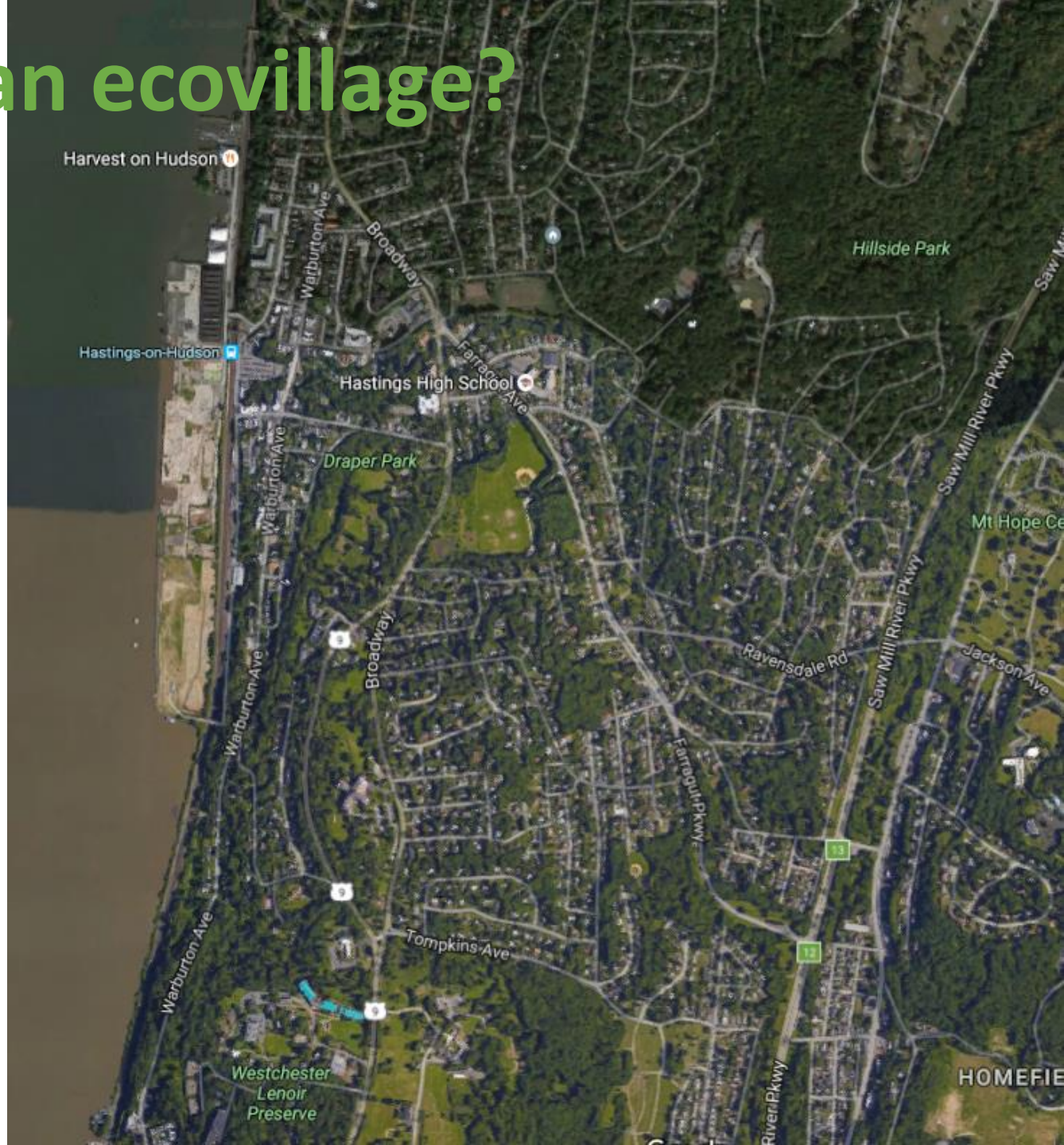
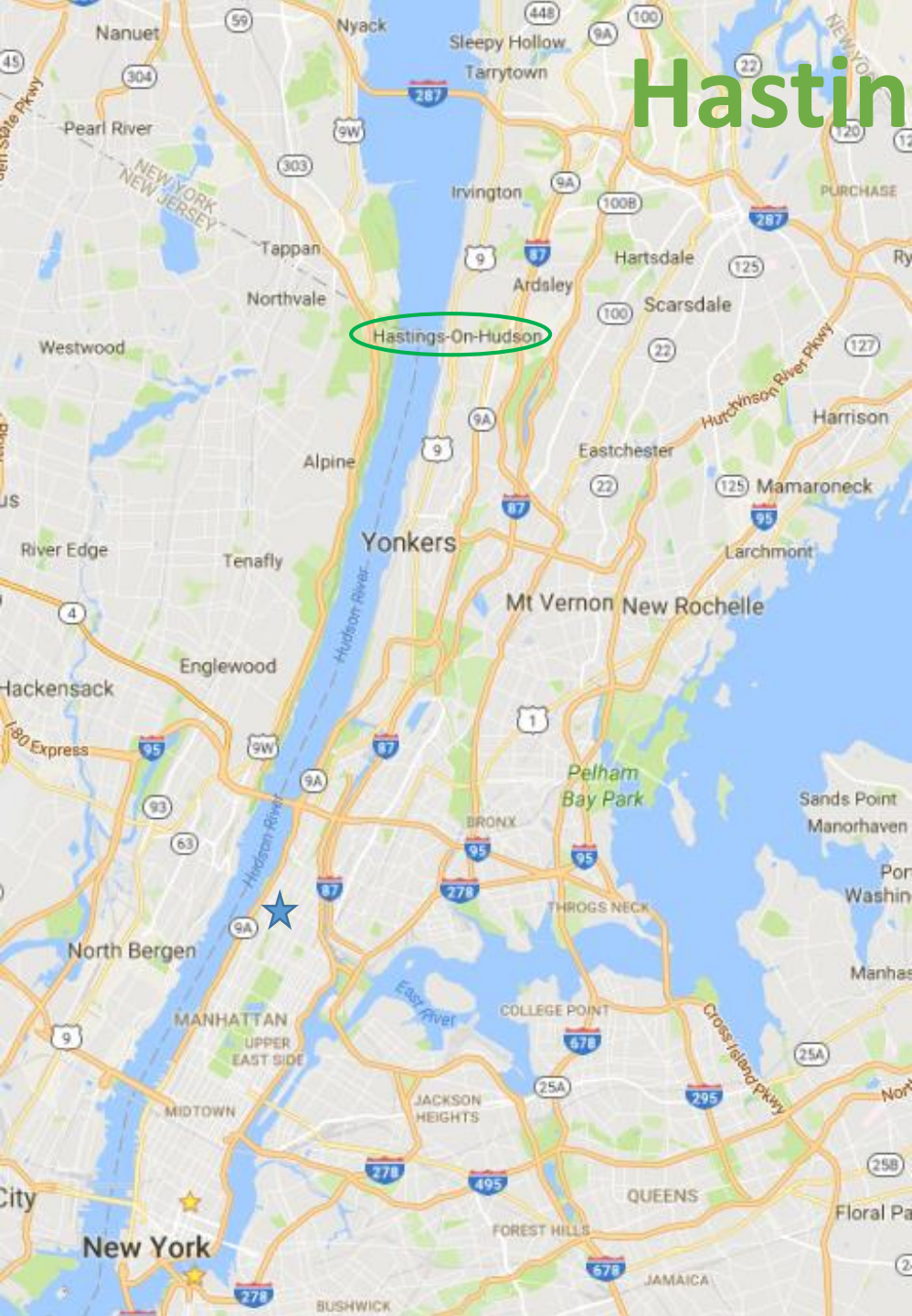




