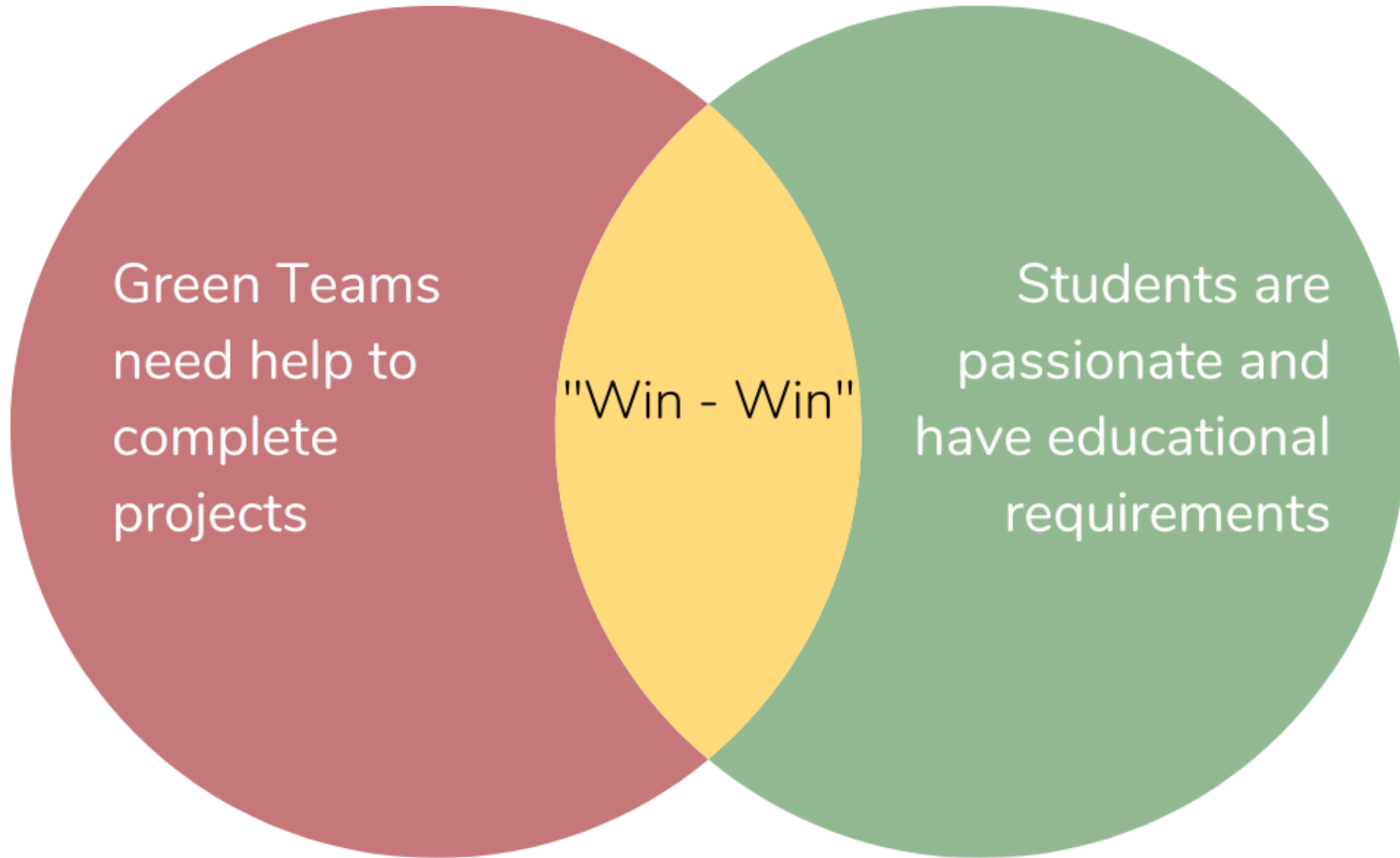




Working Across Generations to Advance Sustainability in your Community

June 24, 2022 3:00 – 4:00 PM



Audience Experiences

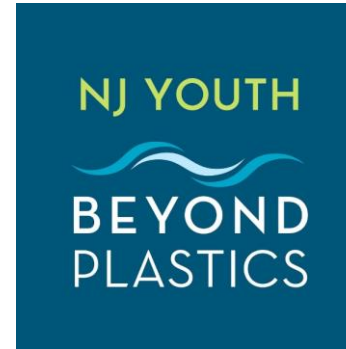
- Who has had positive experiences working with students on sustainability projects?
- Who has worked with students but things didn't go as anticipated?
- Who is hoping to engage students in the future?



