

2003 Project Abstract

Date of Report: 31 December 2004

FINAL REPORT

PROJECT TITLE: Putting Green Environmental Adventure Park: Sustainability Education

Project Manager: Laurel Gamm

Affiliation: Putting Green, Inc.

Mailing Address: PO Box 91 New Ulm, MN 56073

Web Page address: puttinggreen.org

Fund:

Legal citation: ML 2003, Art. 1, Chp.128, Sec. 9, Subd. 11c

Appropriation Amount: \$ 132,000

Overall Project Outcome and Results

1. Key objective: Development of Educational Exhibit Features of 9 Learning Stations.

Results:

Nine learning stations and 30 bilingual (Spanish/English) interpretive signs with the message of resource sustainability were developed on a 9-acre site along the Minnesota River in New Ulm. The park is a "Living Lab" encouraging people to experience the natural river environment and southern Minnesota ecosystems through nine miniature golf learning stations, interpretive river trail and outdoor rooms featuring native plants.

2. Summary:

Community wide involvement in planning, design and building (youth, schools, businesses, local government, dedicated individuals and numerous citizen organizations) together with over \$400,000 in donations and in-kind matching made this learning space a reality which opened on 7 October 2004.

Students involved (design, development & operation): 125

Community members involved: 100's

Workshops held: 12

Players First weekend (good weather): 423

Players first month (Thurs – Sun. in October- 113 hours of operation): 772

3. How did Minnesotans benefit from our work?

Regional youth and families have a new educational opportunity that provides a recreational opportunity as well. The community and youth ownership/design process has proved a successful model that can be used for many other types of projects.

Examples of direct results include: New Ulm City council is looking at different types of parking lots that allow more water infiltration; Building contractors noticing and reading about more items in professional magazines that have to do with sustainable material use and techniques; deconstruction of local building being discussed instead of demolition; Downtown businesses discussing installation of recycling program; the local PUC is studying more renewable energy options in concert with PG's future building site; local firms such as Bolten and Menk are being asked to follow sustainability standards when addressing project proposals in the New Ulm Area. Many of the results of participation in these activities are very hard to

measure and may take many years to actually show results as youth involved in this project become community decision makers. Without LCMR funding we would not have had the amount of access to experts in design, architecture, engineering and community involvement models that we did. Their direct involvement (though limited) resulted in professional level products. The professional models and drawings have been used as tools to enlist the support of other groups and individuals (talents, time and donations). Additionally, youth and adults in the community are engaged in an ongoing and meaningful discussion/service learning project about resource sustainability and the power of our everyday choices.

We will be developing methods of outcome measurement to assess behavior changes as a result of people playing the course and visiting the site. Two potential methods are surveys and using our score card to gather information. More formal outcome measures (such as before and after testing) will be used for field trips & workshops with school groups. We also want to try to find out if people request products Putting Green uses and supports/markets by developing a survey tool at various businesses which service our needs.

Bilingual signage will serve Spanish speaking populations.

4. Did the educational aspects reach people in the manner expected? Yes. Youth and adults learn about sustainability through playing the course. Ambassadors (younger students with some training) were used to elaborate concepts presented in the park and this program will be further developed to enhance the learning experience of the visitors.

5. What does this project suggest for environmental education? The response that we had in October 2004 suggested that people do learn through this experiential fashion, using mini-golf as a vehicle. The best learning seemed to take place when the adult parent interpreted the game experience/signage for their young children.

6. How will this project be accessed? Project will be marketed through various mediums, such as website, radio, print, and systemized word of mouth marketing. Park is open to public for a reasonable fee for family entertainment/participation. Field trips and workshops will be supported in part by grants to allow access for low-income families. Project is handicap accessible. Curriculum will be marketed to schools and teachers.

Projects Results Use and Dissemination

1. How has our information been used and disseminated?

- a. Presentations have been made to many local and regional groups about the project and its purpose.
- b. Currently an MSU graduate student and committee are working to develop a curriculum for educators to use with the 9 learning stations. This will be marketed to schools and teachers.
- c. An Executive director has recently been hired and will be working on a marketing plan for the coming season to begin 30 April 2005.
- d. Reading rails have been designed for each learning station which provide added information for players.
- e. Each score card contains open ended questions to encourage reflection and behavior changes.
- f. A web site has been developed and is updated regularly.
- g. Welcome Handout is provided to new players which explains the choices made in design and development and how they relate to natural resource sustainability.
- h. River Trail brochure had been developed to encourage public interaction with the surrounding river ecosystem.

