



VALLEY CITY
STATE UNIVERSITY

2/29/2016

North Dakota Industrial Commission
ATTN: Outdoor Heritage Fund Program
State Capital, 14th Floor
600 E Boulevard Avenue, Dept. 405
Bismarck, ND 58505

Dear Outdoor Heritage Fund Advisory Board,

Attached is an application from Valley City State University for a North Dakota Outdoor Heritage Fund grant to support the Hi-Line Gardens and Orchard in Valley City, ND. The proposed project is a collaborative effort between VCSU, the Valley City Beautification Committee, and the City of Valley City.

Participating groups, along with citizens of Valley City, have come together and with the help of Jim Hanson, Hanson Design Associates, developed a multi-faceted plan incorporating establishment of native flowering plants, orchard trees, and outdoor amenities. We are excited to present this project design for Outdoor Heritage Fund grant consideration.

The goals of this project are many, including:

- Educating youth and adults on tree care and fruit tree varieties suitable to North Dakota
- Promoting healthy eating by providing a range of fruit types
- Providing the public with appealing green space
- Educating youth and adults on plant species (grasses and flowering plants) native to the Great Plains region
- Providing habitat for native wildlife species (pollinating insects, birds)

The attached application and Master Plan details the objectives of the project, collaborative efforts of stakeholders and committees, and a detailed budget request. Thanks you for your consideration of our funding request. If you have any questions, please contact Casey Williams (701.845.7457 or casey.williams@vcsu.edu) or Bobby Koeplin (701.840.0250 or bkoepplin@kwh.com).

Sincerely,

Casey S. Williams
Fisheries and Wildlife Science
Valley City State University
101 College St. SW
Valley City, ND 58072

Attachments:

ND Outdoor Heritage Fund Grant Application
Hi-Line Prairie Gardens & Orchard Master Plan
Project Location Map
Memorandum of Understanding

Outdoor Heritage Fund Grant Application



Name of Organization: **Valley City State University**

Federal Tax ID#: **45-6002482**

Contact Person/Title: **Casey Williams, PhD.**

Address: **101 College Street SW**

City: **Valley City**

State: **North Dakota**

Zip Code: **58072**

E-mail Address: **casey.williams@vcsu.edu**

Web Site Address: **www.vcsu.edu**

Phone: **701-845-7457**

Fax #: **na**

Co-applicants: **na**

MAJOR Directive:

Directive D. Conserving natural areas and creating other areas for recreation through the establishment and development of parks and other recreation areas.

Additional Directive:

Directive C. Developing, enhancing, conserving and restoring wildlife and fish habitat on private and public lands

Type of organization:

- State Agency
- Political Subdivision
- Tribal Entity
- Tax-exempt, nonprofit corporation.

Project Name: *Hi-Line Prairie Gardens and Orchard*

Abstract/Executive Summary:

We are requesting \$268,475.34 in funding through the North Dakota Outdoor Heritage Fund to support the Hi-Line Gardens and Orchard in Valley City, ND. The Hi-Line Gardens and Orchard will convert approximately 4 acres of unused property in northwest Valley City into an easily accessible outdoor recreation and educational area. The proposed plan includes planting 20 ornamental trees, 51 fruit and nut trees (apples, plums, cherries, etc.), 120 fruiting shrubs (juneberry, honeyberry, bush cherry, etc.), and approximately 15,000 square feet of native flowering plants.

This project will serve several functions when completed. First, the gardens and orchard will greatly improve the aesthetic value of the area and provide opportunities for outdoor activities for community members, including fruit picking, planting, and just enjoying the plant life on a daily basis. This project will also provide valuable habitat and resources for native pollinator species.

The educational component of this project is a major focus and immeasurable. At a small scale, plant identification signage and descriptions will increase community knowledge of North Dakota native plant species. Available information will focus on all age groups, from elementary students to senior citizens and the location and proximity to local schools will allow for short field trips and outdoor learning experiences. On a much larger scale, this project can be used to demonstrate eco-friendly and sustainable landscape methods. For instance, native plants are adapted for our varying climate and able to resist drought, heat and cold. Once established, these species are self-sustaining and useful for low maintenance urban landscaping while maintaining beauty and native diversity of the Great Plains.

This project began during the summer of 2014 when Casey Williams (Valley City State University) and Valley City commissioner Madeline Luke developed the idea for a pollinator garden on an unused parcel of land in Valley City. Through community input and involvement of the Valley City Beautification Committee, the idea grew from a small native plant garden to include a large native plant area and community orchard with numerous fruiting trees. Since that time, planning has continued and a Master Plan was developed by landscape architect Hanson and Associates.

Project Duration:

Detailed planning and design for the Hi-Line Prairie Gardens and Orchard began in the spring of 2015. Currently, a master plan is available and a proposed timeline of construction is provided below.

- 2015: Site selection, public promotion, development of master plan (Completed)
- 2016: Phase 1 including earth work, grass seeding and orchard tree planting
- 2017: Phase 2 including boulevard tree planting and construction of "prairie" area
Phase 3 including dirt work, the balance of orchard tree and shrub planting, and native plant garden construction and planting, parking lot construction, development of walking paths and irrigation system and pond, placement of signage, gazebo and kiosk construction

- 2018: Phase 3 continued including maintenance and continued establishment of native plant gardens

Amount of Grant request: \$ 268,475.34

Total Project Costs: \$377,947.03

Amount of Matching Funds: \$ 109,471.70

Please indicate if the matching funds will be in-kind, indirect or cash.

