

**Final Report**  
**Forest Service Grant No. 2004-DG-11062764-058**  
Period Covered by this report: July 19, 2004 through December 31, 2007

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**Address:** 6310 NE 74<sup>th</sup> St. Suite 201E, Seattle, WA 98115

**Congressional District Number:** 7

**Project Name:** Trees and Positive Youth Development: Research on Affect of Urban Forestry Work Experiences on Inner-City, Underserved Adolesce

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**Date of Award:** July 22, 2004

**Grant Modifications:** Mod. 1: Time extension from July 20, 2006, to December 31, 2007

**Date of Expiration:** December 31, 2007

**Funding:** Federal Share: \$97,000 Grantee Share: \$100,000 Total Project Budget: \$197,000

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This serves as the final grant report. Much of the information below was provided in the July 2007 progress report. Attached to this report is the following information:

- Final financial reporting forms documenting match and request for funds.
- Executive summary.
- Full research report with appendices that provide additional project detail.
- A copy of the research report presented at the Society of American Foresters National Convention held October 2007 and published as part of conference publications. This report was also presented at the November 2007 Partners in Community Forestry conference held in Baltimore, MD.

- A copy of the PowerPoint presentation presented to project partners and other collaborators in Seattle, WA in November 2007. Additional participants participated in this presentation via conference call.

**Abstract:**

Many entities endorse the concept of Positive Youth Development and promote programs that help youth become healthy, effective, and productive members of society. There is a notable absence in these efforts – knowledge about the beneficial affects of urban forest and city green experiences. Building on a partnership of dynamic urban forestry non-profit organizations and a social scientist, this research will evaluate urban, underserved youth who participate in urban forest projects, to quantitatively measure youth affects of personal and social development, increased ability in civic affairs and community dynamics, employability and career interests, and eco-literacy.

**Revised Project Objectives as Agreed to With the Forest Service:**

**1) Conduct Literature Review**

The first activity will be an extensive literature review of youth development and benefit studies. A preliminary review will be conducted. The review has assessed the science of abnormal youth psychology, positive youth psychology, and youth benefits from wilderness therapy and outdoor adventure experiences (such as Outward Bound). The literature review will continue, in order to specifically address urban nature and urban youth, particularly underserved youth. The resulting findings will be used to inform the content and procedures of the two research phases.

**2) Qualitative Interviews with Youth and Minority Professionals**

The initial phase of data collection will provide preliminary insights on both near term and long term outcomes of urban youth and nature work experiences. Two sets of interviews will provide the foundation for later quantitative evaluations. Interview participants will be from a snowball sample, recruited from a pool of candidates identified by both youth services and urban forestry collaborator organizations. Content analysis of the interviews will reveal specific questions and issues for further study.

**Youth Interviews** – Urban youth, of underserved communities within Pacific Northwest cities, and ranging in age from 15 to 20 years, will be interviewed to determine the scope and perceptions of their experiences with urban forestry work.

**Minority Professionals Interviews** – To understand the long-term career choice and personal development implications of youth and urban forest work, interviews will be conducted with minority resource professionals about their adolescent nature experiences. Up to 25 professionals from around the U.S. will be contacted and asked to do 30 to 60 minute interviews.

**3) Create Quantitative Measures**

Based on the literature review and interview outcomes, standardized instruments will be constructed and pre-tested. These instruments will be similar to those used in other scientifically respected youth evaluations, but applied in a new context. The measures instrument(s) will be organized by developmental theories, as revealed in the literature review. Potential instruments may include surveys, journals, activity records, and focus group protocols.

#### 4) Distribution and Administration of Measures

The measures will be distributed and administered by youth program staff, under the supervision of the lead scientist. Measures will be applied first in the Pacific Northwest, then in up to three other U.S. cities. Collaborators will identify suitable inner-city youth groups for sampling and measurement, and facilitate implementation of the measures tools. Surveys will be conducted across multiple programs to assure generalizability of the research outcomes to communities throughout the United States. It is expected that up to 300 youth will participate in the evaluation.

#### 5) Create a comprehensive final report based on data analysis

Data analysis will provide multiple outcomes. First, we will describe, compare and contrast the attitudes, knowledge and behaviors of youth participants, including group traits and demographics. This information will be of value to youth program sponsors and managers. Second, we will analyze the outcomes of urban forest experiences in relation to goals of youth development. We will test the role of nature in positive adolescent development. This information will be of importance to additional audiences, including schools, community service organizations, local decision-makers and all who are interested in enabling youth to achieve their full potential.

#### 6) Dissemination of Results

The study is based in the Pacific NW, but outcomes will have national significance! The methodology will generate results that are generalizable to NPOs, agencies and organizations across the nation. Results will be shared throughout the U.S. See last question for specific dissemination strategies.

#### **Objectives as Accomplished:**

- 1) Literature Review – complete as detailed under revised project objectives.
- 2) Qualitative Interviews with youth and minority professionals –complete.

Profiles were developed, participating organizations and individuals were identified, interview questions and talking points are designed and interviews were conducted. We exceeded our goal of 30 professional interviews by 50%. Youth interviews were completed.

- 3) Create Quantitative Measures – complete as detailed under revised project objectives.

The youth surveys were developed by Kathy Wolf and EarthCorps staff. The survey was then reviewed by six young adults who work with teens. Using their suggestions, the survey was revised and a packet was developed with different handouts to facilitate the delivery of the survey by program staff. The survey had six parts and was comprised of four measures:

- Adolescent Self-Concept – Harter’s Self-Perception Profile
- The Environmental Identity Scale
- Perceived Self-Efficacy Scale
- Demographic Survey

From those four measures, the concepts measured are: Adolescent Self-Concept, Self-Efficacy, Civic Action, Environmental Identity, Environmental Concern and Demographics.

