CONGRESSIONAL BRIEFING

A New Spin on Conservation Corps

Briefing Series: Workforce Wednesdays

Wednesday, September 9, 2020

Materials will be available at:
www.eesi.org/090920workforce

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About EESI...

**NON-PROFIT**
Founded in 1984 by a bipartisan Congressional caucus as an independent (i.e., not federally-funded) non-profit organization

**NON-PARTISAN**
Source of non-partisan information on environmental, energy, and climate policies

**DIRECT ASSISTANCE**
In addition to a full portfolio of federal policy work, EESI provides direct assistance to utilities to develop “on-bill financing” programs

**SUSTAINABLE SOCIETIES**
Focused on win-win solutions to make our energy, buildings, and transportation sectors sustainable, resilient, and more equitable
...About EESI

**HILL BRIEFINGS**
Video recordings and written summaries of Congressional briefings

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Bi-weekly newsletter with all you need to know including a legislation tracker

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**FACT SHEETS**
Timely, science-based coverage of climate and clean energy topics
Green Forests Work

Restoring Ecosystem Services and Creating Economic Opportunities on Surface Mines across Appalachia

Michael French – Director of Operations

Environmental and Energy Study Institute Webinar
September 9, 2020
Pre-SMCRA
Black Walnut, Southern Indiana
Pre-SMCRA
Loblolly Pine, Western Kentucky
Reforestation was commonplace but... 

so were human safety and environmental issues...
Water quality problems

Hazardous landforms
Toxic or acid-producing material on the surface
Surface Mining Control and Reclamation Act of 1977
(SMCRA – Public Law 95-87)

- Standardized reclamation practices
- Provided oversight to state agencies
  - Focused on slope stability, eliminating landslides, and reducing sediment runoff
  - Approximate Original Contour (AOC)
  - Post-mining land use (PMLU)
- Required that mining companies put up a monetary bond before mining commenced
Pre-SMCRA Meets Post-SMCRA
What Happened?

- In an effort to achieve landform stability and prevent landslides, spoils were repeatedly graded which created a highly compacted surface.

- Compacted spoils inhibit root penetration, gas exchange and water infiltration which results in high seedling mortality, increased runoff and poor water quality.

- Thick covers of aggressive grasses and legumes also competed with trees for nutrients, water, and sunlight.

- This led to a widespread failure of tree planting projects and disincentives for reforestation. Mining firms became very skilled at creating grasslands: efficient, cheap, successful in achieving bond release.
Tree planting failures became commonplace
7 year-old red oak
Where once were forests…

Hay/Pastureland PMLU became widespread
Where once were forests...

750,000 - 1,000,000 acres across Appalachia were converted from forest to other land uses
Land-Use Change

- 1,700,000 acres bond released
- 700,000 acres currently permitted
These unmanaged grasslands often become colonized by invasive, exotic species
The Appalachian Regional Reforestation Initiative

- ARRI’s goals:
  - Plant more high value native hardwoods
  - Increase seedling survival and growth rates
  - Expedite the establishment of forest habitat and speed up natural succession

- Created by OSMRE, ARRI works with the active mining industry, state regulatory agencies, academics, citizen’s groups, et al.
The Forestry Reclamation Approach (FRA)

- Leave 4 feet of the best available growth medium on the surface
- Avoid compaction
- Lightly seed tree-compatible groundcovers
- Plant a variety of trees
  - Early successional trees
  - High-value hardwoods
- Use proper tree planting techniques
17 year-old FRA Planting - KY
2007 FRA Planting - WV

7 year-old oak and poplar on an FRA site
Guy Cove site in 2017
Guy Cove site in 2019
What can be done about this?

750,000 – 1,000,000 acres in need of restoration
Green Forests Work

- 501(c)(3) offshoot of ARRI
- Mission: To re-establish healthy and productive forests on formerly mined lands across Appalachia
- Implements a “Modified” Forestry Reclamation Approach on Legacy mines
- Legacy mines – post-SMCRA, reclaimed to land uses other than forest
Green Forests Work

- Started as a petition to WH to stimulate the economy in Appalachia by creating jobs
- Continued anyway with no funding
- Appalachian Regional Commission
- 501(c)(3) est. in 2013
- Relies on grants, donations, and partnerships to implement projects on public and private lands
Modified FRA

- Control unwanted vegetation
  - Mechanical
  - Chemical
- Mitigate compacted ground
- Plant a variety of trees
- Use proper tree planting techniques
Unwanted vegetation - Mechanical control
Mitigate Compaction:
Ripping a compacted site
Plant a variety of trees
Green Forests Work

- Focused on improving two aspects of Appalachia
  - “Environmental Infrastructure”
    - Restoring ecosystem processes and services that native forests provide
  - Creating Employment and Economic Opportunities
    - Immediate creation of local jobs
    - Future opportunities by restoring a forest-based economy
Green Forests Work

