

# Adding Green Infrastructure to Local Codes

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LESSONS FROM TWO ROCKLAND COUNTY PROJECTS

Marcy Denker, Landscape Design and Consulting for Sustainability  
2014 Southeast NY Stormwater Conference October 15, 2014

# Two Code Reviews in Rockland County

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## Village of Nyack and Town of Orangetown

- Short time frame
- Limited funds
- Mixture of professional expertise (No planning firm)



# Two Code Reviews in Rockland County

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## Hudson River Watershed Alliance

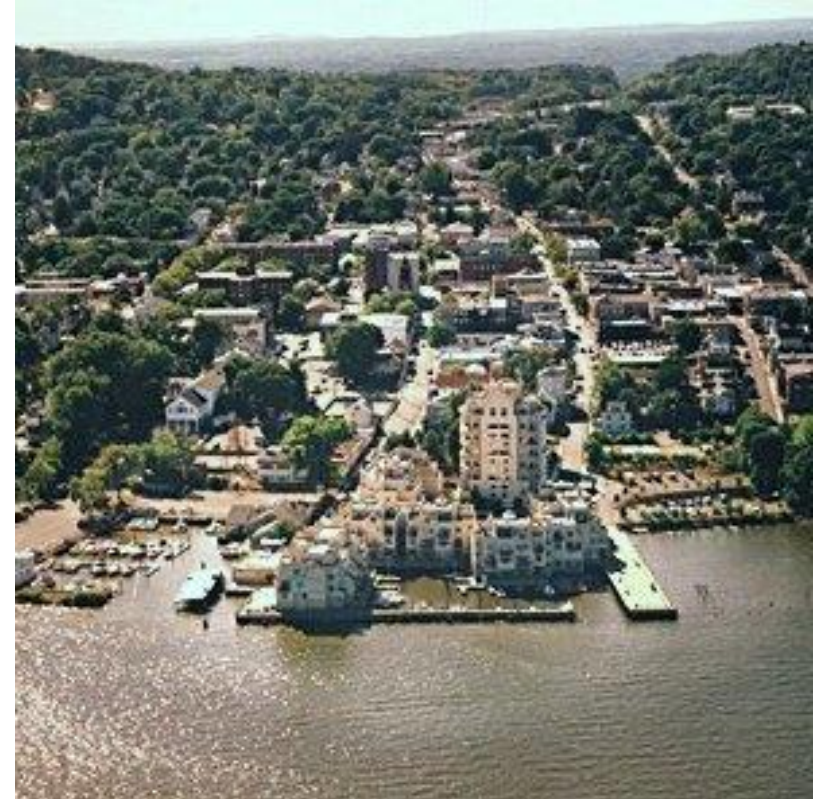
- 2014 project includes case studies and regional survey
- Develop guidance for communities that need support to get started on Code reviews



# Nyack Green Infrastructure Planning

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**Nyack Green Infrastructure Committee forms 2011**



