

The background of the slide features a large, faint watermark of the Rutgers University seal. The seal is circular with a sunburst in the center and the words 'RUTGERS UNIVERSITY' around the perimeter. A diagonal watermark reading 'Jeremiah Bergstrom Landy Conference 2017' is also visible across the seal.

RUTGERS

THE STATE UNIVERSITY
OF NEW JERSEY

Collaboration in Shaping Resilient Landscapes for the Future

Rutgers Cooperative Extension

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Problem

- Storm surge left many homes damaged following Hurricane Irene & Superstorm Sandy
- Repeated flooding continues to damage properties and threaten the health and safety of residents
- Many homes built between 1940-1960 sit at levels just above sea level and are at risk of major damage from future storms



Challenges

- Reluctance to take action to address climate change
- Limited understanding of value of “natural” capital
- Emotional attachment to place
- Acceptance of alternative landscape management approaches
- Loss of tax ratables and available housing



Borough of Sayreville, Middlesex County, NJ

Opportunity

- Ecological restoration planning to enhance ecosystem services

But....

- Balanced within the social and political framework of residents and community leaders



Borough of Sayreville, Middlesex County, NJ

Organizing for Success

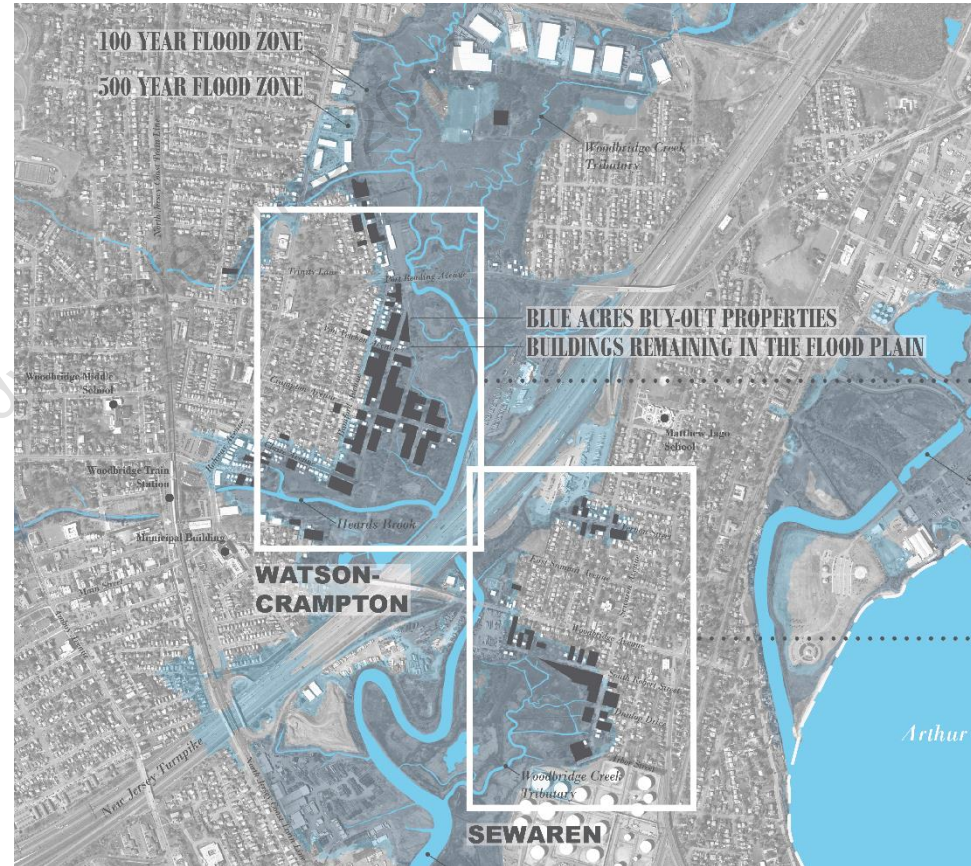
- Political will and planning for acquisition
- Communicating with community and negotiating with residents
- Developing a project team
- Preparing a vision
- Securing resources and implementing programs
- Management



