Plant Rescues: Using Salvaged Plants to Create Meaningful Landscapes

Ellen Barth Alster, RLA, ISA, LEED, Jessie Byrd, ASLA, Diane Jones-Allen, RLA, ASLA, Anna Thurston, ASLA Affiliate

Learning Objectives: Reusing salvaged plants and diverting them from disposal is included as an option in SITES. This session demonstrates how plants, otherwise lost to development, have been successfully incorporated into public spaces in Tucson, New Orleans, and Seattle. Benefits include restored native plant communities, preserved regional identity, partnerships fostering environmental justice, and thrift.

- Observe case studies where rescued plants have transformed public landscapes, recreating habitats, preserving genetic diversity, and serving the goals of environmental justice.
- Discover how integrating rescued plants builds community support for projects, bridges gaps between stakeholders, and promotes regional identity.
• Learn about plant rescue organizations and partnering opportunities with community agencies and volunteers to access valuable native plant materials.
• Gain insight into the direct economic cost savings and indirect benefits obtained from plant salvaging programs that divert plant materials from landfills.

Outline:

I. Introduction:
   A. Why plant rescues?
      1. Salvaging plants and diverting them from disposal included as an option in SITES
      2. Cultural - Creating sense of place, while preserving regional identity/ cultural heritage
      3. Ecological - preserving local plant genetics and pollinator species, in addition to preventing the extinction of rare plants
      4. Social - building partnerships among diverse groups, while promoting project awareness
   B. Overview of state and national plant rescue programs and organizations
   C. Negative attitudes toward plant rescues among some native plant groups
      1. Should be used only as a last resort – a failure to protect habitat
      2. Detracts from conservation efforts - provides “free pass” to disturb intact vegetation

II. Tucson/Southwest Region Case Studies
   A. Pima County Arizona’s Native Plant Salvage Program
      1. Background/History
         a. Early 1980’s – saguaro preservation/salvage required as rezoning condition
         b. 1998 – Native Plant Preservation Ordinance enacted requires preservation and or salvage and re-planting of protected native plants
         c. Lessons learned from early efforts
      2. Pima County’s Environmentally Sensitive Roadway Design Guidelines
         a. Partnership with government agencies and Tucson Cactus and Succulent Society
         b. Shifting emphasis from individual plants to plant communities
B. Getting cozy with cactus – moving Sonoran Desert native plants

1. Pima County Native Plant Nursery. A two-acre facility that collects salvaged plants and also grows native plants from wild-collected seed for reintroduction to publicly-owned projects.

2. Tucson Cactus & Succulent Society and Pima Prickly Park – a seven-acre park on the site of a former gravel pit, landscaped almost entirely by natural succession and salvaged cacti. Includes SaguaroHenge, cactus maze, walking paths, and picnic areas.

3. Pima County Facilities – salvaged plants installed in public areas by combination of volunteers, youth work crews, horticultural therapy crews, and prison inmate crews.
   a. Public Libraries
   b. Pima County Housing Center

III. Pacific Northwest/Seattle-Tacoma

A. Native Plant Salvaging Overview
   1. Overview of program successes and failures
   2. County by county salvage program comparisons

B. Holistic Objectives/Sites where salvaged native plants are utilized
   1. Parks – plants salvaged from roadway interchange installed at
   2. Tacoma’s Metro Parks Headquarters, replacing lawn areas
   3. Schools - students salvage, design, and construct gardens using
      native plants – “Last Child in the Woods”
   3. Police Stations (Tacoma’s agencies install cost effective landscapes)
   4. Open Space Restoration (supports local carbon sequestration)
      a. Overcomes minimally available volunteers and landscape funds
      b. Overcomes minimal funds for landscape + on-going resources
   5. Residential applications with salvaged native plants
      a. Water conservation benefits to water provider and paying customer
      b. Water Quality benefits to utility providers
   6. Habitat expansion rather than habitat dissection
   7. Re-acquainting people with Nature
   8. Providing/enhancing habitat for on/off site endangered species – Golf Course Case Study
      a. Food and shelter for endangered birds/butterflies
      b. Enhancing downstream water quality and reducing resources at cash-strapped facility
      c. Providing public demonstrations/educational outreach
IV. New Orleans/Louisiana Case Study-Southern University in New Orleans Campus Restoration

