Using a Jobs Frame to Promote the Use of Green Infrastructure

Urban Water Sustainability Leadership Conference 10-17-2012
OUTLINE

• JOBS FRAME IMPACT ON GREEN INFRASTRUCTURE

• GREEN INFRASTRUCTURE JOBS IMPACT ON LOW-INCOME WORKERS

• COMMUNICATION STRATEGIES USING A JOBS FRAME

• DISCUSSION
FOCUS ON JOBS TO BUILD SUPPORT FOR GREEN INFRASTRUCTURE

- JOBS FRAME
- INCLUSIVE OPPORTUNITY & "HIGH ROAD" OUTCOMES
- BROADER CONSTITUENCIES OF SUPPORT
- JOBS AND ECONOMIC DEVELOPMENT
- FAIR AND EFFECTIVE POLICY AND FINANCE SOLUTIONS
- INCREASED INVESTMENT IN STORMWATER + GREEN INFRASTRUCTURE

INCLUSIVE OPPORTUNITY & "HIGH ROAD" OUTCOMES

BROADER CONSTITUENCIES OF SUPPORT

JOBS AND ECONOMIC DEVELOPMENT

FAIR AND EFFECTIVE POLICY AND FINANCE SOLUTIONS

INCREASED INVESTMENT IN STORMWATER + GREEN INFRASTRUCTURE

GREEN FOR ALL
GREEN INFRASTRUCTURE = JOBS

- Green roofs
- Graywater irrigation
- Permeable city surfaces
- Rain catchment
- Bioswale
- Rain storage
GREEN INFRASTRUCTURE RELATED JOBS

Installation and Design
- Landscape architect
- Engineers
- Plumbers
- Contractors
- Construction workers
- Urban planners
- Construction and building inspectors

Operations and Maintenance
- Landscapers
- Auditors
- Plumbers
- Janitors and cleaners

Supply Chain
- Nursery and greenhouse workers
- Horticulturists
- Civil and environmental engineers
- Truck drivers
- Stock clerks
JOB IMPACTS OF GREEN INFRASTRUCTURE

• Philadelphia’s $1.6 Billion investment in stormwater infrastructure has the potential to generate **15,266 green collar direct jobs** and nearly $7.4 billion in sales through the green stormwater infrastructure supply chain.¹

• In Northeast Ohio, **31,000 direct jobs** could be created between 2012-2016 from a $3 billion in stormwater infrastructure.²

• Montgomery County, Maryland expects to employ **3,300 workers** over the next 3 years building its new network of green stormwater controls.³

The Environmental Protection Agency estimates that an investment of $1.88 Billion is required to manage stormwater and preserve water quality across the US. Our Water Works report calculates that spreading this investment over five years would generate **$265 Billion in economic activity and create close to 1.9 million jobs.⁴**
JOB IMPACTS OF GREEN INFRASTRUCTURE

• Investments of $166 million in stormwater projects between 2009-2011 in Los Angeles produced an estimated 2,075 total jobs.⁵

• PlaNYC anticipates the creation of 266 total jobs from investing $23 million in green roofs and 1,446 direct jobs from a $346 million investment in watershed protection programs.⁶

• Installing green roofs on 5% of Chicago’s buildings would create 7,934 jobs from an investment of $403 million.⁷
GREEN INFRASTRUCTURE JOBS = LOCAL JOBS

• 74% of $165 Million recently invested in stormwater projects in Los Angeles County was spent locally⁸

• 73% of workers involved in Los Angeles’ stormwater projects were employed by businesses located within the county, and many of the most frequently hired occupations employed a higher percentage of county residents⁹

“Public money used for green infrastructure has the potential to create more opportunities locally than money spent on grey infrastructure.”

Janet Clements, Stratus Consulting
GREEN INFRASTRUCTURE JOBS = OPPORTUNITY

Green Infrastructure Jobs

- **Accessible jobs:** Typically requiring a high school education or less
- **Good jobs:** Many offering a family-supporting wage
- **Protected jobs:** With considerable numbers of unionized occupations
- **Career ladder jobs:** Many offering advancement opportunities through apprenticeships and training
GREEN INFRASTRUCTURE JOBS
= LOW ENTRY BARRIERS

Installation and Design
• Plumbers
• Contractors
• Construction Workers

O & M
• Landscapers
• Auditors
• Plumbers
• Janitors
• Meter readers

Supply Chain
• Nursery and greenhouse workers
• Truck drivers
• Stock clerks
# GREEN INFRASTRUCTURE JOBS = CAREER LADDERS

