Green Cities Research Alliance

Civic Environmental Stewardship and Urban Forestry

Kathy Wolf, Ph.D., U of WA/USDA Forest Service Research Station
Weston Brinkley, Cascade Land Conservancy

Dale Blahna, USDA Forest Service PNW Research Station
Chris LaPointe, EarthCorps
Ara Erickson, Cascade Land Conservancy

Society of American Foresters
91st National Convention
November 2011
Green Cities Research Alliance

Partnering for sustainable cities through science, policy, and citizen action

USDA Forest Service
Pacific NW Research Station

UW Remote Sensing & Geospatial Lab

University of Washington

Parks & Recreation Division

King County
Always at your service

OSU
Oregon State University

City of Seattle

EarthCorps
LOCAL RESTORATION - GLOBAL LEADERSHIP

Institute for Culture and Ecology

International Forestry Consultants, Inc.
Green Cities Research Alliance Projects

1. Forest Ecosystem Values (i-Tree)
2. Forest Landscape Assessment Tool
3. Stewardship Capacity & Operations
4. Urban Greening & Public Health
5. Geospatial Analysis – UW, RSGAL
6. Urban Gathering/Foraging
7. Residential Choice on the U/R Gradient
8. USFS – FIA, Restoration Economics

Cascade Land Conservancy – USFS Pacific NW Research Station
Green Cities Research Alliance

Stewardship Motivations and Operations

Project Purposes
Methods
Data Analysis
Findings
‘the take-aways’
Collaboration
Civic Environmental Stewardship?

- mostly volunteers, including event leaders
- working on public parks & green belts
- urban settings
Stewardship
“Footprint” Analysis

units of analysis
social scales
Project Purposes
Civic Environmental Stewardship

Products
• Evidence-based recommendations for the stewardship community
• Volunteer Engagement Best Practices

• Social network analysis of organizations (~700 in metro Seattle)
• Stewardship footprint map
Project Purposes
Civic Environmental Stewardship

Goals

• Better understand the volunteer experience
• Better understand organizational operations, relationships, and capacity
• Reveal public benefits of the **stewardship footprint** - ecological, social, and economic

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Cascade Land Conservancy – USFS Pacific NW Research Station
Volunteer Stewardship Survey
Summer/Autumn 2010

Methods
Study Design

- Event Characteristics
- Volunteer Characteristics
- Volunteer History
- Demography

- Motivations
- Skills and Contributions
- Satisfactions
- Personal Health & Well-Being

**Study Design**

- Context
- Independent Variables (descriptives)
- Dependent Variables (outcomes)
Place & Respondent Sampling

Population: All 188 organized volunteer environmental stewardship events on forested Seattle Parks’ lands Oct-Dec 2010. Estimated 3,000 individuals

Surveyed: 33 events, 155 volunteers

Events at random
People at random within events
Volunteer Stewardship Survey
Summer/Autumn 2010

Data Analysis and Findings
Volunteer Characteristics

- Age - 38 mean (17 sd)
- Women/Men - 45%/46%
- Education - college graduate or more 58% (Seattle 54%)
- Employment - full time 41%, retired 14%, student 14%
- Income - 26% < 30K, 15% 75-125 K, 13% >175K (2000 Seattle median family income $62K)
- Cultural Identity - 78% white (2000 census 67%)
**Willing to Contribute?**

**dependent variables – rating 1-5**

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetation Management</td>
<td>4.35</td>
<td>0.81</td>
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<tr>
<td>Invasive plants removal</td>
<td></td>
<td></td>
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<tr>
<td>Plant maintenance</td>
<td></td>
<td></td>
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<tr>
<td>Planting native plants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light Construction</td>
<td>3.46</td>
<td>1.23</td>
</tr>
<tr>
<td>Construction of simple structures</td>
<td></td>
<td></td>
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<tr>
<td>Trail building and maintenance</td>
<td></td>
<td></td>
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<tr>
<td>Technical Knowledge</td>
<td>2.98</td>
<td>1.13</td>
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<tr>
<td>Providing IT support, such as mapping or social media</td>
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<tr>
<td>Natural history and ecological knowledge in the field</td>
<td></td>
<td></td>
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<tr>
<td>Policy &amp; Administration</td>
<td>2.94</td>
<td>1.09</td>
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<td>Outreach to decision-makers and key community leaders</td>
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<td>Strategic planning and visioning</td>
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<td>Help with fund-raising</td>
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<tr>
<td>Project or event planning</td>
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</table>
Satisfactions of volunteering?
dependent variables – rating 1-7

Making a Difference mean 5.51 1.26 sd
The difference my volunteer work is making.
The chance I have to utilize my knowledge and skills in my volunteer work.
The progress that I have seen in the lands served by the organization(s).

Organizational Support mean 5.36 1.22 sd
The support I receive from people in the organization(s).
The availability of getting help when I need it when volunteering.
How often volunteer work is acknowledged.