*Hamilton Township, Mercer County, NJ
Courtney Sacco Photography*

Woodbridge: A Pro-active Approach

- Prepared a plan to identify, prioritize and guide purchase of homes in flood plain areas
- Township secured Blue Acres funding to purchase nearly 200 properties
- Developing a plan in partnership with extension specialists from the State University
- Actively seeking partnerships to implement plan and manage costs



Woodbridge Township, Middlesex County, NJ

Blue Acres Program

- All existing structures to be removed
- Property to be maintained as open space for conservation of natural floodplain functions
- No new permanent structures allowed
- Allowed uses of property include passive recreation, wetland management, natural areas, unpaved parking



Planning for the Future

- Protect health and safety of residents
- Encourage homeowners to relocate permanently out of harm's way
- Restore natural function of flood plain areas
- Promote storage and infiltration of stormwater runoff



Woodbridge Township, Middlesex County, NJ

Township Goals

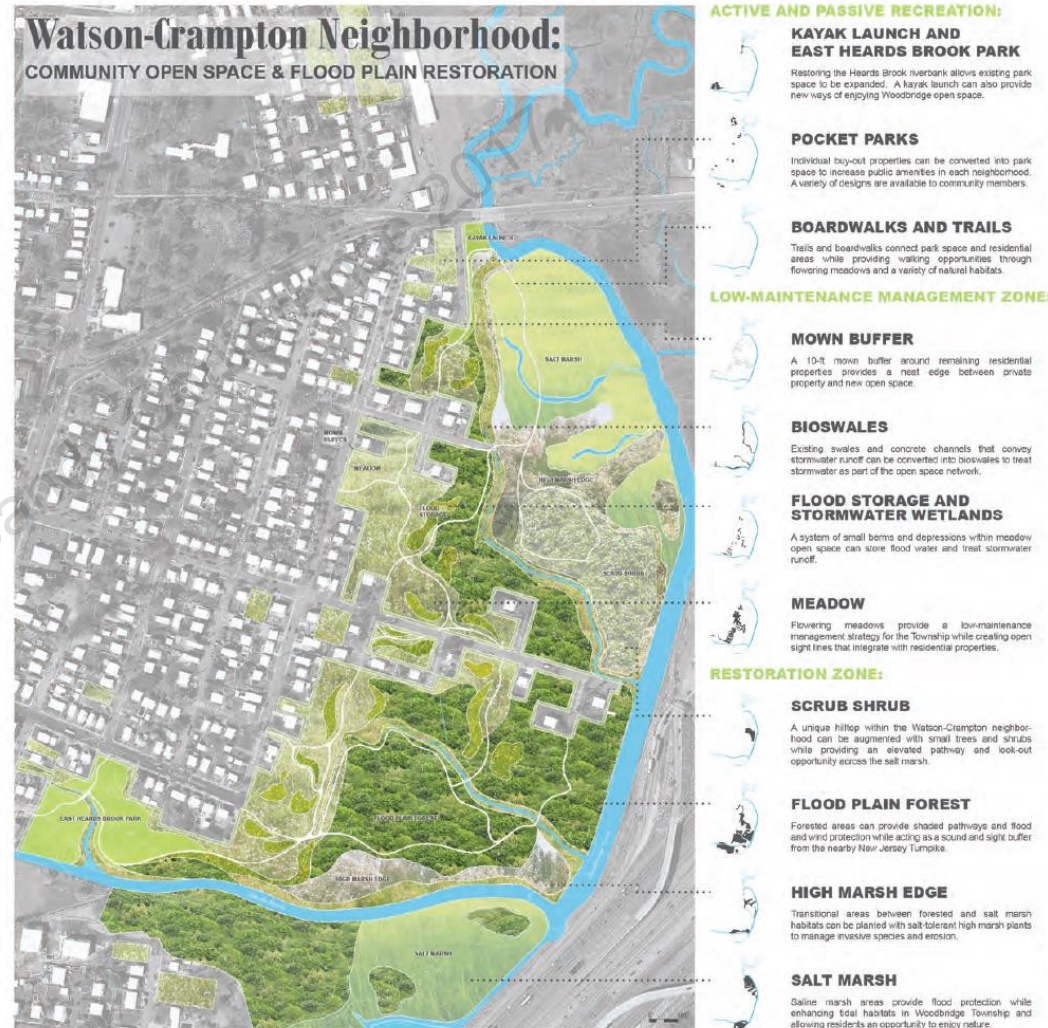
- Understand opportunities and benefits of newly acquired properties
- Maximize flood protection for the community
- Enhance recreational opportunities for residents
- Develop a long-term, sustainable management plan



