



# BRONX SPECIAL NATURAL AREA DISTRICT UPDATE

Bronx Open House  
Horace Mann School

May 20, 2019





- Project Summary, Process & Principles
- Background & Context
- Proposed Planning Framework and Zoning Rules
- Review Process
- Example and Questions



## Issues with the Current Rules:

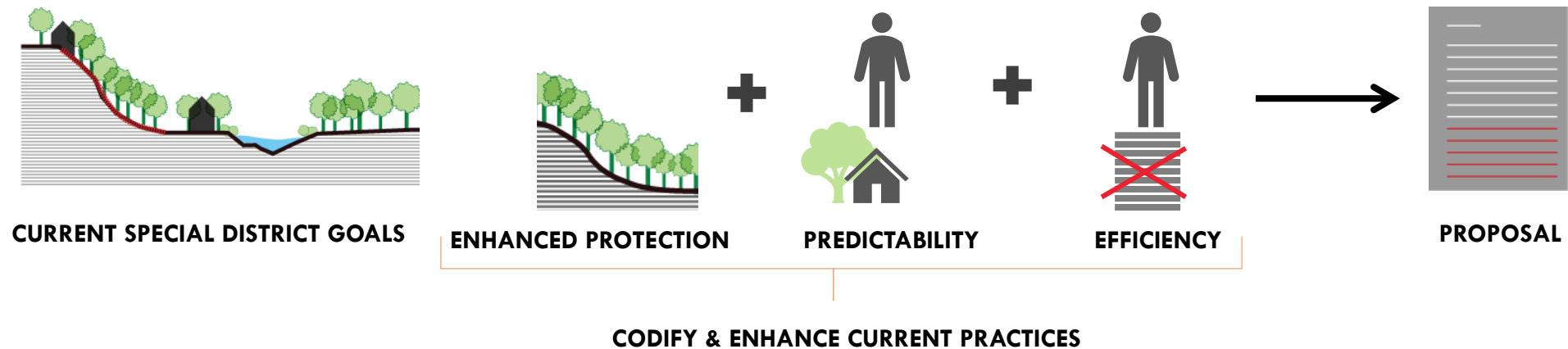
- 1 Lack a clear, consistent and holistic approach to natural resource protection
- 2 **One size fits all** - small or large property treated the same
- 3 Lacks oversight on large natural resources
- 4 Based on **outdated ecological science**
- 5 **Burdensome** for small property owners
- 6 Result in **unpredictable** outcomes



## Why now?

With over 40 years of experience working with the Special Districts rules, DCP has established best practices

Technology improvements allow accurate mapping of natural features



To create the proposal, DCP worked with stakeholders and conducted significant research

**Bronx Working Group Members (9 meetings):**

- Riverdale Nature Preservancy
- College of Mount Saint Vincent
- Architect; LPC Commissioner
- Riverdale Sanitation Corporation
- Fieldston Property Owners Association
- Riverdale Country School
- Architect, FAIA; former LPC Commissioner
- Land Use Attorney
- Bronx Department of Buildings
- Bronx Borough President's Office
- Councilperson Cohen's Office
- Riverdale Community Coalition; Architect

**Community Board 8 Working Group (6 meetings)**

Ongoing interagency coordination:  
DOB, DPR, DEP, NAC, NYSDEC, DOT, FDNY

Ongoing Community Board Outreach

Open Houses and Civic Group Meetings





DCP and Working Groups developed the following principles to guide the proposal:

- Strengthen and rationalize natural resource preservation
- Strengthen and clarify regulations so that review by the City Planning Commission (CPC) focuses on sites that have a greater impact on natural resources and the public realm
- Protect and enhance the natural resources and neighborhood character of the districts, with greater predictability of development outcomes
- Create a homeowner-friendly regulatory environment with robust as-of-right rules for the development of homes on small lots that protect significant natural features





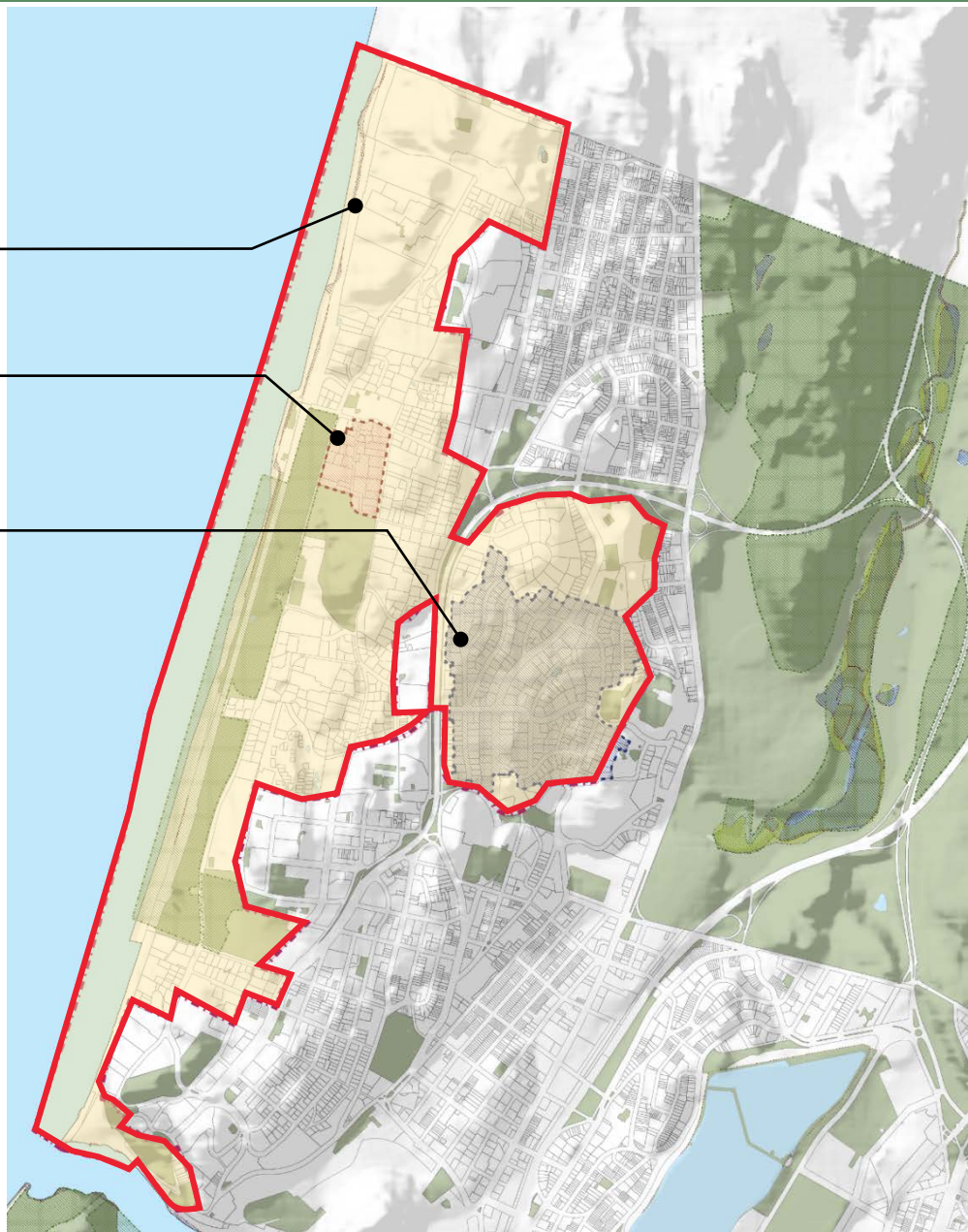
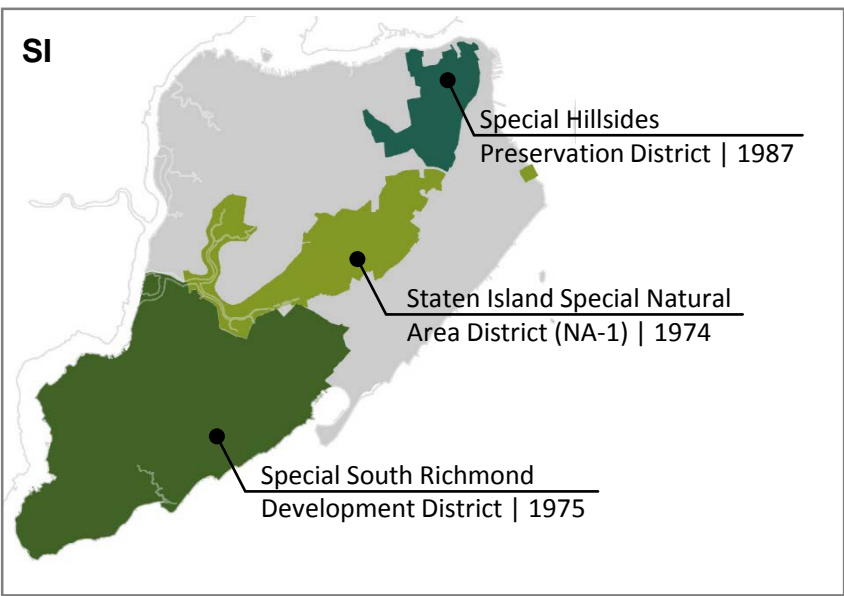
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# Bronx Special Natural Area District Boundaries

