

Foundation Conservation Plan

A. Relevance to Priority Areas/Topics

1. This project addresses the Category I Planning Grant concentrating on the Agriculture, Resources, and Environment (ARE) area with emphasis on Nutrients and Water in Agricultural Landscapes,(ARE) as well as Social Learning in Agriculture and Food Systems (SL).

Pierce College, one of 9 community colleges in the Los Angeles Community College District, has been serving the San Fernando Valley community for 63 years. Accredited by the Western Association of Schools and Colleges, Pierce is a public, open-door, comprehensive community college. Of its 423 acres, 223 constitute a working farm complete with an equestrian center as well as a teaching farm laboratory with sheep, goats, and cattle. Large sections of preserved land, a botanical garden, nature preserve, farm market, growing fields and forest area make the college unique to an otherwise arid, urban landscape.

The physical location of the various areas constituting the “farm” on college grounds necessitates water harvesting and a conservation buffer between the animal portions and the growing fields/farm market. Nitrogen and other nutrient flows on the growing areas require physical separation from the animal areas, for even though distant, the catch basins for water run-off for the campus lie dangerously close to the growing fields.

This project proposes to do the following:

- provide an access road for moving livestock, produce, equipment and supplies. In this way, runoff is controlled to prevent erosion and maintain or improve water quality;
- construct a composting facility for biological stabilization of organic waste material;
- crop rotation that provides adequate organic residue for maintenance or improvement of soil tilth. The rotation reduces soil erosion, improves water use efficiency, water quality, wildlife habitat;
- placement cover crop of annual grasses and the like to reduce soil erosion and improve water infiltration and aeration;
- construct a diversion channel to reduce excess water;
- establish suitable vegetation for conveyance of water or runoff that will improve water quality downstream;
- use irrigation water in a planned and efficient manner;
- manage the amount, form, placement and timing of nitrogen and phosphorus for optimum crop yields;
- management of pests with alternatives to pesticides;
- adjustment of grazing times to protect the soil from erosion; and,

- establishment of a windbreak and trees for shelter for the animals and reduction of soil erosion.

Clearly, the proximity of the animals and animal waste makes the nitrogen and phosphorus application rates that more critical – as such, soil testing must be done regularly so that the rates take the plant uptake characteristics into account.

2. In the summer of 2009, The Foundation for Pierce College sought the expertise and advice of the Natural Resources Conservation Service in the Somis area. The conservation plan that was created took into account all of the above recommendations that were supposed to begin in the Spring of 2010. During that same period, however, expansion of the College's Equestrian area and some loss of the farmland areas to accommodate the construction on campus resulted in a delay to the implementation of the conservation plan. Current conditions allow for the farming area to resume the project anticipated. To date, crop rotation, cover crop, irrigation management and some nutrient management has been started. This project will build upon and extend this prior work.

B. Relevance to Target Audience (Justification)

As one of the few community colleges offering Agriculture as a major in Southern California, Pierce students benefit from "best practices" in their studies of Animal Science, Horse and Equine Science, Horticulture and Landscaping, Veterinary Technology, and Natural Resource Conservation. Graduates of this program typically transfer to 4 year colleges in California or join the workforce in agricultural areas of the southland.

A significant part of this project relates to the Farm Store area and corn maze that is constructed yearly to provide entertainment in the fall with a harvest festival. Over the last 5 years over 1,000,000 people has been either to the farm market or the festival/maze or both. For many years prior to the building of this area, the approximately 22 acres lay fallow causing much consternation in the community. This farm area stands at a very busy intersection where community members passed by daily and complained to the College administration of its "unsightly" nature. Gradually, the area has become a favorite for the public to purchase fresh vegetables, pumpkins, strawberries and honey grown on the farm or by farmers locally known to the college.

Robert Mc Broom, the farmer who manages and runs the farm market and farm on behalf of the Foundation for Pierce College, has worked for the past 5 years to develop a working "concern" on the corner of Victory and DeSoto. He has worked with community stakeholders – the homeowners, and local businesses and residents to organize and keep the farm consistent with community standards. Pierce College students are employed to work in the Farm Market as well as in the fields, expanding their knowledge not only of farming, but of business practices related to farming.

C./ D. Goals and Objectives/Methods/Activities/Timetable

Please see the attached schedule

Social Learning methods: A significant aspect of the farm program is the educational component that exists today. A “Pizza Farm” that is a 125 foot diameter space shaped like a pizza pie has eight slices of either row crops or animals representing the toppings of a pizza. A tour designed for elementary school students has been extremely successful with students learning where our food comes from. Additionally, a tour of the animal farm allows hands-on interaction with the animals, then a “mining camp” where minerals are collected to sustain plant life, and then a tour of the farm itself.