# Promoting Sustainability at the Local Government Level: Solarize, Green Building Code and Trash

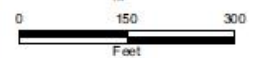
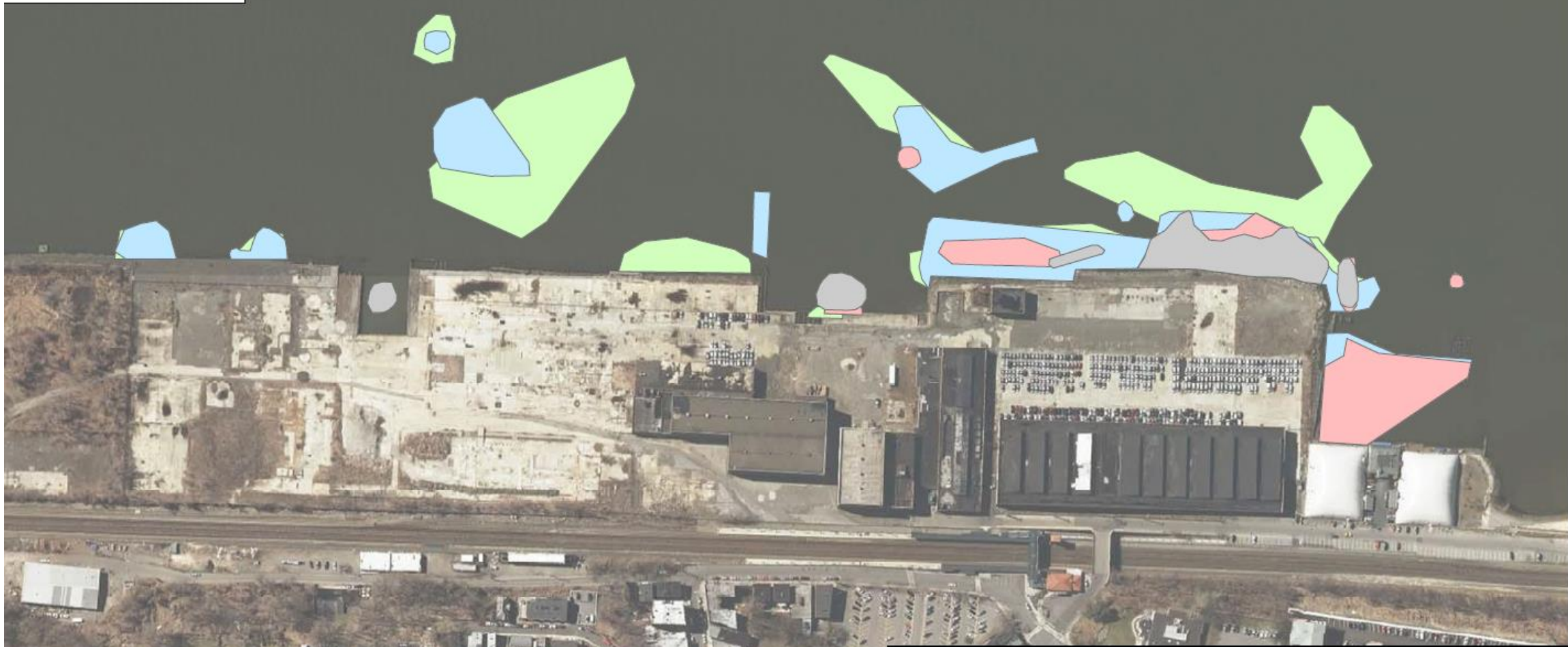
Hastings-on-Hudson, NY