# Nyack Green Infrastructure Planning

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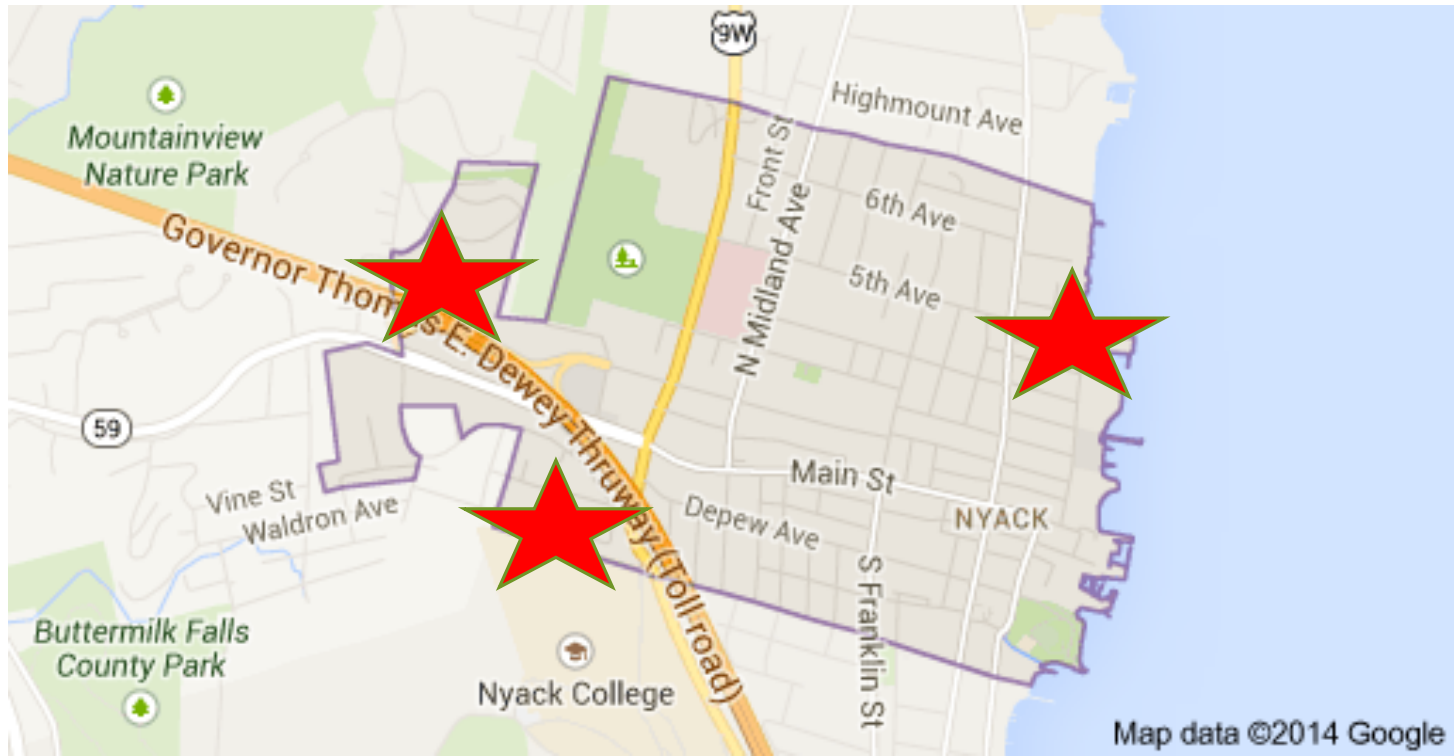
Concerns about flooding and water quality



# Nyack Green Infrastructure Planning

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Concerns about new development projects coming along soon.





# Nyack Green Infrastructure Planning

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## **Nyack Green Infrastructure Committee**

*Engaged leadership and capable members*

**Mayor:** Engaged and focused on potential impacts of upcoming redevelopment projects

**ZBA Chair:** Former Planning Board member, an attorney familiar with the Nyack Code

**Riverkeeper Volunteer:** Kept the pressure on about all the impacts and got in touch with DEC Estuary Program, local media..

**An active senior citizen/graphic artist** Created the Downspout Disconnection flyer

**Me:** Landscape architecture and environmental planning background plus green infrastructure planning experience

# Nyack Green Infrastructure Planning

## Year One for the Committee

Getting organized

Thinking about retrofits and outreach

Deciding on priorities

Choosing the Code Review/Roundtable



Committee's  
Google Site



Outreach campaign about  
downspouts



# Nyack Green Infrastructure Planning

## CODE REVIEW ROUNDTABLE Grant for Consulting Services

Barbara Kendall and Hudson River Watershed Alliance grant



**Town of Wappinger**  
Recommended Model Development  
for Conservation of Natural Resources  
in the Hudson River Estuary Watershed  
*Consensus of the Local Site Planning Roundtable*



A partnership among:  
Town of Wappinger, Dutchess County, New York  
Dutchess County Environmental Management Council  
Wappinger Creek Watershed Intermunicipal Council  
NYSDEC Hudson River Estuary Program  
Center for Watershed Protection, Maryland



**Town of Clinton**  
Recommended Model Development Principles  
for Protection of Natural Resources  
in the Hudson River Estuary Watershed  
*Consensus of the Local Site Planning Roundtable*



A partnership among:  
Town of Clinton, Dutchess County, New York  
Dutchess County Environmental Management Council  
Wappinger Creek Watershed Intermunicipal Council  
NYSDEC Hudson River Estuary Program  
Center for Watershed Protection, Maryland

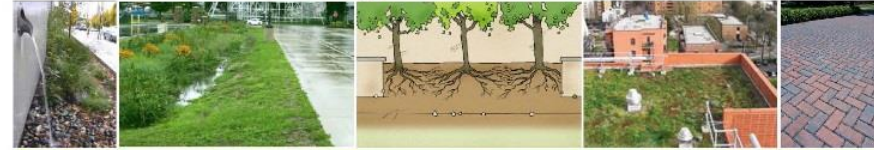


# Nyack Green Infrastructure Planning

## CODE REVIEW ROUNDTABLE KICKOFF September 2012

- 1- Outreach – general and targeted
- 2- Introduce Green Infrastructure and the Roundtable
- 3- Form Two Committees