Opportunities for Engaging Youth

- College Graduation Requirements
 - Internships
 - Capstone Projects
 - Community Engaged Learning Curriculum
- High School Students
 - Volunteer Hours
 - Contests and Competitions
 - Project Based Learning Opportunities

Youth-Led Organizations



Goals for Today

1. Highlight Opportunities
2. Share Experiences
3. Help You Create
Equitable Partnerships



Today's Speakers

Amy Tuininga PhD, Director
PSEG Institute for Sustainability Studies

Peter Fried and Lisa Jordan
Sustainable Madison

Ava Blando, Artistic Activism Coordinator
NJ Student Sustainability Coalition

Working Across Generations to Advance Sustainability in Your Community

Amy Tuininga, PhD, Director

Montclair State University

PSEG Institute for Sustainability Studies

SUSTAINABILITY SUMMIT



Montclair State University

PSEG Institute for Sustainability Studies

Green Teams Program



Program Objectives

- Partners teams of students with corporations and organizations
- Addresses global challenges
- Works in local communities
- Trains students to be innovative and thoughtful leaders
- Builds empathy, understanding, and greater impact through diverse transdisciplinary teamwork

2016-2022 Green Teams



Groups of 5
undergraduates
per organization

- 320 undergraduates
- 73 universities
- 100+ degree programs
- 64 teams
- 200+ projects completed
- 36 organizations



2016-2022 Participating Companies and Organizations



SUSTAINABILITY SUMMIT



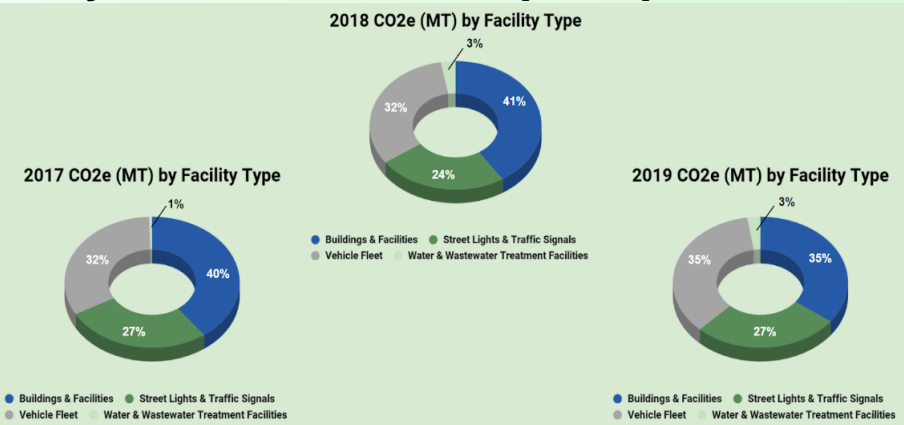
Training

- LEED and Energy Efficiency
- Science Literacy
- Professional Communication and Networking
- Environmental Justice
- Green Accounting and Scope Emissions
- Intro to R, Statistics, GIS
- Diversity and Inclusion
- Data Collection and Databases
- Project Management
- Leadership and Communication
- Healthcare and Sustainability

SUSTAINABILITY SUMMIT



Annual CO₂e by Facility Type City of Newark Municipal Operations Emissions



Green Team Outcomes

City of Newark

- **2017:** Community Concept Map
- **2020:** Municipal GHG Inventory and recommended path to decarbonization.
- **2021:** Sustainability reporting and certifications, identified areas of high surface temperature and impervious surfaces, and recommended actions for improving the city's tree canopy

City of Jersey City

- **2020:** Mapped street trees and developed dashboard showing the city's street trees, calculated the trees' carbon sequestration potential, and recommended strategic plan to improve health of the city's tree canopy
- **2021:** Created heat maps and recommended actions for the city to address environmental inequity issues