# Hastings - an ecovillage?



### Legend

- PCBs 0 - 2 ft > 1 ppm
- PCBs 2 - 6 ft > 1 ppm
- PCBs 6 - 10 ft > 1 ppm
- PCBs > 10 ft > 1 ppm



**Figure 5**  
Extent of PCB in Sediments  
Harbor at Hastings  
Town of Greenburgh, Westchester County  
Site No. 3-60-022



# Sustainability Plan

- Incorporated into Village's **Comprehensive Plan**
- Implement best practices for mitigating and adapting to global **climate change**
- Reduce **energy consumption** and the carbon footprint of the Village-owned and managed properties and resources
- Encourage **sustainable design and construction** – LEDs
- Enacted **green building code** – adopted 10/13
- Increase **waste** diverted from landfills – Bag/Styrofoam ban – 6/14
- Minimize **storm water** runoff

# Education and Action

- Pass laws
- Host talks
- Work with shop owners
- Involve our school kids – HS Environmental Club
- Work with high school science teachers
- Liaise with other local organizations and municipalities



# Climate Change Generally

- Climate Action Week (full week of talks, films, activities 2008)
- Climate Change Lecture Series 2012
- Member – New York State Climate Smart Communities – Pledge taken in 2010 - 42 specific pledges made, 77% complete
- Incorporation of climate change adaptation measures included in an amendment to a Consent Decree addressing future development after cleanup of the NYS Superfund Site on the Hastings waterfront.



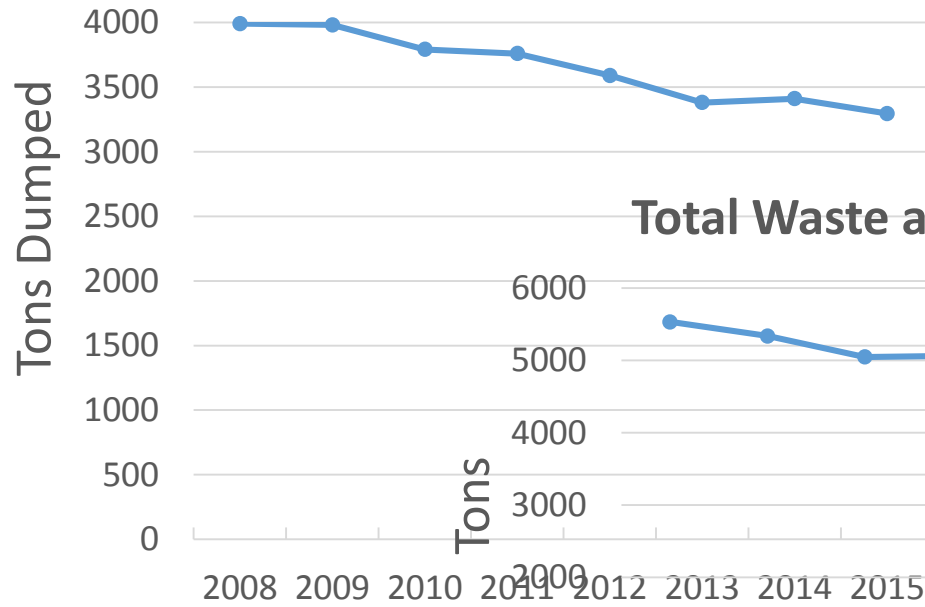
# Garbage

- Updated 1985 code to include recycling.
- Include a recycling supplement to the Village calendar reminding folks of recycling requirements.
- Currently obtaining bids for partnering with a fabric recycler utilizing separate bins.
- Work with PTSA to institute complete source separation of lunchroom waste including commingled, compost and paper. Only garbage is soft plastics, straws, ketchup packages, etc