See table under "Source of Matching Funds"

Source(s) of Matching Funds:

Hi-Line Prairie Gardens and Orchard – Project Funds		
City of Valley City	\$61,658.19	In-kind other sponsor
VC community	\$5,000.00	Cash
ND Dep. Of Ag. Federal Grant	\$9,000.00	Cash
VC Beautification Committee	\$4,710.00	Cash
KLJ Engineering	\$2,000.00	In-kind
VC Beautification Committee	\$5,205.00	In-kind
VC Beautification Committee	\$1,500.00	In-kind
VCSU students	\$18,398	In-kind
Volunteer supplies	\$2,000.00	In-kind

Certifications *

I certify that this application has been made with the support of the governing body and chief executive of my organization.

I certify that if awarded grant funding none of the funding will be used for any of the exemptions noted on Page 1 of this application.

Narrative

Organization Information:

This project will be carried out by faculty members of the Valley City State University Fisheries and Wildlife program in conjunction with the City of Valley City and the Valley City Beautification Committee. The main project leader will be Dr. Casey Williams, Biology and Fisheries professor at VCSU. VCSU undergraduate students aided in the initial development of

this project and will continue to play a large role in on-the-ground construction and maintenance, including planting, labeling, and maintaining native plant gardens. In addition, VCSU will be responsible for seeking additional funding for the project, marketing the orchard to schools and the community, include educational aspects into VCSU coursework.

The Valley City Beautification Committee, led by Bobby Koepplin (Manager of Rural Development, Cass County Electric Cooperative) and including 21 volunteer members, will be project leader for orchard tree planting and maintenance. The Committee has agreed to coordinate additional fundraising, provide in-kind labor, materials, and cash for planting, aid in marketing the orchard to schools and the community, and drafting signage for plantings and project.

The City of Valley City has agreed to support this project by dedicating the land for the site, providing water for irrigation, maintaining trash removal, mowing unplanted areas, and supplying power to the gazebo.

Financial requirements of this grant will be administered by the VCSU Business Office and all monetary expenditures will require approval of VCSU, the City of Valley City, and the Valley City Beautification committee.

Purpose of Grant:

PROJECT BACKGROUND

During the Fall of 2012, the VCSU Science Department's Conservation Biology (Assistant Professor Casey Williams) course was approached by the U.S. Fish and Wildlife Service (Kurt Eversman, Valley City National Fish Hatchery) concerning construction of a native plant pollinator garden to be located at the Pomeroy Estate on VC National Fish Hatchery grounds approximately four miles north of Valley City. VCSU undergraduate students prepared a grant proposal and received funding approval during early 2013. During the fall of 2013, Fisheries and Wildlife Science students completed construction on the small garden, including a gravel path and 35 native plant species. VCSU students continue to maintain the garden and it has been a success. The plants have become well established, native pollinators are present, and community members visit regularly. In addition, students involved with this project are very proud of the outcome, resulting in increased appreciation of community service among them. With support from the North Dakota Outdoor Heritage Fund, VCSU would like to replicate this successful project on a much larger scale, in a more accessible location, and increase community support with the addition of a community orchard.

NEED FOR PROJECT

Pollinators play a crucial role in flowering plant reproduction and in the production of most fruits and vegetables. Apples, tomatoes, berries, and much more would not be available without pollination. Fruits and seeds of flowering plants are an important food source for both people and wildlife. The seeds that are utilized by people or wildlife will eventually produce new plants that will help maintain the plant population. Over 75% of all flowering plants are pollinated by animals. In 2010 in the US, pollination by honey bees contributed to over \$19 billion of crops. Pollination by other insect pollinators contributed to nearly \$10 billion of crops in 2010

(Pollinators, U.S. Fish and Wildlife Services 2015). In 2013 honey bees in North Dakota produced 33,120,000 pounds of honey valued at \$67,565,000 (National Agricultural Statistics Service, U.S. Department of Agriculture 2014).

A recent study of the status of pollinators in North America by the National Academy of Sciences found that the populations of honey bees and some wild pollinators are declining. These declines in wild pollinators may be a result of habitat loss and degradation. The population declines of managed bees are linked to introduced parasites and pathogens. (Pollinators, U.S. Fish and Wildlife Services 2015). This project is designed to educate the community on the importance of maintaining habitat for pollinators as well as providing examples of ways to naturally decrease chemical and water use in residential and commercial landscaping.

In regards to benefits that the community can experience, research has shown that children who spend time outdoors are healthier, have better grades, have longer attention spans, and are less likely to have depression than those who spend most of their time indoors (Wells, 2000).

Health professionals have found that green urban spaces and gardens increase physical activity and health of the members in that community. Urban gardens also help patients with dementia and attention-deficit-hypersensitivity disorder (Simpson, Western New England College 2011).

<http://www.fws.gov/pollinators/>

http://sfrc.ufl.edu/urbanforestry/Resources/PDF%20downloads/Wells_2000.pdf

www.honey.com/newsroom/press-kits/honey-industry-facts

http://www1.wne.edu/assets/20/pollinator_garden.pdf

GOALS

The goals of this project are many and target a variety of individuals and groups. Our major goals include providing opportunities for education and community engagement, improving aesthetic value of our city, and providing wildlife habitat in an urban environment. These goals tie directly to the objectives of the North Dakota Outdoor Heritage Fund Program, primarily meeting **Directive D: Conserving natural areas and creating other areas for recreation through the establishment and development of parks and other recreation areas;** and secondarily through **Directive C: Developing, enhancing, conserving and restoring wildlife and fish habitat on private and public lands.**

The City of Valley City and Valley City State University have a proven record of working together to improve our community and to provide for educational opportunities of students and citizens. The Hi-Line Gardens and Orchard would add to this record. This project would support education of the value of native plants as ornamental plants and as components of the natural diversity of North Dakota. The project area is within walking distance of two elementary schools and Valley City State University, allowing for quick field trips to promote plant identification skills, plant dynamics, and diversity of plants found in the Great Plains. In order to

promote this education goal, appropriate educational signage will be in place permanently and VCSU will promote educational opportunities to local schools.