Sustainable Public Service Initiative



Program Objectives

- Matches upper-level Montclair State University (MSU) undergraduate students with New Jersey municipalities to complete Sustainable Jersey certifications
- MSU faculty serve as project advisors
- Program pilot completed in Spring 2022

SUSTAINABILITY SUMMIT



Results

- 14 students were placed into 13 municipalities

Fleet Inventories

- Burlington Township
- Township of Raritan
- Elsinboro Township
- Township of Washington
- City of Vineland
- Hamilton (Atlantic County)

Diversity on Boards

- Eatontown Borough
- Township of West Orange
- High Bridge Borough

Waste Management

- Hanover Township

Water Story

- Holmdel
- Madison Borough

Private Well Outreach

- Hope Township

SUSTAINABILITY SUMMIT



Program Feedback

Challenges

- Some students are not able to visit municipalities due to limited transportation
- Students require mentorship and guidance from the municipal representatives

Benefits

- Students gained professional experience completing real world projects
- Municipalities are closer to completing their specific Sustainable Jersey certifications

SUSTAINABILITY SUMMIT



Key Takeaways

- Municipal officials need to be available to provide data and interact with / mentor students.
- This needs to happen on an academic timeline if students are receiving credit.
- Municipalities that worked with students, provided the required data, and communicated on a regular basis achieved the best results.
- Green Teams applications will be open in August 2022 to host a team in summer 2023.
- The Second Sustainable Public Service Pilot will launch in Fall 2022.

Student Recruitment

Strategies for recruiting student include:

- College job portals and career centers
- Program alumni referrals
- Work directly with college and university contacts
- Connect on social media (LinkedIn)
- Post on internship websites (Handshake)
- Reach out to PSEG ISS





Project Design

Project Overview

- Who are the students going to work with?
- What is the goal of the project?
- What is the timeline?
- Where will the project take place?
- Why is the project of value?
- How many students will be hired?

Student Selection

- Who is your ideal candidate for the project?
- What college majors are you looking for?
- What are your expectations?
- What hard and soft skills do you want them to have?

Thank you!



PSEG



**MONTCLAIR STATE
UNIVERSITY**

**Cooperman Barnabas
Medical Center**

**RWJBarnabas
HEALTH**

**W
W
WEEKS**

**Northern New Jersey
Community
Foundation**

**New Jersey
Resources**



NJM

**AvalonBay
COMMUNITIES**

**New Jersey
Natural Gas**



PSEG ISS is generously supported by the National Science Foundation under NSF HSI (Hispanic-Serving Institutions) HRD Grant No. 1953631, NSF IUSE (Improving Undergraduate STEM Education) DUE Grant No. 2013495, and NSF INCLUDES DBI Grant No. 1744460. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.



Constellation®

Montclair State University

PSEG Institute for Sustainability Studies

Connect with us!

psegiss@Montclair.edu
Montclair.edu/ISS



<https://soundcloud.com/wmsc/sets/The-Re-Fresh>



https://open.spotify.com/show/4F4X0guAip7sBkUQKdOOPt?si=GMUOAgriTleOLAfJk_OFTw



[Facebook.com/PSEGISS](https://www.facebook.com/PSEGISS)



[@PSEG_ISS](https://twitter.com/PSEG_ISS)



[Linkedin.com/company/pseg_iss/](https://www.linkedin.com/company/pseg_iss/)

Engaging Youth to Achieve Community Goals

Sustainable Madison

Peter Fried
Lisa Jordan

June 24, 2022

Outline

Sustainable Madison has engaged youth in a variety of ways to achieve Sustainable Jersey actions and goals. This presentation describes:

- Forms of Youth Engagement
- Challenges We Faced
- Pathways to Successful Involvement

Forms of Youth Engagement

Examples of Sustainable Jersey Actions completed by youth include:

- **Fleet Inventory:** High school volunteer

"Through this internship, I calculated the Madison Public Schools' carbon emission for its vehicles," said Finn. "Carbon emissions effect global warming, making it harder for heat to radiate away causing problems for habitats and makes ocean-levels rise. Through our calculations, we hoped to inform schools of their carbon impact and discover how we could decrease this impact."