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Starting Wage</th>
<th>Average Wage</th>
<th>% of Workers with H.S. Diploma or less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree trimmers &amp; pruners</td>
<td>$10.47</td>
<td>$15.80</td>
<td>88%</td>
</tr>
<tr>
<td>Roofers</td>
<td>$13.76</td>
<td>$21.83</td>
<td>86%</td>
</tr>
<tr>
<td>Landscape worker</td>
<td>$9.00</td>
<td>$13.65</td>
<td>78%</td>
</tr>
<tr>
<td>Construction worker</td>
<td>$10.62</td>
<td>$19.27</td>
<td>62%</td>
</tr>
<tr>
<td>Mgrs. of Construction trades</td>
<td>$20.80</td>
<td>$35.04</td>
<td>61%</td>
</tr>
<tr>
<td>Mgrs. Of Landscaping workers</td>
<td>$12.82</td>
<td>$24.27</td>
<td>55%</td>
</tr>
<tr>
<td>Installation maintenance &amp; repair workers</td>
<td>$8.84</td>
<td>$14.87</td>
<td>45%</td>
</tr>
</tbody>
</table>

Source: Economic Roundtable Analysis, Los Angeles County Water Sector Occupational Data (2010-2011)
A study of Philadelphia’s traditional and green infrastructure options for controlling CSO events found that hiring an unemployed person to do green infrastructure results in an estimated $10,000 per person/per year in avoided societal costs of poverty.¹⁰
LOCAL EXAMPLE: GENERATION WATER

WATER EFFICIENCY AUDIT AND IRRIGATION SYSTEM SURVEY TEAMS

<table>
<thead>
<tr>
<th>Team</th>
<th>Workers</th>
<th>Hourly Wage</th>
<th>Daily Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Manager</td>
<td>1</td>
<td>$18</td>
<td>$144</td>
</tr>
<tr>
<td>Data Supervisor</td>
<td>1</td>
<td>$14</td>
<td>$112</td>
</tr>
<tr>
<td>GIS Analyst</td>
<td>1</td>
<td>$9.50</td>
<td>$76</td>
</tr>
<tr>
<td>Field Team Members</td>
<td>5</td>
<td>$8</td>
<td>$320</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td></td>
<td>$652</td>
</tr>
</tbody>
</table>

POTENTIAL IF BROUGHT TO SCALE

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sites in LA</td>
<td>4,133</td>
</tr>
<tr>
<td>Possible Person Days</td>
<td>53,048</td>
</tr>
<tr>
<td>Total Possible Wages</td>
<td>$34,587,296</td>
</tr>
</tbody>
</table>

Source: Generation Water, Economic Roundtable analysis
<table>
<thead>
<tr>
<th></th>
<th>Direct Employment</th>
<th>Indirect Employment</th>
<th>Induced Employment</th>
<th>Total Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stormwater Projects</td>
<td>6.6</td>
<td>2.4</td>
<td>4.0</td>
<td>13.1</td>
</tr>
<tr>
<td>1 Year O&amp;M in Stormwater Projects</td>
<td>7.4</td>
<td>2.4</td>
<td>4.0</td>
<td>13.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Direct Sales (Output)</th>
<th>Indirect Sales (Output)</th>
<th>Induced Sales (Output)</th>
<th>Total Sales (Output)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stormwater Projects</td>
<td>$1,000,000</td>
<td>$408,934</td>
<td>$583,740</td>
<td>$1,992,674</td>
</tr>
<tr>
<td>1 Year O&amp;M in Stormwater Projects</td>
<td>$1,000,000</td>
<td>$426,970</td>
<td>$562,089</td>
<td>$1,989,059</td>
</tr>
</tbody>
</table>

Source: Economic Roundtable Analysis, Los Angeles County Water Sector Occupational Data (2010-2011)
COMMUNICATION STRATEGY
USING A JOBS FRAME
MESSAGING BUILDING BLOCKS

- Celebrate local success
- Emphasize innovation
- Appeal to the future
- Focus on jobs
- Deliver
- Communicate success!
Green job growth outpaced traditional job growth in urban centers **2-1** between 2008-2010\(^{11}\). Inner-city green jobs grew at **10 times** the rate of jobs overall in the last decade\(^{12}\).

**45% of all green jobs** in the US are held by people with a high school diploma or less\(^{13}\).

2011 clean energy investments in the United States experienced a **42%** increase from the previous year\(^{14}\).