Special District | 1975

Riverdale Historic District | 1990

Fieldston Historic District | 2006



## SNAD

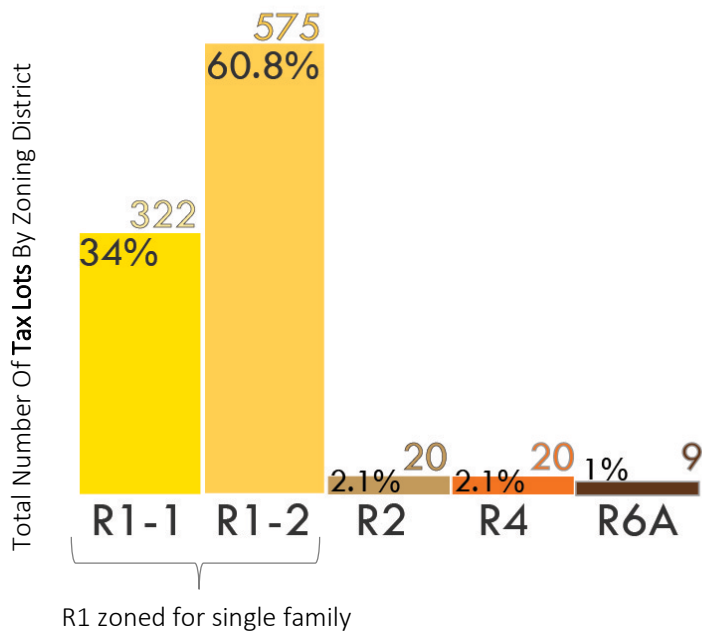
Implemented in the **BX** in 1975 - Guide development to preserve natural features (aquatic, botanic, topographic & geologic)

- Updated in 2005 taking best practices from Hillside Preservation District
- CD 8's 197a request



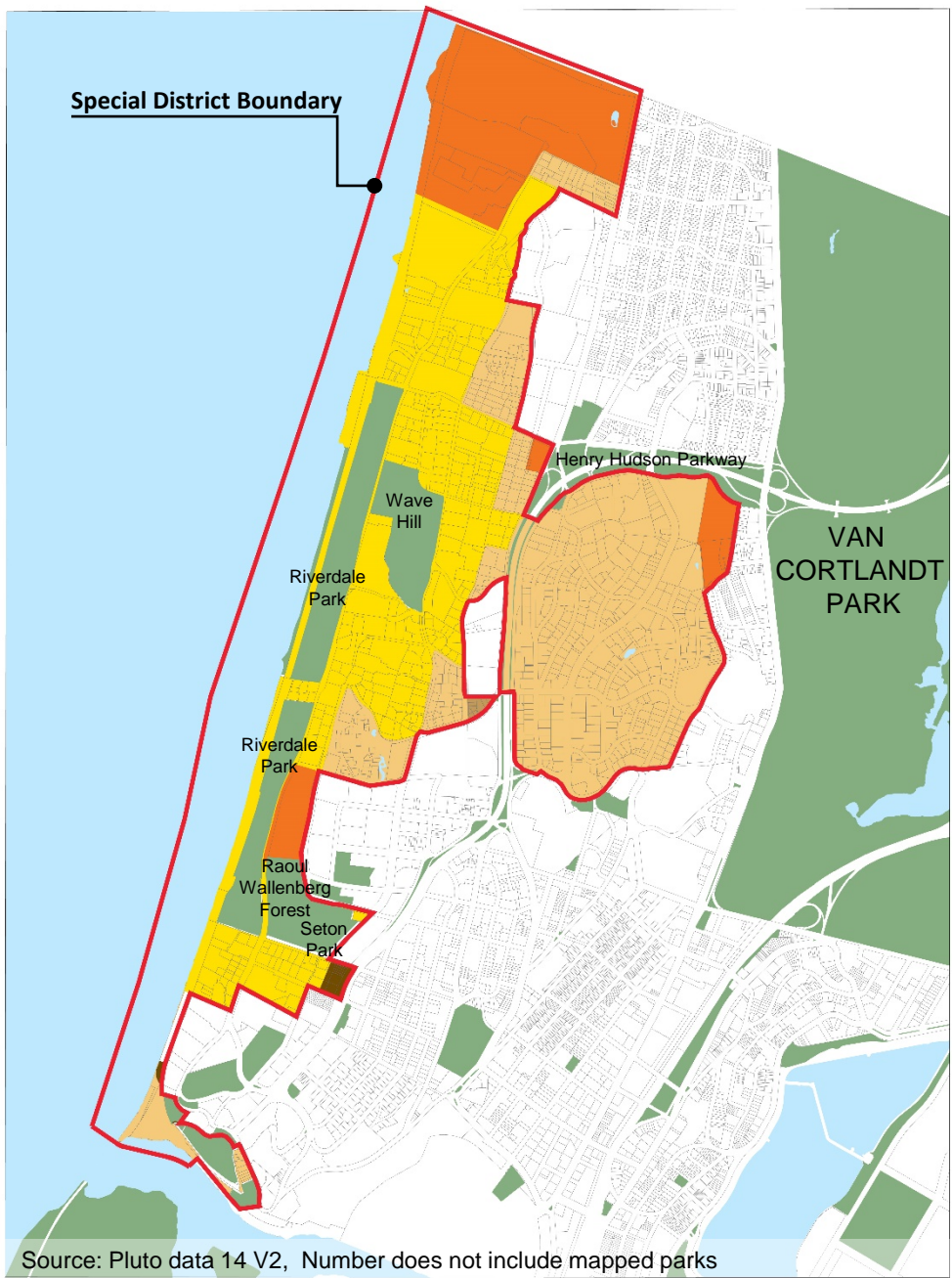
## ZONING and DEVELOPMENT

83 percent of SNAD is single- and two-family homes



### 946 Lots in SNAD: Building Type

- 83% One/Two Family
- 5% Multifamily
- 12% Institutions



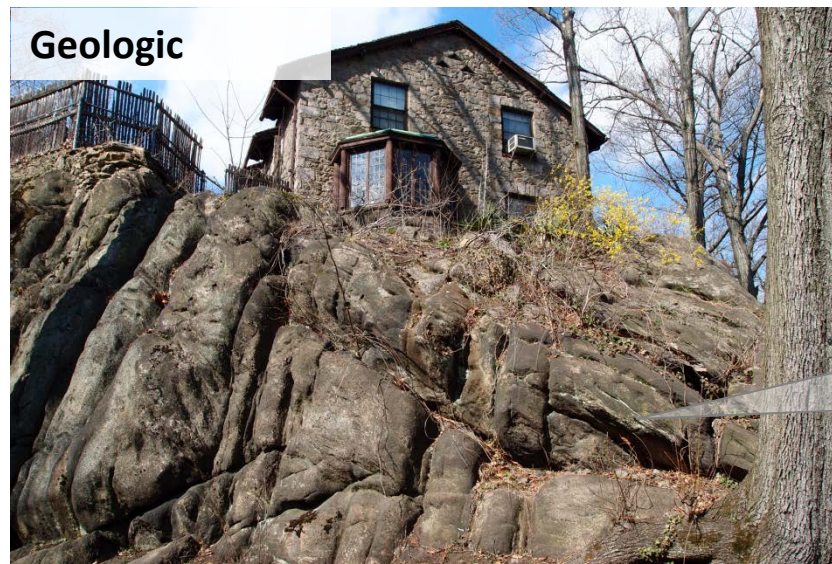


# Background: Best Practices From Current Rules

Protect and enhance important natural habitats and recreational assets by better guiding development in consideration of natural features



Buffers around aquatic resources



Preservation of rock outcrops visible to the public realm



Preservation of old growth trees

Preserve recreational open space



Preservation of steep slopes



# Background: Best Practices From Current Rules

Enhance and protect the neighborhood character of the districts

Fieldston Road



Preservation of  
rock outcrops

Fieldston Road



Low retaining  
walls

Independence Ave



Front yard  
plantings

Sycamore Ave

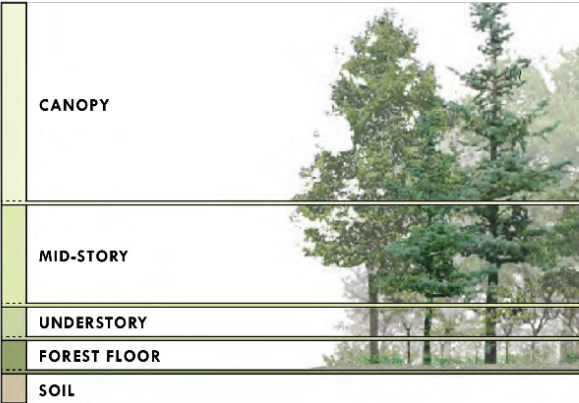


Minimal hard  
surfaces



# Background: Interconnected Components of Nature

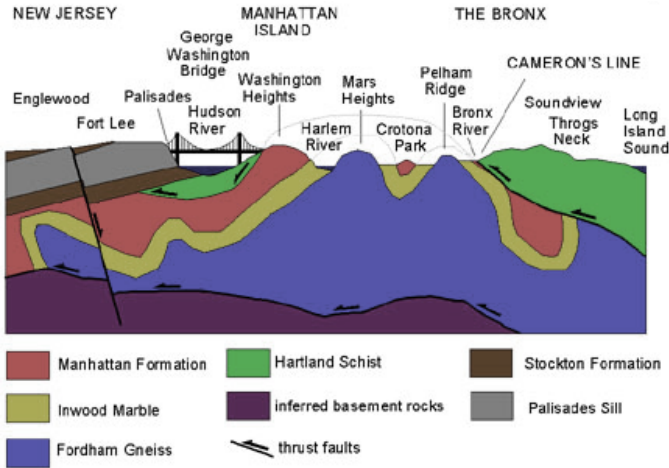
Updated understanding of ecological science focuses on three lenses: **botanic**, **topographic and geologic**, and **aquatic features**. Each component plays an important role on its own, while being inter-connected and inter-dependent for their health and wellbeing.



