

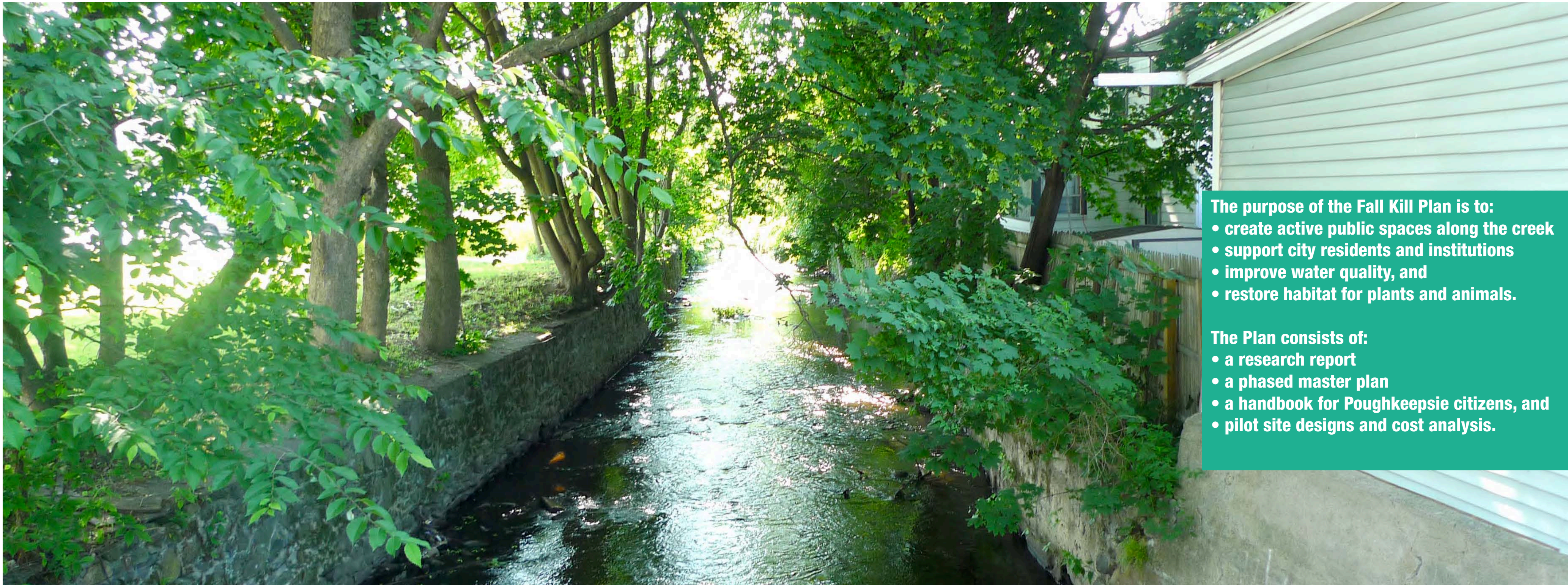
DRAFT REPORT

THE FALL KILL PLAN

sets guidelines for transforming the Fall Kill Creek into a vibrant community resource. This master plan and design handbook enables city officials, organizations, businesses and homeowners in the City of Poughkeepsie to activate and revitalize the creek.



1: *About the Fall Kill*



The purpose of the Fall Kill Plan is to:

- create active public spaces along the creek
- support city residents and institutions
- improve water quality, and
- restore habitat for plants and animals.

The Plan consists of:

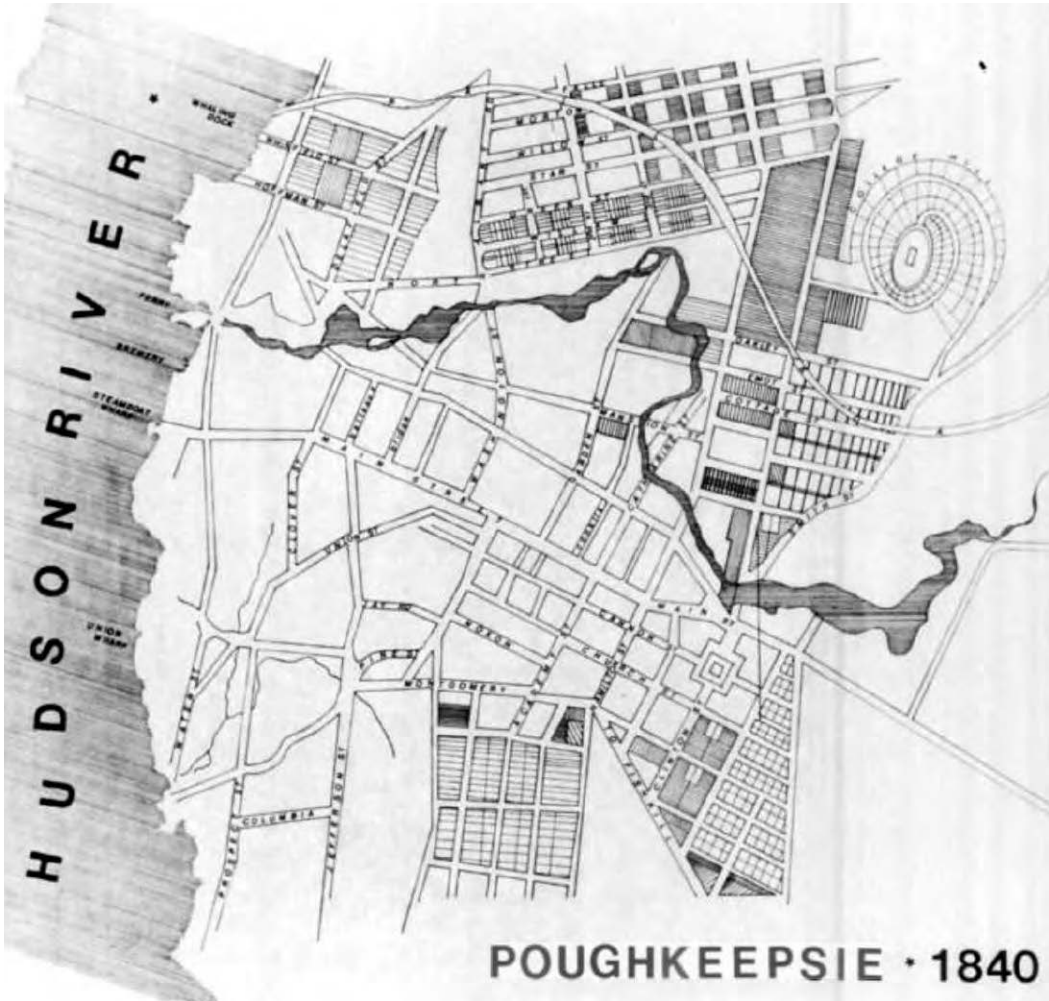
- a research report
- a phased master plan
- a handbook for Poughkeepsie citizens, and
- pilot site designs and cost analysis.

HOW CAN THE CREEK BE USED?

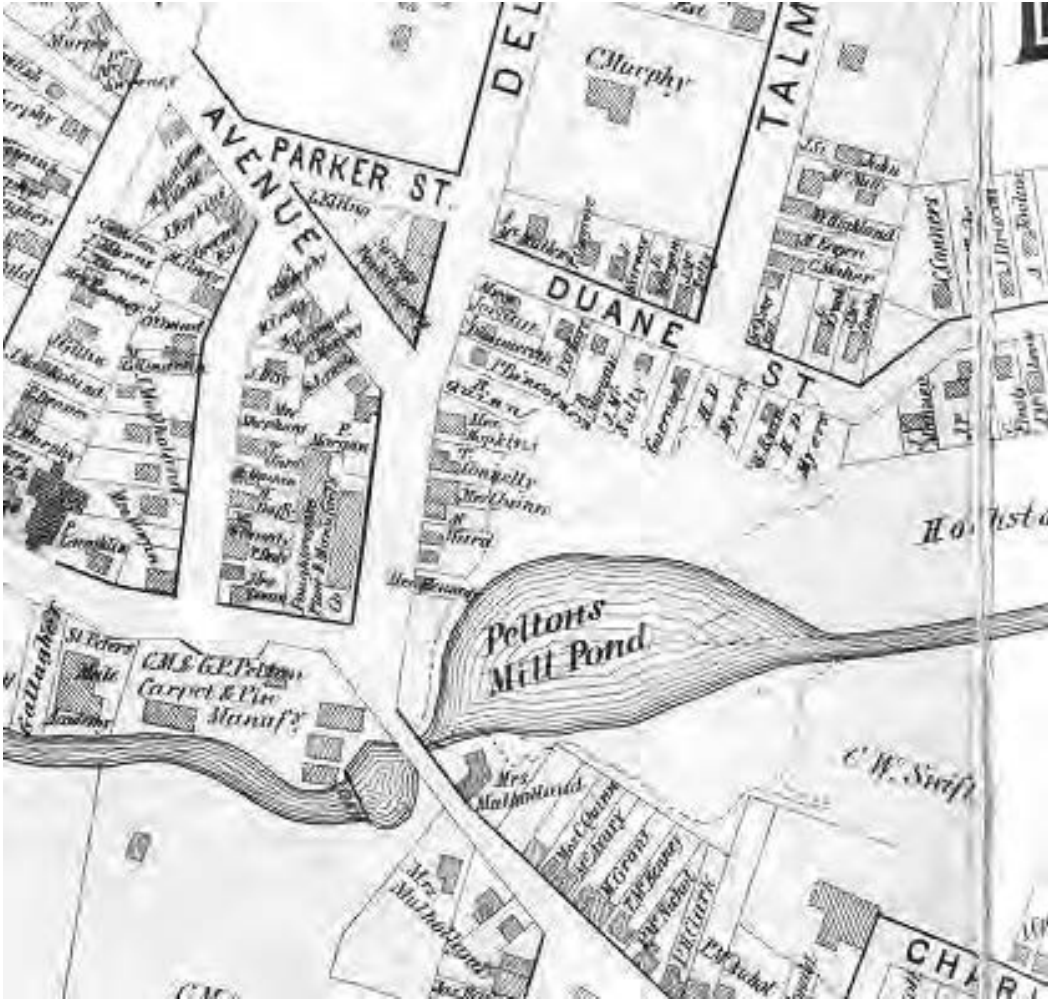
FORMER USE: INDUSTRIAL AND RECREATIONAL ACTIVITY >

In the early 19th century, the creek was dammed to create mill ponds that could power the processing of corn, lumber, and cloth. Factories subsequently relocated from the creek's edge to railroad distribution lines, and the creek fell into disuse. Ponds were covered with landfill in the 1880's following vehement protests from residents over the stagnant pools. Pond sites are still visible today as a patchwork of parking lots and often-vacant sites.

Poughkeepsie residents have made use of residual creekside spaces, transforming them into ball fields and fishing spots. Residents gathered at a public square at Clinton and Mill Streets, and dove into a swimming pool filled by creek water at Dongan Park.



1840 Map of the Fall Kill: *Poughkeepsie: Halfway up the Hudson*: “This map of the village of Poughkeepsie shows where development had already occurred and the then-contemporary vision of potential development. Note the presence of the winding Fallkill Creek and its ponds as well as the sizeable tracts laid out for development on the north side, especially around College Hill.”



Pelton's Mill Pond at Mill and Delafield Streets, Map of the City of Poughkeepsie Dutchess County, New York. Creator: W. Gray and Son, 1876. from New York Public Library Digital Gallery.



Innis Dye Works. *source: Poughkeepsie: Halfway up the Hudson*: “The Innis Dye Works were located on the Fallkill Creek after it had ceased to be the source of power. The railroad bridge indicates that, as proximity to water had once been of paramount importance, the location of industries near the railroad would become increasingly desirable.”

CURRENT USE: A LIABILITY AND A RESOURCE. Today, the creek is often neglected and used as a dumping ground. It is a liability for land-owners, and is often fenced off.

Despite these challenges, many explore its still persistent beauty. Some fish or walk along the waterfront. Organizations host trash cleanup events and engage students in citizen science programs exploring the creek's ecosystems.

POTENTIAL USE: A MIXED USE CORRIDOR. Improved public access to the creek can support mixed-use, and build on existing urban activities to enliven neighborhoods.

The creek can provide event space and attract new audiences for local institutions. Similar waterfront projects have also proven to boost real estate values and attract tenants to adjacent neighborhoods.