A. Project History

1. Campus part of HBCU (Historically Black Colleges and Universities Network) – only network of colleges specifically serving African Americans
2. Opportunity for Campus regrowth after destruction by Hurricane Katrina – eligible for FEMA funding to meet some but not project goals
3. Campus growing to meet underserved educational needs of African American gulf coast and Caribbean communities
4. Severe building damage required removal, while much of mature landscape remained intact
5. Convincing project team that plant salvage and re-use was best course of action economically, ecologically, and socially– a challenging task
6. Plants having cultural, as well as ecological value – non-native plants (crapemyrtles, holly, sago palm, and azalea) worth preserving as well as native plants (oak, magnolia)
B. Activity Field adjacent to new student housing
   1. Plant Relocation installation and maintenance procedures
   2. Benefits
      a. Cost saving
      b. Preservation of historic landscape and shared memories
      c. Comfortable outdoor public spaces creating immediate sense of community in student population

C. Bio-retention facility:
   1. Plant relocation - installation and maintenance procedures
   2. Benefits
      a. Cost savings
      b. Environmental benefits – erosion control, carbon sequestration, reduction of urban heat island

V. Final Question: Is salvaging plants worthwhile?

VI. Q & A
Native Plant Rescue Groups by State (U.S. and Canada)

ARIZONA
Tucson Cactus and Succulent Society
http://www.tucsoncactus.org/

DELAWARE
Delaware Native Plant Society
http://www.delawarenativeplants.org/index.cfm?fuseaction=trees.pageDetails&p=9-4-11

FLORIDA
Bok Tower Gardens (national historic landmark)
http://boktowergardens.org/conservation/

GEORGIA
Georgia Native Plant Society
http://gnps.org/conservation/plant-rescue/
Georgia Plant Conservation Alliance
http://botgarden.uga.edu/conserve/details.php?program=GPCA#Gallery
The goal of the Georgia Plant Conservation Alliance (GPCA) is to prevent local extinctions of rare plant populations.

INDIANA
Indiana Native Plant and Wildflower Society
http://www.inpaws.org/biodiversity/rescuing-native-plants/

MARYLAND
University of Maryland Extension
http://extension.umd.edu/mg/training/organizing-native-plant-rescue

NORTH CAROLINA
Mountain Moss
http://mountainmoss.com/services/rescue/
North Carolina Native Plant Society
http://www.ncwildflower.org/native_plants/rescues

TEXAS
Texas Native Plant Society
http://npsot.org/wp/story/2014/6344/

WASHINGTON
King County Native Plant Salvage Program
Thurston County Native Plant Salvage
http://www.nativeplantsalvage.org/

**VIRGINIA**
Native Plant Society (has negative information regarding plant rescues)
http://vnps.org/conservation/plant-rescues/

Williamsburg Native Plant Rescue Team
http://williamsburg.plantrescue.org/

**CANADA**
North American Native Plant Society (has negative information regarding plant rescues)
http://www.nanps.org/index.php/activities/plant-rescues

**National Organizations with Past/and or Current Involvement in Plant Rescue**

**Center for Plant Conservation**
http://www.centerforplantconservation.org/
A network of 39 leading botanic institutions that is dedicated to preventing the extinction of U.S. native plants. One of the first organizations created to meet this need.

**Jane Goodall’s Roots and Shoots**
http://www.rootsandshoots.org/project/native-plant-rescue
A global youth-led community action program, with programs aimed at preserving the environment.

**National Recreation & Park Association**
http://www.nrpa.org/blog/conservation-inspiration-rescuing-native-plants/
(Online article re: Chicago Park District events)

**Plant Conservation Alliance**
http://www.plantconservationalliance.org/
A public-private partnership of 12 U.S. Federal Agency Members and nearly 300 Non-Federal Cooperators that the goal: of protecting native plants by ensuring that native plant populations and their communities are maintained, enhanced, and restored.

**Wild Ones**
A national not-for-profit, environmental education and advocacy organization established in 1979 advocating the use of native plants and natural landscaping.

