the summer sun.

Now, thanks to a grant from the *National Urban* and *Community Forestry Advisory Council* (NUCFAC)





and the United States Forest Service, we are making information about our tree planting program available to you at no cost. We are hopeful that you and other concerned citizens, and organizations will benefit from our experience and expertise and initiate similar tree planting projects in other Native American communities. "Honoring Mother Earth: Tree Planting in Native American Communities" is a comprehensive free package that contains:

- 1. A project handbook containing all the information you need to plan and carry out a tree planting event in your community
- 2. A CD-ROM with resource materials to help you plan, organize and implement your project
- 3. A 12-minute video on VHS tape about the project, so you and your community can learn about the benefits of planting windbreak and shade trees and see how we developed the project.

At Pine Ridge, the Oglala Lakota College has played an important role in the project by helping with communications, identifying community leaders, and providing a place for informational meetings and

workshops. The project materials offer a case example that can be used in educational programs related to natural resources and community development.

We are very pleased about the success of our project and proud of the quality and clarity of the finished product. If you would like a copy of our materials, please return the enclosed response card, or email me personally at <u>richard@</u> treeswaterpeople.org_or call me at the Trees, Water & People office toll-free (1-877-606-4897).

Our *Tribal Lands Renewable Energy Program* is also expanding into other ways we can work with nature to lower utility bills and improve living conditions for Native American people.



For example, we are currently working closely with the Rosebud Sioux Tribe as a key member of their *Clean Energy Education Partnership* (CEEP). As part of this project, we are about to install **four** renewable



energy demonstration applications on the Rosebud reservation: a solar electric system, a wind turbine, a solar hot air heating system and a large windbreak.

Additionally, we have helped to form one of the first ever 100% Native American-owned renewable energy companies — *Lakota Solar Enterprises* (LSE). Under the direction of our friend Henry Red Cloud, they have installed solar heat systems for more than 120 families on the Pine Ridge reservation. The LSE crew was recently trained to *build* solar heat panels, and will soon begin to manufacture these panels in 2007.

There are many ways you can lower utility costs and improve living conditions using renewable energy

approaches. We have put together a first-class package about our tree planting efforts that will assist you in implementing a similar effort in *your* own community.

Please feel free to contact me directly with your questions and comments. I look forward to hearing from yoi and hope we will be a part of bringing creative renewable energy projects to *your* community.

Sincerely,



Richard Fox



Utilities Commission Involved In A Large Number Of Oyate Projects

BY RONALD L. NEISS SICANGU MEMBER

This writing will serve to provide an update to the Oyate on the progress of the "Little Thunder CEEP" (Clean Energy Education Partnership.) Also, I will touch on some other items that the Rosebud Sioux Tribes Utilities Commission is involved in.

The Little Thunder CEEP is a renewable energy project involving the installation of various renewable technologies in the home of respected Sicangu elders, Cecil and Rose Little Thunder, whose newer home is one of the most expensive to heat on the Rosebud. The home is all electric.

While the Little Thunder home Project is being facilitated by the Rosebud Sioux Tribe's Utilities Commission, it is the vision of the SWA (Sicangu Wicoti Awanyakape), Rosebud's housing entity.

SWA realized the high cost of heating and providing energy to homes on the Rosebud and throughout Indian Country. The Cecil and Rose Little Thunder home was identified by SWA as one which could serve as a pilot renewable energy project and which could be precursor to renewable energy applications to a whole housing site.

Partners have been SWA. Rosebud Sioux Tribe's Utilities Commission, U.S. Dept. of Energy, NREL (National Renewable Energy Lab) out of Boulder, Co., CERT (the Council of Energy Resource Tribes), ICOUP (Intertribal Council Utilities Policy), Rosebud Sioux Tribe's LIHEAP and Resource Development offices, and grass roots members of the Oyate. We want our efforts to be community-driven as much as possible.

Among possible energy sources discussed have been wind, solar, hydro, bio-mass, and, of course, energy efficiency.

New to the team, and who will play a large role in bringing our renewable energy vision to fruition, is Trees, Water & People (TW&P), of Boulder, CO., who are "committed to developing sustainable community-based conservation solutions." Their mission statement is customtailored to our needs and I consider them an answer to a prayer. Along with Richard Fox, of TW&P, crucial will be Native Renewable Energy Warriors such as Henry Red Cloud, Oglala, and Sicangu's, Victor Young and Harold "String" Medearis.

Recently Mr. Red Cloud and skilled members of SWA construction, installed a solar heater to the Little Thunder home, which will offset daytime heating costs which of course, saves energy. Other than the building and installation of the system, the cost factors will be almost zero.

Interesting to note, is that the design and construction of the system is new and the brain-child of Henry Red Cloud and TW&P.

This Spring, Little Thunder CEEP will be installing a small wind turbine and a Photo Voltaic solar system to the home of Rose and Cecil Little Thunder, along with a row of Aspen trees. These will provide a wind break and is practical as well as aesthetically pleasing. Another feature TW&P brings to the table will be a new twist to an old idea of our plans.

During this time, we will be hosting a design and planning meeting/workshop on the Rosebud and you are all invited. You can actually witness or even help put up these renewable systems this spring. Facilitating will be the Rosebud Tribal Utilities Commission, SWA and Trees. Water & People.

For further info, call cofacilitators:

Ronald L. Neiss Sr. (605)
208-6136

 TUC Director Tony Rogers (605) 747-4097

* E-mail: tuc99@gwtc.net