The Hi-Line Gardens and Orchard will also provide numerous opportunities for community engagement. Obviously, planting and periodic maintenance opportunities will be available. In addition, local fundraising and marketing efforts will provide additional opportunities for community engagement and involvement. Furthermore, successful orchard fruit production would promote community support through opportunities for fruit and berry picking for personal use.

This project will greatly improve the aesthetic value of Valley City. The site is located on the east and west side of 5th avenue in Valley City, the main route to the well-known High-Line Bridge and to Lake Ashtabula. Currently, the site is relatively barren, inhabited only by invasive grasses (Kentucky bluegrass and Smooth Brome) and requiring regular maintenance (mowing). In addition, the east side is comprised of an unsightly storm water retention pond. This project would provide for a much more appealing view, including tree blooms in the spring, flowering plants from spring to fall, and fall foliage color change of ornamental trees. To promote enjoyment of the area, walking paths will be installed and efforts will be made to maximize handicap accessibility.

Last but not least, our goal is to improve wildlife habitat in an urban environment. Specifically, we seek to improve habitat for native butterflies, bees, birds, and other pollinator species. Plant species chosen for the garden include native species that are beneficial to pollinators. Numerous fruit species that are beneficial to birds will also be planted to support birds seasonally.

STRATEGIES

The Hi-Line Gardens and Orchard will convert approximately 4 acres of a relatively barren landscape in Valley City into an attractive, colorful outdoor recreational area with community and educational value. Success of this project can be used as a model for other small communities to support similar transformations of unused city areas.

In order to transform this area, we propose to establish a diverse community fruit orchard and to construct and maintain several areas consisting of native flowering plants and grasses. During the spring of 2015, project partners employed a landscape architect, Hanson Design Associates, to design a feasible landscape incorporating the requests of participating stakeholders (See Attachment 2).

Currently, the master plan for the project includes the planting of 20 ornamental trees, 41 large fruit trees, 10 nut trees, and 120 fruiting shrubs (See Table 1). In addition, approximately 15,000 square feet of the area will be used to establish more than 9,000 native flowering plants and grasses (See Table 2 for proposed plant species). Orchard areas will also be seeded with a low maintenance, drought resistant mix of grasses to provide a plush, green landscape throughout the summer. All plantings included on the Master plan will be completed except for the 7415 square feet area of native grass (Native Grass Area #2) on the east side of 5th Ave NE.

Table 1. Ornamental trees, fruiting orchard trees, and fruiting shrubs proposed for planting in the Hi-Line community orchard.

Ornamental Trees			
Species	Number	Species	Number
Amur Maple	6	Prairie Gem Pear	5
Prairiefire Crabapple	5	Ivory Silk Lilac	4
Fruiting Orchard Trees			
<i>Apple Trees</i>		<i>Crabapple Trees</i>	
Yellow Transparent	1	Dolgo	2
State Fair	1	Chesnut	2
Hazen	1		
Zestar!	1	<i>Peach Tree</i>	
Wolf River	1	Challenger	1
Prairie Magic	1		
Red Baron Crab	1	<i>Pear Trees</i>	
Honeycrisp	1	Summer Crisp	1
Northwest Greening	1	Parker	1
Frostbite	1	Luscious	1
Haralred	1	Gourmet	1
Haralson	1	Ure	1
Wodarz	1		
Connell Red	1	<i>Plum Trees</i>	
		Pembina	2
<i>Cherry Trees</i>		Tecumseh	2
Carmen Jewel	2	Toka	2
Crimson Passion	2	Waneta	1
Evans Bali	3	BlackIce Plum	1
Nanking	2		
Nut Trees			
Hazelnut	5	Butternut	5
Fruiting Shrubs			
Chokecherry (Native)	12	<i>Honeyberry</i>	
Ben Lomand Currant	17	Borealis Haskap	6
Jewel Gooseberry	12	Indigo Gem Haskap	9
American Cranberrybush	7	Berry Blue Haskop	4
Trader Mulberry	1	Western Sandcherry (Native)	12
<i>Juneberry</i>			
Juneberry (Native)	10		
Honeywood Saskatoon	10		
Martin Saskatoon	10		
Thiesen Saskatoon	10		

Table 2. Native grass and forb species proposed for planting in the Hi-Line Garden and Orchard. Plant species are not limited to those included in the table.

Grasses	
Big Bluestem	Little Bluestem
Blue Grama	Prairie Cordgrass
Buffalo Grass	Prairie Dropseed
Canada Wild Rye	Sideoats Grama
Indian Grass	Switchgrass
June Grass	

Forbes/Flowering Plants	
American Columbine	Mountain Mint
Anise Hyssop	Narrow-leaved Coneflower
Black eyed Susan	New England Aster
Button Blazing Star	Pasque Flower
Common Ironweed	Pink New England Aster
Common milkweed	Prairie Milkweed
Compass Plant	Prairie Smoke
Cup Plant	Purple Prairie Clover
Golden Alexander	Purple Coneflower
Heath Aster	Purple Meadow Rue
Joe Pye Weed	Rose Milkweed
Large-flowered Beardtongue	Smooth Blue Aster
Leadplant	Stiff Goldenrod
Long-headed Coneflower	White Prairie Clover
Maximilian Sunflower	Wild Bergamot
Meadow Blazing Star	

Initially and before planting begins, a minimum of 4 inches of topsoil will be spread over the entire planting area and a fine grade will be completed to allow for appropriate drainage and site preparation. Before seeding of grasses in the area, orchard trees will be planted using techniques recommended by the landscape architect. Based on results of soil tests conducted by the Natural Resource Conservation Service (NRCS; 2015), amended topsoil will be added to each prepared planting pit, and after planting, the tree will be staked and protected from animal damage by both a tree wrap and by wire mesh (See Figure 1 below).