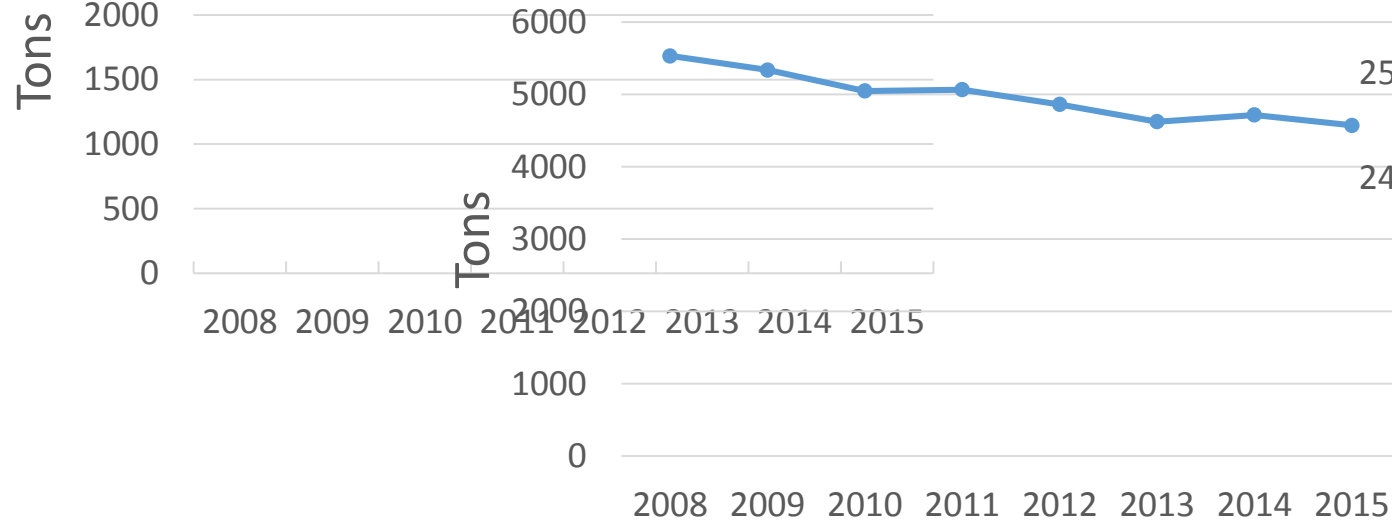


# How are we doing?

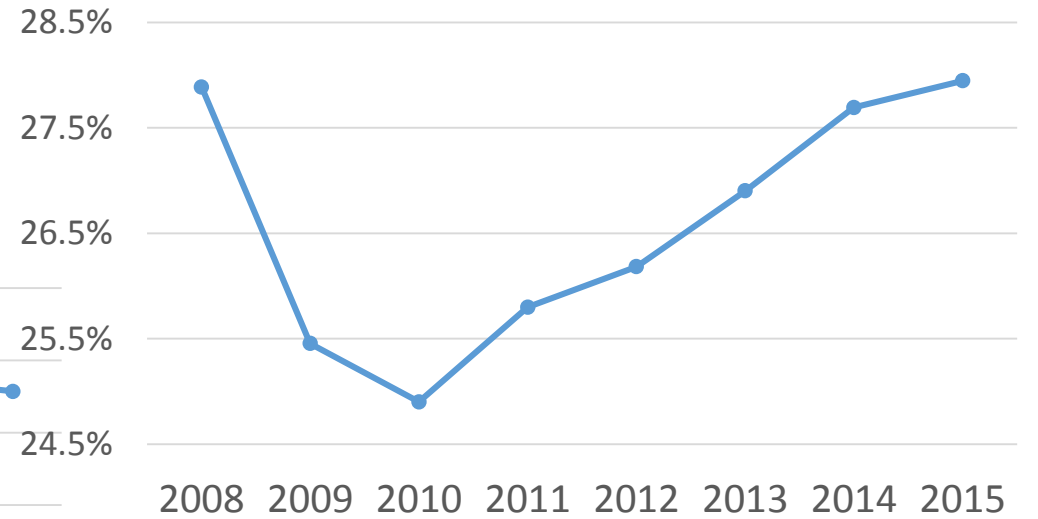
## Total Annual Trash



## Total Waste and Recycling



## Annual % of Total Waste Recycled





A photograph showing a white plastic bag caught in the bare, dark branches of a tree. The bag is crumpled and partially obscured by the branches. The background is a clear, bright blue sky. The overall scene suggests environmental pollution and the impact of plastic waste.