### Green Village and Clean Hudson



## NYACK GREEN INFRASTRUCTURE ROUNDTABLE

### Public Kickoff

Saturday, September 22, 2012 9am until noon

#### WHAT IS GREEN INFRASTRUCTURE?

*Green infrastructure is a planning approach using techniques that mimic the way nature manages water. Rain gardens, green roofs, permeable paving, tree plantings, bioretention systems, rain barrels and cisterns filter runoff and allow it to infiltrate into the soil rather than flowing into roadways and sending pollution to our waterways.*

*Public and private properties can benefit from green infrastructure, and the Village of Nyack is creating a process to promote and incentivize these practices.*

#### WHAT IS THE ROUNDTABLE?

*Volunteer committees will meet this fall to review the local codes and develop a set of proposed changes that reflect a green infrastructure approach for new and existing development.*

#### PROGRAM

**Welcome** – Jen Laird White, Mayor of Nyack

**Introduction to Green Infrastructure**–

Marcy Denker, Coordinator/Chairperson,  
Nyack Green Infrastructure Committee

**Nyack's Results on the  
Low Impact Development Code Review Worksheet**  
Catherine Friesen, Chairperson, Nyack Zoning Board of Appeals

**The Roundtable Process**  
Barbara Kendall, CPESC, CMS4S, Hudson River Watershed Alliance

#### Q&A

**Committee Set up and Coordination**  
Roundtable Team

**Nyack Village Hall** 9 North Broadway, Nyack, NY

Contact: Marcy Denker, Coordinator [mddenker@gmail.com](mailto:mddenker@gmail.com)

**WHO SHOULD PARTICIPATE?** Village Trustees, Land Use Board Members, Code Enforcement Officers, Department of Public Works, Engineers, Landscape Architects, Architects, Planners, Business Leaders, Developers, Environmental Groups, and Interested Citizens from all the River Villages



# Nyack Green Infrastructure Planning

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## **TWO ROUNDTABLE COMMITTEES**

(Based on the Code Review Worksheet and the model reports)

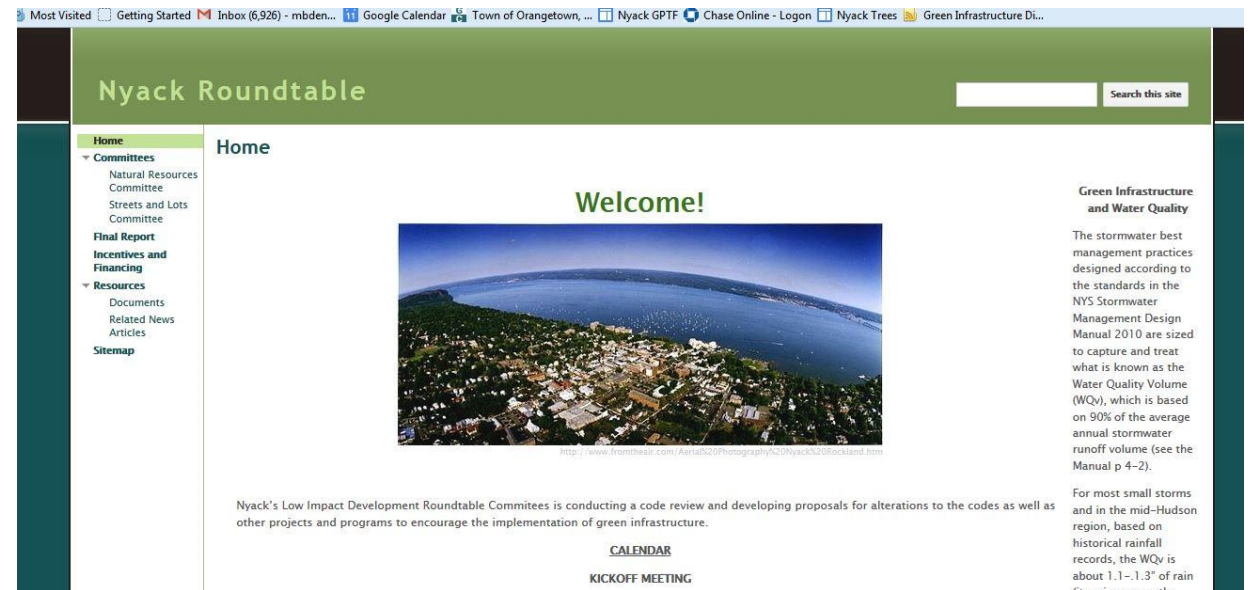
- 1. Natural Resources:** Trees, steep slopes, wetlands, etc.
- 2. Streets and Lots:** The impervious built landscape

# Nyack Green Infrastructure Planning

## CODE REVIEW ROUNDTABLE

Original Plan 4 months 10/12-1/13  
and then...