For native flowering plants, each planting bed will be bordered by edging stones and covered by a weedbarrier and mulch to both conserve water and reduce weed growth, thus reducing required maintenance.

Once established, this project will require minimum maintenance. Selected grasses and flowering plants are drought resistant, native species that are self-sustaining. Prepared beds will include border stones, weed-barrier, and a mulch layer to hinder unwanted plant growth. Even so, periodic maintenance such as weeding, re-mulching, and repositioning of the weed barrier will be necessary and the responsibility of Casey Williams or his successor at VCSU (as per the MOU). Maintenance of the orchard trees and shrubs will be the responsibility of the VC

Beautification Committee under the leadership of Bobby Koeplin. Maintenance activities will be conducted by community volunteers and VCSU students as part of community involvement/citizenship projects. More than twenty community members representing numerous organizations have expressed interest in helping to maintain the gardens and orchard.

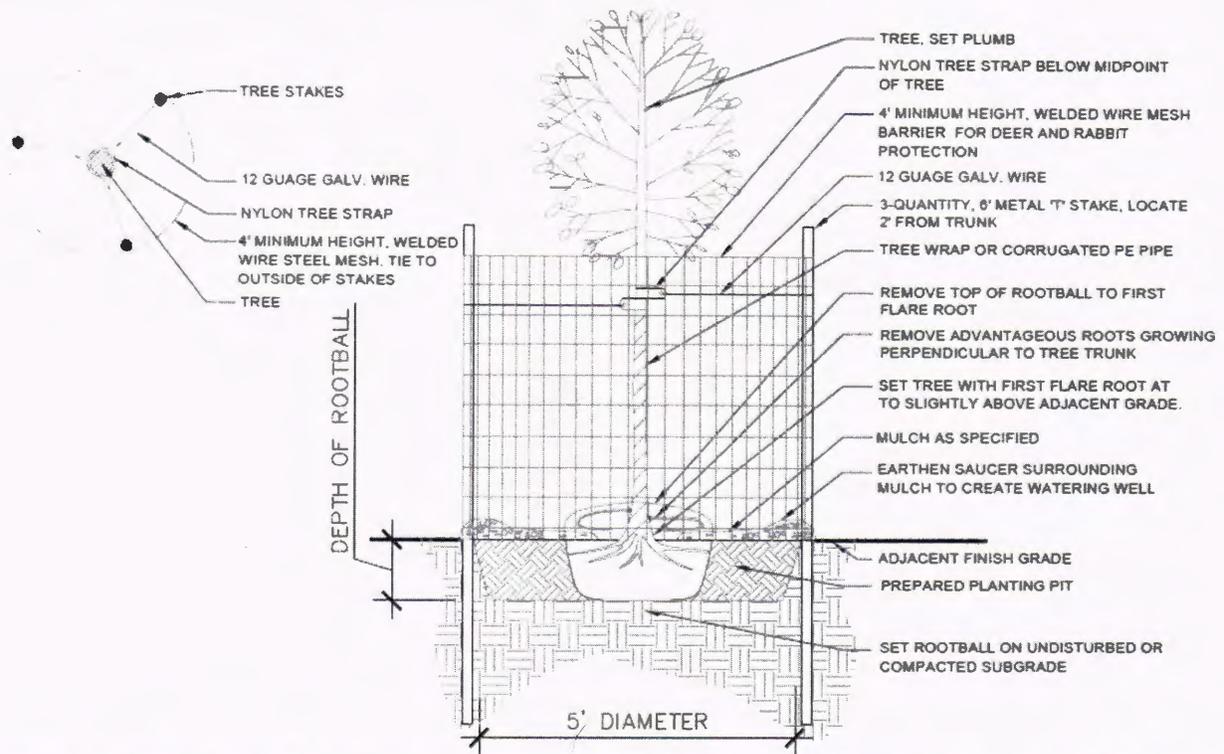


Figure 1. Planting specifications for orchard trees and fruiting shrubs to be placed in the Hi-Line Gardens and Orchard, Valley City, ND.

TIMETABLE

Currently, planting and construction of the Hi-Line Gardens and Orchard will begin during the summer of 2016 depending on funding. Initial construction will also depend on availability of contractors required for initial dirt work and construction. Construction and planting will continue through 2017 and possibly into 2018, depending on availability of plants and materials.

INNOVATIVE FEATURES

The Hi-Line Gardens and Orchard project will act as a model for smaller communities to convert unused lands into sustainable, productive community areas. In addition, this project will help to educate citizens about the value of native plants and to encourage planting of native plants and fruit trees for both pollinator and human benefits.

Management of Project:

Valley City State University (Casey Williams) and the Valley City Beautification Committee Chairman (Bobby Koepplin) will provide project oversight and maintain ultimate responsibility to ensure that the project is completed in a timely manner. However, all pertinent decisions will be based on a consensus of stakeholders, including VCSU, Valley City Beautification Committee, the City of Valley City, and community citizens.

Casey Williams – Assistant Professor, Department of Science, Valley City State University. Casey Williams and his students initiated this project based on his experience constructing a successful native plant garden on the Pomeroy Estate of the Valley City National Fish Hatchery. He has a substantial amount of experience as a grant project manager at Valley City State University and at his previous position at the Utah Water Research Lab, Utah State University (USU) in Logan, Utah. While at USU (2009-2011), Dr. Williams was in charge of the Institute for Natural Systems Engineering, supervisor of four professional employees, and manager of four grants totaling \$270,000. In conducting these grants, Dr. Williams worked closely with members of private industry (Garkane Power Company, Twin Lakes Canal Company), government agencies (Utah Division of Wildlife Resources, U.S. Forest Service) and conservation organizations (Trout Unlimited). At Valley City State University, Dr. Williams is collaborating with the United States Forest Service, Dakota Prairie Grasslands and North Dakota Game and Fish Department (Grants totaling \$67,500).