# Hastings Plastic Bag and Styrofoam Ban

# Hastings Plastic Bag/Styrofoam Ban

- **Bans all single-use plastic bags** (with minimal exceptions for garment bags and produce bags)
- **Bans all Styrofoam cups, plates, take out containers packing fillers** (exception for meat packages)
- Major **education** campaign for storeowners and residents
- Partnered with arts council to run a logo contest for **reusable bags** that the Village sold to all retailers at a steep discount
- **Sued** by Food Industry Alliance, a lobbying group that was representing plastic bag manufacturers – Lawsuit alleged violations of SEQRA, among other things– **DISMISSED** for lack of standing...so far...

# Green Energy

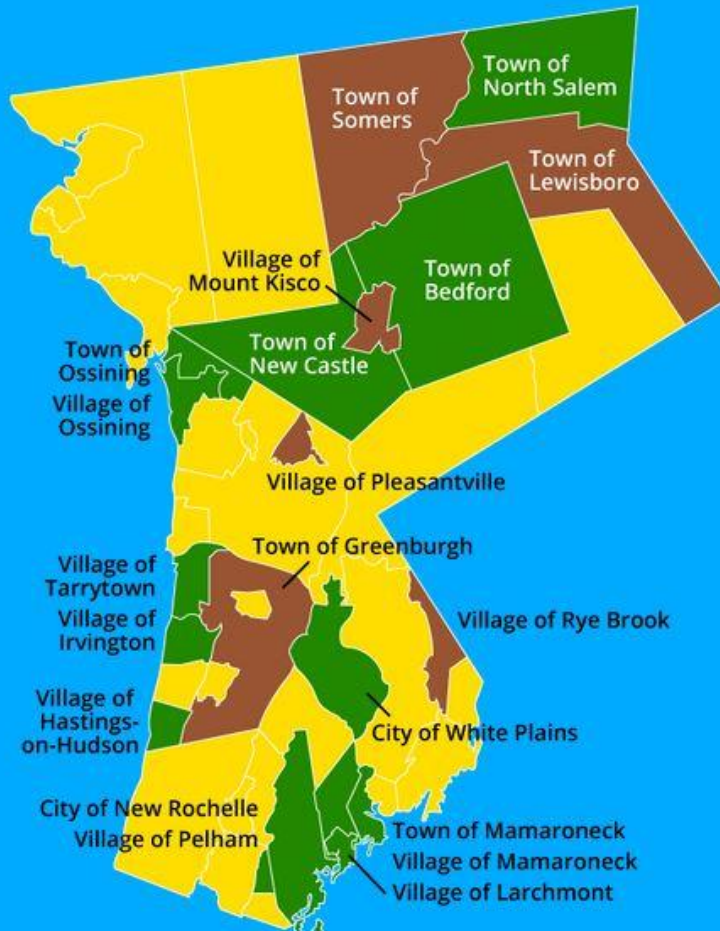
- Community Choice Aggregation
- LED Streetlights
- Solarize
- Green Building Code



# Community Choice Aggregation

- 17 Westchester communities (90,000 households) banded together to receive bids from electricity providers at a fixed rate.
- Con Edison Solutions won bids for both “brown” (a mix of all available sources, including gas, coal, nuclear, hydro and renewable), and “green” power (non-nuclear renewable sources like hydro-electric, solar, and wind power).
- Rates - \$0.07681 per kwh (kilowatt hour) for green, \$.07381 per kwh for brown – Rates are fixed for 2 years.
- **Hastings-on-Hudson voted for the green power. Entire Village will receive energy from renewable sources!!!**
- Automatically switched over.

**OPT UP TO 100% RENEWABLE ENERGY NOW!**



## We're all in this **TOGETHER.**

20 municipalities.  
110,000 homes and small businesses.  
NY State Public Service Commission.  
Local, regional and national environmental leaders.

**"We are investing in a sustainable, local energy future, which will help the energy industry produce more clean power and move New York's economy forward."**

— Governor Andrew Cuomo

**"I want to emphasize how well aligned this Westchester Community Choice Aggregation initiative is with New York State energy policy. We are undertaking a comprehensive strategy to restructure the state's energy vision called REV , Reforming the Energy Vision. This CCA (program) is a piece of doing exactly that. I appreciate your leadership."**

— Greg Hale, Senior Advisor, Office of the Governor

- 722 total street lights converted to LEDs
- Non-LED lights were using a little over 300,000 KWH per year at an annual energy cost of \$75,000.
- After conversion in 2015 the energy usage was projected to fall to 122,000 KWH, and the energy cost to drop to \$30,000.
- 5-year purchase arrangement. Bulk purchase with neighboring communities
- Once fully owned, \$40,000 per year savings plus \$10,000 reduced maintenance = \$50,000 projected savings!
- Energy savings = 181,000 KWH per year (expected) equivalent to 115,000 lbs of carbon in the atmosphere per year according to the EPA.
- Offset the electricity consumption of about 20 average households = 30 acres of forest

