Your Performative Landscapes: Building a City-Specific Landscape Management Plan

Presentation outline:

• Current Efforts in Quantifying Landscape Value
• Challenges and Concerns
• Lesson learned and recommendations

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WHY LANDSCAPE PERFORMANCE?

- Urban Landscape is the Building Block of NbS, GI, and Urban Resiliency
- GRAY or GREEN? The Endless Debate
- Evidence-based Policy, Planning, Design, Construction, and Management

Chih-Wei G.V. Chang
MAJOR EFFORTS:

• American Society of Landscape Architects (ASLA): Resilient Design
• Landscape Architecture Foundation (LAF): Landscape Performance Series
• US Green Building Council: Sustainable Site Initiatives (SITES)
Professional Practice

RESILIENT DESIGN

Find solutions for:
- Biodiversity Loss
- Drought
- Extreme Heat
- Fire
- Flooding
- Landslides

https://www.asla.org/resilientdesign.aspx
The Landscape Performance Series is the online set of resources to help designers, agencies, and advocates evaluate performance, show value and make the case for sustainable landscape solutions.
Advance your knowledge of sustainable landscapes.

A free webinar series by SITES provides more information about sustainable landscape design and development and why they matter, and tips to SITES certification:

- Introduction to the SITES program
- Understanding the SITES Rating System
- Getting Started with the SITES Program

Review our free SITES Rating System and scorecard that provides you with a complete set of prerequisites and credits used for measuring site sustainability.

http://www.sustainablesites.org/
What are the Challenges?

• Regional Differences with Non-Standard Conditions / Materials

• Dollar-value Viewpoints of Utilizing Eco-system Services

• Selection Bias: Who to Set the Goals? for Whom? Expectation Management
Wisconsin DNR's Northeast Regional Analysis Project

Find Locations  Explore Location Data  See Tree Benefits  Prioritize Tree Planting  Generate Results

[Infographic showing benefits of trees such as stormwater runoff reduction, property value increase, CO2 reduction, energy savings, and air quality improvement.]

- Stormwater Runoff Reduction: $496,340
- Property Value Increase: $607,879
- CO2 Reduction: $67,558
- Energy Savings: $507,844
- Top 5 Street Tree Species: Norway Maple, Green Ash, Honeylocust, Linden, White Ash
WHERE ARE THE PEOPLE?

Automating the business case with Triple Bottom Line Cost Benefit Analysis (TBL-CBA)

Using economic analysis, Autocase combines project specifications with industry-validated data to measure the value of net financial, social and environmental impacts affecting all stakeholders.

READ MORE ON TBL-CBA
Some Suggestions

• Design Redundancy for Risk Reduction / Design for Bio-diversity

• Co-creation process: Invest in pilot projects

• Post Occupancy Analysis and Feedback Loop

• Create a custom metric for your city, collaboratively (SF + NY)

• Smart Policy: Enabling and Allowing Room for Innovation
PLAN FOR REDUNDANCY
PLAN FOR REDUNDANCY
VEGETATION: native plantings cleanse water and create habitat

PLANNING FOR DIVERSITY
PILOT PROJECT
by installing water treatment system prior to the development the project benefits from both waterfront value increase and environmental improvement.
Post Occupancy Assessment
BUILD YOUR OWN GUIDELINE

Source: Landscape Commission White Paper
BUILD YOUR OWN GUIDELINE

PART IV:
BEST PRACTICES IN SITE SYSTEMS
SOILS
WATER
VEGETATION
BUILD YOUR OWN GUIDELINE

COMPOSITE SECTION
SITE TYPES FOR NYC PARKS

- PARKS OVER STRUCTURES
- PLAYGROUNDS
- ACTIVE RECREATION AREAS
- RESTORATION AREAS

STREETSCAPES
PASSIVE LANDSCAPES
POCKET PARKS & PLAZAS
BROWNFIELDS & RECLAIMED SITES
WATERFRONTS

GRAVITY PRAXIS
References & Links

Sustainable Site Initiative:  
www.sustainablesites.org

LAF: Landscape Performance Series  
www.landscapeperformance.org

Landscape Architecture Technical Information Series  
https://my.asla.org/My-ASLA/Store/StoreLayouts/Shop-LATIS.aspx

University of Arkansas Community Design Center  
http://uacdc.uark.edu/

AutoCase: https://autocase.com/

I-Tree: https://www.itreetools.org/#benefits

ASLA Resilient Design  
https://www.asla.org/resilientdesign.aspx

ASLA Smart Policy for a Changing Climate  
https://www.asla.org/climatepolicies.aspx

SF PUC Urban Watershed  
https://www.sfwater.org/index.aspx?page=615

NY High Performance Landscape Guideline  
https://www.nycgovparks.org/greening/sustainable-parks/landscape-guidelines

SWA Group  
www.swagroup.com

GravityPraxis  
www.gravitypraxis.com
THANK YOU FOR YOUR ATTENTION!

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