Bobby Koepplin, Chairman of the Valley City Beautification Committee also serves as Manager of Rural Development - Cass County Electric Cooperative. He has provided leadership for numerous finance, operations, fundraising, and construction committees and has supervised manufacturing, office building, tourism construction/renovation and community projects of over \$10 million. He has designed, written specifications, fund raised, bid, administered and actively supervised/participated in completion of 13 City tree planting projects over the past 16 years.

Madeline Luke has served as a Valley City Commissioner since 2012. She is a Sanford Internist in Valley City since 1983 and a Bush Medical Fellow 2011. Her portfolios at the city include electric, water, and public health. Commissioner Luke's interests are in promoting a more resilient, environmentally friendly and healthy community. In addition to the Hi-Line Prairie Gardens and Orchard, she is working to advance green techniques to address Sheyenne River bank erosion and storm water management

Evaluation:

Small scale progress and results of this project will be based on the successful planting of orchard trees and native plant gardens. At this scale, success is easily measured simply based on establishment and survival of plants and the occurrence of bees, birds, and native pollinators.

However, ultimate success of this project will be based on community support and involvement during planting and maintenance events. Once the orchard begins producing fruit, periodic observations of citizen activities will also be documented. In addition, educational aspects will

be documented through use of organized field trip tracking and student surveys of the garden/orchard area.

Financial Information

ATTACHMENT: Project Budget

- I certify that a project budget will be sent to the Commission*

Sustainability:

The benefit of this project is that it is sustainable with very little additional funding. Native plant species chosen for the project will, once established, maintain themselves. Preparation of beds will include weed barrier that limits maintenance required. In addition, grass areas will consist of drought resistant, self-seeding grass species.

Additional long term costs associated with this project will include replacement of any orchard trees that reach the end of their lifespan. However, we expect these costs to be minimal.

To meet any long term costs requirements that may arise, VCSU and the Valley City Beautification Committee will be responsible for fundraising through the community or available grants other than the North Dakota Heritage Fund. Replanting and further maintenance costs will be based on volunteer labor.

Partial Funding:

If less funding than requested is approved, some components of the project will be postponed until additional funding is provided through donations or other grant opportunities. Tree plantings and major native plant beds are considered the priority. Other aspects, while necessary, may be postponed until a later date.

Partnership Recognition:

If this project is supported by the North Dakota Outdoor Heritage Fund, on site recognition of the Fund will be displayed at walkway entrances and at the major informational kiosk located in the proposed parking lot. Furthermore, a press release will be issued through the Valley City Times Record newspaper, KOVC Radio on air and online, and through various Valley City State University media.

In order to garner community support, this project will be promoted through community events (planting days, fruit picking days) and social media. The North Dakota Outdoor Heritage Fund will be recognized as a major funding source

Awarding of Grants:

Valley City State University will be able to meet all provisions of the sample contract provided by the North Dakota Industrial Commission.

ATTACHMENTS

1. Budget Standard Form
2. Hi-Line Gardens & Orchard MASTER PLAN
3. Memorandum of Understanding -VCSU, VC Beautification Committee, City of Valley City

Budget Standard Form

Please use the table below to provide a detailed total project budget that specifically outlines all the funds you are requesting and the matching funds being utilized to fund this project. Please note if the matching funds are in the form of cash, indirect costs or in-kind services. The budget should identify all other committed funding sources and the amount of funding from each source. Match can come from any source (i.e. private sources, State and Federal funding, Tribal funding, etc.) Effective as of July 1, 2015 no State General Fund dollars can be used for a match unless funding was legislatively appropriated for that purpose. Note a minimum of 25% match funding is required. An application will be scored higher the greater the amount of match funding provided. (See Scoring Form.)

Please feel free to insert columns and rows as needed. Please include narrative to fully explain the proposed budget.

Note that NO INDIRECT COSTS will be funded from the Outdoor Heritage Fund. Also by law several items are ineligible for funding -- see Exemptions in the Application Form. Effective June 10, 2015 the following guidelines were approved by the Industrial Commission:

NO CONSIDERATION:

In addition to those specific items in law that are ineligible for funding, in the absence of a finding of exceptional circumstances by the Industrial Commission, the following projects will NOT receive consideration for funding:

- A completed project or project commenced before the grant application is submitted;
- A feasibility or research study;
- Maintenance costs;
- A paving project for a road or parking lot;
- A swimming pool or aquatic park;
- Personal property that is not affixed to the land;
- Playground equipment, except that grant funds may be provided for up to 25% of the cost of the equipment not exceeding \$10,000 per project and all playground equipment grants may not exceed 5% of the total grants per year; (See Definitions/Clarifications below)
- Staffing or outside consultants except for costs for staffing or an outside consultant to design and implement an approved project based on the documented need of the applicant and the expenditures may not exceed 5% of the grant to a grantee if the grant exceeds \$250,000 and expenditures may not exceed 10% of the grant to a grantee if the grant is \$250,000 or less; (See Definitions/Clarifications below)
- A building except for a building that is included as part of a comprehensive conservation plan for a new or expanded recreational project; (See Definitions/Clarifications below)
- A project in which the applicant is not directly involved in the execution and completion of the project.