# Solarize Hastings-Dobbs Ferry

- NYS provided **\$1 billion investment** in solar over 10 years through NY-SUN. Capitalize on Clean energy, local jobs, energy security and cost savings.
- Solarize Westchester – supported by NYSERDA through NY-SUN.
- NYS Unified Solar Permitting
- Pre-selected, competitively chosen solar contractor to do the installations in the community at discounted Solarize price.
- Discount pricing, with a tiered structure so the more people sign up, the more the price keeps dropping for everyone.
- High quality solar equipment.
- Assistance with financing, leading to no out-of-pocket cost for many adopters...including me!

# Solarize Results

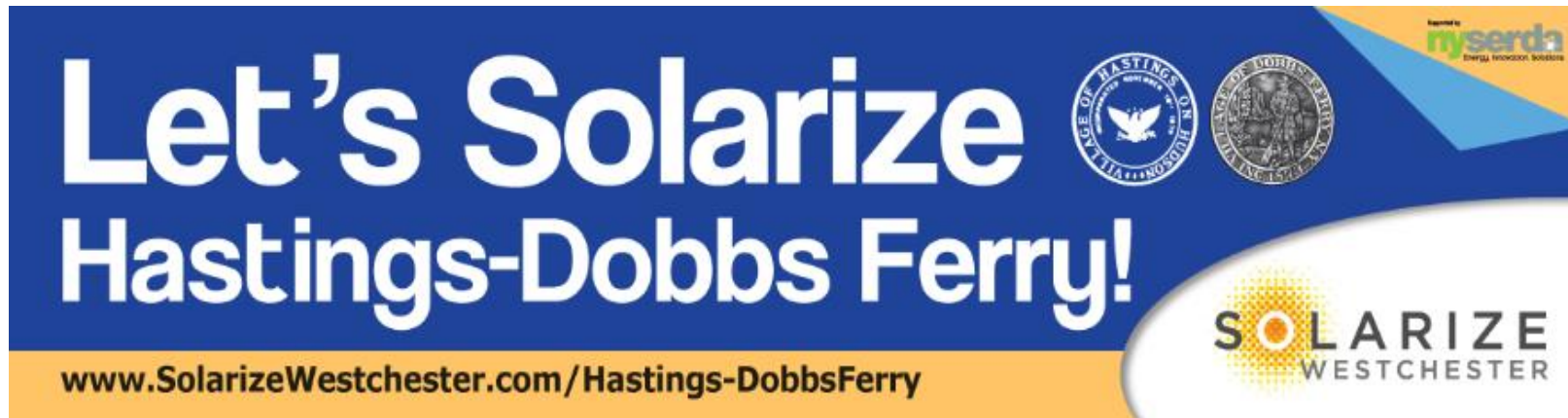
- 477 homeowners requested information about installing solar PV
- 301 non-feasible due to shading or orientation
- Installer conducted 208 site visits to evaluate homes' solar potential.
- **Contracts for solar PV installation on 87 homes in total -- 59 in Hastings and 26 in Dobbs Ferry.**
- Represents over 500 KW of solar power and will produce over 550,000 kWh per year of clean, renewable energy.
- In Hastings, the campaign **quadrupled** the number of solar installations from 20 to 79, and the impact is continuing
- Biggest drawbacks:
  - Too many trees
  - Poor roof orientation
  - Need for new roof





# Solarize – Next Steps

- Evaluating village-owned properties for solar PV
- Community solar PV
- Schools are evaluating solar PV installation



**Let's Solarize  
Hastings-Dobbs Ferry!**

[www.SolarizeWestchester.com/Hastings-DobbsFerry](http://www.SolarizeWestchester.com/Hastings-DobbsFerry)

**SOLARIZE  
WESTCHESTER**

myserda  
Energy Innovation Systems

VILLAGE OF HASTINGS-DOBBS FERRY  
VILLAGE OF DOBBS FERRY

The banner features a blue background with white text and a yellow/orange gradient at the bottom. It includes the logos of the Village of Hastings-Dobbs Ferry and the Village of Dobbs Ferry, along with the myserda logo and the Solarize Westchester logo.