Botanic Features:  
Canopy and Understory



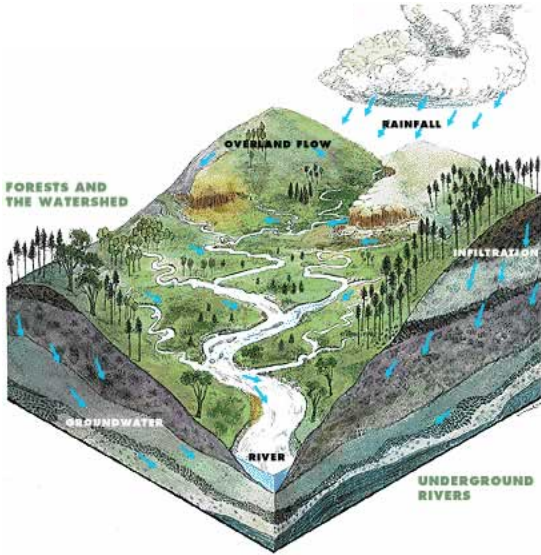
NATURAL COMMUNITIES



Topographic and Geologic Features:  
Serpentine, Rock Outcrops and Erratic Boulders



SOIL & TOPOGRAPHY



Aquatic Features:  
Wetlands, Ponds and Streams

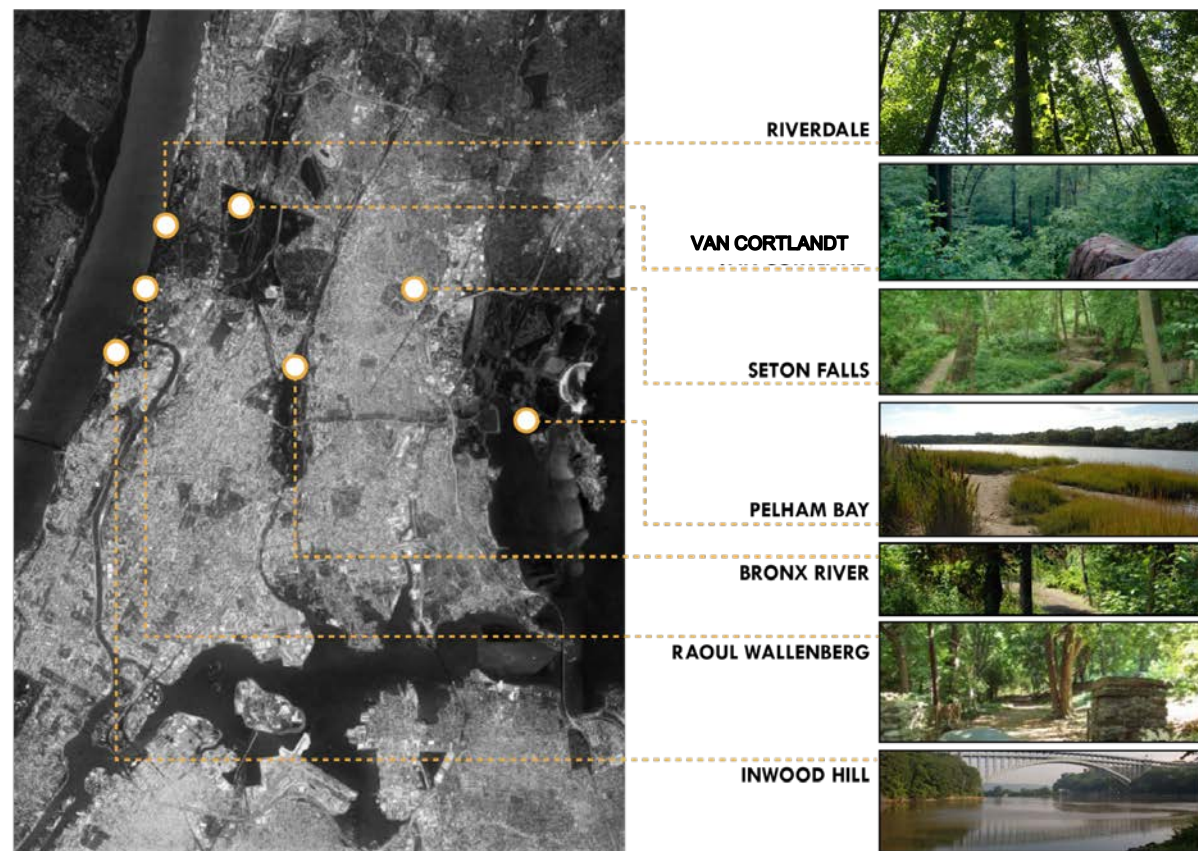


WATERSHEDS & DRAINAGE



# Background: Natural Capital

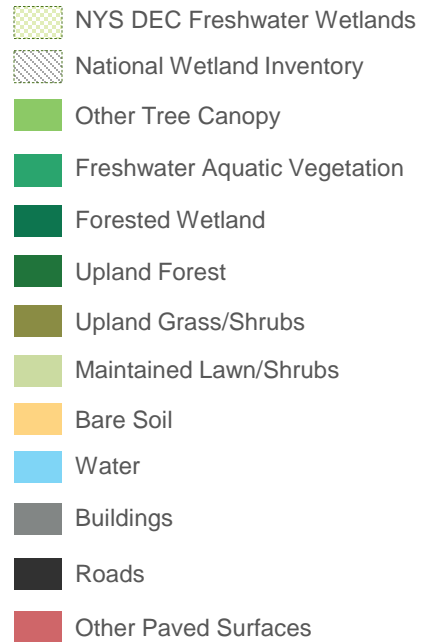
The Bronx has a rich diversity of protected natural areas, creating a connected habitat for local wildlife and migrating species





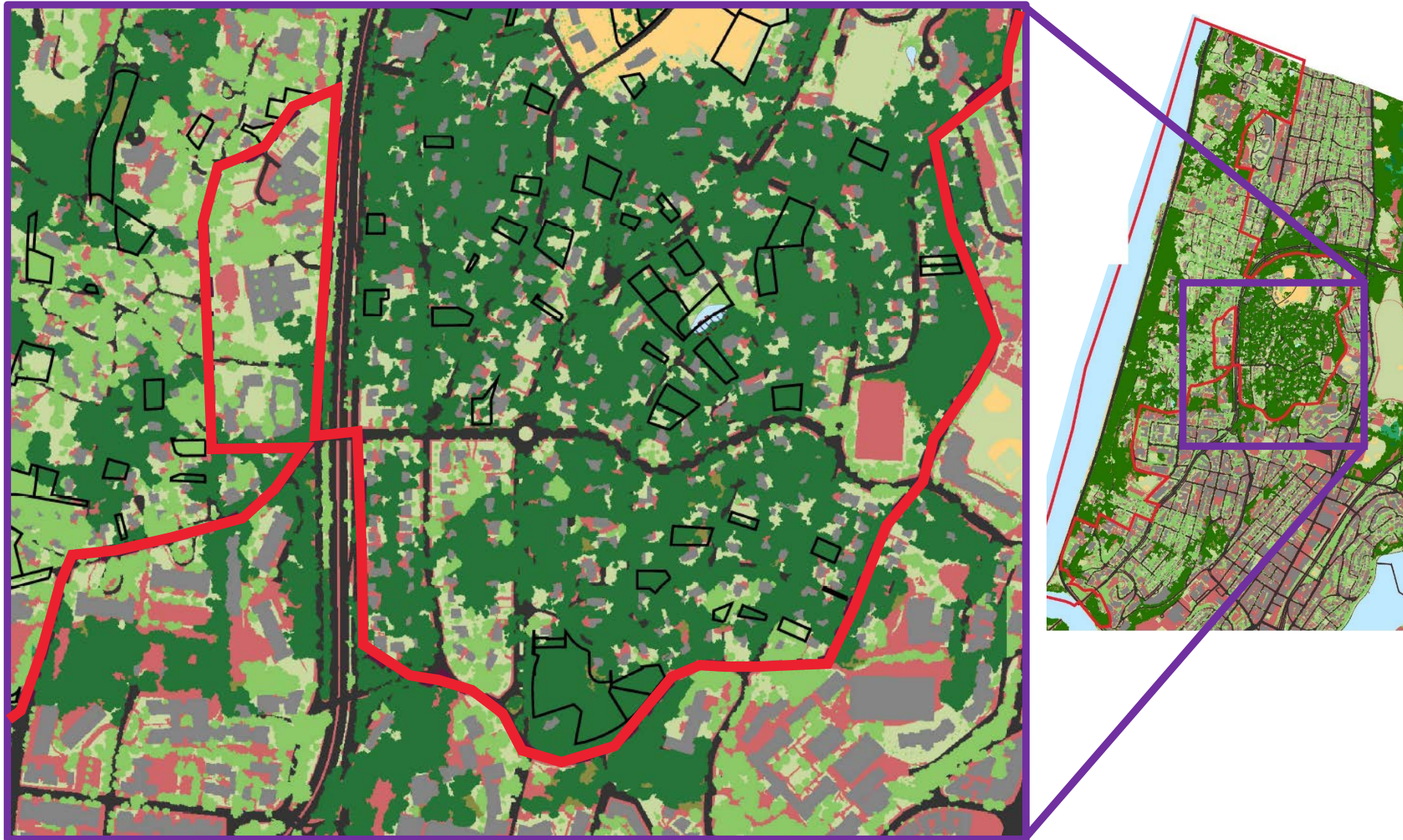
# Background: Mapping Ecological Assets

Leverage current mapping technology for enhanced understanding of ecological connectivity, and prioritize preservation of important features