**THE GREEN ECONOMY IS SUCCESSFUL!**

Source: Brookings: Sizing the Green Economy (2011)
GREEN SUCCESS HAS BEEN OVERSHADOWED BY CONTROVERSY

GREEN BECAME POLITICAL

JOBS DID NOT MEET EXPECTATIONS
“It is important that the data and stories you provide are **local, scalable, concrete and believable**.”

Source: Spitfire Strategies
LINK CLEAN JOBS WITH CREATING A BETTER WORLD FOR FUTURE GENERATIONS

Hunts Point Riverside Park Redevelopment (South Bronx, NY)
EMPHASIZE INNOVATION!

- Innovation message counteracts regulation = “Job Killer” myth
- Evokes sentiment of American leadership and technological advancement
- Market shows innovation is a sellable amenity with customers
TWO-PRONGED APPROACH

TRADITIONAL INFRASTRUCTURE

GREEN INFRASTRUCTURE
FIVE PRINCIPALS FOR COMMUNICATING ABOUT WATER INFRASTRUCTURE:

1. Define problems, but always follow them with solutions
2. Detail the co-benefits: public health, public safety, and jobs
3. Capitalize on public support for conservation and recycling
4. Talk about fixing what we already have, rather than dramatically expanding it
5. Beware of hyper-technical language

Source: David Metz, FM3 and Barry Barnes, TBWB Strategies
### MESSAGES TO USE AND AVOID

<table>
<thead>
<tr>
<th>Messages to Use</th>
<th>Messages to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green jobs are part of the solution</td>
<td>Green jobs are THE solution</td>
</tr>
<tr>
<td>American ingenuity will produce jobs</td>
<td>Government will produce jobs</td>
</tr>
<tr>
<td>We are creating additional jobs and expanding the economy</td>
<td>Green jobs vs other jobs</td>
</tr>
<tr>
<td>Protections, safeguards, innovation</td>
<td>Regulation</td>
</tr>
<tr>
<td>Protecting the environment minimizes the challenges our children will have to face</td>
<td>You have to choose, clean environment or economic development</td>
</tr>
</tbody>
</table>

“**These are the jobs America needs right now!”**

Source: Spitfire Strategies
EFFECTIVE COMMUNICATION BUILDS SUPPORT FOR “HIGH ROAD” OUTCOMES

- JOBS FRAME
- INCLUSIVE OPPORTUNITY & “HIGH ROAD” OUTCOMES
- BROADER CONSTITUENCIES OF SUPPORT
- JOBS AND ECONOMIC DEVELOPMENT
- FAIR AND EFFECTIVE POLICY AND FINANCE SOLUTIONS
- INCREASED INVESTMENT IN STORMWATER + GREEN INFRASTRUCTURE
“HIGH ROAD” STRATEGIES = QUALITY WORK

- Increase demand for green goods and services
- Ensure job quality and equitable access to opportunity
- Create workforce training pipelines that connect vulnerable people to green jobs
- Support businesses that want to thrive in a high-road market
SPECIAL THANKS TO

THE
ROCKEFELLER FOUNDATION

To download a copy of this PowerPoint or for more information visit us at: http://greenforall.org/focus/water/
REFERENCES

3. Chesapeake Bay Foundation, “Debunking the “Job Killer” Myth: How Pollution Limits Encourage Jobs in the Chesapeake Bay Region” (2011)

Interview with Janet Clements, Stratus Consulting, regarding a recent completed study of Washington DC’s gray and green stormwater investments and their job potential (2012)

Barns, Barry and Metz, David, FM3 and TBWB Strategies, Building Public Support for Water and Green Infrastructure (2012)

Spitfire Strategies, Green Jobs Research and Recommendations, Surdna Foundation (2011)

Lake, Celinda and Voss, Jonathan, Lake Research Partners, Green Jobs Research, Surdna Foundation (2012)
IMAGE CREDITS

Slide 1: Generation Water
Slide 4: YES Magazine
Slide 5: Green Train Landscaping & Urban Ecology: Workforce Training Program (GLUE) and OLIN
Slide 7: gudemangardens.com/green-roofs/
Slide 10: Green Train Landscaping & Urban Ecology: Workforce Training Program (GLUE)
Slide 12: mohtherearthnews.com/grow-it/seed-swap-MEN-fair-zb0z10zsto.aspx
Slide 13: Generation Water
Slide 18: Getty Images and markosun.wordpress.com
Slide 19: greenenergyohio.org
Slide 20: dipity.com and majoracartergroup.com
Slide 21: gm-volt.com