LCMR 2003 Work Program Update and Amendment Request

Date of Report: 31 December 2004
LCMR Final Work Program Report

I. PROJECT TITLE: Putting Green Environmental Adventure Park: Sustainability Education

Project Manager: Laurel Gamm
Affiliation: Putting Green, Inc.
Mailing Address: PO Box 91 New Ulm, MN 56073
Telephone Number: #507-354-7888
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Web Page address: puttinggreen.org

Total Biennial LCMR Project Budget: \$132,000

LCMR Appropriation: \$132,000

Minus Amount Spent: \$ 132,000

Equal Balance: \$0

Legal citation: ML 2003, Art. 1, Chp.128, Sec. 9, Subd. 11c

Appropriation Language:

11(c) Putting Green Environmental Adventure Park: Sustainability Education. \$66,000 for the first year and \$66,000 for the second year are from the trust fund to the commissioner of natural resources for an agreement with Putting Green, Inc. to construct educational exhibits for up to nine putting green learning stations in New Ulm.

The \$132,000 LCMR grant will be used to construct the educational exhibit features of 9 holes of miniature golf designed as interactive learning stations focusing on environmental issues related to soil and water.

II. and III. FINAL PROJECT SUMMARY

Nine learning stations and 30 bilingual interpretive signs with the message of resource sustainability were developed on a 9-acre site along the Minnesota River in New Ulm. The park is a "Living Lab" encouraging people to experience the natural river environment and southern Minnesota ecosystems through nine miniature golf learning stations, interpretive river trail and "outdoor rooms" featuring native plants. Community wide involvement in planning, design and building (youth, schools, businesses, local government, dedicated individuals and numerous citizen organizations) together with over \$400,000 in donations and in-kind matching made this learning space a reality which opened on 7 October 2004. Putting Green Environmental Adventure park is a showcase of sustainable design and construction principles and practices, demonstrating the use of recycled and reused materials, renewable energy sources and sustainable landscaping practices. All elements of the park are designed as educational exhibits inspiring people to consider environmentally healthy choices in their own homes and workplaces.

IV. OUTLINE OF PROJECT RESULTS:

Result 1 Development of Educational Exhibit Features of 9 Learning Stations

Budget \$132,000

Description: LCMR funding was used for construction of the educational components (obstacles and signage) of 9 mini golf learning stations featuring soil and water. Eighth graders worked with professionals to create interpretive signage to accompany each learning station. All signs are bilingual (Spanish/English). Intergenerational workshops have been held to engage youth and adults in designing the learning stations. Working with educators, natural resource experts, landscape architect and exhibit designers, over 125 youth have learned about sustainability issues related to soil, water, air and biodiversity, and have designed 18 "holes" depicting what they learned.

Hole #1 *Soil Formation.* Ball is Time. Tee off, glacial moraine at Big Stone Lake. Each stroke reveals steps of soil formation. Final putt, soil and its value to MN and the world.

#2 *Watersheds.* Ball represents a raindrop. Tee off on a cloud, land in one of MN watersheds. Each putt reveals factors affecting water's journey through its watershed and the impact on the River. Final putt, Minnesota River.

#3 *Drainage.* Ball represents water on agricultural field. Ball passes through various types of drainage intakes. Final putt is a wetland.

#4 *Ground Water.* Illustrates water going over earth's surface and infiltrating through sand, silt, clay and bedrock into an aquifer. To remove the ball from the hole, a pump (simulating a well) is used.

#5 *Nutrient Cycle.* Depicts nutrient (nitrogen) cycling on a hog farm. The costs and benefits of good or poor management practices are depicted. The hole starts by putting into a pig, into a river or a containment pond, through cornstalks and into a corn crib, completing the nutrient cycle.

#6 *Soil Erosion.* Ball is a particle of soil in the wind. Station depicts 4 methods of soil protection – tree windrows, vegetative buffer, contour farming and conservation tillage.

#7 *Ecological Footprint.* Ball represents choices that can be made to balance population and consumption to achieve a sustainable planet.