## Data sources:

- Ecological Covertypes from the Natural Area Conservancy (2010 LiDAR)
- Hudson Raritan Estuary Comprehensive restoration Plan
- New York State Heritage Program
- USFWS National Wetlands Inventory
- DEC Freshwater Wetlands
- NYC Parks Forever Wild Program
- Hydrography data from aerial imagery







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## EXISTING

### Site by Site

Each site is looked at independently of one another rather than considering the ecological whole of the area

### Feature by Feature

Each individual natural feature is protected independently, with the option to modify the rules through CPC review

### Modifications

Most applicants seek to modify the rules, but the regulations don't specify limits to modifications.

## PROPOSED

### Holistic

Natural resources are analyzed by mapping natural features across the community

### Comprehensive

All natural features are protected by emphasizing the preservation of natural features that cannot be replaced and are in the public realm

### Strict

The proposed rules will define limits to modifications

# Zoning to Facilitate the Project – Zoning Map & Zoning Text Amendment

## EXISTING

Special Natural Area District (NA-2) | 1975

Special Hillside Preservation District (SHPD) | 1987

Special Natural Area District (NA-3) | 1977

Special Natural Area District (NA-1) | 1974

Special South Richmond Development District (SSRDD) | 1975

## PROPOSED

## ZONING MAP AND ZONING TEXT AMENDMENT

Special Natural Resources District

4 SUBDISTRICTS

1 Riverdale-Fieldston Subdistrict

2 Shore Acres Subdistrict

3 Hillside Subdistrict

4 South Richmond Subdistrict

*\*The regulations currently applicable to Fort Totten, Queens (NA-4) are independent from the rest of the Special Natural Area District and will remain unchanged in the proposal.*



**Lot coverage** is the area of the site covered by a building.  
It affects the amount of site disturbance and natural features, including slopes, plantings, and open space.

## EXISTING

Maximum lot coverage regulated by average percent of slope of site.

- Lot coverage doesn't consider context, e.g., is this site part of larger steep slope? How steep is the slope?
- No clear guidelines for CPC
- No lot coverage regulations for community facility (CF) uses

## PROPOSED

Lot coverage based on ecological area & slope  
R1 Districts range from 12.5% to 25%  
25% lot coverage for large institutions and CF uses

- Provide clear parameters for predictable outcomes
  - codify best practices
  - maximum lot coverage for CF
- Incentivize preservation of steep slopes by providing flexible lot coverage if building is located on flatter portion of site
- Applies to all sites not just those in a certain average slope
- Include accessory buildings towards lot coverage

Improved outcomes: Allows for greater site planning flexibility to preserve natural features and guarantees adequate space for planted areas.



**Hard surface areas** are all areas of the site covered by a building and any hard surfaces.  
It affects the amount of site disturbance and runoff, and affects natural features, including slopes and plantings.

## EXISTING

No rules for regulating hard surface area

- Hard surface area is decided by CPC review and best practices
- No rules governing hard surfaces

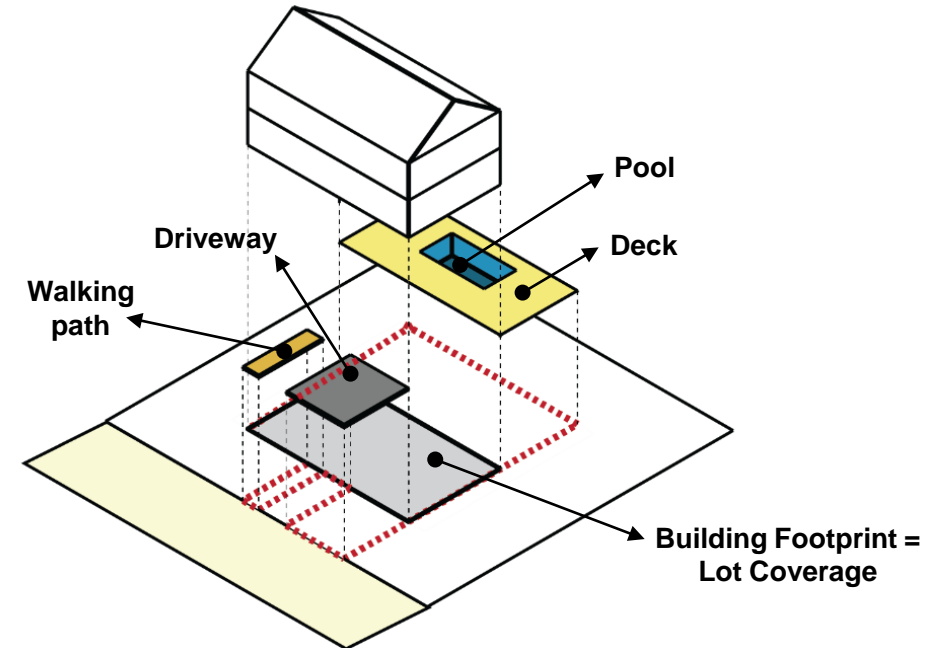


Improved outcomes: Provides additional site controls beyond the building footprint, creates open space, supports better storm-water management, and guarantees adequate space for planted areas.

## PROPOSED

Hard surface area max → lot coverage and intensity of use  
R1 Districts range from 40% to 50%

- Establish limits to hard surface area as a percent of lot area to facilitate permeability that contributes to the ecosystem health
- Hard surface areas would include building footprints, driveways and other paved areas such as a patio, deck or pool



### EXISTING

Average percent of slope excludes steep slopes > 25%  
Grading rules only apply to Tier II sites  
No retaining wall height limits

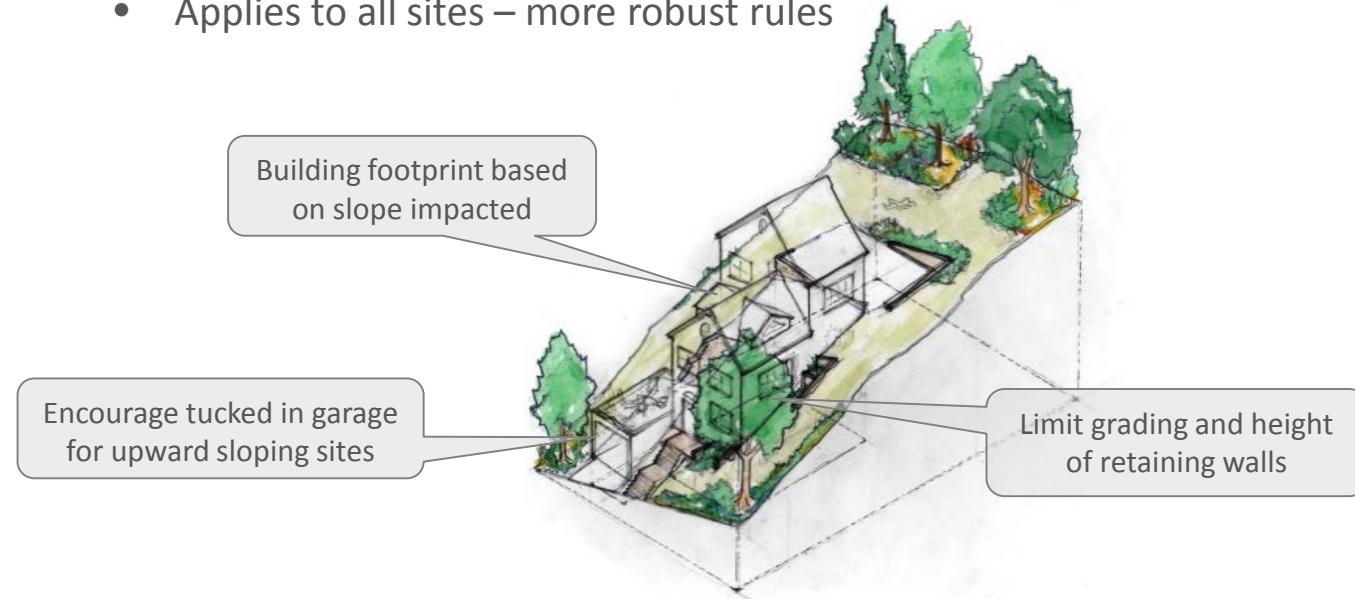
- No lot coverage rules for sites with less than 10% slope
- For steep sites, 12.5% lot coverage for steep slope
- No standards to limit steep slope disturbance or the maximum lot coverage by CPC modification