Madison Eagle

- **Community and Municipal Carbon Footprints:** University interns
- **Impervious Surface Report:** University intern
- **Pedestrian and Bicycle Audit:** High school volunteer

LETTER: Young interns boost Madison 'green' initiatives

Oct 17, 2020 0

f t e b

EDITOR: The chairpersons of Madison's "green" committees and our Borough Council liaison, Maureen Byrne, would like to thank the amazing interns who lent us their talents this summer.

Madison Eagle

Our Team of Youth Volunteers

Examples of youth volunteers who helped contribute to our actions:

- Julianne Finn, Madison High School, fleet inventory
- Yuki Takada, Xiping Wui, Max Drucker, Drew University, carbon footprint
- Christian Wong, University of Michigan, carbon footprint
- Dylan MacDonald, Vassar College, Green infrastructure
- Leah O’Gorman, Temple University, tree inventory
- Community-based learning courses: Geographic Information Systems, at Drew University (Fall 2021 - present)

SUSTAINABILITY SUMMIT



What students have to say ...



Bridget Kenny

I was able to present my research and findings to members of the Drew community as well as members of the Madison Environmental Committee. Having this knowledge has already created many opportunities for me in terms of having connections for job opportunities as well as helped me develop skills that I can add to my resume. It has been a huge privilege to be able to contribute to the making of the updated Madison Environmental Resource Inventory, and I have enjoyed every minute of it.

Hailei Clark



Working on the Madison ERI this semester helped me learn about and be confident with using software that is relevant to my career of interest.

LeeAnn Nguyen

Throughout the course we've been able to contribute positively as a team to our local community by working on the Madison Environmental Inventory (ERI), educating ourselves on different disciplines that are extremely relevant today. Air pollution, environmental justice, and climate (which my team focused on primarily) are to name a few. Combining the knowledge from these subject areas and the skills I can take away from the course, I find the class advantageous to my post grad employment plans and overall, the experience extremely worthwhile in being a well rounded student.

SUSTAINABILITY SUMMIT



Communicating Our Work to Others

Madison students present environmental projects, solutions at 'Green Vision Forum'

By CLAUDIA CEVA
STAFF WRITER

MADISON - From elementary school to the college level, local students impressed with their grasp of environmental concerns and solutions at Madison's fourth annual Green Vision Forum.

The event is hosted each year by the Madison Environmental Commission in partnership with Madison Public Schools. The commission invites students to share their respective visions for protecting and connecting with the natural world.

This year's seminar, held over Zoom on Thursday, March 31, covered a range of topics, from identifying endangered animal and invasive plant species, to a scavenger hunt of native birds, to various projects spearhead-

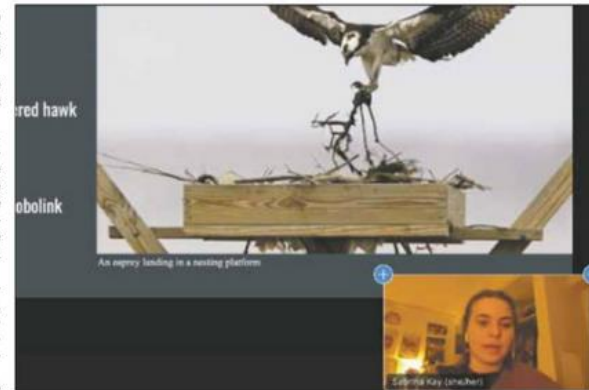
which allows participants to snap photos and identify the location of the items on the list.

The plan is to open the scavenger hunt to the public in April.

In a prerecorded video, students explained the scavenger hunt will offer three levels of difficulty to choose from, and should encourage families to explore the outdoors locally, learning more about what the natural world of the borough has to offer.

Kings Road School's second grade class, meanwhile, focused on the state's invasive plant species and endangered animals to create an activity packet.

Camille Berger, the school's STEAM teacher, said the packets will be available for the Madison community to download soon.



Sabrina Kay, a student at Drew University, presents her group's research project, to-date, on vulnerable bird and mammal species in the area during the Madison Green Vision Forum on Thursday, March 31.

Boland said it was "an honor" to oversee the project and collecting the bottles was an "eye-opening" experience.