Project Expense	OHF Request	Applicant's Match Share (Cash)	Applicant's Match Share (In-Kind)	Applicant's Match Share (Indirect)	Other Project Sponsor's Share	Total Each Project Expense
Contracted Labor (1)	\$124,628.00	\$	\$	\$	\$	\$124,628.00
Other Labor (2)	\$	\$	\$18,398.50	\$	\$8,705.00	\$27,103.50
Supplies (3)	\$133,847.34	\$	\$	\$	\$15,710.00	\$149,557.34
Education (4)	\$5,000.00	\$	\$	\$	\$5,000.00	\$10,000.00
Land Value (5)	\$	\$	\$	\$	\$61,658.19	\$61,658.19
Contingency (6)	\$5,000.00	\$	\$	\$	\$	\$5,000.00
Total Costs	\$268,475.34	\$0.00	\$18,398.50	\$0.00	\$89,073.19	\$377,947.03

(1) Tree planting labor – a contractor will be needed to plant (including tree staking, addition of amended topsoil, etc.) ornamental trees (20 trees at \$100/tree), orchard trees (52 trees at \$75.00/tree), and fruiting shrubs (119 shrubs at \$22/shrub).

A contractor will install the underground irrigation system (\$13,600).

A contractor will be hired to install retaining wall (360 square feet at \$35/square foot).

A contractor will be required for rough grading, import of topsoil and fine grading of the landscape, calculated at 1050 cubic yds at \$27/cubic yard.

A contractor will be required to construct the main walkway (2,471 sqft at \$3.00/sqft), orchard walkway (1265 sqft at \$3.00/sqft), bike rack pad (96 sqft at \$4.50/sqft).

A contractor will be hired to construct a gravel parking lot (2160 sqft at \$15.00/sqft) and extend a culvert under the parking lot (total culvert installation = \$32,400).

Site engineering will be required by engineering firm to convert files for appropriate location staking and grading at a cost of \$3,270.

(2) Valley City State University students will contribute a tremendous amount of time to this project, including construction of all plant beds and planting of native plants. Student labor for bed construction, weed barrier placement, planting, mulching, and periodic maintenance was estimate at \$15/hour at 1,227 hours.

Valley City Beautification Committee members will also volunteer a substantial amount of time during planting, pruning, and maintenance of the orchard area. Time is estimated at \$15/hour at 100 hours.

The Hi-Line Prairie Gardens and Orchard steering committee (5 members) will assist in staking the site, one call reviews, bid specifications, bid letting, award/construction meetings, final inspections, etc. for an estimated value of \$5,205 (347 hrs at \$15/hour).

An engineering firm has dedicated/volunteered time for site staking estimated at \$2000.

(3) Tree cost and planting supply estimates were based on quote from local nursery. Estimated costs includes trees and planting supplies (stakes, protection, labels, top soil amendment, mulch, etc.) for 20 ornamental trees, 47 orchard trees, 5 nut trees, and 119 fruiting shrubs.

Drought resistant lawn seed was priced for 39,470 square feet of lawn area within orchards.

Native grass, flowering plant beds, and rain garden costs were calculated based on square footage requirements for plants, weedbarrier, border stones, mulch, and plant labels (approximately 15,000 square feet).

VCSU students and VC Beautification committee members will also volunteer equipment use (weed eaters, shovels, spades, etc.) in the amount of \$2000.

Supplies to construct the permanent water feature and irrigation system, including liner and aerator, were estimated by irrigation service at \$36,500.

Netting will be used strategically to protect small fruits of fruiting shrubs. Estimated costs of required supplies is \$4,000.

Estimated cost of Gazebo (16' X 16') is approximately \$18,000.

Park and informational supplies including kiosk, benches (3), trash and recycling receptacles, and bike rack will be purchased at a cost of \$16,765.

A federally funded North Dakota Department of Agriculture tree grant has provided \$9,000 for tree costs.

The Valley City Beautification Committee has dedicated \$4,710 in cash to pay for needed supplies to support this project.

(4) Educational aspects of this project is a major objective. Initial investments will include development of educational materials and publicity/web presence. We are requesting \$5000 from OHF Community and private donations are estimated to be approximately \$5000 during the first year of the project.

(5)The City of Valley City is providing the land for this project and will continue to own the site, however, per the Memorandum of Understanding (attached), the city has agreed to dedicate the property to this project. Currently, the city tax assessor estimated a value of \$155,200 on this property. We are reducing this value to \$61,658 to act as a match for the requested grant amount.

(6)A contingency amount of \$5,000 was included in the request to cover unforeseen cost increases or expected problems.

In-kind services used to match the request for Outdoor Heritage Fund dollars shall be valued as follows:

- Labor costs \$15.00 an hour
- Land costs Average rent costs for the county as shown in the most recent publication of the USDA, National Agricultural Statistics Services, North Dakota Field Office
- Permanent Equipment Any equipment purchased must be listed separately with documentation showing actual cost. (For example: playground equipment)
- Equipment usage Actual documentation
- Seed & Seedlings Actual documentation
- Transportation Mileage at federal rate
- Supplies & materials Actual documentation

More categories will be added as we better understand the types of applications that will be submitted. We will use as our basis for these standards other State and Federal programs that have established rates. For example the North Dakota Nonpoint Source Pollution Management Program has established rates. If your project includes work that has an established rate under another State Program please use those rates and note your source.

Definitions/Clarifications:

Building - Defined as "A structure with a roof either with walls or without walls and is attached to the ground in a permanent nature."

Comprehensive Conservation Plan - Defined as "A detailed plan that has been formally adopted by the governing board which includes goals and objectives--both short and long term, must show how this building will enhance the overall conservation goals of the project and the protection or preservation of wildlife and fish habitat or natural areas." This does not need to be a complex multi-page document. It could be included as a part of the application or be an attachment.