4) Distribution and Administration of Measures – complete as detailed under revised project objectives.

5) Create a comprehensive final report based on data analysis

The enclosed final report of Kathy Wolf’s final analysis and report on the research outcomes.

6) Dissemination of Results

The report is available online (<http://www.earthcorps.org/pdfs/ECyouthresults.ppt>) and in print upon request. In addition, the report was presented in two forums at the October 2007 Society of American Foresters National Convention; once to project partners and collaborators in November 2007; and once at a November 2007 Partners in Community Forestry Conference held in Baltimore. In addition, a paper was published as part of the Society of American Forests National Convention.

**How did this project increase the knowledge that we have about urban forestry?  
How did the public benefit?**

The most exciting outcome is that urban forestry may come to be viewed as an integral element of human development. The research demonstrates how urban greening and youth service organizations can partner to create physically and mentally healthy citizens and leaders of our nation’ future. Secondly, this research identifies the scientific basis of youth response to nature in a way that is relevant across the country. This information will help inform land managers and youth program managers who are interested in creating better service opportunities or creating new opportunities for effective urban forest stewardship. Finally, the project products are unique, as they bridge two disciplinary areas that have not traditionally interacted. The products may provide a springboard or basis for better partnerships on behalf of the nation’s young people.

**What specific quantifiable results were produced?**

Three core products resulted from the research. The first product is a report of the literature review, to include synthesis and summary of positive youth development literature, and prior studies of youth and nature experience benefits. Then, after data collection and analysis has occurred, the research results report will focus on the outcomes of the career and nature experience interviews and the outcomes of the youth measures. Next, diverse products may be adapted from the core materials to provide user-friendly information about the project results. These have been shared with and by collaborators within their organizations, and may be revised for use in other stakeholders' networks and publications.

#### **How were the results disseminated to the public?**

- a) **Scientific Literature** – A paper was published as part of the Society of American Foresters National Convention. .
- b) **Professional Publications** – Given the study results, the focus was on the publication associated with the SAF National Conference. Additional article(s) may be submitted in the future to professional journal(s) that focus on youth development organizations and service agencies; parks and recreation organizations; and/or urban resource professionals.
- c) **Conference Presentations** – Presentation proposals were submitted for meetings in the United States, with particular emphasis on youth development organizations. Often professional articles generate speaking requests; opportunities to present outcomes at regional or national conferences will be pursued. To date, the results were presented at two sessions held at the SAF National Conference as well as at a Partners in Community Forestry Conference.
- d) **Research Fact Sheets** – Hard copy and on-line fact sheets will help build community awareness about trees and youth benefits. These concise and portable products have proven to be successful tools for explaining and sharing urban forest research with diverse stakeholders, non-technical audiences and for briefing the media. Documents are available online along with the full report.
- e) **On-Line Information** – The University of Washington web site shares information about the human dimensions of urban and community forestry. Results of this study are posted on this site and linked to other urban and community forestry sites linked to on EarthCorps website and printed copies available on request. In addition, the results and products of the project may be posted on collaborators' web sites.

**Has the project met the projected timeline of accomplishments? Is the project on schedule? Is the project ahead of schedule? Is the project behind schedule? If the no-cost time extension has been requested, why is/was it needed?**

As reported in July 2006 and 2007, an extension was requested to December 2007 and approved. The project was completed by this new deadline. The project wrapped up by December 2007 deadline. We have not requested a no-cost time extension beyond December 2007.

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

The following groups participated in the pre and post surveys during the summer of 2005:

Friends of Trees – Portland, OR  
Contact: Anil Devnani

Our City Forest - San Jose, CA  
Contact: Rhonda Berry

CommuniTree Stewards – Syracuse, NY  
Contact: Stephen Harris

Casey Tree Trust – Washington D.C.  
Contact: Heather Langford

Tree Trust – St. Louis, MN  
Contact: Andrew Kiel

Greening of Detroit – Detroit, MI  
Contact: Joe Sulak

Parks and People Foundation – Baltimore, MD  
Contact: Mary Cox

EarthCorps – Seattle, WA  
Kirsten Cook

Student Conservation Association -Washington, D.C.  
Contact: Nancy Oswald

**Groups who Participated in the qualitative interviews were:**

Yemaya Maurer, SCA Northwest, Youth Program Manager  
Kelly Kirkland, Mountains to Sound Greenway, Volunteer Coordinator  
Grace Kong, New Start, Program Manager  
Cat Wolmar, Global Visionaries, Program Assistant  
Jourdan Keith, Urban Wilderness Project, Program Director

**Comments considered of importance but not covered above:**

The revised project is complete. Although the project did not net expected results, the analysis has led us to much reflection about how to modify youth programming to better connect young people to urban forests and the vital stewardship work needed. Overall, the magnitude of this project is not what we originally expected

and thus we submitted a budget modification as submitted July 2007 to reflect an overall reduction in costs.

It is our hope that this project along with associated presentations and publications will lead to future research, new evaluation tools, and inspire new and improved programming that engages young people in urban forestry experiences that help them to develop as individuals, as contributing members of our societies, and to maintain a lifetime connection to our urban forests.

The list of partners included on this project changed from initial proposals, Many of the partners originally approached did not participate for a variety of reasons. Some did not run minority programs, some were too busy, and others did not have adequate minority representation. Changes were approved by the USFS. Original partners who committed to the project did not participate for reasons including funding changes, program recruitment changes, and lack of organization capacity.

**This report was prepared by:  
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