Birds and Mammals In Danger

In addition to the public schools, Sabrina Kay, a student at Drew University, presented her team's research findings for their geographic information systems class on local threatened and endangered species.

"In Madison, there are 21 bird species, native or observable, that are considered at risk," she said. "We have 17 classified as 'special concern' and two are endangered. The two that are threatened are the osprey and the bobolink."

The red-tailed hawk is one of the two endangered species locally, she said, in large part due to the development

Madison strengthens tree ordinance as report details widespread loss

By ALEX PARKER-MAGYAR
MANAGING EDITOR

MADISON - Residents will face steeper penalties for chopping down healthy trees on their properties, but also incentives to replace those trees with native species.

In a unanimous vote Wednesday, April 27, the Borough Council adopted a revised tree protection ordinance that seeks to further discourage homeowners and developers from removing healthy trees on private property.

The new ordinance, strengthening the original bill passed in 2020, mandates tree replacement on a sliding scale relative to the size of the specimen or specimens removed. A res-

'Incalculable' Loss

The relatively new system is an improvement over the lack of restrictions in place before 2020, officials say, but tree loss continues to outpace plantings.

Bridget Daley of the Madison Environmental Commission shared a sobering statistic at the council meeting, courtesy of a recent Drew University study conducted by Lisa Jordan, assistant professor of environmental studies and biology, and her students.

Citing the study, Daley said Madison's tree canopy declined by some 10 percent between 2001 to 2016. Tree cover dropped from 48 percent of the town to 38 percent, or a loss of some 269 acres, Daley said.

She and Daley noted the significant role trees play in combating climate change and pollution, replenishing the aquifer, filtering water, controlling flooding, managing erosion and more.

Referencing the borough's goals to reduce emissions and shift to renewable energy sources, Schorr noted a few well-placed shade trees near a home can cut cooling costs by up to 50 percent in the summer and up to 30 percent in the winter.

"Those things are available and, I'm sorry, we're letting people cut them down. Even with permits we can track it, but the loss is incalculably great, and it's making all this other work even harder," she



Madison Borough - Environmental Resource Inventory (ERI)

A Toolkit for Building Community Web Maps and Story Maps

Introduction

The purpose of this activity is to demonstrate the process we used to prepare online maps for the Madison Borough Environmental Resource Inventory.

Background:

In many parts of New Jersey, local Environmental Commission volunteers work together to compile Environmental Resource Inventories (ERIs) for their towns and communities. Often these documents are developed or co-developed with experts in GIS mapping. New technologies and datasets to support them are emerging so that geographic information on natural and human systems is actively updated with much richer information than can easily be shown on static paper maps. Furthermore, web maps and StoryMaps are within reach for dedicated volunteers to build and share. This activity describes the process of how volunteers are using ArcGIS.com web maps and StoryMaps to compile an interactive map-drawer to accompany our 2022 ERI update. The website for our map drawer example is <http://www.madisonnet.org>.

Required experience and materials:

This exercise is suitable for high school students and adults. Access to a computer and the internet is necessary to build web maps.

Learning Objectives

At the end of this toolkit exercise, participants will be able to:
✓ Create an online web map with ArcGIS.com.
✓ Modify web maps by adding and editing online data layers.
✓ Share web maps with others.
✓ Combine multiple web maps into an online StoryMap.
✓ Share original StoryMaps with others.



Figure 1: Example StoryMap Describing Local Residents' Perceptions of Threatened and Endangered Species



Figure 2: Example StoryMap Describing Local Characteristics of the Madison Urban Watershed (2011)

Toolkit Instructions

Instructions for designing web maps and StoryMaps suitable for an ERI are available online at:

<https://madisonnet.org/about/>

The seven-page set of instructions describes the purpose of creating web maps and StoryMaps to support the ERI, links to example maps, and offers step-by-step instructions for building maps with public ESRI services. The toolkit assists in identifying data sources, suggests investigation strategies, and demonstrates how to use ArcGIS.com and StoryMaps to build a living ERI.