**United State Botanic Garden**
http://www.usbg.gov/plant-conservation
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Background Information

Pima County Native Plant Salvage Program
http://webcms.pima.gov/government/transportation/native_plant_salvage_and_preservation/

Pima County Native Plant Nursery
https://webcms.pima.gov/cms/one.aspx?portalId=169&pageId=220052


Tucson Prickly Park including video on NPR
https://ondemand.azpm.org/p/segments/2012/1/18/1830-tucsons-haven-for-rescued-cacti/

http://www.nytimes.com/2006/04/14/us/14cactus.html?_r=3&oref=slogin&

Opuntioid Garden Proposal Tucson Prickly Park

“Grassroots Last-Ditch Rescues”, James McCommons, Audubon Magazine,
http://archive.audubonmagazine.org/features0903/grassroots.html

“FEMA Allocates $1.1 million to Restore SUNO’s Lake Campus,” September 21, 2015
http://suno.edu/fema-allocates-1-1-million-to-restore-sunos-lake-campus/

“FEMA awards SUNO an additional $82 million in Disaster Recovery Grants,” July 28, 2015
http://suno.edu/fema-awards-suno-an-additional-82-million-in-disaster-recovery-grants-to-construct-4-buildings/

http://suno.edu/chancellor-ukpolo-responds-to-nola-comtimes-picayune-articles/
Ellen Barth Alster is Senior Landscape Architect for the Pima County Department of Transportation in Tucson, Arizona. She oversees re-vegetation and restoration efforts for all County road projects, which includes everything from initiating a native plant salvage program to interpreting County policies and guidelines. She is an expert in the area of overlap between stormwater compliance and landscape issues, particularly in preserving vegetation and achieving final stabilization. With 30 years of public and private sector experience, she earned landscape architecture degrees at Michigan State and the Harvard University GSD and is a LEED AP, as well as an ISA Certified Arborist. Ellen can be reached at Ellen.Alster@pima.gov and (520)-724-6655.

Jessie Byrd is the Native Plant Nursery Manager for Pima County Natural Resources, Parks and Recreation, which specializes in growing native plants for public projects. She has salvaged thousands of cacti as a Cactus Rescue Crew volunteer, and also designed and constructed landscapes where these can be enjoyed by the public. Jessie believes that using native plants in urban landscapes can help encourage biodiversity while also creating beautiful gardens. She earned a Master of Landscape Architecture from the University of Arizona and a BA in Biology from Bryn Mawr College. Jessie can be reached at Jessie.Byrd@pima.gov or (520) 488-8022.

Anna Thurston is a veteran designer, educator and restoration ecologist specializing in native and adapted plants, Xeriscape and sustainable installations, with 35 years of experience. She currently is the president of Advanced Botanical Resources, Inc. in the Puget Sound Basin of Washington. She previously served as the Volunteer Coordinator for the Native Plant Salvage Alliance in western Washington State, working in partnership with the Washington Native Plant Society. She has spent her career promoting the use of native species and rescued plants to achieve resource efficiencies, enhance water quality and achieve significant cost savings, focusing all the while on public outreach and education. Anna’s BS degree in Landscape Horticulture Design was obtained from Colorado State University in 1982. She is currently pursuing a Masters of Environmental Studies at Evergreen State College. Anna can be reached at rathurston@gmail.com or (253)-227-4923.

Diane Jones Allen, D. Eng., ASLA, PLA examines the relationship between community design, urban planning, and environmental justice through her design consulting, research, and current teaching as an Instructor at the Robert Reich School of Landscape Architecture at Louisiana State University, and past teaching as a Tenured Associate Professor at Morgan State in Baltimore, Maryland. Prior to teaching, Jones Allen practiced for over a decade as Principal Landscape Architect with TerraDesigns Inc. in New Orleans, Louisiana. She is currently Principal Landscape Architect with DesignJones in New Orleans. Jones Allen holds Doctorate in Civil Engineering from Morgan State University in Baltimore, Maryland, a Bachelor of Fine Arts degree from Washington University in St. Louis, Mo, and a Master of Landscape Architecture from the University of California, Berkeley. Diane can be reached at diane@designjonesllc.com or (410)-456-0418.