- Committee meetings
- Hurricane Sandy slows us down
- Barbara Kendall takes a new job
- I become the Project Coordinator



The screenshot shows a web browser window with the address bar displaying "Most Visited", "Getting Started", "Inbox (6,926) - mbden...", "Google Calendar", "Town of Orangetown, ...", "Nyack GPTF", "Chase Online - Logon", "Nyack Trees", and "Green Infrastructure Di...". The website title is "Nyack Roundtable". The main content area features a "Welcome!" message above a large aerial photograph of a coastal town. To the right of the photo is a section titled "Green Infrastructure and Water Quality" with text explaining stormwater management practices. Below the photo, there is a paragraph about the committee's code review and development proposals, followed by a "CALENDAR" link and a "KICKOFF MEETING" link. A left sidebar contains a navigation menu with items: Home, Committees (Natural Resources Committee, Streets and Lots Committee), Final Report, Incentives and Financing, Resources (Documents, Related News, Articles), and Sitemap.

The Committee's  
Google Site

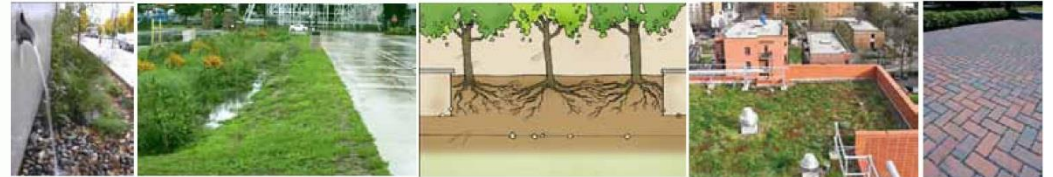
# Nyack Green Infrastructure Planning

## CODE REVIEW ROUNDTABLE and REPORT October 2012 - June 2013

### Who participated throughout the project?

Marcy Denker, *Roundtable Coordinator and Nyack Green Infrastructure Committee Chair*  
Jen Laird White, *Mayor, Village of Nyack*  
Doug Foster, *Trustee, Village of Nyack*  
Robert Galvin, *Village of Nyack Planner*  
James Politi, *Village Administrator*  
Donald Yacopino, *Village of Nyack Building Inspector*  
Paul Curley, *Alternate Member, Nyack Architectural Review Board*  
Alan Englander, *Member, Nyack Planning Board*  
Catherine Friesen, *Chair, Nyack Zoning Board of Appeals*  
Pearl Gray, *Resident*  
Stephanie Hughes, *Resident*  
Peter Klose, *Chair, Nyack Planning Board*  
Mary Ann Armano, *Member, Nyack Zoning Board of Appeals*  
Ann Donzella Owens, *Science teacher Ps 277, Adjunct Professor, Lehman College*  
Katherine Schwarz, *Environmental Educator*

### *Green Village and Clean Hudson*



## NYACK GREEN INFRASTRUCTURE REPORT



**CONSENSUS OF THE NYACK GREEN INFRASTRUCTURE ROUNDTABLE  
VILLAGE OF NYACK, NY**

# Nyack Green Infrastructure Planning

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## **The State of Nyack's Code**

***Code was updated in 2010***

Natural Resource Protection Chapter:

- Steeps slopes protection
- Tree protection
- Net zero runoff provision

The Definition of Land Development Activity stronger than state requirement  
(10,000 sf threshold for SWPPP)



# Nyack Green Infrastructure Planning

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## Key Recommendations

- Consolidate for **clarity**—Merge Stormwater Management and Erosion and Sediment Control Chapters
- Add **explicit descriptions** of green infrastructure practices
- **Map** watersheds and stormwater infrastructure
- Refine **tree protection** ordinance based on a tree inventory and community forestry plan
- Add **parking lot design** standards: Promote alternative layouts, permeability, bioretention and tree planting
- Allow **land banked parking**
- Require **runoff reduction** on impervious sites below 10,000 sf: Investigate strategies that would be appropriate
- Offer density **incentive** for green infrastructure

# Nyack Green Infrastructure Planning

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## **New Chapter of Nyack Code**

### **§360-4.14 Sustainability**

Developed during the process, alongside the Roundtable.