Fishing, bird-watching, snow-showeign + nature-trail activities



Outdoor classroom + citizen science programs



Backyard and Commu-nity Gardens



Business District picnic areas and gathering spaces



Pocket parks + Play-grounds + After-school programs



Ampitheater + Performances + Film Screenings



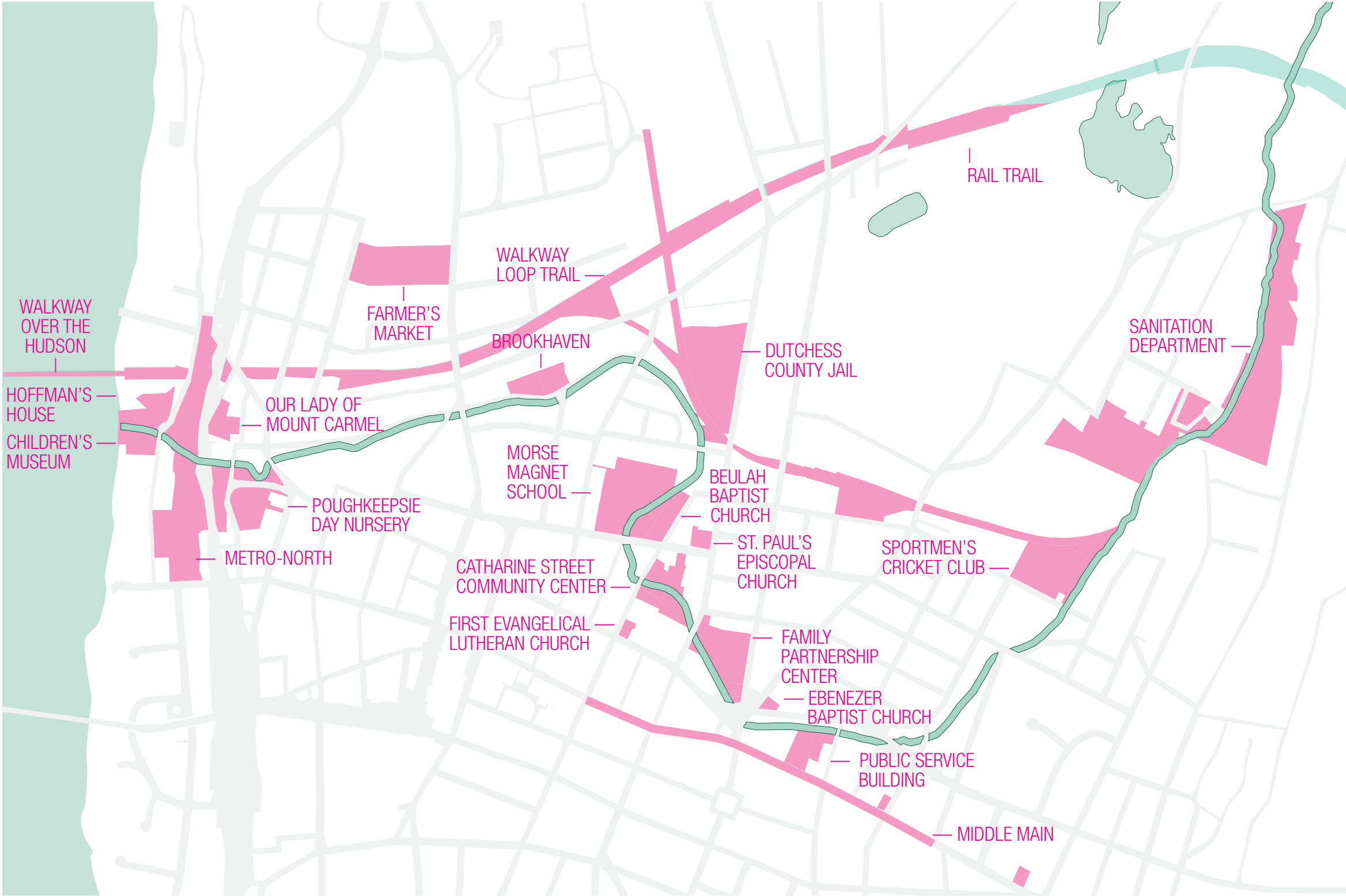
Playing Fields



Bike and walking paths for recreation and commuting

LOCAL INSTITUTIONS AND BUSINESSES >

Many of the city's most active local organizations and businesses are located near the creek. Partnerships between such groups and city agencies will be critical to ensure that activities, maintenance, and monitoring of the creek are sustainable in the long term.



HOW CAN THE CREEK SUPPORT NEIGHBORHOODS?

THE NEED FOR NEIGHBORHOOD IDENTITY >
Poughkeepsie has few well-defined neighborhoods. Exceptions include the Mt. Carmel Little Italy neighborhood, and the Middle Main business district.

DISCONNECTED PARK SPACES >
Today, many neighborhoods along the creek are located within a 10 minute walking distance of existing parks. But these parks are isolated from communities: many feel unsafe as they are unpopulated at night and disconnected from active street life.

POTENTIAL NEIGHBORHOOD CENTERS >
Public spaces along the creek can create new neighborhood centers linking parks with densely populated areas. Neighborhood centers can activate a vibrant and safe social environment. They contribute to a sense of identity, ownership, and mutual interest in the city.



Existing Neighborhoods



Potential Pathway Connectors

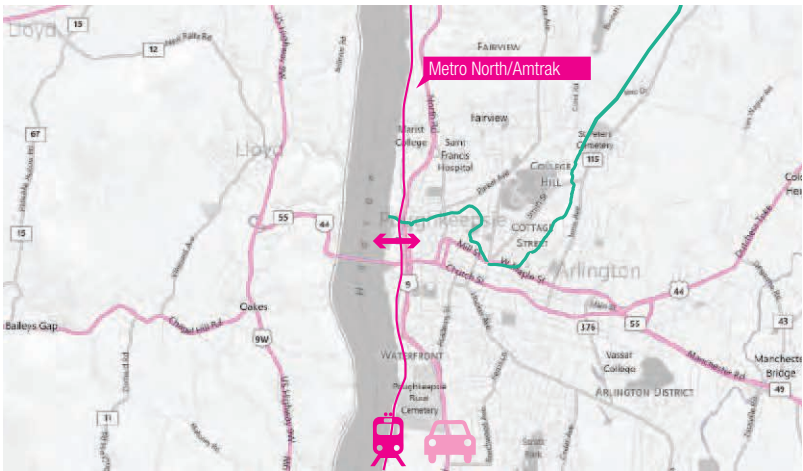


Neighborhoods | base map source: Dutchess County GIS

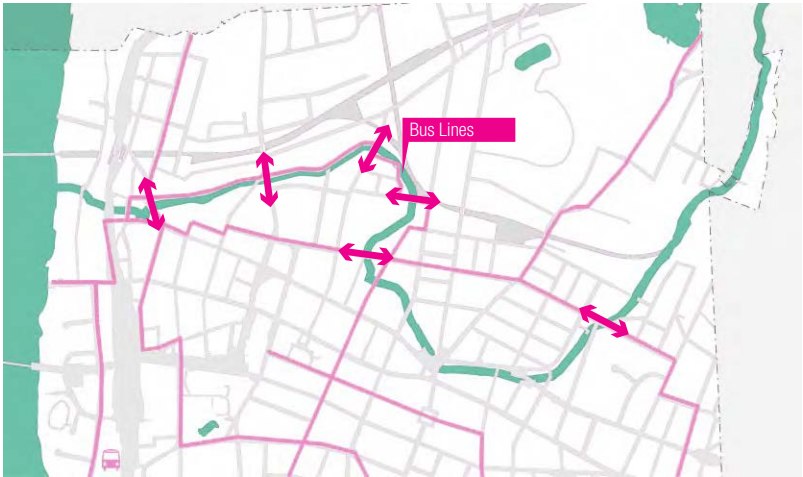
REGIONAL PATHS. Visitors to Poughkeepsie are most frequently attracted to the Hudson riverfront, the Walkway over the Hudson, the Rail Trail, and historic sites south of downtown. Others pass through the city without spending time there. Instead, the creek can welcome visitors to spend time in city neighborhoods.

BUS LINES. Several bus lines run along or across the creek. Bus stops integrated into park space, and walkways connecting residents to bus lines can welcoem residents to use the bus system. In this way, carbon-free transit can support residents without access to cars, such as youth or elderly people.

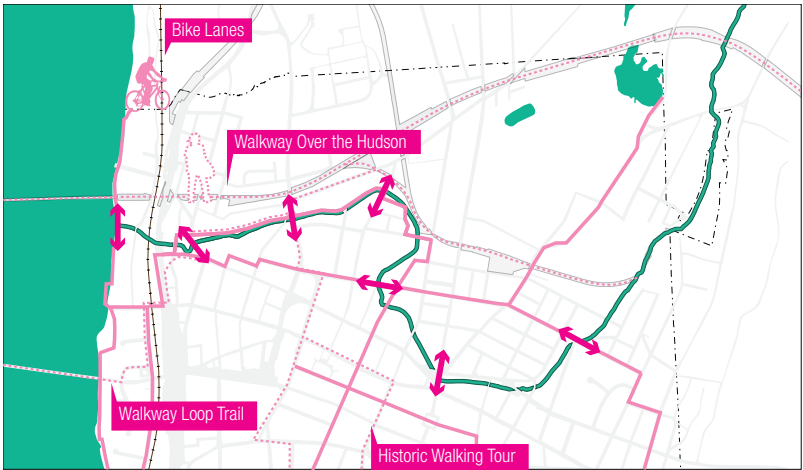
BIKE AND PEDESTRIAN PATHS. The creek can bridge successful recreational pathways such as the Walkway Over the Hudson to Poughkeepsie neighborhoods. Bicyclists and pedestrians can use pathways along the creek to go to work or school, to get groceries, see family and friends, and enjoy the outdoors.