#8 *Ethanol production.* Ball represents corn kernel as it is processed into ethanol.

#9 *Backyard Watershed.* This hole illustrates various pollutants that enter storm sewers from yards and streets that ultimately are carried to the river.

Summary Budget Information for Result 1: LCMR Budget \$132,000

Completion Date: October 2004

V. TOTAL LCMR PROJECT BUDGET:

All results: Personnel: \$22,500

All Results: Equipment: \$34,150

All Results: Development: \$75,350

TOTAL LCMR PROJECT BUDGET: \$132,000

The mini golf learning stations will be used as ongoing educational exhibits for the life of the park.

VI. PAST, PRESENT AND FUTURE SPENDING:

Putting Green Park will be a regional environmental learning center and youth training center located on a 9 acre site along the Minnesota River in New Ulm, Minnesota. Putting Green's main message is that *everything we have comes from the earth* and in order to achieve sustainable communities we must manage these natural resources to not only meet our current needs, but to meet the needs of future generations.

Putting Green will educate citizens about sustainability and inspire them to adopt sustainable practices through an innovative combination of outdoor family recreation and environmental education. The park's mini golf exhibits will teach sustainability principles or practices related to natural resources. Bad putts may reveal problems and consequences while good putts reveal positive actions or solutions. Kiosks, interpretive signage and accompanying curriculum will supplement the learning experience.

Other park features will include an interpretive center with classroom and lab, walkways and native plant gardens, an interpretive river trail and river monitoring program. The park will be a model of sustainable development, using resource efficient materials and renewable energy technologies, and all features will be designed as educational exhibits.

A. Past Spending:

Land Acquisition: Sept 2000, Obtained \$1/ mo. lease on a threshold riverfront property from the City of New Ulm. Estimated land value, \$90,000

Mini golf learning station, interpretive center and site master plan development:

(including intergenerational design workshops): July 2001- June 2002

Office of Environmental Assistance	\$32,000
Kraft Foods, New Ulm	\$7,500
Monsanto Fund	\$2,000
Individuals	\$30,000
Anonymous Family Foundation	\$5,000
New Ulm Area Foundation	\$6,000
Izaak Walton League – Local and National	\$3,500
United Way	\$3,500
Community Service Organizations	\$1,400

Business Plan Development: 10/01 – 4/02, an intergenerational process involving 10 youth and 10 adults, led by professional consultant.

Southern Minnesota Initiative Foundation	\$20,000
Total Inkind: Businesses, Volunteers and Professionals	\$72,000

Total spent	\$182,900
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6/30/04 Funds raised to date:

Philip Morris	\$40,000
Individuals	\$76,000
Anonymous Family Foundation	\$25,000
Total	<u>\$141,000</u>

A professional fundraiser has been hired to help Putting Green raise the additional \$72,000 needed to develop the 9 hole course, through an area capital campaign.

B. Current Spending for the Project Period:

06/30/04 Donations from foundations, corporations and individuals will be used to build the infrastructure of the 9 hole mini golf course. Total cost for 9 mini golf learning stations: \$345,000

12/31/04 Income/spending update

1. Income

Donations received since 6/30/04:

Grants:

3M	\$15,000
Dept. of Commerce	15,000
OEA	25,000
So. MN Initiative Fund	5,000
IWLA, Deer Hunters	9,000
N.U. Area Foundation	<u>1,500</u>
	70,500

Non-cash from Businesses involved in construction: \$15,000

Cash

Individual pledges (2004 total)	56,770
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In-kind donations: see appendix A

2. Spending

Expenses for Construction paid with non-LCMR funds:

Design - \$6704

Engineering - \$5938

Erosion control/Landscaping - \$8024

Project Management - \$7400

Pannier - \$6861

Electrical Hook-up - \$3,968

Misc. Vendors - \$915

C. Future Spending: Resource development for the interpretive center and other park features will also occur over the next 9 months, through a capital campaign (see above) and through corporate and foundation grants. Amount needed for future interpretive center, parking and landscaping = \$600,000.

12/31/04

An Altria grant (\$30,000 pending) will be used to educate the community about, design, plant and monitor a raingarden for the parking lot in Spring/ Summer of 2005.

An executive director has been hired to lead us in developing more resources to complete the park project and to design and implement educational programming.