New and Expanded Recreational Project means that the proposed building cannot be a replacement of a current building. The proposed building must also be related to either a new or expanded recreational project--either an expansion in land or an expansion of an existing building or in the opportunities for recreation at the project site.

Playground equipment calculation - Only the actual costs of the playground equipment (a bid or invoice showing the amount of the equipment costs must be provided) - cannot include freight or installation or surface materials or removal of old equipment, etc.

Staffing/Outside Consultants Costs - If you are requesting OHF funding for staffing or for an outside consultant, you must provide information in your application on the need for OHF funding to cover these costs. For example, if you are an entity that has engineering staff you must explain why you don't have sufficient staff to do the work or if specific expertise is needed

or whatever the reason is for your entity to retain an outside consultant. If it is a request for reimbursement for staff time then a written explanation is required in the application of why OHF funding is needed to pay for the costs of that staff member(s)' time. **The budget form must reflect on a separate line item the specific amount that is being requested for staffing and/or the hiring of an outside consultant.** This separate line item will then be used to make the calculation of 5% or 10% as outlined in the law. Note that the calculation will be made on the grant less the costs for the consultant or staff.

Recommended by OHF Advisory Board: October 17, 2013
 Approved by Industrial Commission: October 22, 2013
 Revisions recommended by OHF Advisory Board: January 22, 2014
 Approved by Industrial Commission: January 29, 2014
 Revisions recommended by OHF Advisory Board: May 13, 2014
 Approved by Industrial Commission: May 27, 2014
 Revisions recommended by OHF Advisory Board: June 3, 2015
 Approved by Industrial Commission: June 10, 2015

Phase 1 -East of 5th Ave. NE

Description	Unit	Unit Cost	Quantity	Price
Deciduous Street Trees, 1 1/2" Caliper	EA	175	20	3,500.00
Tree Planting Labor	EA	100	20	2,000.00
Time Release Fertilizer	EA	4.5	120	540
5' T-posts/2per tree	EA	6.5	40	260
Tree Protectors 4"	EA	4.5	20	90
Tree straps and wire	EA	3.75	40	150
Amended topsoil	cub. Yd	30	80	2,400.00
Tree Labels		20	20	400
Mulch	yds	6.6	45	297
		Total:		\$9,637.00

Phase 2 -North of Access Road

Description	Unit	Unit Cost	Quantity	Price
Orchard Trees	EA	90	22	1,980.00
Tree planting Labor	EA	75	22	1,650.00
Time Release Fertilizer	EA	4.5	132	594
6' T-posts/2per tree	EA	6.5	44	286
Tree Protectors 4"	EA	4.5	22	99
Tree straps and wire	EA	3.75	44	165
Amended topsoil	cub. Yd	30	88	2,640.00
Tree Labels	EA	20	22	440
Mulch		7.26	45	326.7
Protection (Fencing and T-posts)	EA	24	22	528
Topsoil Import & Fine Grade	cyd	27	375	10,125.00
Seeded Lawn Area	SF		18500	740
		Total:		\$19,573.70

Phase 3 -Main Garden/Orchard Area

Description	Unit	Unit Cost	Quantity	Price
Orchard Trees	EA	90	25	2,250.00
Pollinator Trees	EA	90	5	450
Tree planting labor	EA	75	30	2,250.00

Time Release Fertilizer	EA	4.5	132	594
5' T-posts/2per tree	EA	6.5	44	286
Tree Protectors 4"	EA	4.5	22	99
Tree straps and wire	EA	3.75	44	165
Amended topsoil	cub. Yd	30	88	2,640.00
Tree Labels		20	30	600
mulch		9.9	45	445.5
Protection (Fencing and T-posts)	EA	24	30	720
Fruiting Shrubs	EA	40	119	4,760.00
Fruiting shrub planting labor	EA	22	119	2,618.00
Time Release Fertilizer	EA	3	119	357
Amended topsoil	EA	30	90	2,700.00
Tree Labels		20	119	2,380.00
mulch	CYD	45	32	1,440.00
weed barrier	SF	3,000.00	0.3	900
Protection (Fencing and T-posts)	EA	24	119	2,856.00
Lawn Area Seed				786
Native Grass Area #1				3,598.22
Pollinator Garden #1				6,578.95
Pollinator Garden #2				999.46
Pollinator Garden #3				2,469.45
Pollinator Garden #4				1,222.06
Pollinator Garden #5				1,158.29
Topsoil Import & Fine Grade	CYD	27	675	18,225.00
Rain Garden	SF		1336	2,016.72
Permanent Water with Liner & Aerator	SF		820	5,000.00
Electrical to Permanent Water	LS			2,000.00
Walkway Lighting	LS			4,000.00
Bridge over Rain Garden	EA			9,585.00
Clearing, grubbing and site grading				10,000.00
Irrigation supplies	LS			31,400.00
Irrigation labor				13,600.00
Netting/Structure over Berry Plants	LS			4,000.00
Gazebo 16' x 16'	EA	18,000.00	1	18,000.00
Kiosk	EA	7,500.00	2	15,000.00
Bench	EA	350	3	1,050.00
Trash Receptacle	EA	220	1	220
Recycling Receptacle	EA	220	1	220
Bike Rack, 8'	EA	275	1	275
Retaining Wall	SF	35	360	12,600.00
Main Walkway	SF	3	2471	7,413.00
Orchard Walkway	SF	3	1265	3,795.00
Bike Rack Pad	SF	4.5	96	432
Parking Lot Post	EA	75	12	900
Parking Lot	SF	15	2160	32,400.00
Extend Culvert under Parking Lot	LS	1,800.00	1	1,800.00
Site engineering (2 people)		155	12	3,720.00