Regional Highway and Rail. base map source: Dutchess County GIS

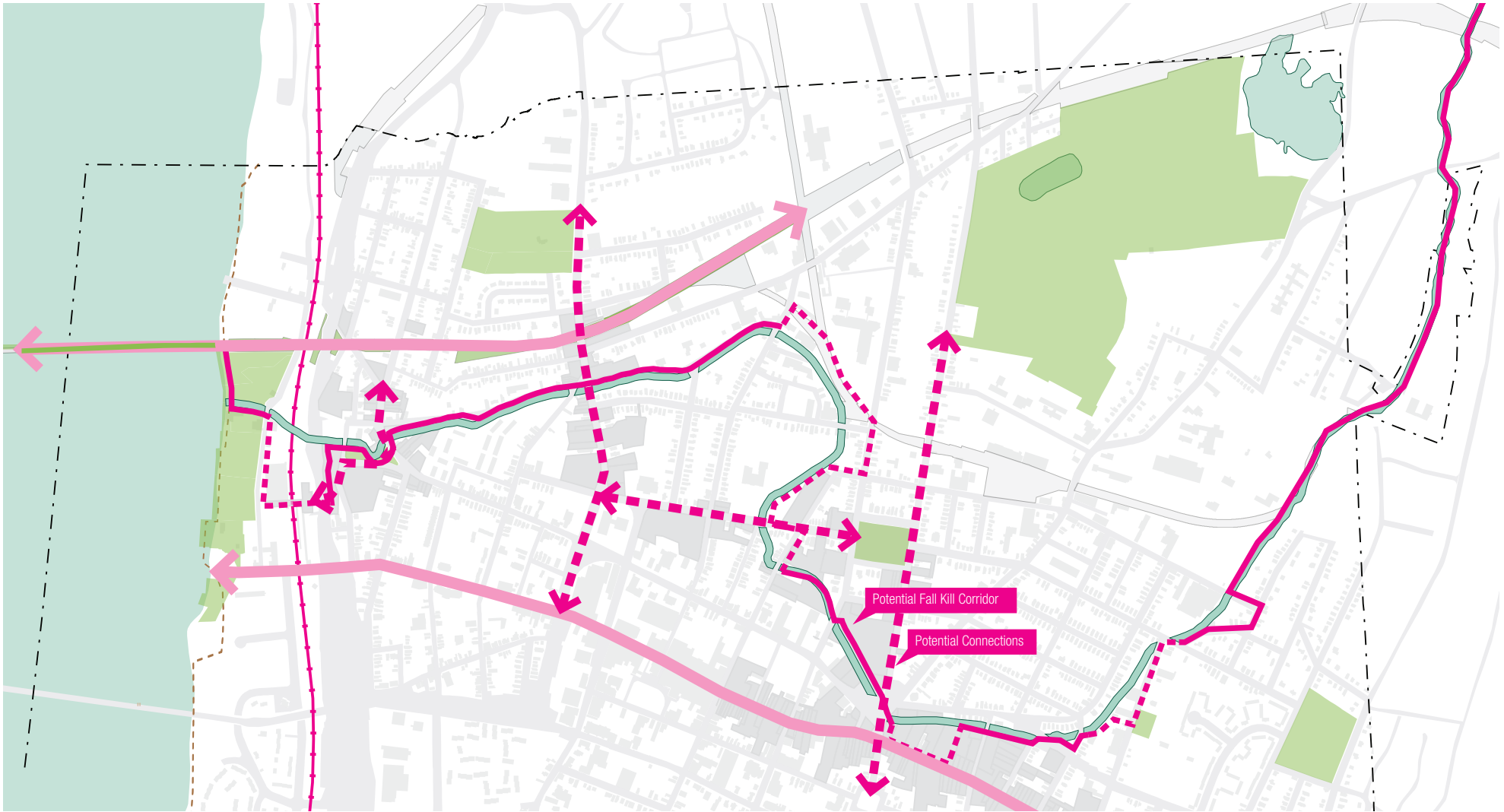


City of Poughkeepsie Bus Service. base map source: Dutchess County GIS

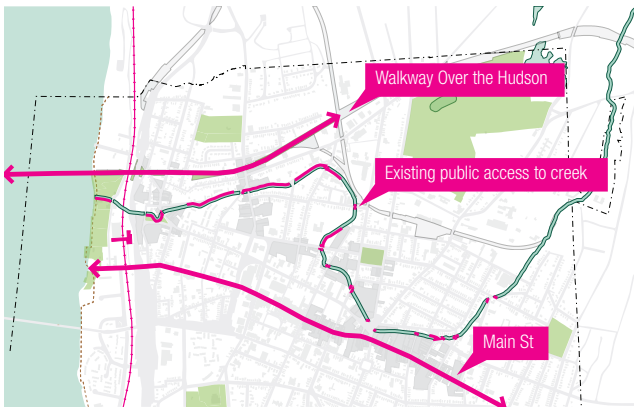


Bike Paths + Walking Tours. base map source: Dutchess County GIS

NEEDED PATHWAYS. Poughkeepsie's major pedestrian and vehicular routes connect the city to the Hudson River, but make few connections from North to South. To bridge these pathways, the creek can create pathways from the Walkway Over the Hudson at Garden Street to Middle Main. In other areas, public spaces along the creek can connect to urban pathways, at Washington and Clinton Streets, and to the Train Station via Dongan Park.

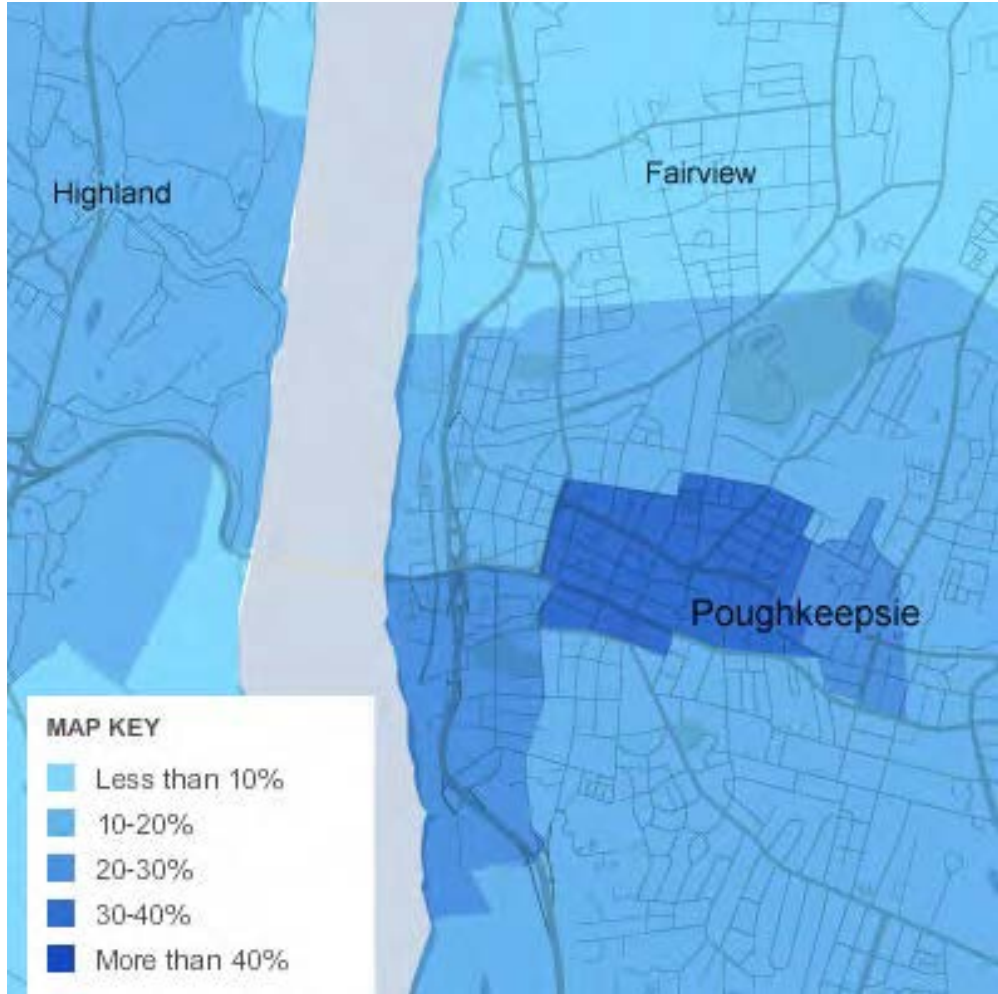


Potential Pathway Connectors

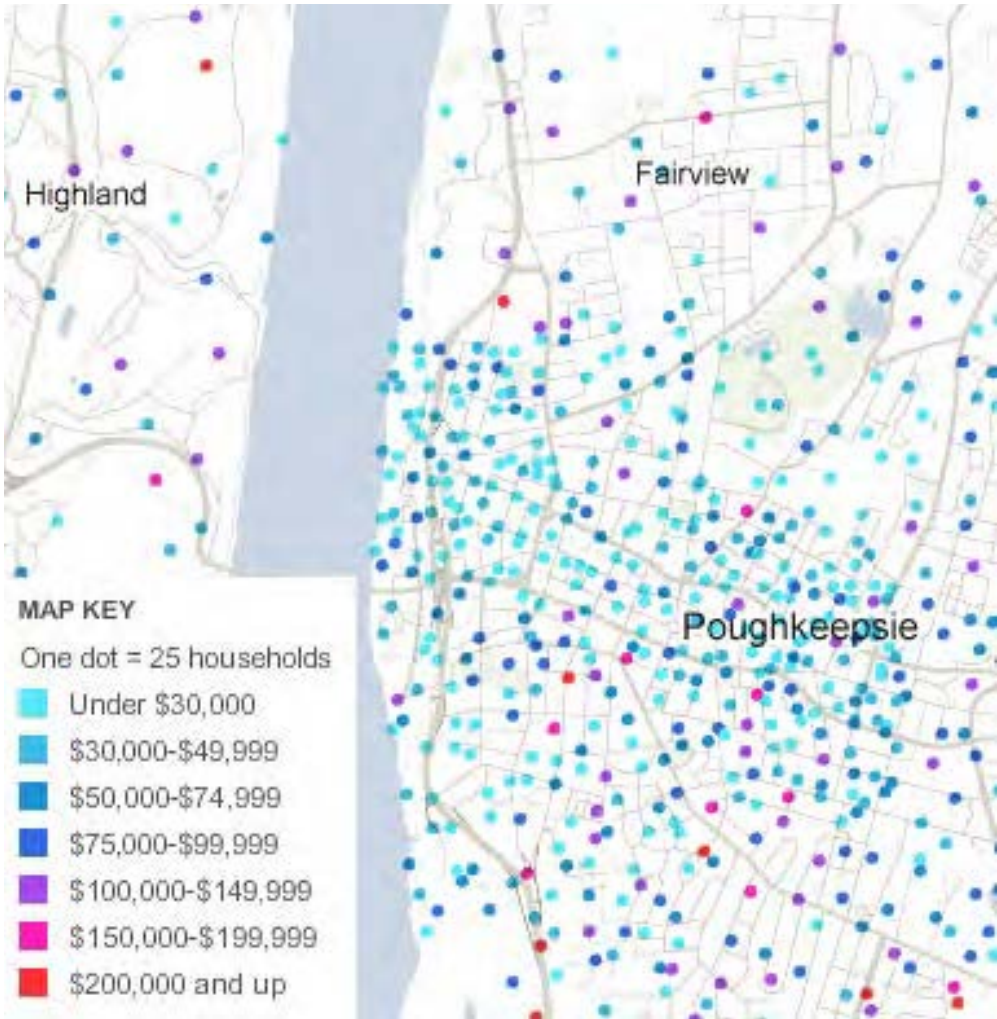


Existing Primary Pathways

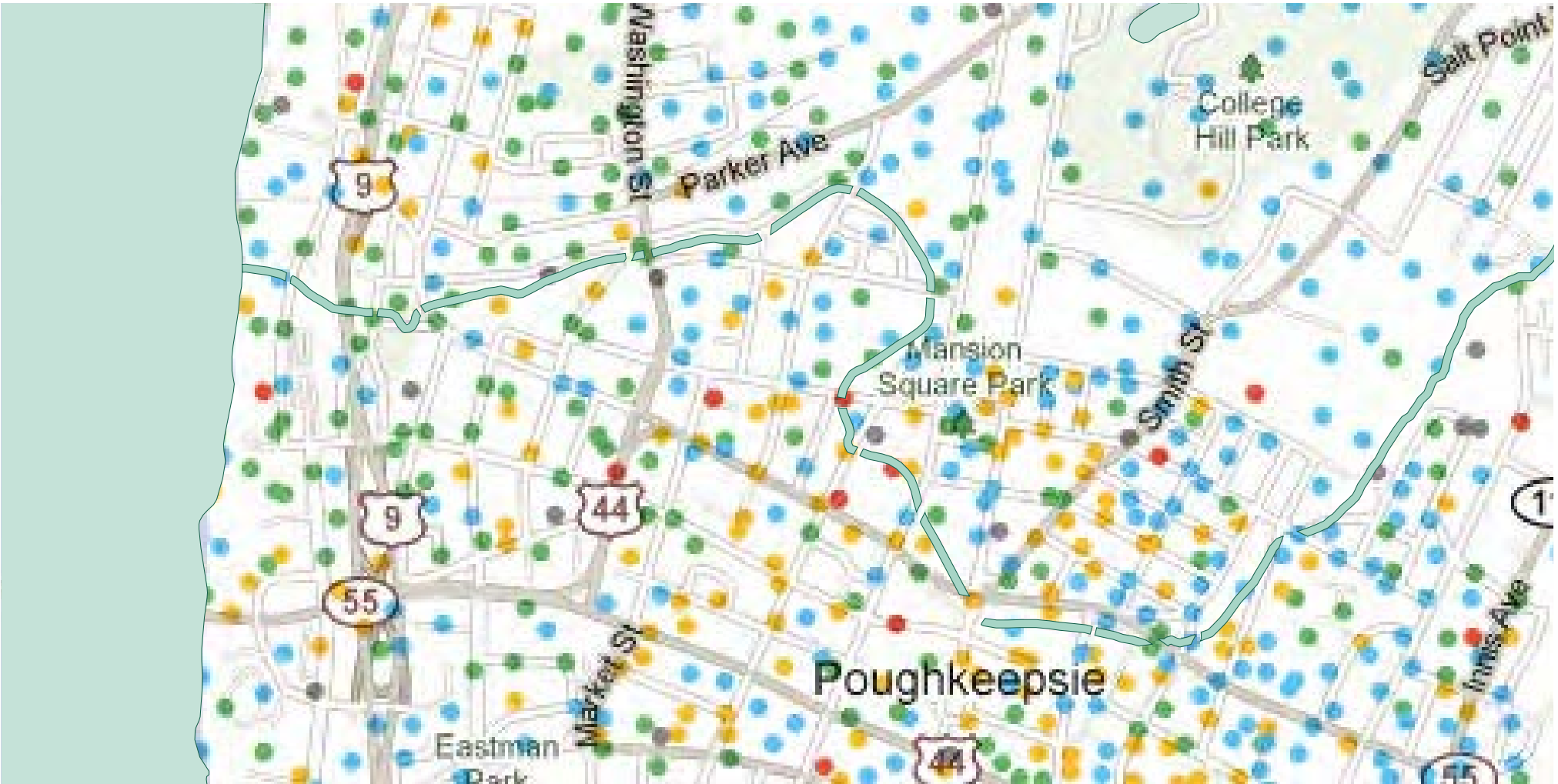
DISJOINTED COMMUNITIES. While neighborhood identities can be strengthened, these same residents can also use the creek to connect to other neighborhoods, encouraging a mixing of people of different backgrounds and income levels.