Brochures and a tomato plant gift are given to each student as they leave the site. An expansion of these tours using e-mail blasts to the local public schools is anticipated to encourage all local children to participate.

Working together with the Agriculture faculty, we are anticipating new courses for students to learn more about agribusiness, agroeconomics, and agronomy.

E. Products

Other than the normal production of crops and produce sold in the farm market, the Foundation for Pierce College has designed a brochure for use in the schools to encourage participation with the farm. Other materials that are anticipated include learning materials for the agriculture students including “best practice” management ideas provided by the Natural Resource Conservation Service.

The website for the farm, www.piercefarmcenter.com, is adequate for basic information, however, we would like to include informational pieces as well – How to grow tomatoes in your backyard, safe pest management, etc. These pieces would be put together from the literature available from the Natural Resource Conservation Service and adapted to fit our particular audience.

Of particular benefit for the College, is the growing appreciation of Agriculture as California’s heritage. As the largest business in California, it is imperative to acquaint more students with agriculture as a potential career path and to incorporate other classes such as conservation management, mathematics, sciences, biology, chemistry, and environmental sciences to give potential majors a look at agriculture in our future.

All of the conservation plans included in the proposal would benefit both the campus and the surrounding community by growing local foods, preventing further soil erosion, providing wind and shelter, watershed management, and composting, and giving the public an urban farm experience unavailable close by.

F. Evaluation/Lessons Learned

Evaluation will be a constantly evolving process for the first two objectives – yield goals and crop rotation. Climate, wind conditions, soil conditions, use of machinery, and labor will play a major role in determining success or failure of these goals. However, with this consistent evaluation process on-going, we anticipate larger yields of crops than in the past and crops and water have been managed effectively. The establishment of a windbreak and shelter will be evaluated as the trees and shrubs grow and

This planning process is also a continuum. We are dependent on the College for the lease of the acreage and for cooperation with the students, community, and administration when building projects on campus have the potential to divert attention from the fields. Improving the aesthetics of the campus is of benefit to all especially considering the location at the major intersection in the valley.

The conservation plan is an on-going project and the Foundation for Pierce College is looking to other funding sources to assist in the process. The continuing economic burden being borne by the Community Colleges based upon the California State budget make it unlikely that the College could put more money than it has already in its budget to the farm plan.

G. Capabilities of Investigators and Cooperators

Overall fiscal management of this project will be handled by *Dennis Washburn*, Executive director for the Foundation for Pierce College. Mr. Washburn has been involved with the farm project since its inception and understands all aspects of the farm market and growing fields, as well as the college programs impacting the growing areas.

Management of the yield goals, crop rotations and establishment of windbreaks will be handled by *Robert McBroom*, current manager and operator of the farm market and growing fields.

Principal Investigator for the project will be *Dr. Leland Shapiro*, Dean of Agriculture for the Pierce College campus. Dr. Shapiro teaches primarily in the animal programs and is responsible for all animals and grazing areas for cattle and the Equine program.

Natural Conservation Resource Service employs many dedicated and knowledgeable conservationists, engineers, and land managers to assist with the conservation plan. Up to now we have worked with Brooks Engelhardt and Steve Jewett from the Service.

See attached letters and CV

H. Budget

<i>Budget Category</i>	<i>Requested Funds</i>	<i>Matching Funds</i>	<i>Source of Match</i>
Personnel Name and/or payroll title @ % FTE for each employee	Dr. Leland Shapiro* Robert Mcbroom* Labor* Fiscal management **		Pierce College Pierce Farm center Pierce Farm Center Foundation for Pierce College
Employee Benefits			Pierce College
Total Personnel Costs	\$7,100	\$10,000	Pierce College
Supplies and Expenses	1,500	5,000	Boethings Trees
Permanent Equipment			
Travel			
Subcontracts	1,400	2,500	Natural Resources Conservation Service
Total Funds Requested	\$10,000	\$17,500	

Dr. Leland Shapiro: \$50/hour x 4 hours/week x 12 weeks = \$2,400

Robert Mc Broom: \$30/hour x 10 hours/week x 12 weeks = \$3,600

Labor: farm labor \$10/hour x 20 hours/month x 3 months = 600

Fiscal Management: 5% of \$10,000 500