### PROPOSED

All slope categories considered to determine lot coverage  
Grading rules apply to all sites  
Retaining wall maximum heights established

- Comprehensive rules to reduce hillside erosion and steep slope encroachment will improve storm water management
- Where you can build and how much you can build will be determined by what slope you are impacting on the site
- Applies to all sites – more robust rules



***Improved outcomes:** Updated rules will ensure consistent and predictable outcomes, prioritizing the preservation of steep slopes.*



## EXISTING

Tree Requirements: 1 tree per 1,000 sf **OR**  
51% of existing tree credits (whichever is greater)

- Each tree is regulated regardless of ecological importance, size or age
- Tree rules create burden for small improvements and do not provide incentive to protect old growth trees
- Trees may be removed within 15 feet of buildings and within required parking or driveways. Trees removal beyond these areas requires CPC authorization



## PROPOSED

Tree Requirements: 1 tree per 1,000 sf **AND**  
3 tree credits for every 750 sf

- Incentivize native 'old growth' trees and tree groupings to create micro habitats
- Preserve trees in rear 15 feet to create connective corridors
- Preserve/plant trees in the front yard to enhance tree-lined neighborhoods



***Improved outcomes:** Give greater value to existing (preserved) trees, support native species and trees planted in groups, require more trees to achieve clearer and more consistent outcomes.*

### EXISTING

No clear requirements in SNAD

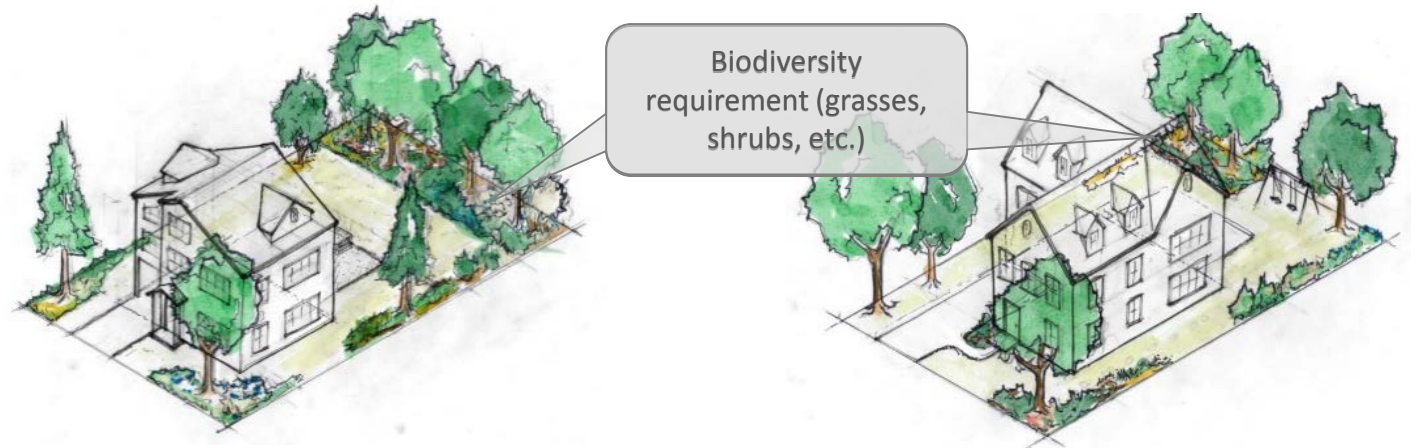
- No vegetation can be removed except within 15' of building and to allow driveways, private roads or required parking. Very strict requirement that can be modified by CPC with no parameters
- Vegetation needs to be replaced when impacted



### PROPOSED

Biodiversity requirements:  
4 points for most Residential uses and 2 points for CF uses  
6 points for Resource Adjacent Area

- Consistent approach to groundcover planting that prioritizes sensitive areas with more planting – ‘biodiversity points’
- Provide options:
  - Landscape Buffer on rear or side
  - Wildlife Garden
  - Basic Garden
  - Green Roof



*Improved outcomes: Clear planting requirements that will enhance the biodiversity and ecological health of the community.*



## EXISTING

No parameters on amount of disturbance

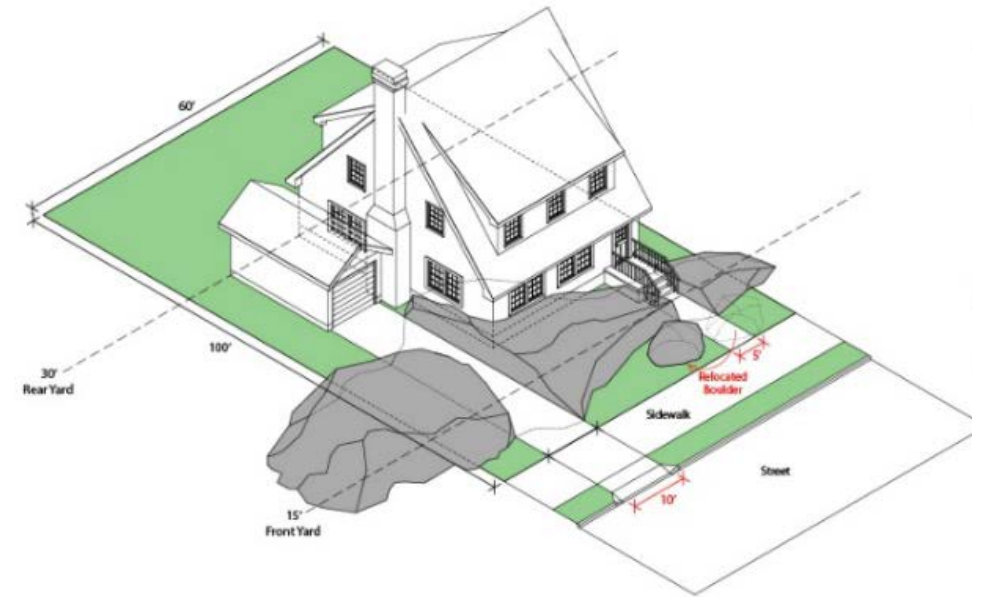
- Rock outcrops help create neighborhood character
- Existing regulations prohibit disturbance of rock outcrops, but allow disturbance through CPC authorization, however, there is no limit on the amount of encroachment



## PROPOSED

No disturbance of rock outcrop in front yard  
Limit rock outcrop disturbance to 50% in front and rear portions of lot  
Allow erratic boulders to be moved to the front

- Stipulate the maximum extent of disturbance for predictability
- Any disturbance greater than 400 SF will require CPC authorization



*Improved outcomes: Less disturbance of visible outcrops; preservation of neighborhood character.*



## EXISTING

- Inconsistent rules for subdivision applications
- Existing framework requires all zoning lot subdivisions to be certified by the CPC but too general to force preservation of natural features

## PROPOSED

- All zoning lot subdivisions must meet clear rules for protection of natural features
- Certain subdivisions will require discretionary **site plan review** to ensure appropriate lot layout to protect natural features. CPC must find certain conditions are met including providing **habitat preservation area**:
  - Sites larger than 1 acre
  - Sites in a Historic District
  - Sites that create 4 or more lots or 8 or more dwelling units in Resource Adjacent Area
  - Sites with private roads
- Other subdivisions go directly to DOB/DOF

*Improved outcomes: Setting clear expectations for appropriate development on large and sensitive sites and avoids the creation of unbuildable lots. Allows coordination with LPC.*



Large and sensitive sites involve more **choices** to be made for preservation and contribute in a more significant way to the neighborhood character

### Focusing public review on **Plan Review Sites**

- Sites larger than 1 acre
- New development and subdivisions in a Historic District
- Sites that create 4 or more lots or 8 or more dwelling units in Resource Adjacent
- Sites with Private Roads

A “**habitat area**” is an area that includes forests, wetlands, grasslands, shrublands or other natural cover that provides shelter, resources, and opportunities for reproduction for wildlife

EXISTING

No preservation required.  
No thresholds for CPC modification.