Density incentives (based on density or Floor Area Ratio depending on the district)

- Brownfield remediation.
- Thirty-percent permeable surfaces.
- Exceeding the New York State Energy Code by 10%,
- Provision of rain gardens and/or water harvesting techniques.
- Provision of solar collection panels and/or geothermal energy.
- Daylighting of Nyack Brook where appropriate and applicable based on review by the Planning Board.
- Provision of green extensive eco-roof

# Nyack Green Infrastructure Planning

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## **Where we are now:**

Escrow for engineering and landscape architecture from the beginning stages

Hiring a part time engineer?

Escrow for maintenance

Assessing, refining and integrating all sustainability planning

## **Other benefits of developing the report:**

Greenway Grant

Urban Forestry Grant

Climate Smart Communities

# Town of Orangetown Green Infrastructure Planning

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## GENESIS OF THE PROJECT

Town Supervisor, key staff and others recognize the need to audit the code, but staff time is limited.



# Town of Orangetown Green Infrastructure Planning

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## **FAST TRACK PROCESS AND NO ROUNDTABLE**

- I. First draft developed based on input (on worksheet and rough drafts) from key staff
- II. Final draft to include input from environmental groups, land use boards and tree commission

# Town of Orangetown Green Infrastructure Planning

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**MODIFIED WORKSHEET** Orangetown Worksheet was based on the Albany County Stormwater Consortium's Worksheet, the EPA Water Quality Scorecard, and Nyack Green Infrastructure Report.

- Not a scorecard.
- Spaces for comments (to help make up for lack of roundtable discussion)
- Priority rating for issues

*There were no comments provided and limited opportunities for discussion.*



# Town of Orangetown Green Infrastructure Planning

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## **KEY ISSUES**

1. Significant gaps in Natural Resources Protection and other relevant areas
2. NYS requirements for green infrastructure is the standard (No stronger local laws)
3. Anticipated resistance to constraining or burdening developers and private property owners
4. Need some professional planning advice to lay out alternative approaches and help set priorities
5. Need engaged advocates to help carry out and promote next steps

# Town of Orangetown Green Infrastructure Planning

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## **1 - Significant gaps in Natural Resources Protection**

Recommend a new chapter that includes wetlands and waterbodies, trees and vegetation, buffers, and steep slopes.

**BUT**

Consider adding separate provisions in other parts of the existing code.

# Town of Orangetown Green Infrastructure Planning

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## **2 - NYS requirements for green infrastructure is the standard (No stronger local laws)**

Find simple revisions that would easily gain acceptance:

Examples:

- Revise the code to require that cul de sacs if -----be landscaped, and \_\_\_\_\_
- Revise the parking lot design specifications to include a reference to “Design specifications as per the NYS Stormwater Management Design Manual
- Revise the code to recommend the use of permeable paving where feasible and appropriate

# Town of Orangetown Green Infrastructure Planning

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## **3 - Anticipated resistance to constraining or burdening developers, private property owners, and departments**

### **Examples:**

#### **More requirements = more engineering**

- Establish escrow accounts
- Recognize the costs of stormwater on municipal infrastructure when making the rules.
- Make clear rules. Clarity in the application and review process matters to developers

#### **Consider impacts on small property owners**

- Work and keep working on outreach and education

# TOWN of ORANGETOWN Green Infrastructure Planning

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## **4 - Need some professional planning advice to lay out alternative approaches and help set priorities**

- Orangetown should develop strategy for with the help of a professional planner.

# Town of Orangetown Green Infrastructure Planning

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## **5 - Need engaged advocates to help carry out and promote next steps**

- Orangetown Environmental Committee would like to revisit the idea of becoming a Conservation Action Council
- Tree Commission and Architectural and Community Appearance Board roles and past experience in tree protection will be acknowledged and the report will aim to provide concrete actions that would support and help to achieve
- Sparkill Creek watershed Coalition have been asked to comment on the proposed ways to protect the creek



# Lessons (in the rough)

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- Recognize that some revisions will be easy if knowledgeable staff are asked to identify them with a little help.
- Acknowledge that stormwater matters and that stormwater management crosses over so many parts of the code and community goals.
- Aim to be have a real roundtable as much as possible.

# Contact

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