Social Interactions mean 5.34 1.27 sd
The amount of interaction I have with other volunteers in the organization.
The amount of time spent with other volunteers.
The friendships I have made while volunteering.
**Why is volunteering important to you?**

dependent variables – rating 1-7

<table>
<thead>
<tr>
<th>Engaged Learning</th>
<th>mean 5.39  1.10 sd</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>I am genuinely concerned about the environmental purpose that I am volunteering for</td>
</tr>
<tr>
<td></td>
<td>I can learn more about the cause for which I am working</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Caring for Others</th>
<th>mean 4.82  1.65 sd</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I feel compassion toward people in need (16)</td>
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<tr>
<td></td>
<td>I feel it is important to help others (19)</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Group Dynamics</th>
<th>mean 4.11  1.68 sd</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The morale of my group improves after we volunteer as a team</td>
</tr>
<tr>
<td></td>
<td>Our group works together better as a team because of volunteering</td>
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<table>
<thead>
<tr>
<th>Self Reflection</th>
<th>mean 3.77  1.49 sd</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Volunteering increases my self-esteem</td>
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<tr>
<td></td>
<td>Volunteering makes me feel important</td>
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<tr>
<th>Social Influence</th>
<th>mean 3.76  1.5 sd</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Volunteering is an important activity to the people I know best</td>
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<tr>
<td></td>
<td>People I know share an interest in community service for the environment</td>
</tr>
</tbody>
</table>

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<tr>
<th>Career Opportunity</th>
<th>mean 3.18  1.66 sd</th>
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<tr>
<td></td>
<td>Volunteering can help me get my foot in the door at a place where I’d like to work</td>
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<tr>
<td></td>
<td>I can make new contacts that might help my business career</td>
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</tbody>
</table>

<table>
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<tr>
<th>Solace</th>
<th>mean 3.11  1.62 sd</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Volunteering allows me to escape from my own troubles</td>
</tr>
<tr>
<td></td>
<td>No matter how bad I’ve been feeling, volunteering helps me to forget about it</td>
</tr>
</tbody>
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Volunteer Stewardship Survey
Summer/Autumn 2010

key findings
Volunteer Characteristics

- Age - 38 mean (17 sd)
- Women/Men - 45%/46%
- Education - college graduate or more 58% (Seattle 54%)
- Employment - full time 41%, retired 14%, student 14%
- Income - 26% < 30K, 15% 75K-125 K, 13% >175K (2000 Seattle median family income $62K)
- Cultural Identity - 78% white (2000 census 67%)
Stewardship Participation

- Event Size - 33 people mean (17 sd)
- Travel Time – 27 min mean (33 sd)
- Event in Neighborhood – yes 43%, no 52%
- When did you first volunteer? 92 m mean (104 sd)
- Times per year – 2 or less 32%, 10 or more 33%
- Participating . . . . (more than school, work or civic group)
  - as individual
  - part of group of family and friends
  - participant in a neighborhood event or project
1. Shared Experience

independent variables x themes, $p < .05$

- high agreement on importance of learning (with a purpose) and caring for others

- high satisfaction with the volunteer experience, particularly making a difference

- high willingness to contribute effort to vegetation management

- few differences based on education or employment
2. Organizations are Valued

Independent variables x themes, p<.05

- high satisfaction with organization support for events
- high likelihood of continued volunteering (from 6 months to 2 years)
- obstacles to future volunteering more likely to be available time and family needs (49%), not satisfaction with event organization (7%)
3. Social Connections

Independent variables x themes, p<.05

- Event in neighborhood (43%) or not (55%)
- In neighborhood, higher interest in:
  - Making a difference
  - Social interaction with other volunteers
- Report more calming influence in life
- Higher satisfaction with organization support
- More willing to contribute to org/projects
Volunteer Stewardship Survey
Summer/Autumn 2010

Conclusions &
Insights
Stewardship Organization Mission
King/Pierce Counties ~ 600

Wordle tag cloud

Cascade Land Conservancy – USFS Pacific NW Research Station
Community Resilience

collaborative resource management
Elinor Ostrom
GCRA: multi-project collaboration

- research projects including environmental stewardship

- Stewardship Mapping to visualize the *footprint* of civic stewardship
Learned in 2010?
2\textsuperscript{nd} phase in 2011

- add legacy and health variables
- expand to King Co study area
- similar responses across “all lands”
- economic valuation

Cascade Land Conservancy – USFS Pacific NW Research Station
King County Parks
Green-Duwamish River Corridor
Human Health & Well-Being Benefits

Green Cities: Good Health

Metro nature - including trees, parks, gardens, and natural areas - enhance quality of life in cities and towns. The experience of nature improves human health and well-being in many ways. Nearly 40 years of scientific studies tell us how. Here's the research ...

RESEARCH THEMES
- Livable Cities
- Place Attachment & Meaning
- Community Building
- Community Economics
- Social Ties
- Crime & Fear
- Reduced Risk
- Wellness & Physiology
- Active Living
- Healing & Therapy
- Mental Health & Functioning

web resource
~ 1,800 articles

benefit x natural resource
Veteran/Soldier Stewards

- stress disorders
- disengaged (family, community)
- green jobs
Green Cities Research Alliance

Stewardship Motivations and Operations

presentation available on web site

Thanks! Questions or Comments?

www.naturewithin.info