A youth/adult entrepreneurship program is starting in January 2005. This twelve-week series of college-level seminars for small business owners and managers is designed to improve the skills necessary for being successful in business. It will focus on increasing net profits and having more fun along the way. Unique to this class is the use of New Ulm's Putting Green as a case study. This adventure park's history of including students in its planning process is incorporated into this class. Select high school students interested in entrepreneurship will be attending. Course is co-sponsored with So. MN Initiative Fund and South Central Technical College.

Park Grand Opening celebration is scheduled for April 30, 2005.

VII. Project Cooperators:

Board Members:

Laurel Gamm, Physician

Cathi Fouchi, Community Liaison, DNR

Brian Tohal, New Ulm Economic Development Corporation

Johnny Heymann, Heymann Construction Co.

Debbie Lentz, Nurse/EMT

Greg Roiger, Businessman

Roger Ryberg, Businessman

Sue Sperstad, Educator

Chad Steffl, Student

Jeff Tiedeken, Student

Jared Peterson, Lawyer

Denis Warta, Businessman

Hannah Heller, Student

Volunteers:

Dan Sonnek, P.E., Public Utilities

University of MN Extension, Master Gardeners

Lora Rahe, horticulturalist

Tracie Vranich

Paul Sabatino, electrician

Tony Guggisberg, nursery owner

Sue Sutton
Lloyd Schauer, engineer

Professional Consultants:

Greg Ingraham and Associates, Landscape Architects/Park Planners
Gary Hittle, Landscape Architect
Todd Olson, Product Designer
Duane Hansel, Bolton and Menk Engineers
Bob Beck, Interpretive Specialist, DNR
Patrick Hamilton, Project Manager, Science Park, Science Museum of Minnesota
(exhibit development collaborative)
Rick Carter, LHB Architects
The Weidt Group
Jim Roe/Kirsten Hagen, Interpretive Sign Specialists
Chris Neilly, Sterns & Associates
Nancy Frederickson, Business Solutions
Amy Stratton, Three Rivers Resource Conservation and Development Council

Partners:

Science Museum of Minnesota
Three Rivers R. C. & D.
Minnesota State University-Mankato
City of New Ulm – Leases property and performs ongoing review.

VIII. DISSEMINATION: Dissemination methods for the intergenerational collaborative design and development *process* include

- documentation and presentation to various groups such as environmental education and community groups
- booths at fairs and other events
- media including website (see www.puttinggreen.org)

Dissemination methods for the *product* (the exhibits themselves).

- traveling mini golf learning station exhibit
- bringing visitors to the park to interact with and enjoy the learning stations. 30,000 annual visits, including school groups, are predicted in the business plan, once the park is complete.

IX. LOCATION: Park is located on 9 acres of shoreland property on the Minnesota River in New Ulm, Brown County, MN, 56073

X. REPORTING REQUIREMENTS:

Periodic work program progress reports will be submitted not later than December 2003, June 2004 and December 2004. Final work program report and associated products will be submitted by June 30, 2005.

Appendix A – inkind donation list (digital copy available)

Appendix B – Signage Text (digital copy available)

Appendix C – Hole drawings (hardcopy)

Appendix D – CD of pictures (only one hardcopy)

Appendix E – Welcome Handout (digital copy available)

Appendix F – Scorecard (hardcopy)

Appendix G – River Experience Brochure (digital copy available)

Proposal Title: Putting Green Environmental Adventure Park: Sustainability Education

Project Manager Name: Laurel Gamm

LCMR Requested Dollars: \$132,000

2003 LCMR Proposal Budget	Result 1 Budget: \$132,000	Amended budget	Amount Spent	Balance December, 2004	
BUDGET ITEM: Development of Educational Exhibit Features of 9 Learning Stations					Total Budget for Item \$132,000
PERSONNEL: Contracts: 1) Todd Olson, Product Designer, Designs and builds exhibit features for 9 learning stations	22,500	3,880	3,880	0	
2) Interpretive Specialist, Develops interpretive signage to accompany learning	3,500	22,120	18,620	3,500	
Equipment: Water pumps and plumbing for Minnesota River simulation	34,000	34,000	34,150	(-150)	
Fabrication of Educational Exhibits for 9 mini golf learning stations	72,000	72,000	75,350	-3,350	
COLUMN TOTAL	132,000	132,000	132,000	0	\$