How to Create Web Maps and StoryMaps to Build an Environmental Resource Inventory (ERI) for Your Town

About the Authors:
Bridget Daley, Ph.D., Assistant Professor of Environmental Studies and Biology, Madison Borough High School
Lisa Jordan, Ph.D., Assistant Professor of Environmental Studies and Biology, Madison Borough High School
Madison Borough, N.J. 07042

Challenges

When working with youth in your community, especially people in school, it is helpful to keep in mind the following:

- Matching SJ submission schedules to student schedules (exams, semesters) can be a challenge.
- Finding a task within student interest is important for a meaningful collaboration.
- Choosing tasks appropriate for volunteer abilities is helpful, but often requires trial and error.
- Youth projects should be educational, not just grunt work.

Additional Challenges

When working with youth in your community, especially people in school, it is helpful to keep in mind the following:

- Flexibility is needed to allow for volunteer innovation, but sometimes this conflicts with the constraints of the actions.
- Teachers involved prioritize basic course requirements first, which can sometimes limit engagement.

Keys to Success!

We found that the following worked for us:

- Engage in early, up-front, and detailed planning with volunteers.
- Plan for frequent check-in meetings (zoom is a good option here)
- Share responsibility with the volunteer, enabling them to articulate the “big picture,” when presented publicly.
- Collaboration has big benefits: working together helps us identify gaps and solve problems with creativity.
- Consider drafting an invitation for interns or volunteers with clear timeframes and goals for participants.
- Gratitude: Thank volunteers for their helpful contributions!

Intergenerational Partnerships, from the Perspective of a Young Activist

By Ava Blando, RHS Senior

Artistic Activism Coordinator of NJSSC

My Background



- Environmental interests since age 4
- Incoming Senior at RHS
- Singer/Songwriter
- NJSSC since freshman year
 - Policy Coordinator (2019 - 20)
 - Artistic Activism Coordinator (2020-Present)





My Generation

“The young do not know enough to be prudent, and therefore they attempt the impossible, and achieve it, generation after generation.”

— Pearl S. Buck.



Benefits of Intergenerational Organizing

Young folks (Gen Z & Millennials): have best access to the most people

- Exist in vibrant social institutions (colleges, clubs, student organizations)
- Leverage technology to expand audience faster/more easily
- Intense motivation (it's our future after all)
- Modern thinking (progressive on issues, full of new ideas)

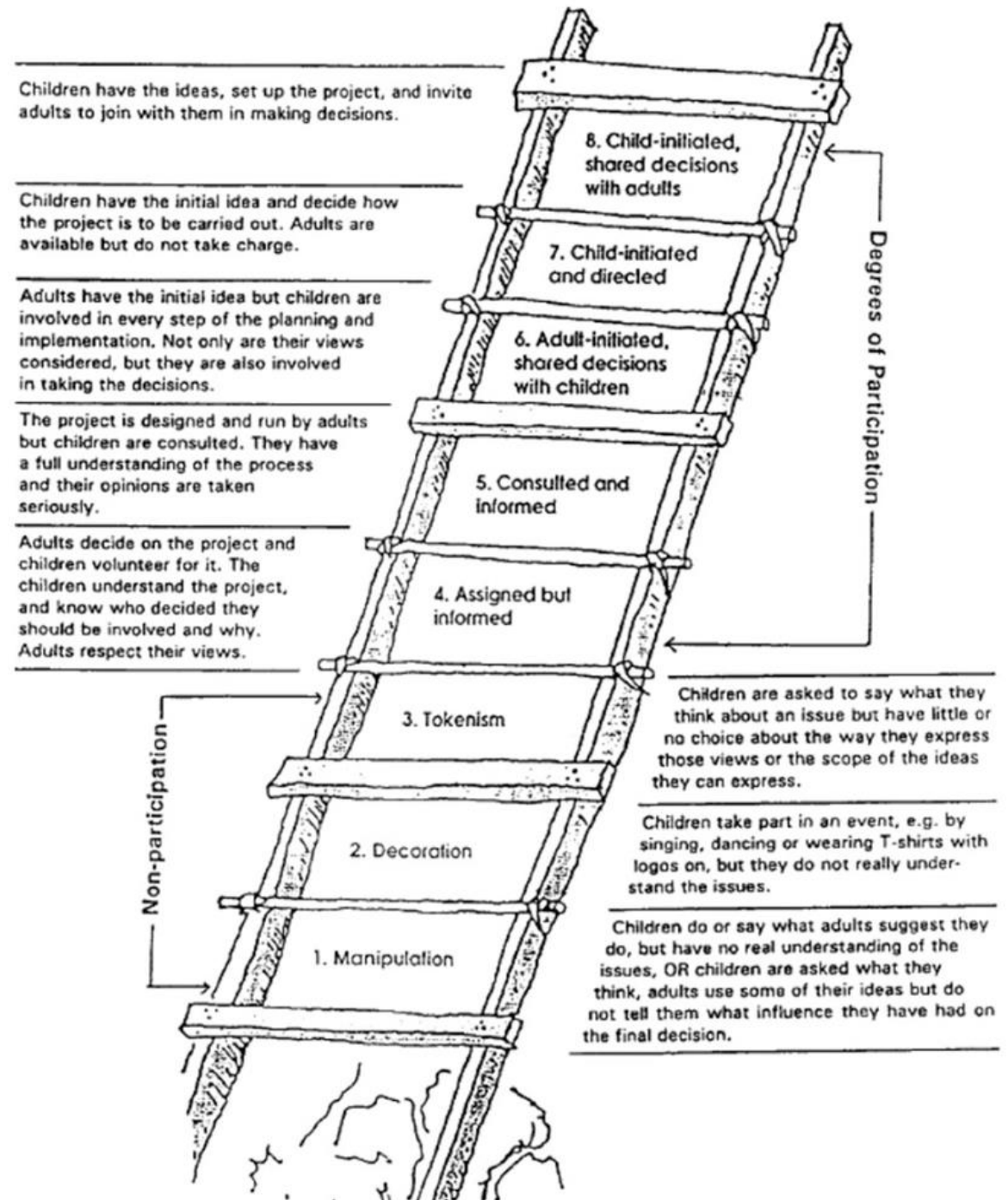
Older folks (Gen X & Baby Boomers): have best access to the key people