- Inconsistent preservation outcomes that are based on site by site negotiations through CPC review

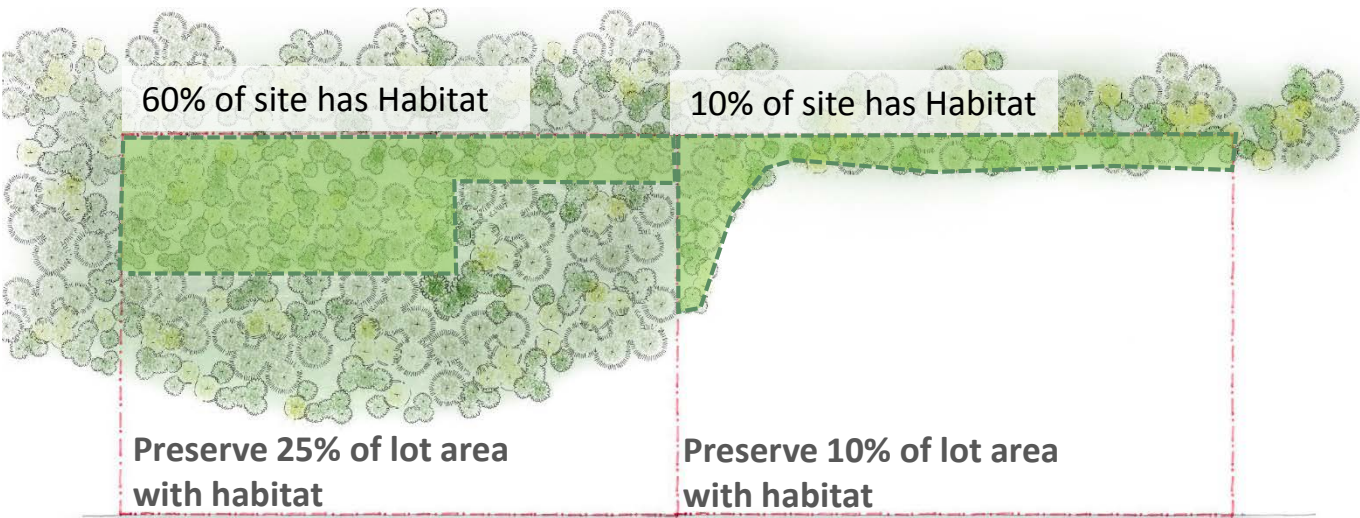
There are approx. 80 sites in the Bronx that would require the habitat preservation areas

## [Special Districts Mapping Tool](#)

PROPOSED

Require habitat preservation on sites  $\geq 1$  acre with existing habitat: up to 25% of a residential or 35% of CF site

- Habitat areas of  $\frac{1}{4}$  acre or more will be pre-identified and would require a site assessment
- At least  $\frac{1}{4}$  acre is needed to sustain a diverse plant, insect, and animals
- Creates ecological connectivity with large protected areas and create shared recreation opportunities for generations to come





## PROPOSED

Require habitat preservation on sites  $\geq 1$  acre with existing habitat up to 25% of a residential site or 35% of CF site

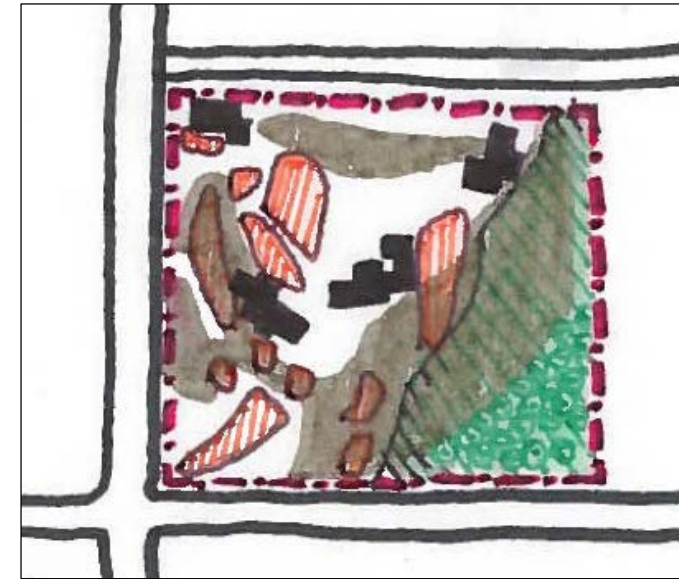
### Community Facility



35% Preservation Area

15% Open Space

### Residential



25% Preservation Area

*Improved outcomes: Encourages clustering of development and protection of the most significant natural features; Establishes initial expectations for applicants and provides predictability on large sites.*

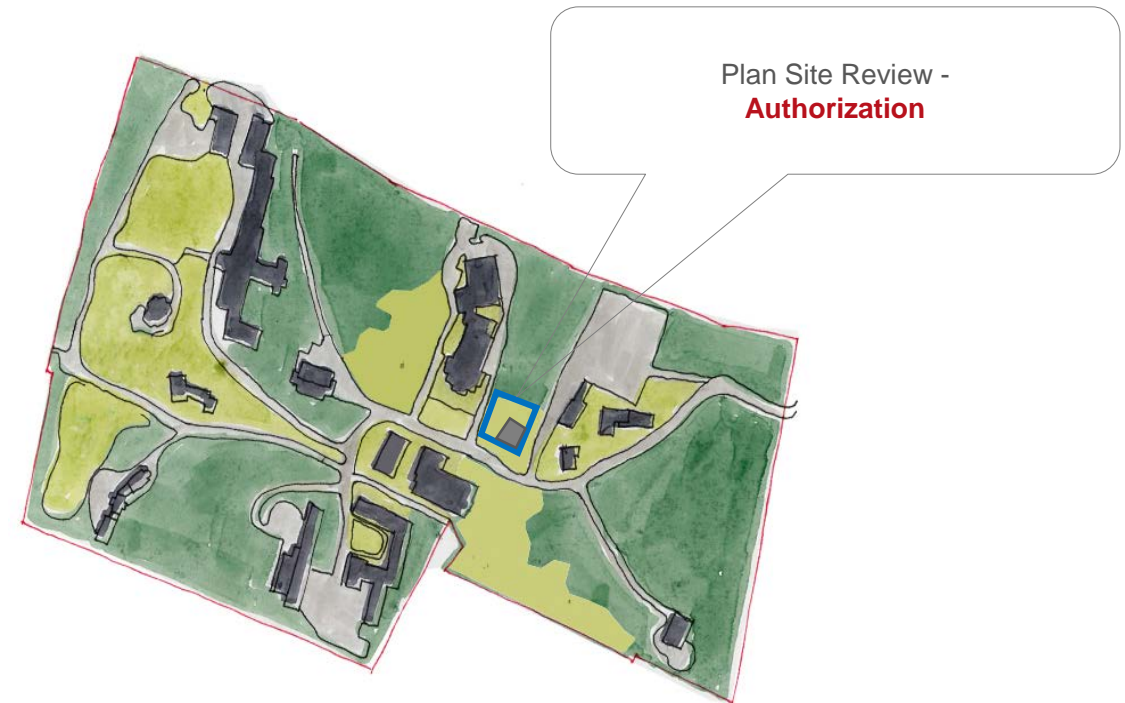
## Initial Application

Because the applicant is over 1 acre, they are required to receive a CPC approval for any new development

Applicant will need a *Plan Site Review Authorization*

DCP works with applicant to determine **habitat preservation** area through a site assessment protocol

In this case, applicant has future work proposed...



Proposed Minimum Requirements

Example: Community Facility

■ Preservation Area: 35%

■ Open Space: 15%



### Campus Plan

Because applicant has future plans, they work with DCP staff to establish a campus plan

Establishing campus plan requires the entire scope of future work to be established

Establish **open space** and **habitat preservation areas**

Establish *Designated Development Areas* for future work - defined as either a

- flexible envelope
- defined envelope

Establishment of the campus plan will require an **Authorization** in addition to any current approvals being sought

One environmental review for future development plans

Establishment of a Development Plan "Campus Plan" -  
**Authorization**

Flexible envelope:  
Designated Development Areas –  
'Conceptual Plan Site'



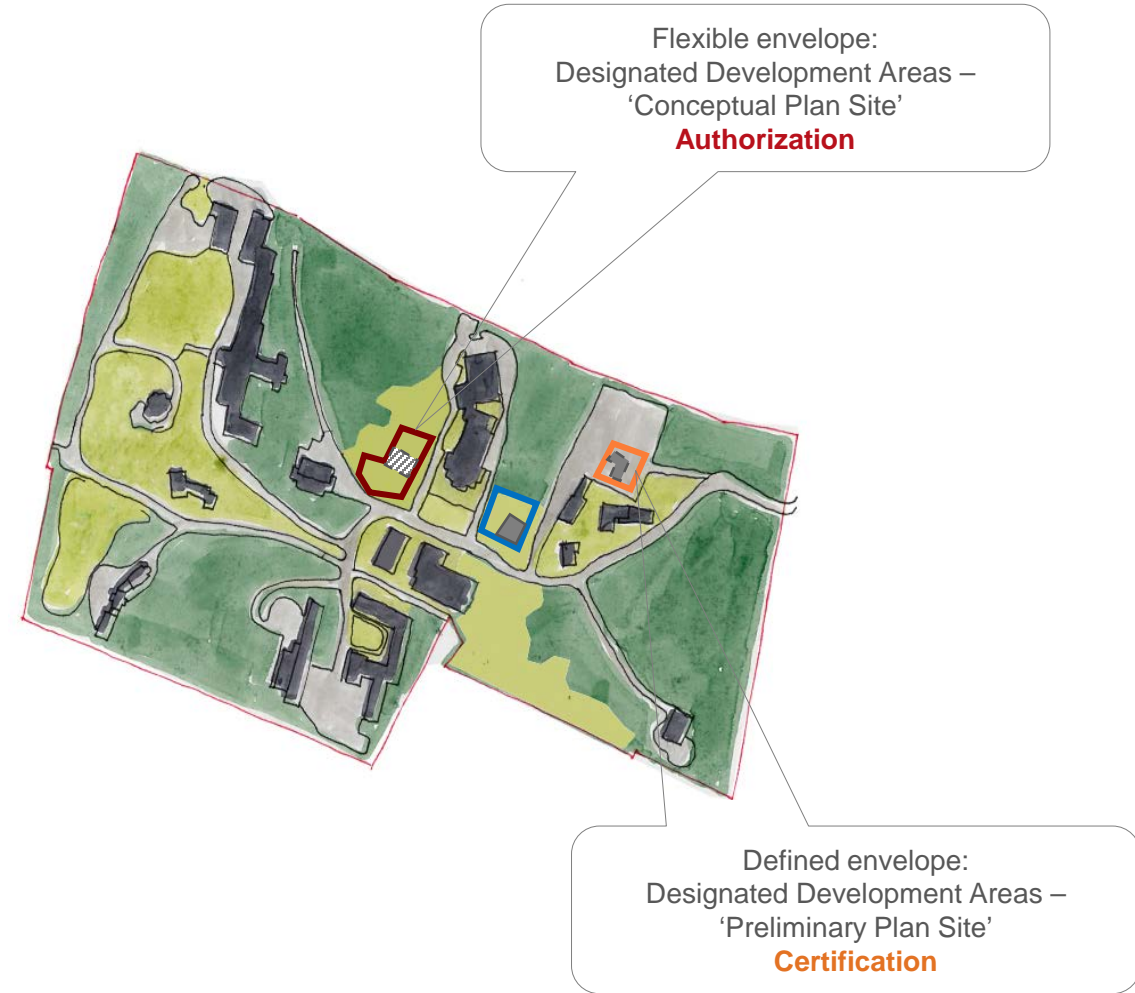
Defined envelope:  
Designated Development Areas –  
'Preliminary Plan Site'