- Restoration of Ecosystem Services
  - Forest habitat restoration
    - Terrestrial, avian, and aquatic benefits
    - Pollinator benefits
  - Improved hydrology and water quality
    - Ripping increases infiltration, reducing runoff and buffering watersheds from storm events
    - Tree cover increases ET, reducing loading
  - Improved air quality
    - Increased particulate interception
    - Climate change mitigation through C-sequestration
Reducing Forest Fragmentation

Map Created by
Kylie Schmidt
5/2/2016

Imagery Source: Google Earth 10/9/2013

29 acres
Improving Hydrology
Improving Hydrology
Habitat Creation
Pollinator Benefits
GFW-ARRI Projects 2009-2020

- 390 projects/events
- 10 States
- >17,000 volunteers
- 100s of partners
- 4,985 acres reforested
- 3,139,647 trees planted
Green Forests Work

- Job creation for seed collectors, equipment operators, nursery workers, tree planters, et al.
- Secondary industries (hospitality, retail, transportation, service)
- Future economic opportunities
  - Forest management
  - Timber production
  - Non-timber forest products
  - Eco-asset credits (carbon, N & P, et al.)
  - Tourism and recreation
Green Forests Work

Seed collectors and tree nursery workers
Green Forests Work

Equipment operators
Green Forests Work

Professional tree planters
Conservation Legacy
ACC Crew

Planting Wetlands
Conservation Legacy
ACC Crew

Sowing Native Grasses and Wildflowers
Why Forests?

• $9.1 billion in direct economic contribution.

• 28,408 jobs in the forest industry and an estimated 57,750 jobs overall.

• EKY – opportunities for 14,000 additional jobs with $2.4 billion value added.

• *Regenerative economy!*
The estimated number of coal jobs in Kentucky as of April 2017. It is the lowest number since 1898.
Why Now?
“… the act of planting a tree reconnects the human spirit to the beauty and importance of the natural world – the basis for all life on Earth”.

2004 Nobel Peace Prize Laureate Wangari Maathai
EESI Congressional Briefing:
Conservation Corps
OUR VISION

One day we will live in green cities where everyone can thrive.

We are working toward a “green city” rooted in social, economic and environmental justice. We view young adults from frontline communities as the essential force for driving the emergence of sustainable and resilient cities—by transforming their own lives, leading community transition, and promoting the values of a new, regenerative and inclusive economy.

We envision young people building the green cities we want to see through engagement in service years that also lead them on a path to satisfying and rewarding careers. We view service, purposefully designed, as a systemic solution to create a just, collaborative and connected society. Our ambition: that service to help build green and equitable cities becomes an avenue to opportunity for a generation of young residents of public and low-income housing.
We train young leaders to power a green and inclusive economy, through service.

Our model corps in New York City enlists and trains young people from low income housing communities for a new and more equitable economy. We equip them with the tools to change the trajectory of their lives and access good jobs. Corps Members develop a passion for sustainability and service through driving large-scale environmental and health initiatives in public housing and other frontline communities.

We design service as a path to greater well being and means to enlist young people to become contributors and leaders in the movement to build a greener, fairer and more just world. Graduates go on to jobs or college, directly or through alumni initiatives that build towards sectoral jobs and apprenticeships, via social enterprise contracts or advanced training developed with employers. Our network of alumni, partners and supporters constitutes a growing ecosystem anchored in our corps.
72% of NYCHA young adults are unemployed, lacking access to stable career pathways. Without successful work experience before 26, the odds of economic independence plummet.

$750M+ in annual energy waste and unnecessary pollution is caused by outdated infrastructure and poor usage habits, according to NYC’s sustainability policy goals.
GREEN CITY FORCE PROGRAM
MODEL

Service Corps
- 18-24 year old residents of NYC public housing with high school diplomas or GED
- 6-8 month AmeriCorps service
- Impactful, skills-building environmental initiatives in NYCHA

Alumni-hood
- Direct employment, apprenticeships or college enrollment
- GCF sectoral training initiatives with employers
- GCF social enterprise
- Ongoing coaching and support
Green City Force targets service learning experiences, technical training and employer partnerships linked to specific jobs that encompass:

- energy efficiency, utilities, renewables and behind the meter technology;
- construction, operations, maintenance and management of buildings;
- waste management including recycling and composting;
- green infrastructure;
- maintenance and management of green spaces;
- horticulture and food production;
- community health and sustainability education outreach.
In 10 years, GCF has demonstrated young adults in NYCHA are ready to serve, can create large-scale environmental impact, build interest and skills for in-demand jobs and become standouts in the green economy.
GCF CORPS MEMBER JOURNEY

Public Housing in NYC: a city within the city

Residents 18-24 are unemployed at higher rates than their peers outside of NYCHA.