Woodbridge Township, Middlesex County, NJ

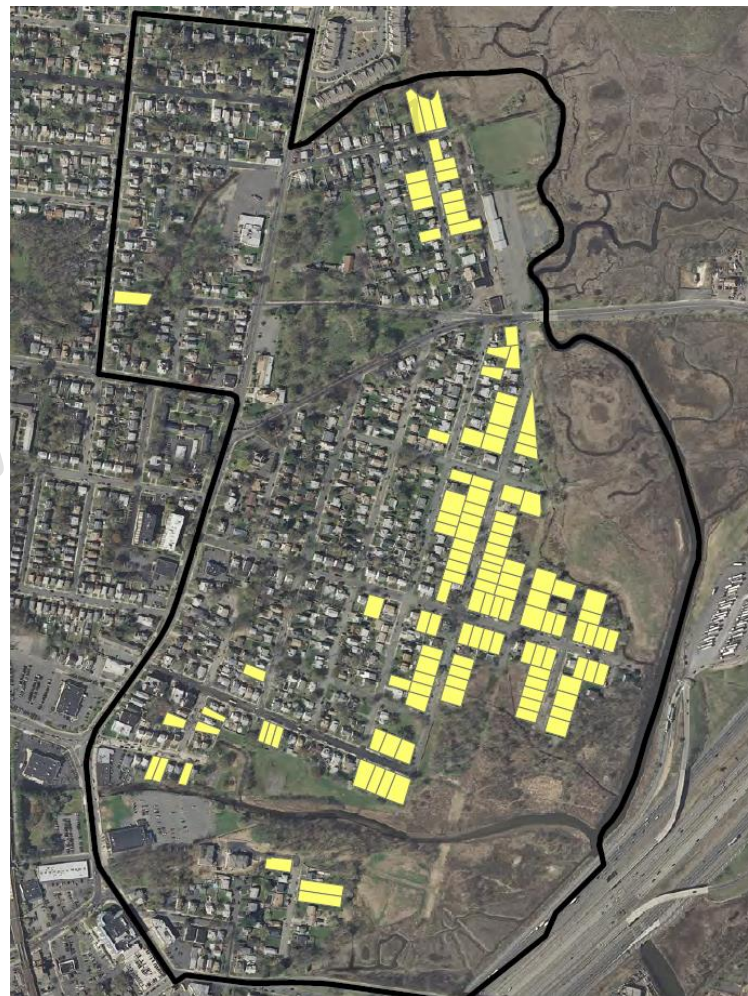
Rutgers Cooperative Extension's Role

- Develop a flood plain restoration plan
- Generate opportunities for passive recreation
- Create sustainable long-term management strategies
- Maximize benefits and function of public open space