Foreign-Born Population, source: New York Times, US Census, Google



Income, source: New York Times, US Census, Google



Population by Race | Source: New York Times, US Census, Google

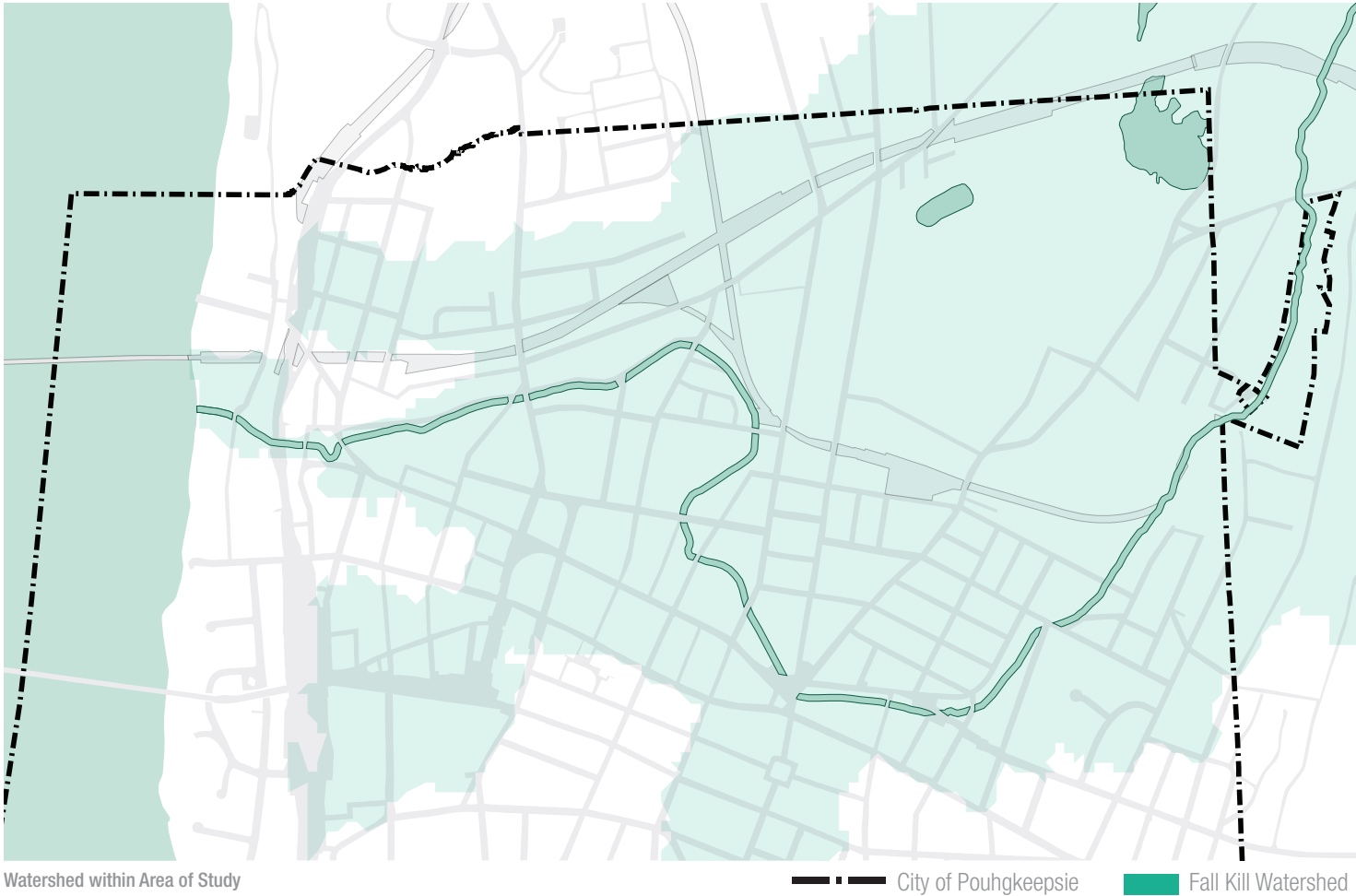
HOW CAN WATER QUALITY BE IMPROVED?

WATERSHED >

The Fall Kill Creek runs from Hyde Park to the Hudson River. The creek watershed—the area of land from which all surface water drains into the creek — covers 19.5 square miles (12,476 acres) and crosses Clinton, Pleasant Valley, the Town of Poughkeepsie, and the City of Poughkeepsie.

This study focuses on the creek within the City of Poughkeepsie, a 3.1 mile stretch of the creek’s total 38.9 mile length.

Water quality is especially poor this area, and is caused by the use of pesticides, fertilizers, and other polluted areas as well as runoff from urban impervious surfaces such as parking lots and roads. Any improvements to water quality must focus on a number of strategies and scales simultaneously, and must coordinate efforts with improvements upstream, such as the mitigation of sewage spills, inadequate septic tanks, and other pollution sources.



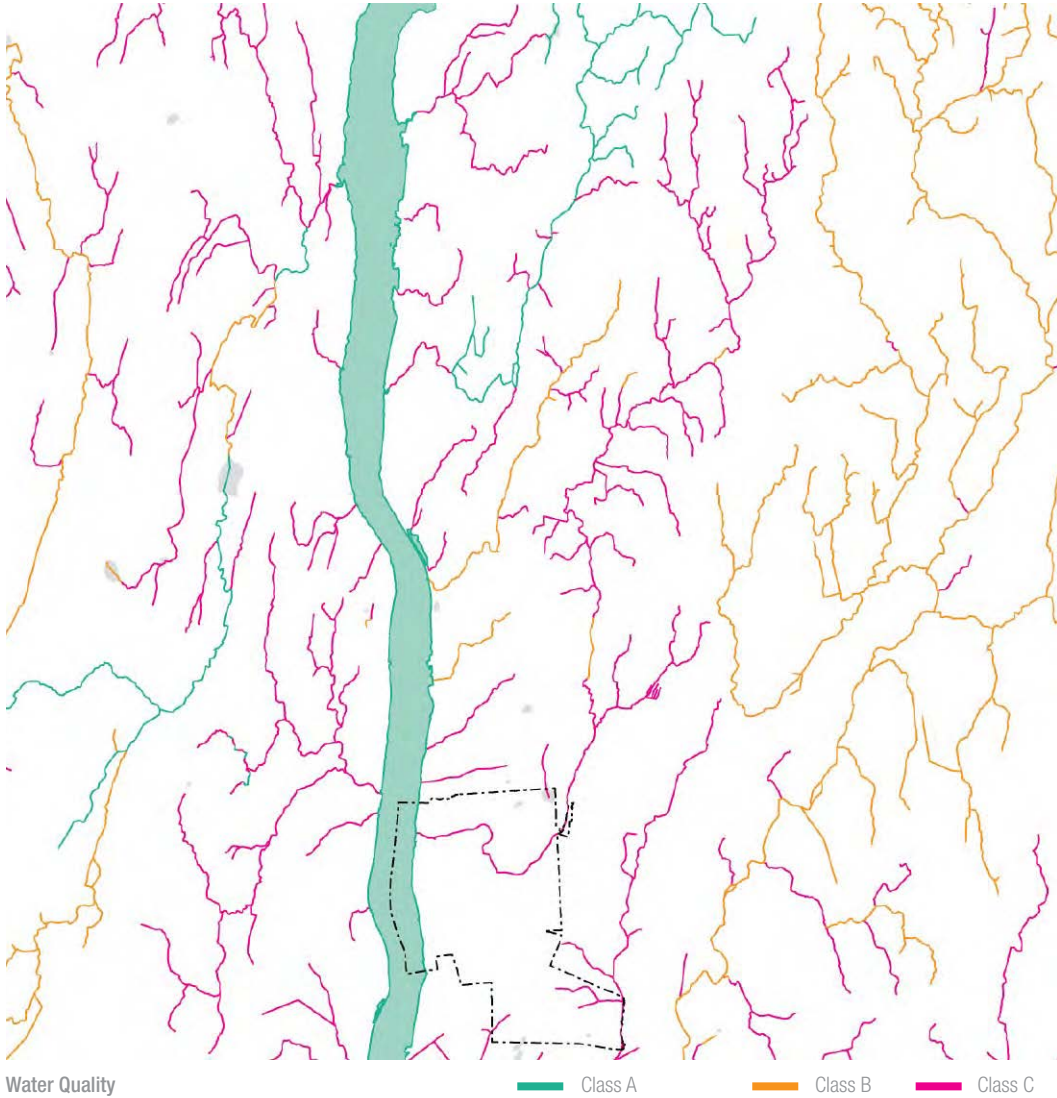
EXISTING WATER QUALITY >

The Fall Kill Creek is featured on the New York State Priority Waterbodies List as a “Class C” stream. The creek is safe for fishing but not for swimming.

Significant problems in the creek include high fecal coliform counts. The Fall Kill Management Plan reports that the highest counts, found at Valkill and Cream Street, averaged over 10,000 colonies/100ml, far above the New York State Department of Health’s 200 colonies/100ml threshold for safe swimming. In addition to recreational impacts, poor water quality impacts wildlife habitat, and the city’s drinking water, sourced from the Hudson River.

Other problems include contaminants and nutrients (nitrate, phosphate, sulfate, heavy metals, hydrocarbons), high temperature levels due to a sparse tree canopy, and deficient oxygen levels. These problems can all adversely affect animal and plant habitats. The creek is also littered with sizable debris, from shopping carts to discarded bicycles. (Fall Kill Management Plan).

GAUGING QUALITY. The public often tries to gauge water quality by looking at the clarity of the water, the presence of plants and animals in the creek, or water smell. Interactive signage programs can also connect people to water quality in real time, telling them when it is safe to fish, or even to swim.



GREY INFRASTRUCTURE >

The City of Poughkeepsie has a combined sewer system. Under normal conditions both sewer water and stormwater flow to a water treatment facility. But rainstorms send overflows directly into the Fall Kill Creek.