# Healthy, Beautiful Ecosystem

- Vine Squad
- LELE
- Leaf Blower Restrictions
- Deer Immuno-contraception





- Community education campaign for homeowners, business owners, landlords, gardeners and landscapers
- **Leave the leaves!**
- Mow the leaves with special mulching blades, which shreds them into tiny bits. That allows them to quickly decompose and naturally feed lawns and shrubs.
- Leave them on your lawn, use as mulch on borders, flower beds and tree rings, compost them yourself with or without shredding.
- Leaf disposal costs \$\$\$\$\$ - neighboring towns paying upwards of \$130,000, Westchester County pays approximately \$4 Million annually

# Green Building Code



# Why Did We Write Our Own Code?

- International Green Construction Code (IgCC)
  - Doesn't apply to residential structures. Too hard to tailor. Too complicated.
- Energy Star
  - Only covers energy efficiency.
- LEED
  - Complex, complaints about point system, legal complications with requiring a 3<sup>rd</sup> party certifier.
- Other Model Codes (e.g., Columbia University)
  - Not comprehensive enough, difficult to tailor to our needs.

# Green Building Code Overview

- An amendment to the Village code
- Supports Comprehensive Plan and Sustainability Plan objectives
- Establishes requirements for more sustainable, energy efficient building practices
- Covers only those construction projects that require a building permit
- Includes requirements for:
  - non-residential buildings
  - Single- and multi-family buildings and residential developments
- Covers new construction and renovations for both residential and commercial properties

# Guiding Principles

- Based on best practices
- Comprehensive (covering energy consumption, site planning, water usage, indoor air, etc.)
- Clearly written and everything in one place
- Consultative process with the Buildings Department.
- Limited Additional Cost to Consumer
- Readily Available Products/Services

# Code Specifics

- Part 1: Intent, Applicability, Waivers, Appeals and Definitions
- Part 2: Non-Residential Buildings, Multi-family Residential Buildings and Residential Developments
- Part 3: One- and Two-Family Residential Buildings and Townhouses Consisting of Three or Fewer Units.



# Mandatory and Additional Provisions

- Must comply with mandatory provisions
- Must obtain 5 points from additional provisions depending on the project
- No compliance = no Certificate of Occupancy

# Proposal Checklist - Mandatory

- Submit with Building Permit Application
- Shows how GBC will be complied with including how additional points will be obtained
- Invaluable provision for code enforcement according to Hastings' new building inspector



# Natural Resources Study - Mandatory

- Applicability
  - New Landscaping
  - New Paving
  - Impact on Stormwater Quantity
  - Increase in Building Footprint

[sends a message to property owners and developers to think about their project in the context of the site and tailor their plans to the natural resources and conditions of the site.]

# Site Development – Mandatory

- Protection and Restoration of Habitat
- Stormwater Control
- Heat Island
- Irrigation
- Landscape
- Bicycle Racks (commercial and multi-family only)
- Electric Vehicle Infrastructure (commercial and multi-family only)
- Light Trespass

# Energy Utilization

- Exterior Lighting
- Heating Equipment
- Cooling Equipment
- Fixtures and Appliances



# Energy Use Monitoring

- Energy Monitoring Dashboard
- Fundamental Commissioning for very large projects.

# Additional Requirements

## 5 points must be obtained

- Applies to:
  - New Construction
  - Additions and Alterations in excess of the lesser of 1000 sq. ft. or 50% of the aggregate area of the individual unit.
- Includes: e.g., rainwater/greywater harvesting, higher rates of waste management, heat recovery, geothermal and solar heating and hot water, higher efficiency heating and cooling, green roofs, interior lighting, recycled, repurposed, salvaged or locally-sourced building materials, certified woods, native plants, etc.
- Property owners and developers can suggest their own sustainability measures for maximum of 3 points – subject to approval of the Building Inspector.