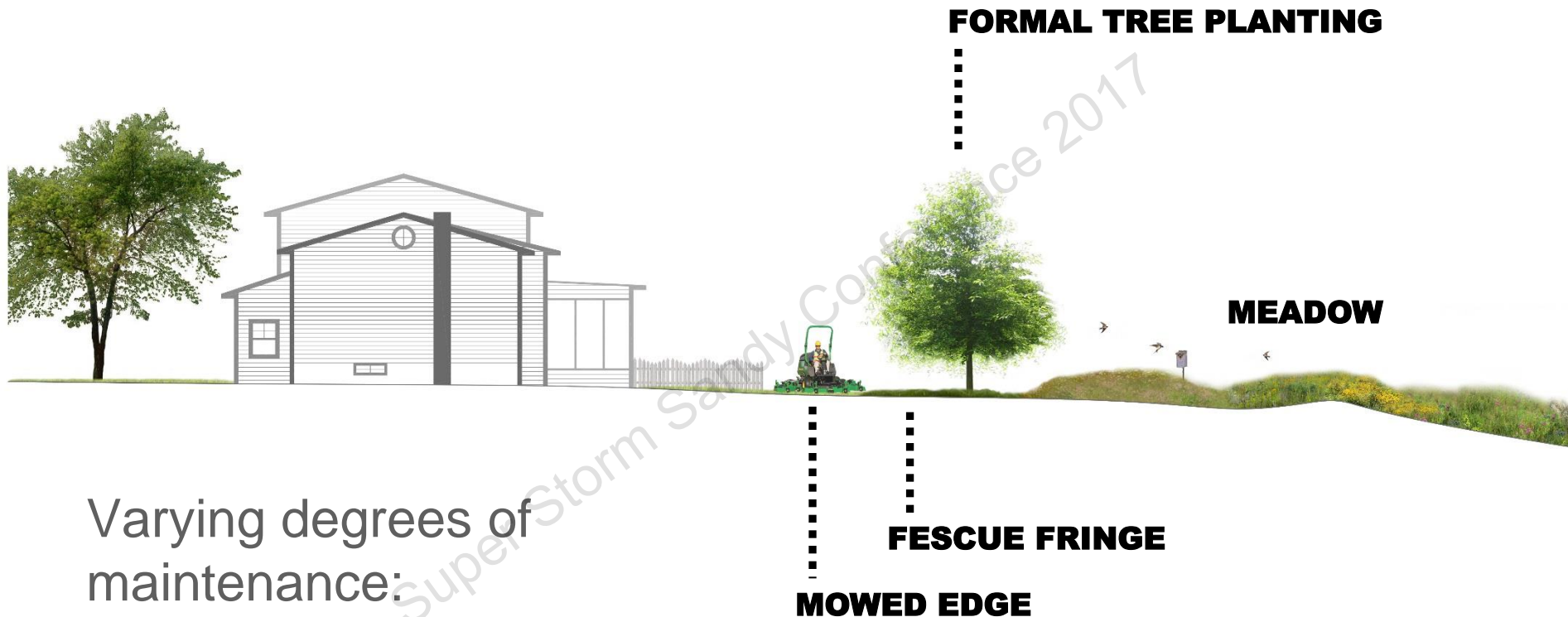


Watson-Crampton Neighborhood

- Approximately 215 acres
- Bounded by three waterways:
 - Wedgewood Brook
 - Heards Brook
 - Woodbridge River
- Includes over 50 acres of unmanaged natural areas
- 198 Buyout Properties



Urban to Natural Gradient



- Varying degrees of maintenance:
- Regular maintenance
 - Low maintenance
 - No/minimal maintenance

Habitat Restoration



RESTORATION ZONE:

SCRUB SHRUB

A unique hilltop within the Watson-Crampton neighborhood can be augmented with small trees and shrubs while providing an elevated pathway and look-out opportunity across the salt marsh.

FLOOD PLAIN FOREST

Forested areas can provide shaded pathways and flood and wind protection while acting as a sound and sight buffer from the nearby New Jersey Turnpike.