### Future Approval

Each development will be analyzed to ensure compliance with the Special District rules

Any future approvals would be defined by the campus plan approval

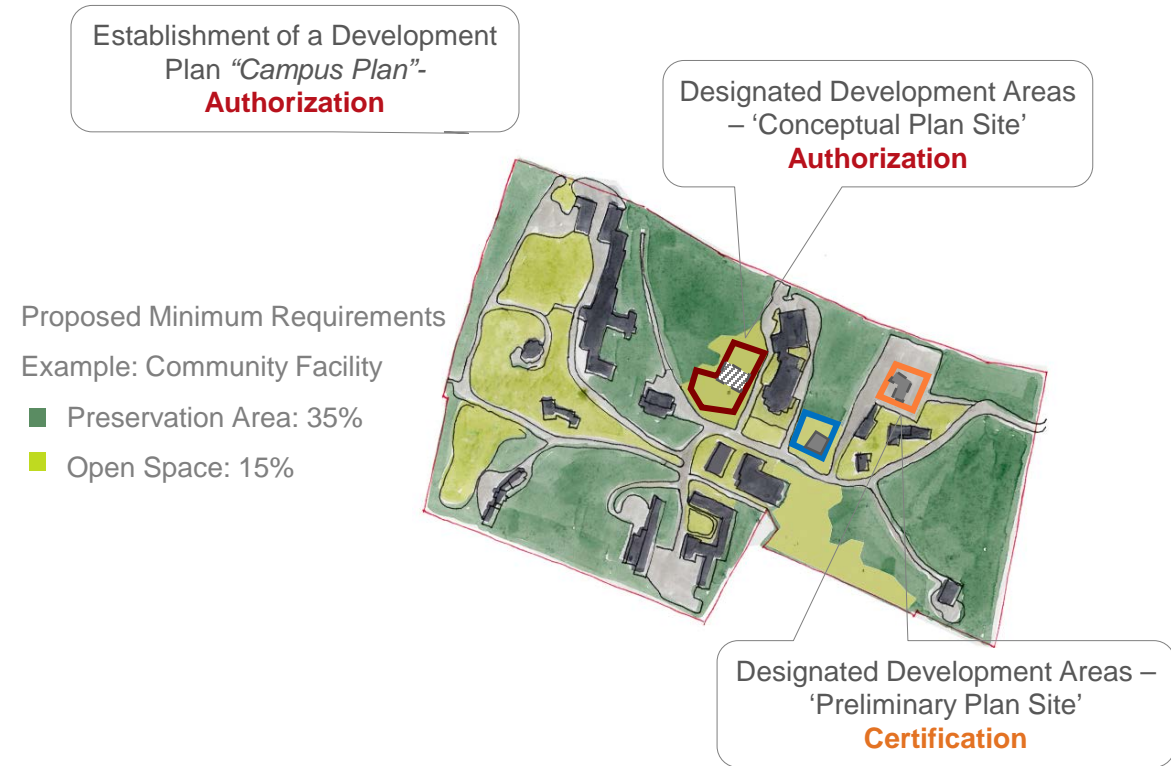
- Flexible envelope → **Authorization**
- Defined envelope → **Certification**





## PROPOSAL

- Encourage long-term planning to create a holistic development plan
- Require CPC review for properties that have greater opportunities for natural resource preservation and impact the public realm; includes CB referral
- Limits incremental erosion of natural features
- Requires an environmental review for all proposed development
- Requires follow-up approvals (**Authorization** or **Certification**)



***Improved outcomes:** Campus Plans allow for better long-term planning.*

*Institutions and community both benefit: The community benefits from providing input in the long-term planning process while the institution benefits from single comprehensive environmental review, streamlined approvals, and up-front public engagement.*



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# Review Process

## EXISTING

CPC review is **site by site** and feature by feature

**Lack of consistent rules** for extent of modification

Same **level of review** for small and large sites

5 out of 7 yearly applications (~70 percent) were one or two family homes

**Today the average application takes 13 months to go through the process**

## PROPOSED

**Holistic:** Broader ecological strategy

**Comprehensive:** Prioritize review of large & sensitive sites

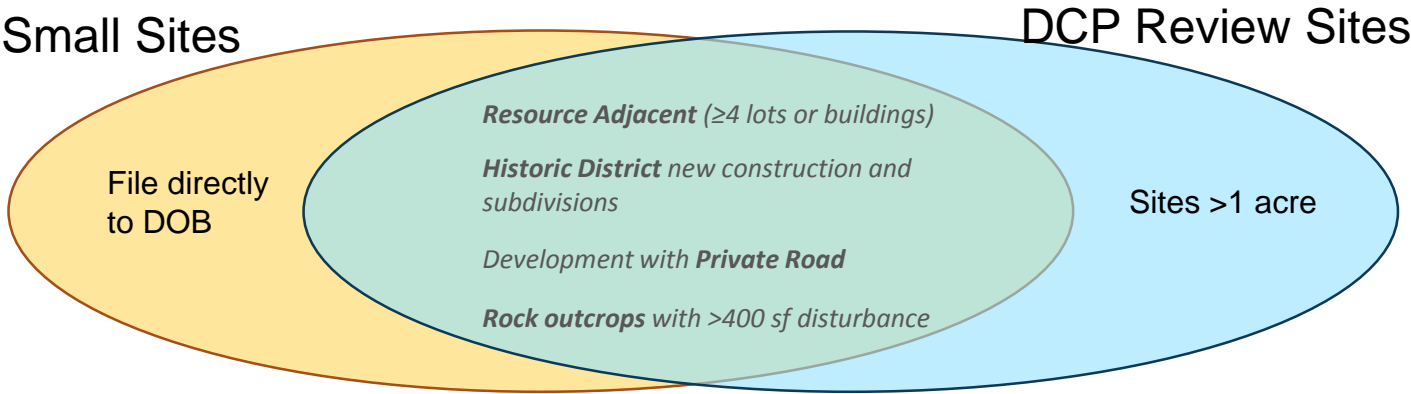
**Clear consistent rules:** Allows small sites to meet rules and file directly with DOB

4 out of 7 yearly applications (~60%) would apply directly to DOB where they would show compliance

3 out of 7 applications (~40%) would apply to DCP for Plan Site Review approval

**Applications that would go directly to DOB would save approximately 7 months**

*Improved outcomes: Homeowner friendly regulations for most small properties that provide clear standards to preserve natural features. Large/sensitive sites will require CPC review.*



**Large and sensitive sites would still require CPC review and CB referral**

# Review Process - DOB Implementation/Oversight/Enforcement

## EXISTING

DOB plan examiner review is dependent on CPC approved site plans

DCP does not enforce zoning rules

DOB enforces zoning rules

Enforcement occurs the same way across all NYC zoning regulations:

- At time of permit – reviewed and inspected by DOB
- Follow-up enforcement is complaint driven – complaints to DOB from community

## PROPOSED

Enforcement will be more effective because:

- **Clearer Rules:**
  - Community, homeowners, professionals and plans examiners will all know what can be built
  - Less discretion means owners will know how to meet the rules
- **More knowledgeable and empowered enforcement agency - DOB:**
  - Clear rules that follow a formula will empower DOB to review and enforce the rules strictly
  - Clear zoning rules can be more easily measured on plans and verified in the field
  - Specialized DOB Plan examiner training and DCP support through transition
  - **Site Plan Review:**
    - DOB to incorporate Special District rules into plan examiner forms and checklists
    - DOB to screen all self-certification applications for Special District and zoning compliance
  - **Site Inspections:** New rules emphasize continuous enforcement and improve inspections by DOB:
    - Rules require on-site field logs for construction; empowers DOB inspectors
    - Rules require final inspection reports to show compliance with rules
- **Better informed community:**
  - Updated online DOB material available to the public
  - DOB resources: Online tools to track active construction sites; [Building on My Block](#) information portal; Project Advocate program; Homeowner's night in each borough every week
  - DCP Resources: Homeowner Guide; DCP will always continue to support the community





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# How would a typical single-family home be affected?