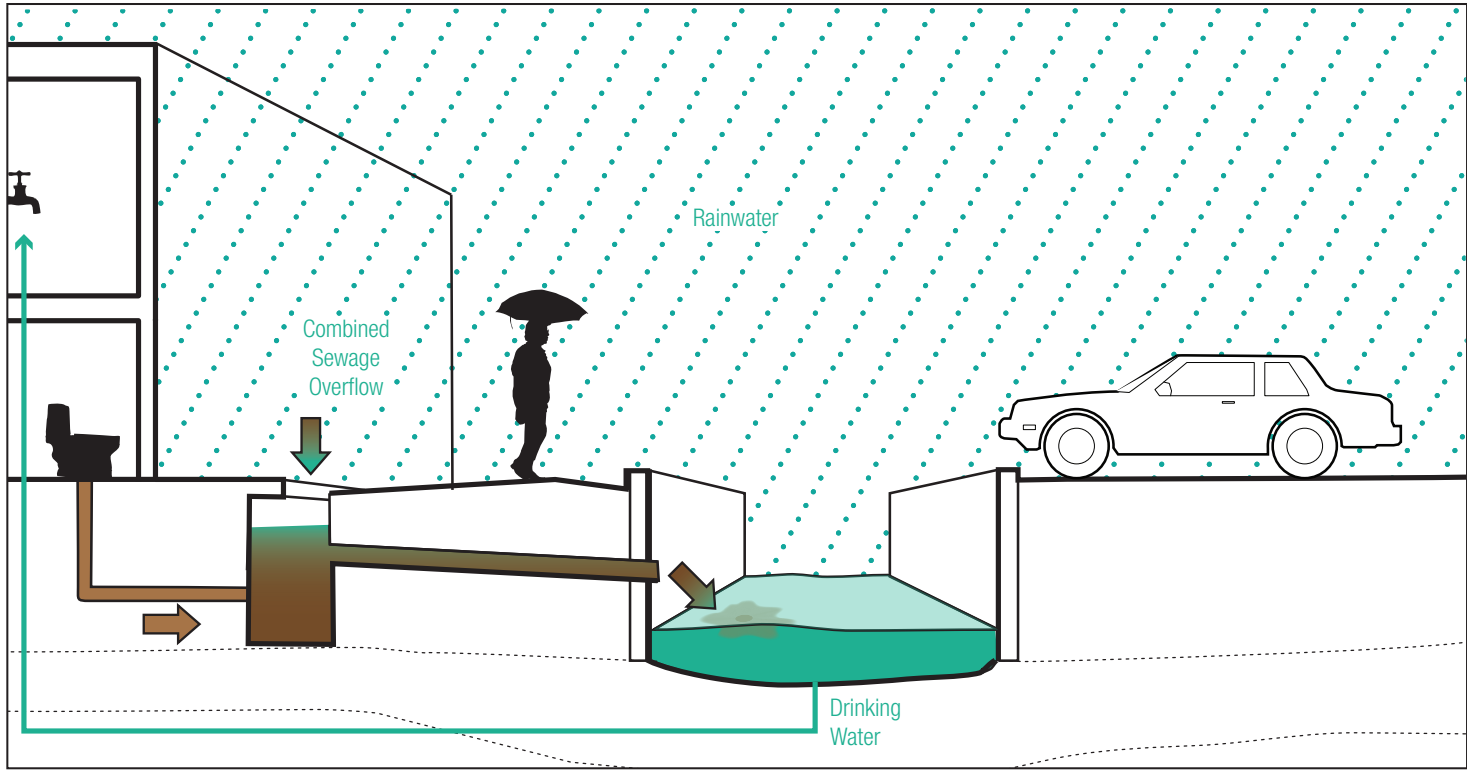
Strategies to mitigate CSO impacts are:

- Create a Municipal Separate Storm Sewer System (MS4). This is an expensive approach to reworking grey infrastructure to separate stormwater from sewage, but the best way to impact water quality throughout the watershed.
- Identify and mitigate point sources of sewage spills and leaks upstream.
- Use green infrastructural practices such as the following to slow and treat water before it reaches the creek (e.g. pervious surfaces, rain gardens, wetlands, and riparian buffers

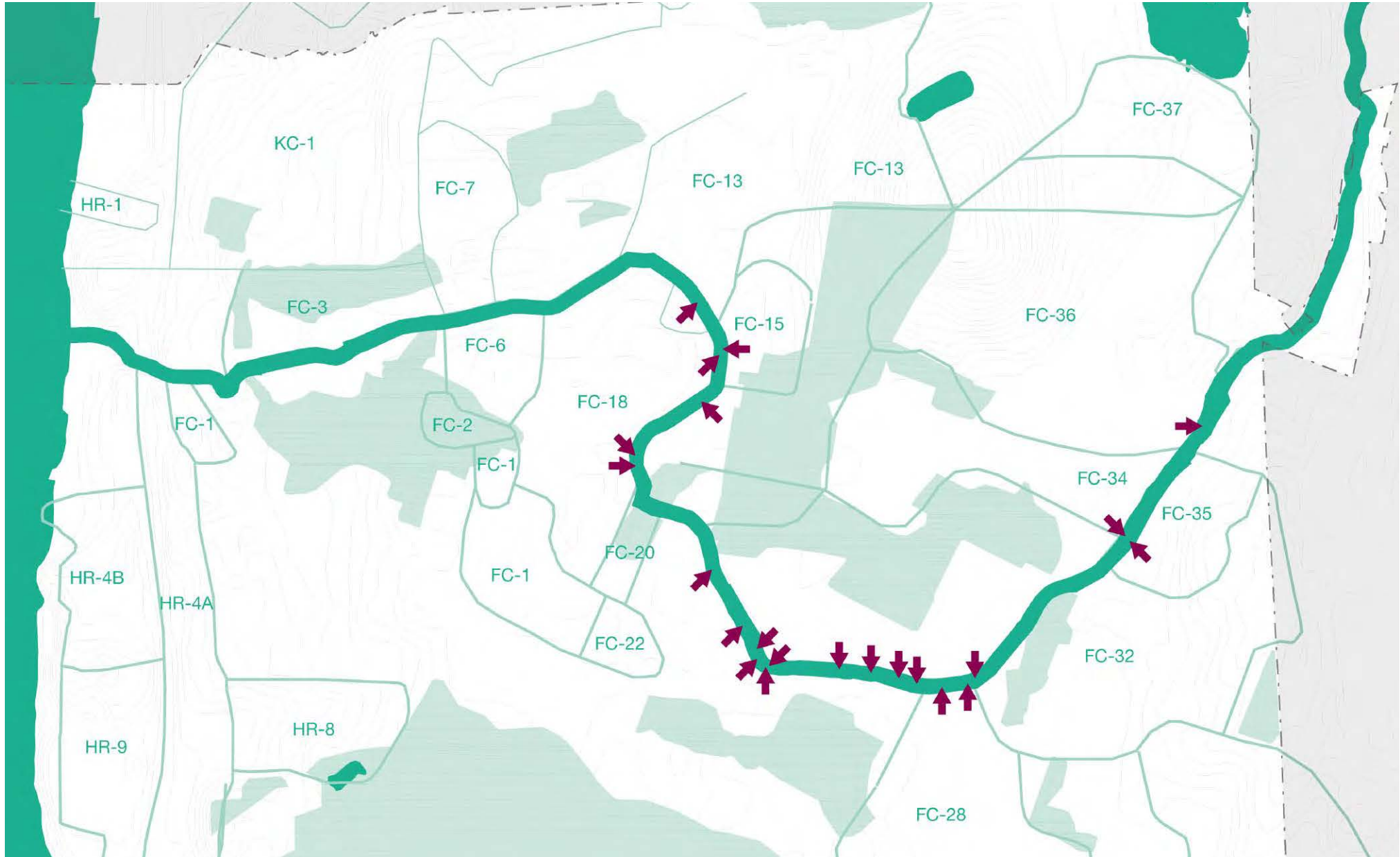
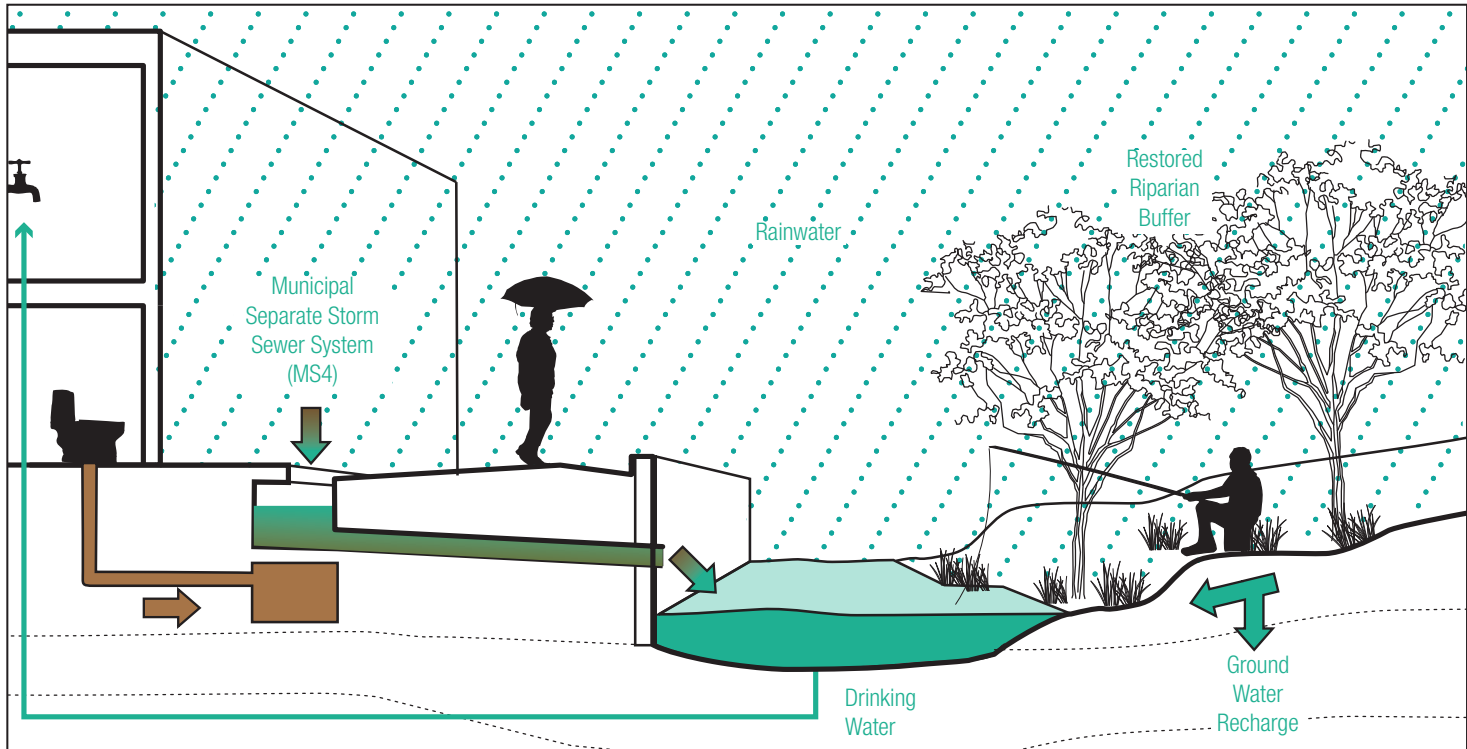
CSO impacts are made worse by non-porous urban surfaces. As Hudsonia reports, “Impervious surfaces such as pavement and roofs alter hydrological patterns by preventing precipitation from infiltrating through the soil to groundwater, instead promoting overland flow to ditches, streams, and ponds. This effect prevents the recharge of groundwater and the filtration of pollutants by soil and vegetation, while increasing the likelihood of flooding, stream bank erosion, and surface water pollution.”

GREEN INFRASTRUCTURE >

Alongside improvements to grey infrastructure, landscapes can be cultivated to manage stormwater runoff. The DEC defines green infrastructure as “the network of naturally occurring and engineered systems in the environment, generally vegetated, that provide ecosystem services. Green infrastructure practices manage stormwater runoff while maintaining or restoring natural hydrology.”



Existing Combined-Sewer Overflow (CSO) infrastructure

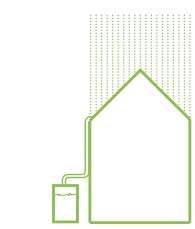


Existing stormwater infrastructure, showing Combined Sewage Overflow and outfalls (arrows)

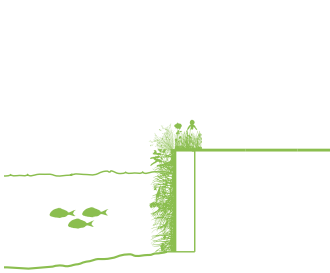
GREEN INFRASTRUCTURE: COMMON GREEN INFRASTRUCTURE PRACTICES CAN BE ADOPTED THROUGHOUT THE FALL KILL CREEK WATERSHED, AND ARE LISTED BELOW:



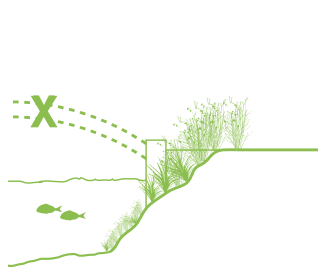
GREEN ROOFS: Layers of soil and vegetation installed on rooftops that capture runoff, and encourage the evaporation and evapotranspiration of stormwater.
<http://www.dec.ny.gov/lands/58930.html>



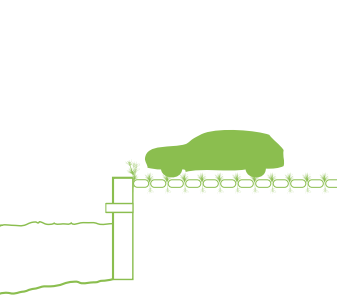
RAIN BARRELS: A container that captures and stores stormwater runoff to be reused on site.
New York State Stormwater Management Design Manual



VERTICAL GARDEN: Vegetation grown directly on retaining walls or building facades adjacent to the creek.
New York State Stormwater Management Design Manual



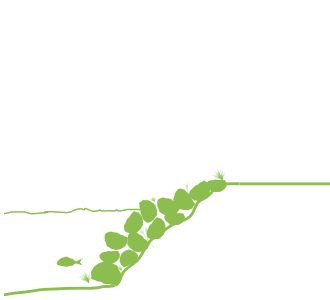
CREEK DAYLIGHTING: The removal of culverts to restore natural habitats, better attenuate runoff by increasing the storage size, promoting infiltration, and help reduce pollutant loads.
New York State Stormwater Management Design Manual



POROUS PAVERS: Permeable pavement surface with a stone reservoir underneath designed to allow stormwater to infiltrate through the surface.