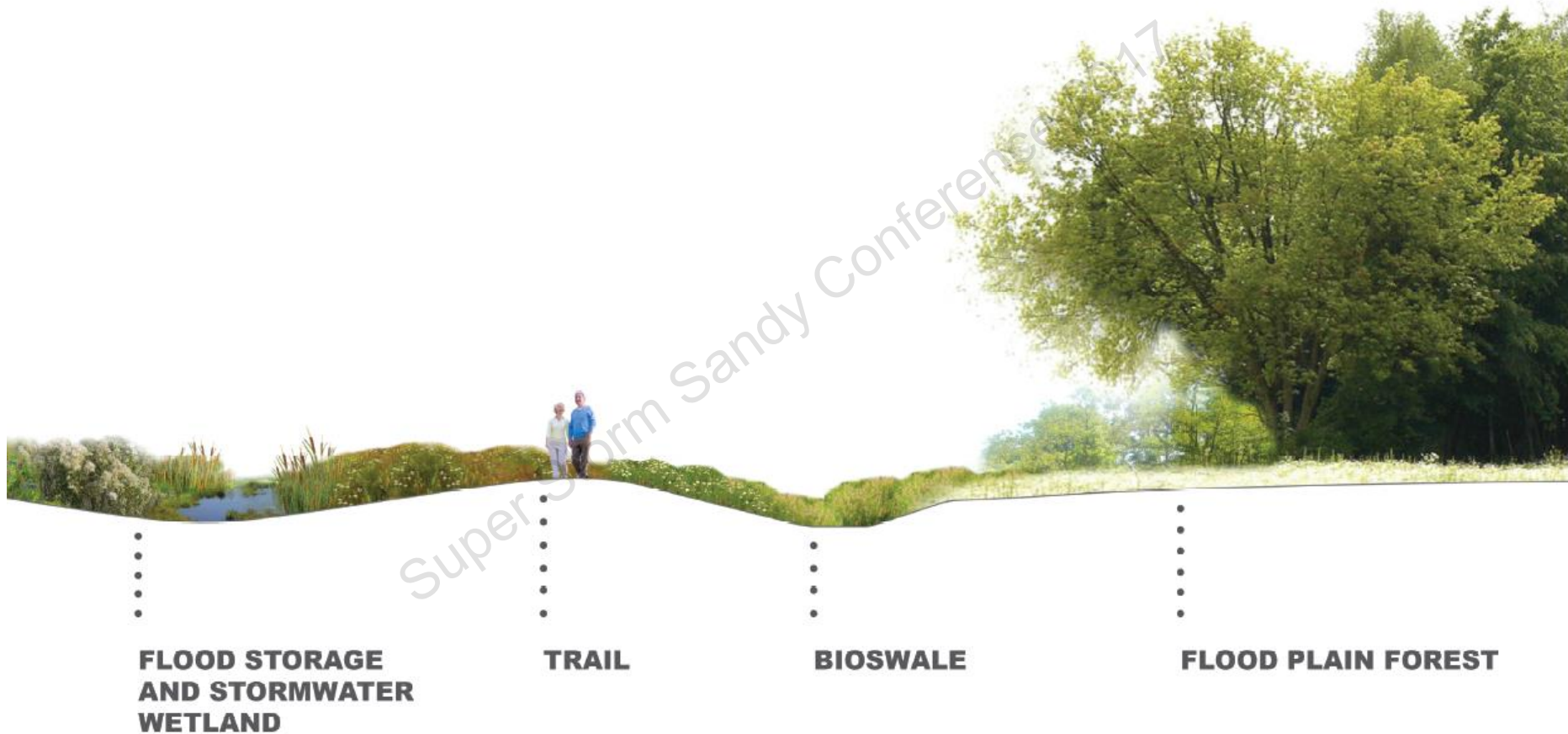
HIGH MARSH EDGE

Transitional areas between forested and salt marsh habitats can be planted with salt-tolerant high marsh plants to manage invasive species and erosion.

SALT MARSH

Saline marsh areas provide flood protection while enhancing tidal habitats in Woodbridge Township and allowing residents an opportunity to enjoy nature.

Flood Storage & Stormwater Management



Recreational Opportunities

- Passive recreation
 - Walking paths
 - Canoe/kayak launch
 - Birding

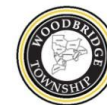


Recreation and Pocket Parks



BEFORE

AFTER



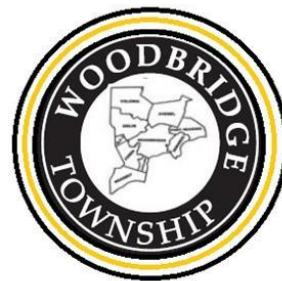
2016 IMPLEMENTATION

- removal of ~3 acres of impervious cover
- planting of ~50 trees
- seeding of ~3 acres of native meadow



2017 IMPLEMENTATION

- planting of ~1,000 native tree seedlings
- planting of ~2 acres of native meadow
- Securing \$160,000 stewardship grant through NJ Green Acres



Summary

- Design and plan for a range of demands
- Implement through partnerships
- Maintain continuity and momentum
- Remain flexible



Borough of Sayreville, Middlesex County, NJ

ACKNOWLEDGEMENTS

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