Example: Enlargement in R1-2 District



# Example: How would a typical single-family home be affected?

## Enlargement in R1-2, Base Protection Area, SNAD



### ASSESS EXISTING CONDITIONS

- Zoning Lot Area: 11,000 sf
- FAR: 0.18 (0.5 Max)
- Lot Coverage: 998 sf - 9%
- Garage = 400 sf (will be counted toward lot coverage)

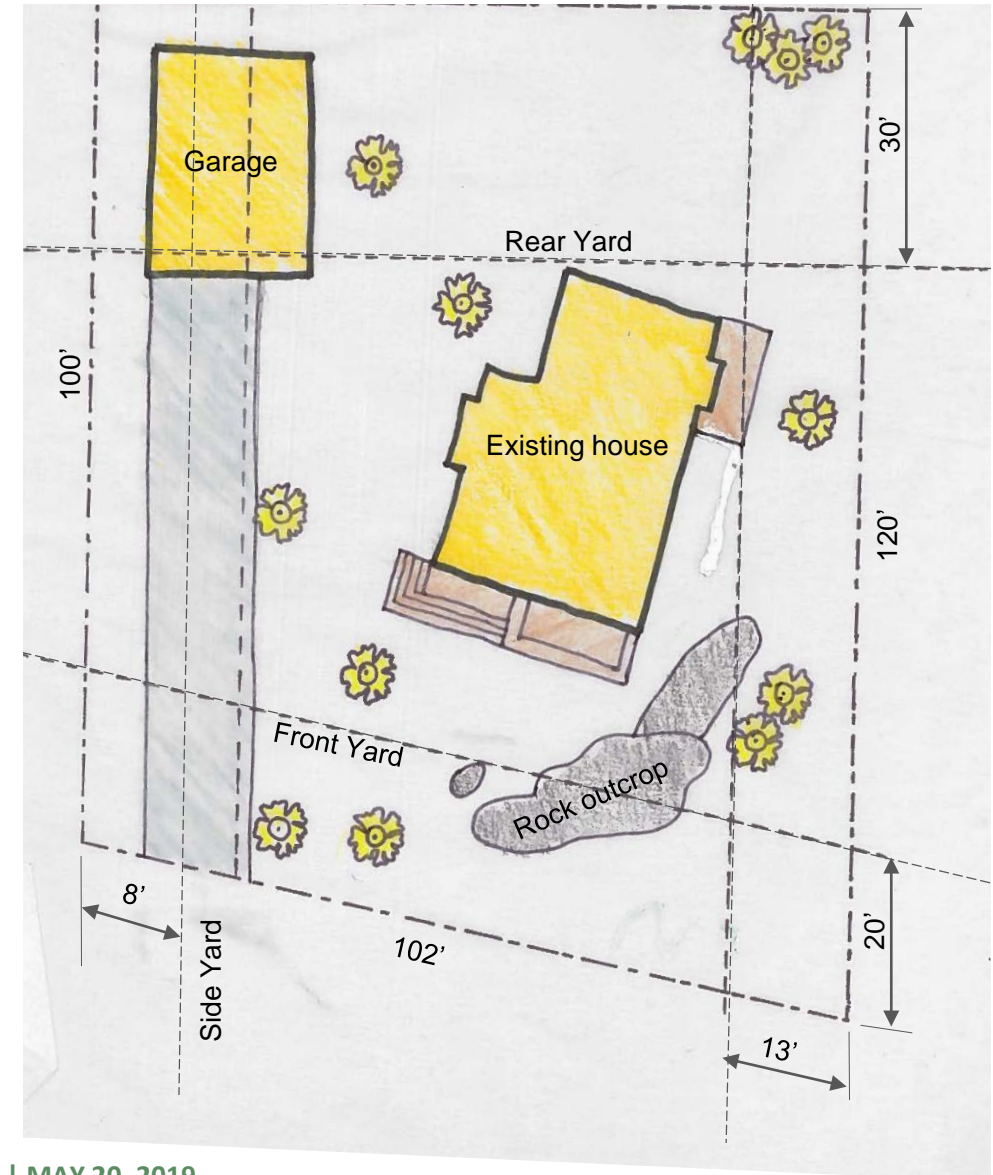
*Existing: Would require a CPC discretionary review for enlargement*

*Proposed:*

- Over 1 acre? **No**
- Private Road? **No**
- New Building in Historic District? **No**

✓ **Site meets criteria for filing directly with DOB**

**You can submit drawings directly to DOB as part of its application requirements rather, than filing through DCP and then DOB**



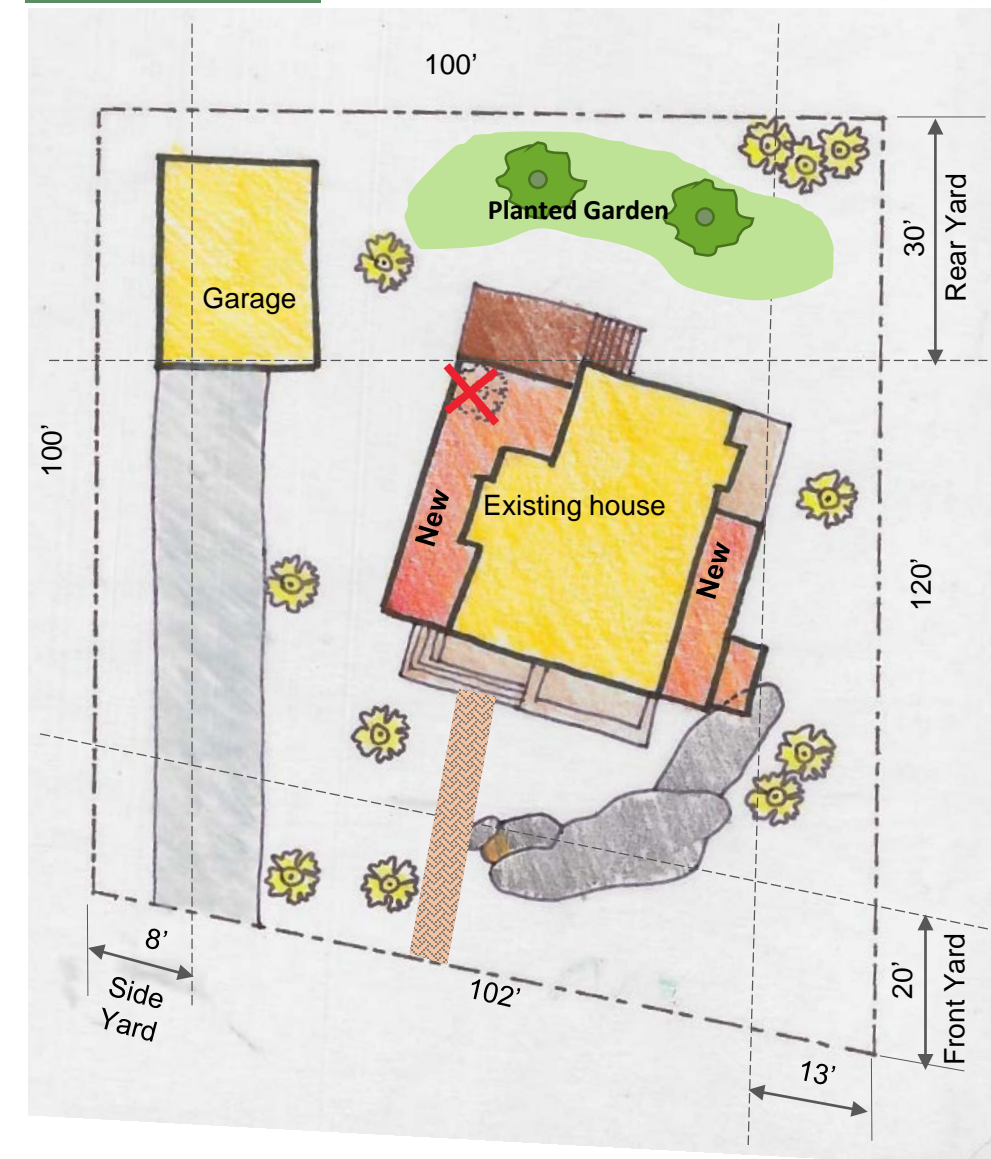
# Example: How would a typical single-family home be affected?



## Enlargement in R1-2, Base Protection Area, SNAD

Base Protection Area

### PROPOSED



### ASSESS PROPOSAL

- Lot Coverage permitted = 25% | Lot Coverage proposed = 17.3% ✓
- Hard surface areas include pathway, driveway, decks, patio and building footprint = ~ 30% ✓
- Rock outcrop – limited disturbance allowed for the enlargement ✓
- Trees & Planting on site
  - 12 trees on site - 1 proposed to be removed | 41 tree credits on site (after tree removed)
  - 1 tree per 1,000 sf of lot area: 11,000 sf / 1,000 sf = **11 trees min.**
  - (NEW)** 3 tree credits per 750 sf of lot area: (11,000 sf / 750) x 3 = **44 tree credits min**
  - ✗ 41 tree credits on site < 44 tree credits required
  - ✓ **Plant two new trees with enlargement** [Current rules would require no additional trees]
  - 4 biodiversity points will be required
  - ✓ **Owners opts to expand existing garden to 1,100 square feet to achieve 4 biodiversity points** [Current rules would require no garden]



Proposed update to the Special Districts would result in a modernized and streamlined approach to balance natural resource preservation with neighborhood development.