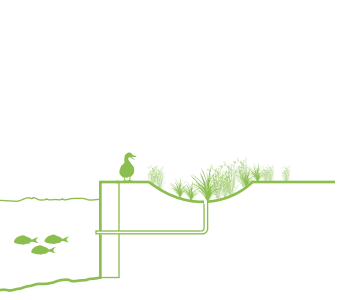
STREET TREE NETWORK: A system of connected street trees designed to reduce stormwater runoff, increase nutrient uptake, and provide bank stabilization.
New York State Stormwater Management Design Manual



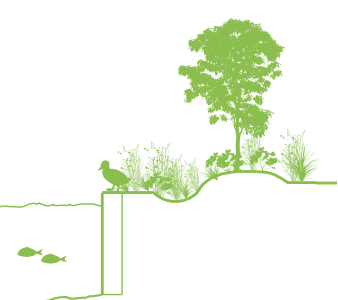
RIP RAP: A layer of stone designed to protect and stabilize areas subject to erosion.
http://www.dec.ny.gov/docs/water_pdf/sec5bperm11.pdf



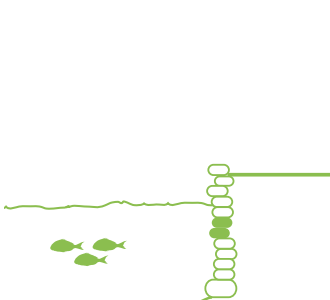
RIPARIAN BUFFER RESTORATION: A healthy vegetated buffer that can filter and slow polluted runoff.
<http://www.dec.ny.gov/lands/58930.htm>



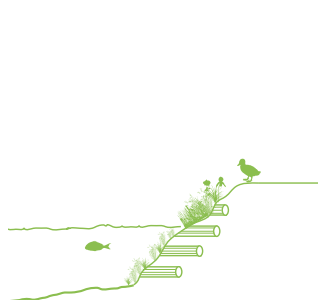
RAIN GARDENS: Planted areas of wetland vegetation allow stormwater runoff to be absorbed into the ground.



BIOSWALE: Natural drainage paths or vegetated channels used to transport water instead of underground storm sewers or concrete open channels.
<http://www.dec.ny.gov/lands/58930.html>



WALL PATCH: The reinforcement of an existing creek wall with stone.



BIO-TECHNICAL EROSION CONTROL: The use of live, woody, and herbaceous plants to stabilize or protect creek banks.
Site Engineering for Landscape Architects

The image is a photograph of a flooded residential street. In the foreground, a man wearing a red baseball cap and a grey t-shirt is wading through the murky, yellowish floodwater. He is carrying a white rectangular object, possibly a piece of cardboard or a sign, under his arm. In the background, several houses are partially submerged. A prominent yellow house with a wooden porch and balcony is in the center. To its left is a white house. The water reflects the sky and the buildings. Power lines and poles are visible on the right side of the street. The overall scene depicts the aftermath of a significant weather event, likely a heavy rain or storm surge.

Poughkeepsie Journal
A GANNETT COMPANY

TUESDAY • AUGUST 30, 2011

PoughkeepsieJournal.com

\$1.00

WASHED OUT
MORE THAN 70,000 WITHOUT POWER; MANY ROADS IMPASSABLE

- STENHAUS: REPAIRS WILL BE EXPENSIVE**

By Kevin Lenihan
Poughkeepsie Journal

The mid-Hudson Valley continues today the work of recovering from the aftermath of Tropical Storm Irene, which decimated the region, causing rivers to flood, washing out streets and submerging residential homes.

Flooding of the Fallkill Creek in the City of Poughkeepsie made roads impassable, snarled traffic, soaked local homes and resulted in power being cut to 1,200 homes and businesses. Officials with the city and Central Hudson Gas and Electric Corp. are waiting for flood waters to recede.

Water from creeks and rivers is expected to recede today, while utility crews work to restore power to more than 70,000 customers in Ulster and Dutchess counties. Insurance companies reported hundreds of calls from policy owners.

Damage continued to mount a day after the storm struck.

 - Dutchess County 9-1-1 public safety dispatchers have handled nearly 2,800 calls since midnight on Sunday.
 - City of Poughkeepsie firefighters responded to 40 calls for flooded basements Sunday night and Monday morning. Calls continued to come in Monday.
 - More than 70,000 customers were without power in Dutchess and Ulster counties Monday night. Most were Central

SEE DAMAGE, 2A

Above, Greg Walker pulls his rowboat north on Winkler Avenue in Poughkeepsie on Monday morning while surveying the damaging floodwaters from the Fallkill Creek that devastated large areas in the north side of the city.

PHOTO: JESSICA GONZALES/STAFF

Above, John Davis of Milan looks at a collapsed section of Turkey Hill Road on Monday in Milan.

Left, Central Hudson Gas and Electric Corp. workers give out dry ice and bottled water to residents without power Monday afternoon on the Town of Poughkeepsie. PHOTO BY KARA BAIN/POUGHKEEPSIE JOURNAL

NO POWER?

• Call your utility provider: Central Hudson (845-452-2100; NYSEG 800-512-1131)

• Let us know to be interviewed for a news story: Call 845-517-4800 or e-mail newswriters@poughkeepsiejournal.com

PHOTO GALLERIES & VIDEOS

• At Poughkeepsie Journal.com: View photos and videos of the local clean-up efforts

WTHV 10 NEWS

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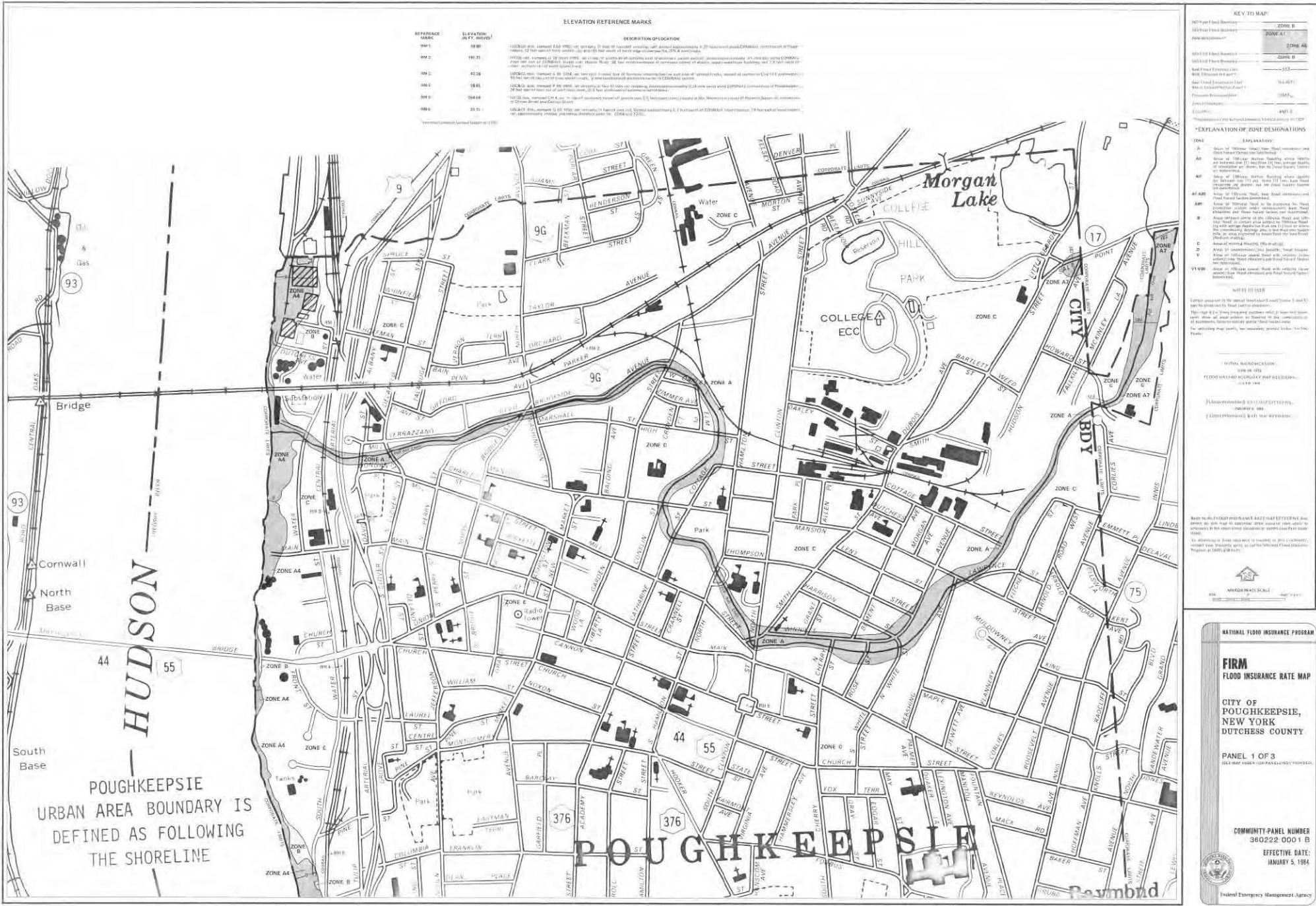
Calendar 2D
Comics 2D

Crossword 3D
Entertainment 5A
Gossip 2B
Opinion 2A

WEATHER **80° 53°**

Today: Mostly sunny and comfortable
Wednesday: Sunny and pleasant, 2B

40901 96602



EXISTING STONE WALL. The Fall Kill was channelized through a series of stone walls in the New Deal Era. The embankments were designed to direct water away from the watershed as quickly as possible, but have destroyed the creek's riparian habitat. Walls currently line approximately 2.5 miles of the creek's length. Many areas are buckling and

bending into the creek, and the foundations of many walls have been eroded away.

NARROW SITES: REPAIR WALL
Where they are necessary to protect existing structures along the creek, walls can be repaired by reinforcing the foundation, patching the masonry wall, or by building vertical planted surfaces.

WIDE SITES: RESTORE RIPARIAN EDGE. The Fall Kill Management Plan of 2006 recommends that failing stretches of the wall be allowed to crumble wherever possible. The restoration of riparian buffers, floodplains, and upland forest zones can control erosion, dissipate the energy of water flow, prevent erosion, and help absorb flood waters. (Hudsonia)

strategies for dealing with the wall's eventual failure as it ages.