Educational outreach					5,000.00
Publicity/Web presence					5,000.00
Contingency					5,000.00
Student Volunteer Labor	hours	15	1227		18,398.50
Beautification Committee Volunteers	hours	15	100		1,500.00
Volunteer Supplies					2,000.00
Land (city of valley city)					61,658.19
Volunteer hours to assist in staking	hours	15	347		5,205.00
Site engineering staking					2,000.00
Total:					\$348,736.34

Community and Private Donations					5000
ND Department of Agriculture (federal funded)					9,000.00
Beautification Committee					4,710.00

**Project
Total \$377,947.04**

Memorandum of Understanding

Between

Valley City State University
And
The Valley City Beautification Committee
And
The City of Valley City

This Memorandum of Understanding (MOU) sets forth the terms and responsibilities between Valley City State University, the Valley City Beautification Committee, and the City of Valley City to construct and maintain the **Hi-Line Gardens and Orchard in Valley City, North Dakota**.

Background

The Hi-Line Gardens and Orchard is a community project supported by Valley City State University, the Valley City Beautification Committee, and the City of Valley City to promote educational, recreational, and environmental opportunities and provide assistance to local food efforts.

WHEREAS, the partners herein desire to enter into a Memorandum of Understanding setting forth the services to be provided by the collaborative effort as identified below:

The City of Valley City

- 1) City shall own and allow development of the Hi-Line Gardens and Orchard that shall be developed over 4 years; the city has the right to withdraw if no progress is visible
- 2) The city of Valley City agrees to act as applicant and recipient of state and Federal grants and donations that act as matching funds for such grants. Items or services purchased with such funds shall be paid for by the city and reimbursed from grant and donated match money
- 3) The City of Valley City shall support boulevard trees with watering in the same manner as other areas in which Beautification committee trees have been supported. The city shall allow access to water from the hydrant near the VCPR bathrooms or from the water storage pond as applicable
- 4) Pickup of one garbage receptacle per week; receptacle will be located near east parking lot
- 5) The City of Valley City shall continue to be responsible for mowing and other upkeep on areas that do not contain orchard and garden plantings. Boulevard areas that contain project trees will be treated the same as other areas in which Beautification Committee trees have been planted.
- 6) Supply power at south side of proposed gazebo

Valley City State University

- 1) Provide input into the comprehensive plan before and during construction
- 2) Propose plan and determine budget for grass and native plant gardens. Items to be included but not limited to: irrigation system, plantings (seeds and potted plants), garbage containers, entrance facility, water feature, paths, educational signage and materials, and donor acknowledgement
- 3) Prepare grant applications and obtain funding for initiation and maintenance of garden. Possible sources include North Dakota Outdoor Heritage Fund, Sheyenne Valley Community Foundation, other similar grants and private donations
- 4) Be the responsible authority for planting and maintenance of the native grasses and pollinator gardens
- 5) Provide plant names for mapping and labeling of plant products with applicable donor acknowledgements
- 6) Support construction and maintenance (during the school year) through student volunteers and class projects
- 7) Partner with local civic organizations for assistance in funding, maintenance, and support
- 8) Partner with the Valley City Beautification Committee for community contact information, advice, funding assistance and volunteer labor and coordination
- 9) Provide advertisement/information to the local community and schools concerning applicable aspects of the gardens
- 10) Incorporate educational aspects of the project into courses (Botany, Conservation Biology, and Range Management courses)
- 11) Commit a portion of Dr. Casey Williams' or his successor(s)'s employment time to construction and/or maintenance of the garden during the duration of this MOU

The Valley City Beautification Committee

- 1) Provide input into the comprehensive plan
- 2) Propose plan and determine budget for items to be included but not limited to: irrigation system, plantings (trees and shrubs), garbage containers, entrance facility, water feature, paths, educational signage and materials, and donor acknowledgement
- 3) Coordinate fundraising for the planting/maintenance of the orchard and other amenities
- 4) Be the responsible authority for the installation and maintenance of the community orchard
- 5) Partner with local civic organizations for assistance in funding, maintenance, and support
- 6) Provide some in-kind labor, materials and cash to match to plant and maintain the orchard during the duration of this MOU
- 7) Assist VCSU with community contact information, advice, funding assistance and volunteer labor and coordination
- 8) Market the orchard to schools and the community
- 9) Draft interpretation of plantings and the project including credit to donors

Funding

This MOU is not a commitment of funds from any of the listed parties. Funds will be provided through grants and private donations.

A Master Plan has been approved, whereby all signing partners shall agree to improvements on a priority basis pending applicable funding.

All parties shall seek and mutually agree to a non-profit partner to be able to accept tax deductible contributions and or have a fiscal agent identified to receive grant funds outside of State and Federal grants.

All parties shall pre-approve any expenses associated with the project.

Duration

This MOU is at-will and may be modified by mutual consent of authorized officials from Valley City State University, the Valley City Beautification Committee, or the City of Valley City. This MOU shall become effective upon signature by the authorized officials from Valley City State University, the Valley City Beautification Committee, and the City of Valley City and will remain in effect for five years, after which this MOU may be modified or terminated by any one of the partners by mutual consent.

This MOU shall automatically renew for 5 year terms unless other terms are mutually agreed to by all parties.

Commitment to Partnership

We, the undersigned have read and agree with this MOU.

City of Valley City By <u><i>Roberta Thakkar</i></u>	<u><i>2/29/16</i></u> Date
Valley City State University By <u><i>Asad A. Masar</i></u>	<u><i>2/22/16</i></u> Date
Valley City Beautification Committee By <u><i>Bobby Kopp</i></u>	<u><i>2/29/2016</i></u> Date