# Complete Streets

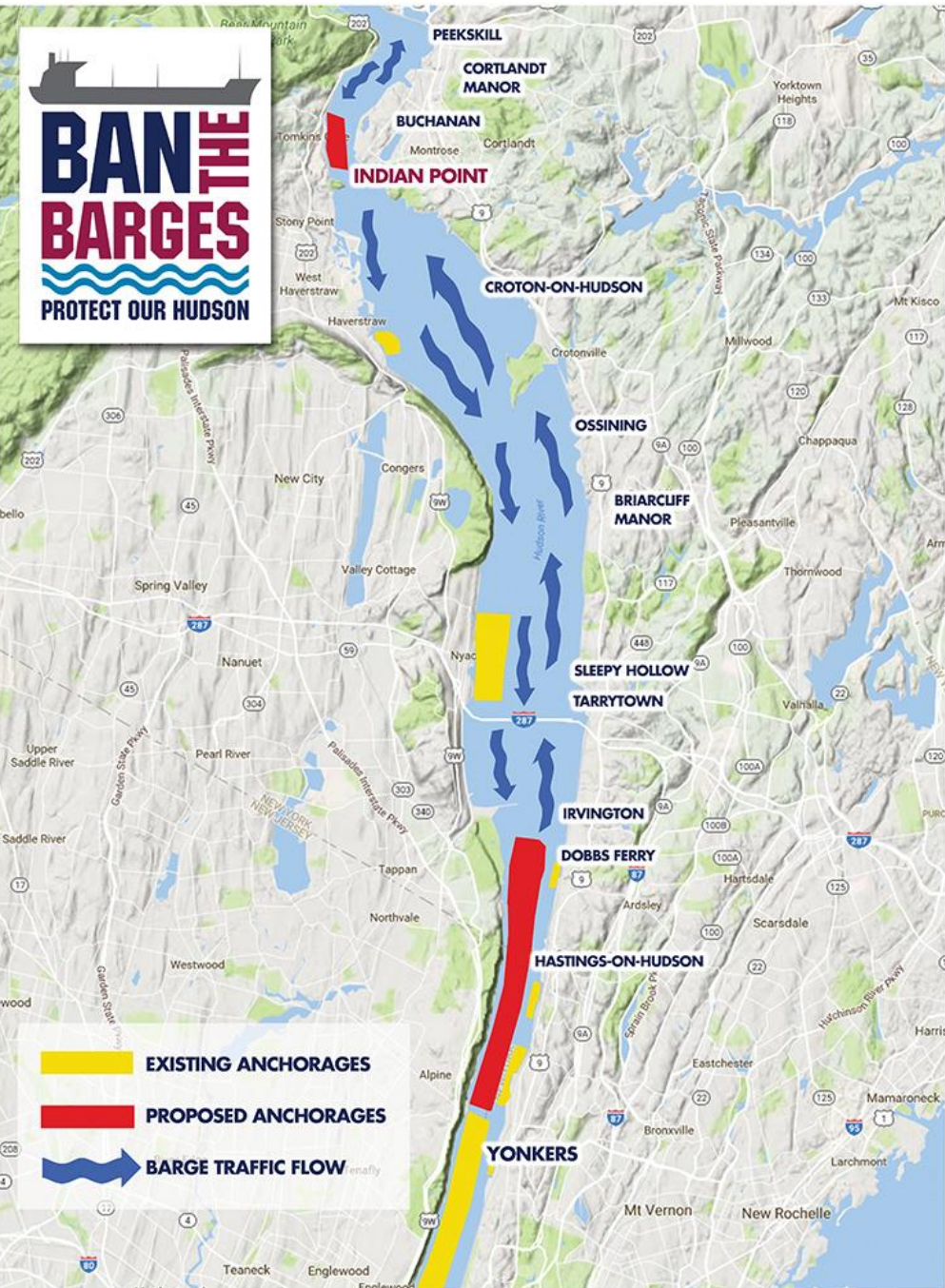
- Highly visible crosswalks
- Pedestrian islands
- Bike lanes
- Improved signage (overhead, mid-block crossings)
- Extended curb
- Raised medians
- Narrower roads
- Lower speed limits
- Roundabouts
- Flashing lights
- Benches
- Better lighting
- Planters/landscaping





## Complete Streets, cont.

- Can be done within existing budgets/projects
  - Many elements modest in size and cost (restriping, extending crossing signals, painting bike lanes)
  - Routine road maintenance provides opportunity to paint crosswalks or bike lane
- Improvements can be incremental; gradual shift in planning and engineering
- Solicit/incorporate feedback/input early on
- Thinking ahead avoids costly retrofits and lawsuits
- Can lead to new transportation funding opportunities
- **Have a Transportation Working Group guiding the agenda**



# The New York Times

## Plan to Let Barges Park on the Hudson Meets Resistance in 'River Towns'

By LISA W. FODERARO AUG. 15, 2016



# Actions in opposition to Barges

- Soliciting public comments: Residents were asked to submit comments; extension of the comment period was requested and granted
- Hudson River Waterfront Alliance formed led by Yonkers Mayor Mike Spano; Hastings is a member
- Engaged high-level maritime law firm to prepare an opinion (same attorney that works for Hastings on the waterfront.)

# Status of USCG proposed rule change

- 10,000 comments were posted by Dec. 6, 2016
- Elected officials, municipalities and Hudson River organizations went on record with their opposition
- Procedural basis of the rule change has been challenged: failure to notify public in advance
- Public hearings will supposedly happen some time in future
- Impact of the incoming Trump administration is not known and is a concern

# What can we do?

- Stay closely tuned to new developments
- Prepare for possible actions in the event of adverse rulings
- Maintain our ties to the organizations and elected officials who will be at the forefront of responding
- Continue to expand the engagement of residents around the issue
- Complacency is dangerous!

# Challenges and Opportunities Ahead in Hastings

- Waterfront cleanup and zoning
  - Shoreline planning and development
  - Potential for community solar and dynamic hydro power generation
- Clean Energy Community (CEC) and Climate Smart Community
  - EV Smart Fleets and Zero-Emission Vehicles (ZEV) and ZEV Infrastructure
  - Unified solar permitting
  - Energy efficient municipal buildings
  - Walkability and Smart Streets
- Reduced garbage and waste and composting
- Preparing for six feet or more of river rise by 2100!