In addition, the stream bed could benefit from changes: Riffles at sites of faster stream velocities will aerate water, transport sediment and remove particles from the water. (Fall Kill Management Plan)

Above all, landlords and the city alike need



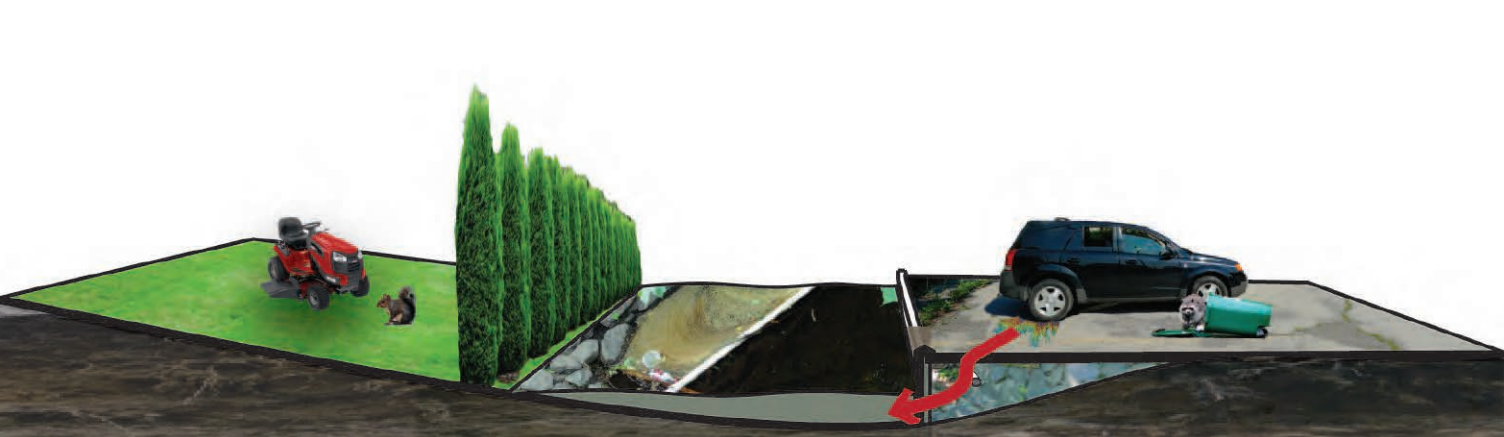
New Deal Era Wall with eroding foundation



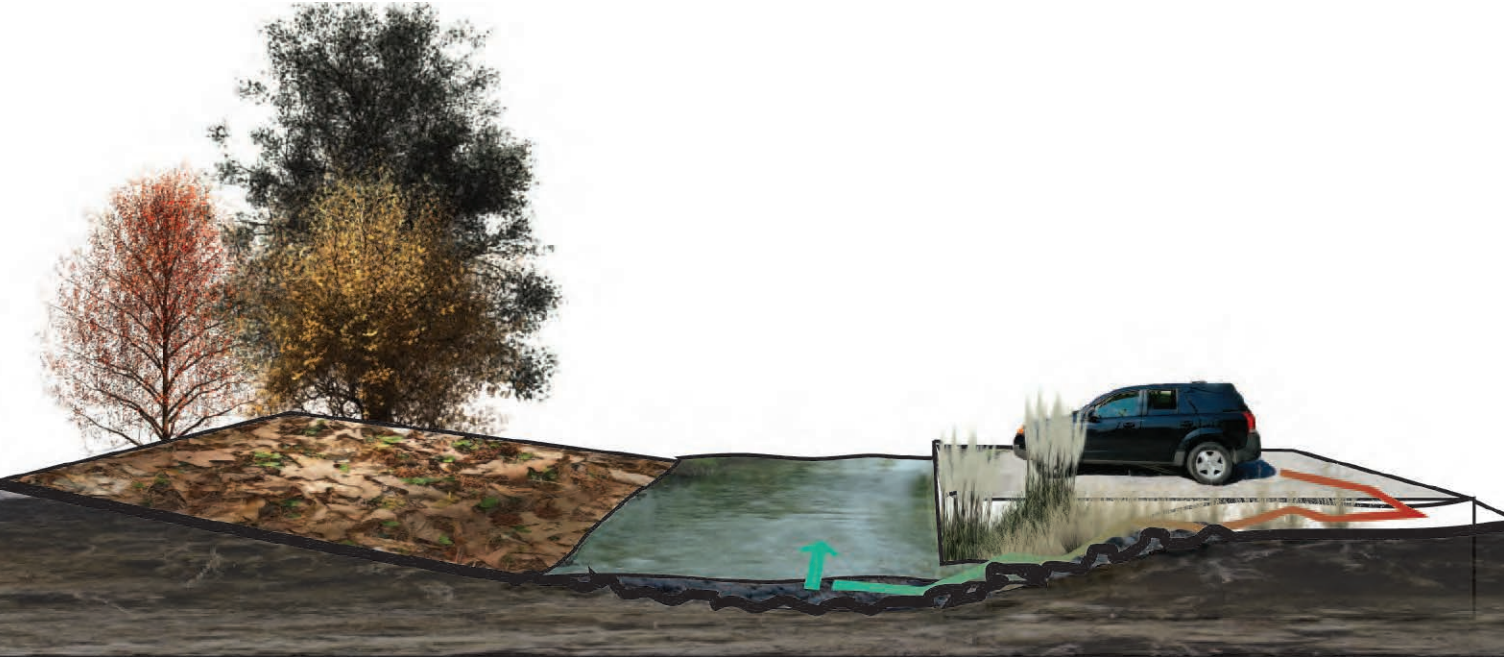
Concrete Wall



<http://austinparks.wordpress.com/category/barton-creek/page/2/>



Existing Conditions



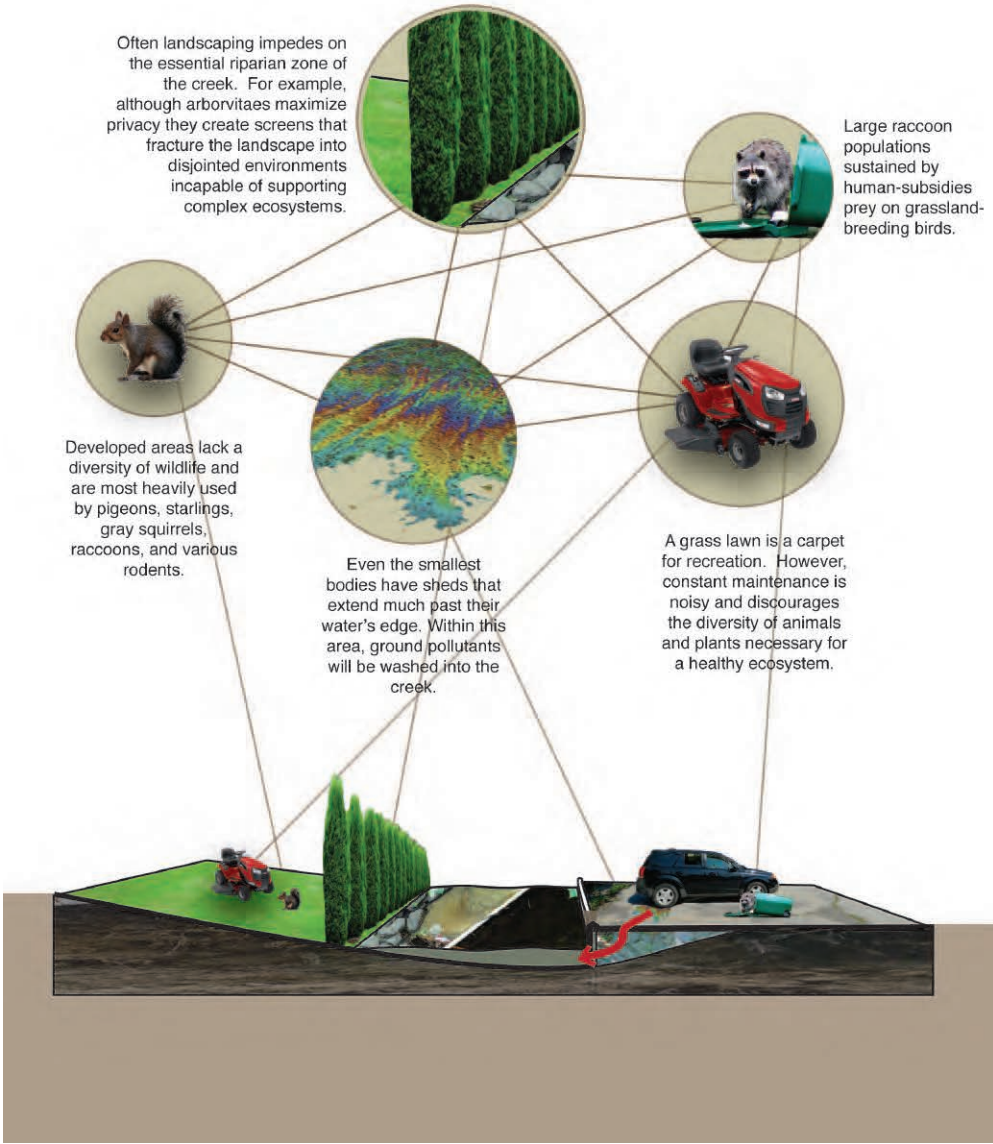
Riparian Edge

HOW CAN THE CREEK SUPPORT BIO-DIVERSITY?

EXISTING HABITAT. The Fall Kill is inhabited by threatened species and human-sponsored predators.

Hudsonia calls for the restriction of human-sponsored predators, “species ... which thrive due to conditions created by humans. Human interference with the habits and diets of wild animals not only impacts population dynamics, but can lead to nuisance behavior.” (Hudsonia)

Threatened species require the restoration of habitat networks. “While some species and habitats may be adequately protected at a relatively small scale, wide-ranging species... require large, unbroken blocks of habitat. Many species... need to travel among different habitats to satisfy their basic needs for food, water, cover, nesting and nursery areas, and population dispersal. Landscapes fragmented by roads, railroads, utility corridors, and developed land limit animal movements and interactions, disrupting patterns of dispersal, reproduction, competition, predation, and behavior.’ (Hudsonia)



POTENTIAL HABITAT

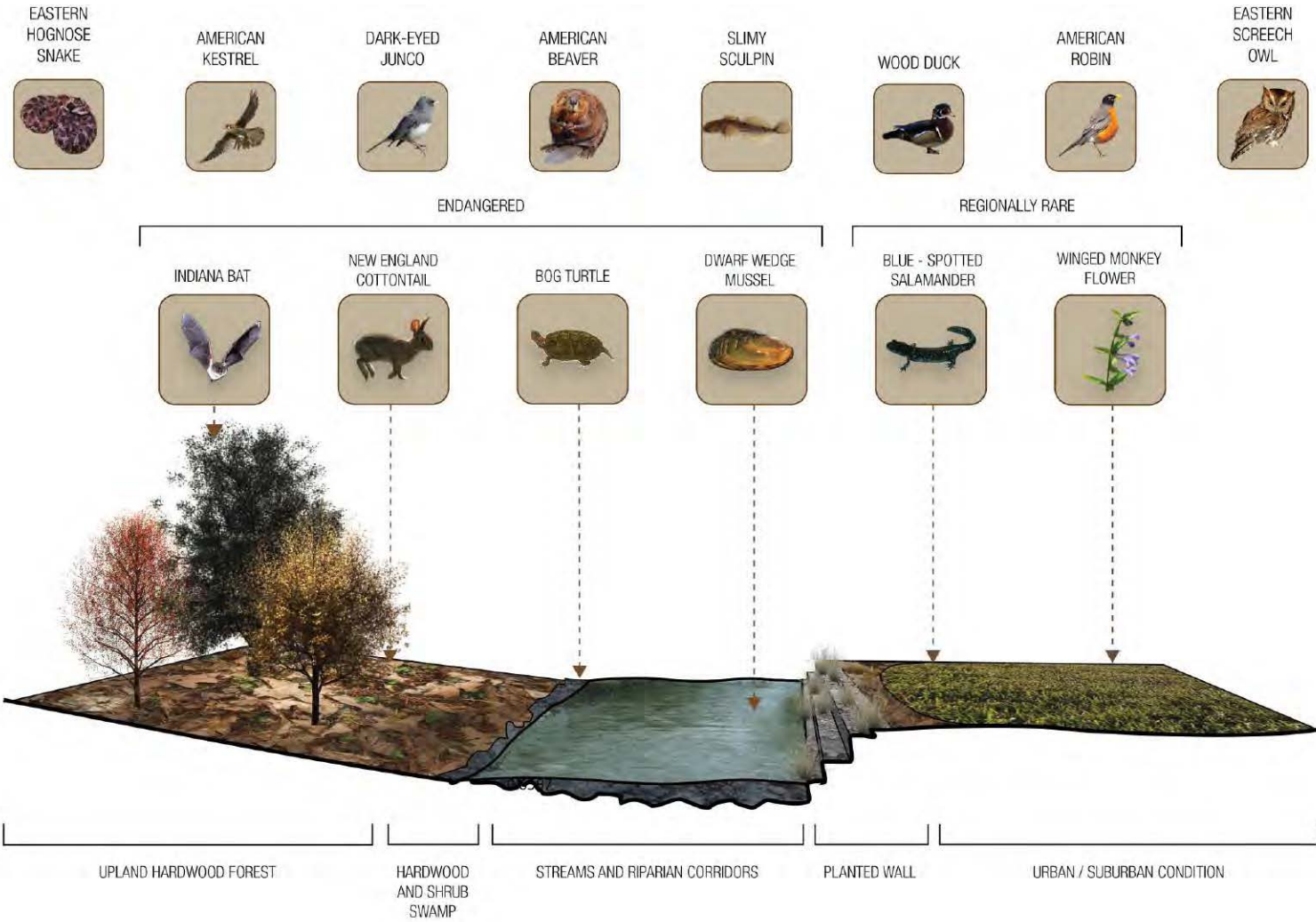
The restoration and cultivation of new habitats along the Fall Kill can support endangered, rare, and well-populated species. These include:

- Riparian Buffer Zones to include large and small woody debris and leaves to act as food and habitat for aquatic organisms. These areas can support birds, mammals, reptiles and amphibians (e.g. turtles, beavers, mink, musrats, and raccoons). Linear riparian zones can provide corridors for wildlife migration.