- More time to build relationships w/ leadership & to become the leadership
- Hold positions of power & have institutional access
- Higher education
- More experience
- Voting

Intergenerational Organizing Ladder

What can older activists do to embolden and aid young activists?

Give us authentic opportunities, a seat at the table, a voice for our strengths, and the chance to learn from your experience.



The Challenges

Logistics

Young people have odd schedules. We're only free outside of school hours and extracurriculars. This can present a challenge when planning meetings and events.

Differing Values & Experiences

Each generation has its own way of viewing the world. It can be difficult to bridge this gap.

Feeling othered is common when intergenerational meetings are unsuccessful.

My experience with successful intergenerational activism

NJSSC & GAFTG

- Young Folx
 - Participate equally in weekly evening meetings
 - Bring our generational & technological expertise
 - Focus on expanding GAFTG into younger audiences
- Older Folx
 - Lend opportunities and share resources
 - Share decades of knowledge and experience
 - Gain participation from youth
 - Train the next generation



Important Tips

1. Empathy
2. Collaboration
3. Equal Partnership
4. Opportunities +
Mentorships
5. Inclusion



SUSTAINABILITY SUMMIT



Harts Ladder Information



Questions?

**What ideas do you have
for engaging students
in your efforts?**

Program Underwriters



PSEG
Foundation



Robert Wood Johnson Foundation



Grant Program Underwriters



PSEG
Foundation

Sustainable Jersey Summit Sponsors and Partners

Corporate Sponsors

Platinum



PSEG



**New Jersey
Natural Gas**

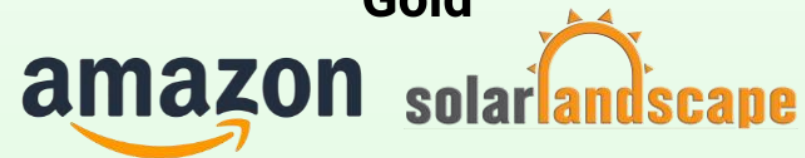


**SOUTH JERSEY
GAS**



**ELIZABETHTOWN
GAS**

Gold



Silver



**Atlantic
Health System**



**NEW JERSEY
AMERICAN WATER**



Sustainable Jersey for Schools Summit Sponsors and Partners

Corporate Sponsors

Platinum



Gold



Thank You

Session slides will be available on at sustainablejersey.com by 6/30.