GCF connects the dots between young talent and climate change, health and equality imperatives and opportunity in emerging fields.

RECRUITMENT & ORIENTATION

Build the force for green service, one cohort at a time.

ALUMNIHOOD

Life-long commitment to alumni career development

Alumni power green and equitable cities

SERVICE & TRAINING

Greening NYCHA communities through visible, measurable, impactful, and skill-building paid service initiatives.

GCF's Corps drives large-scale environmental initiatives in NYCHA to transform land, buildings & practices, engaging thousands of residents.

SOCIAL ENTERPRISE PROGRAMS

#Bliminators #EmPower

Continued engagement, support, and training, coupled with employer cultivation.

Members earn stipends and an education award at graduation. GCF provides MetroCard, certifications & support services.

Professional development, hard + power skills, eco literacy, community building.
GCF SERVICE CORPS
Flagship Service Initiatives

Farms at NYCHA

Love Where You Live
MULTI-FACETED IMPACT
(Selected outputs since 2013)

40,000

+ NYCHA Residents
Reached with conservation education and materials

13,568

Light Bulbs
Swapped for efficient lighting

8,013

Pounds
Of recyclable material collected
Farms at NYCHA: increasing resident consumption of fruits and vegetables, and resident savings (3 year outcomes, 2019 CUNY report*)

94,096 lbs of produce distributed with a retail value of approximately $202,257*

$350,000 + In estimated value of ecosystem services with 19,517 lbs. of compostables collected

14,143 visits To weekly farm stands

2,490 students Educated in farm based learning

*Source: Farms at NYCHA Evaluation 2016-2019, Dr. Nevin Cohen, PhD. CUNY Urban Food Policy Institute
Eco Hubs powered by Green City Force build towards closed-loop systems in NYCHA developments and platform for young residents in service and training to respond to local and City priorities.

Impact areas include waste, water conservation, energy education, land improvement, resident engagement and outreach and innovation.

GCF’s corps serves as design and implementation partner to residents, City agencies and NYCHA.
In addition to organic food production, they will function as outdoor classrooms for resident participatory planning and engagement around behavior change towards composting, recycling, reuse, refill, energy and water capture and conservation.

Each of the 5 existing Farms at NYCHA will be outfitted with physical features for zero waste, energy generation, water catchment.
Continued career counseling, trainings, and leadership

Salonia Thompson, Cohort 13 Alum

Domingo Morales, Cohort 10 Alum
GCF EMPLOYERS
A growing community

Multiple Hires

Individual Placements
Alumni in Energy & Buildings

This aspect of our sector includes careers related to:

- energy efficiency, utilities, renewables and behind the meter technology
- construction, operations, maintenance, and management of buildings

Examples of job titles include:

- Direct Installer
- Site Superintendent
- Porter/Handyperson
- Green Building Superintendent

65% Of GCF Graduates
GCF SOCIAL ENTERPRISE
Employing GCF alumni

Sectoral skill-building

Boosting NYC’s efficiency
Current Position:
Apprentice at IBEW Local 3

Achievements at Green City Force:
• Gained certification as a Green Building Professional (GPRO) from the U.S. Green Building Council.
• Obtained 10 & 30 hour Occupational Safety & Health (OSHA 10 & 30) certification
• Completed NYCHA Resident Training Academy
NYSERDA’s PRIORITY POPULATION

Conservation corps participants are prioritized as part of New York State’s $70 million investment in clean energy workforce funding through NYSERDA.

“Priority populations” include the following groups:

- 18- to 24-year-olds participating in work preparedness training programs, that include energy related technical training, such as BOCES, technical high schools, Conservation Corps, Youthbuild, AmeriCorps, etc.
Alumni in Horticulture

This aspect of our sector includes careers related to:

- maintenance and management of green spaces
- horticulture

Examples of job titles include:

- Landscaping Crew Member
- Gardener

13.9% Of GCF Graduates
Alumni in 
Nutrition & 
Food

This aspect of our sector includes careers related to:
- food production
- food preparation
- nutrition advocacy

Examples of job titles include:
- Chef Instructor
- NextGen Farmer
- Farm Coordinator

9.5% Of GCF Graduates
Alumni in Zero Waste

This aspect of our sector includes careers related to:
- waste management including recycling and composting

Examples of job titles include:
- Organics Recovery Manager
- Compost Coordinator

8.8% Of GCF Graduates
FUNDING MODEL

Service Corps

- $\frac{1}{3}$ AmeriCorps
- $\frac{1}{3}$ City / State
- $\frac{1}{3}$ Private

Alumni Initiatives & Social Enterprise

- Fee for service
CORPS ARE ENGINES FOR CLIMATE AND EQUITY IN CITIES AROUND THE COUNTRY
Join us! To learn more:
GreenCityForce.org

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