- Upland Habitat to contribute woody debris, and to shade the stream to keep water temperatures down, which will support breedign populations of cool-water fish and invebrate species.

- Creek restoration to support fish, insect and macroinvertebrate populations (e.g. crustaceans such as crayfish, mollusks such as clams and snails, aquatic worms, and aquatic insects such as stoneflies, caddisflies, mayflies and true flies.) Riffles can oxygenate water. The removal of dams and the daylighting of culverted creek areas can support wildlife migration.

In addition, pest and weed species are to be discouraged and controlled.



CITIZEN SCIENCE PROGRAMS

Habitat restoration supports humans as well as animals. Citizen science programs engage students and communities in hands-on ecological research at the creek. One example, the Citizen Science Eel Project, is a collaboration between the New York Department of Environmental Conservation and local schools which combines educational outreach with environmental research on the American Eel.



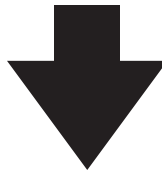
NYSDEC Hudson River Estuary Program



NYSDEC Hudson River Estuary Program

USE:

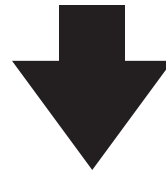
**HOW CAN THE CREEK
SUPPORT
NEIGHBORHOODS?**



**CREATE A MIXED-USE,
ECO-URBAN CORRIDOR.**

NEIGHBORHOODS:

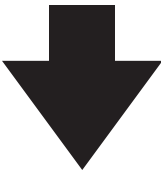
**HOW CAN THE CREEK
SUPPORT
NEIGHBORHOODS?**



**CREATE PUBLIC SPACES
ALONG THE CREEK AS NEW
NEIGHBORHOOD CENTERS.**

WATER:

**HOW CAN WATER
QUALITY BE IMPROVED?**



**RESTORE RIPARIAN
BUFFER ZONE AND OTHER
GREEN INFRASTRUCTURE
PRACTICES THROUGHOUT THE
WATERSHED.**

FOR HABITAT:

**HOW CAN THE CREEK
SUPPORT BIO-DIVERSITY?**



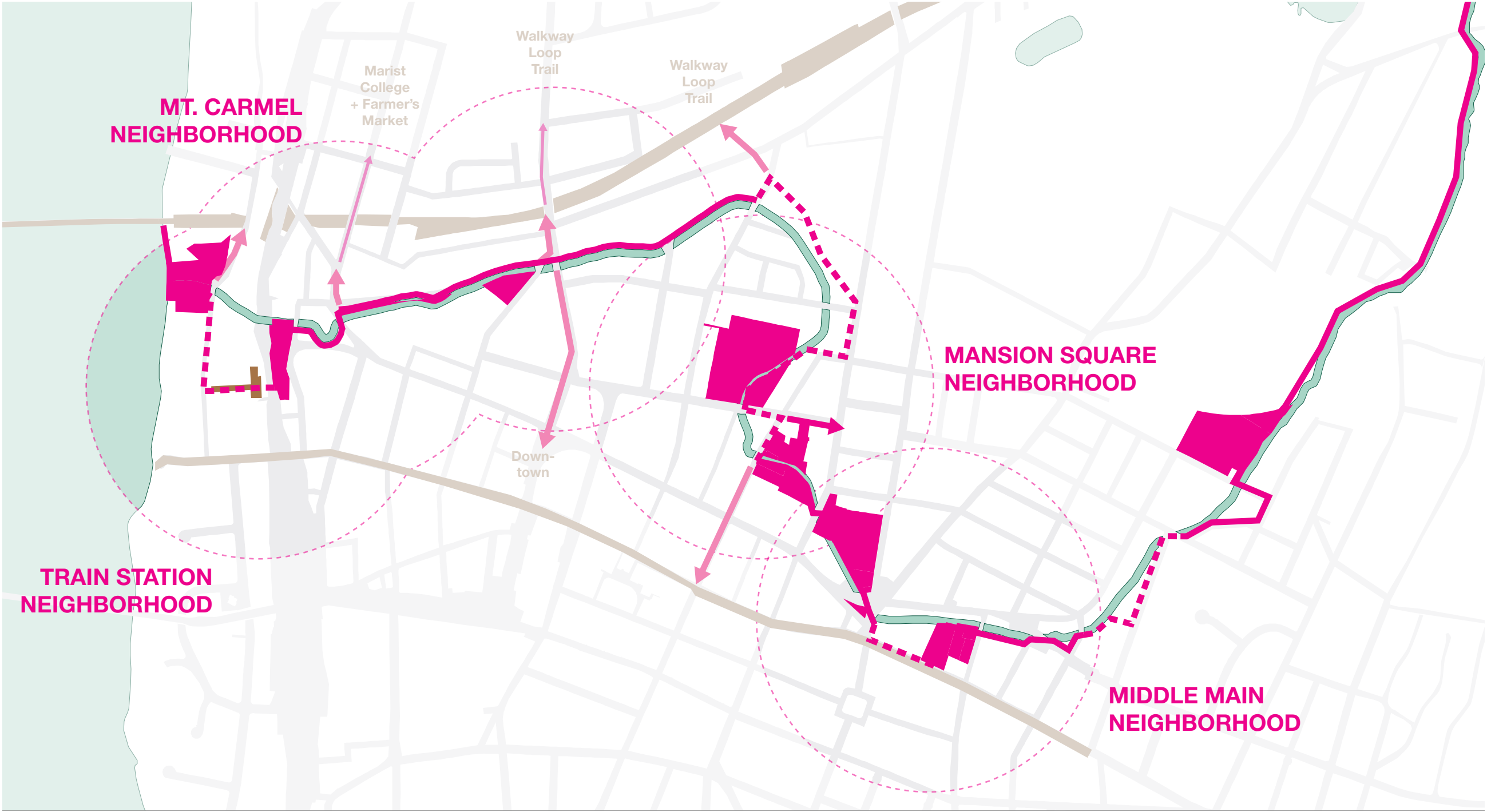
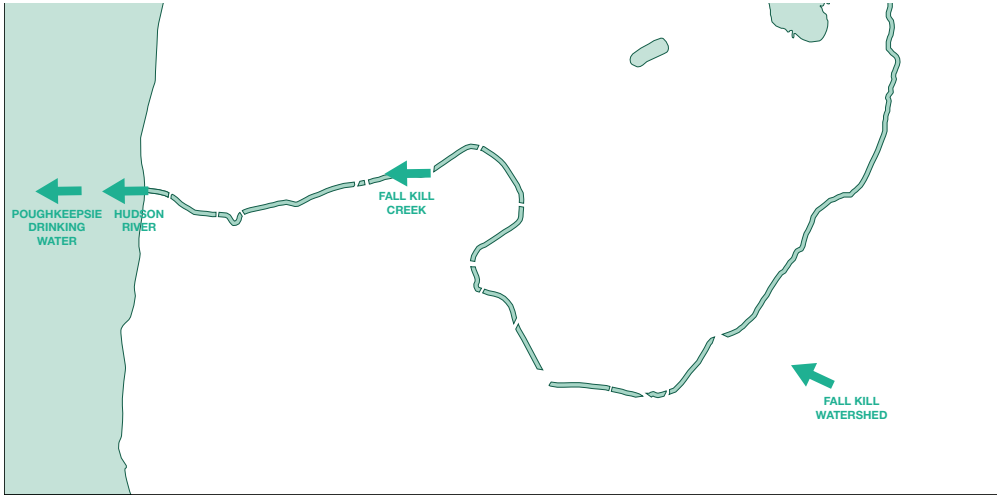
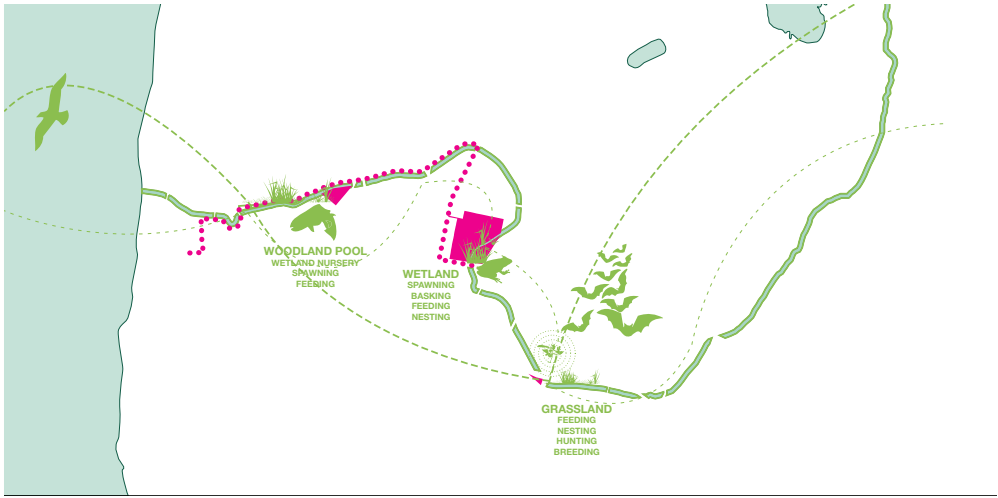
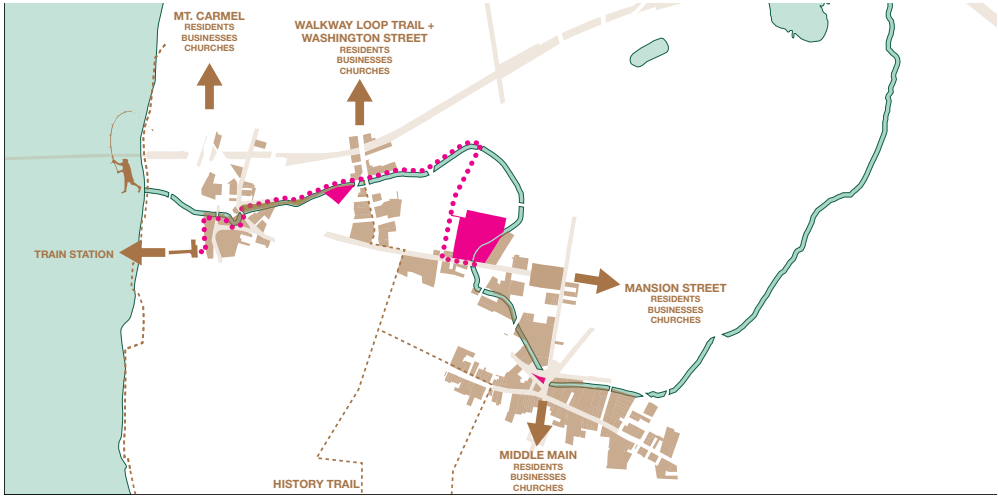
**RESTORE HABITAT ZONES
AND WILDLIFE CORRIDORS.
CREATE INTERFACES WITH
URBAN ACTIVITIES.**

2: Design Response

MASTER PLAN: NEIGHBORHOOD CENTERS

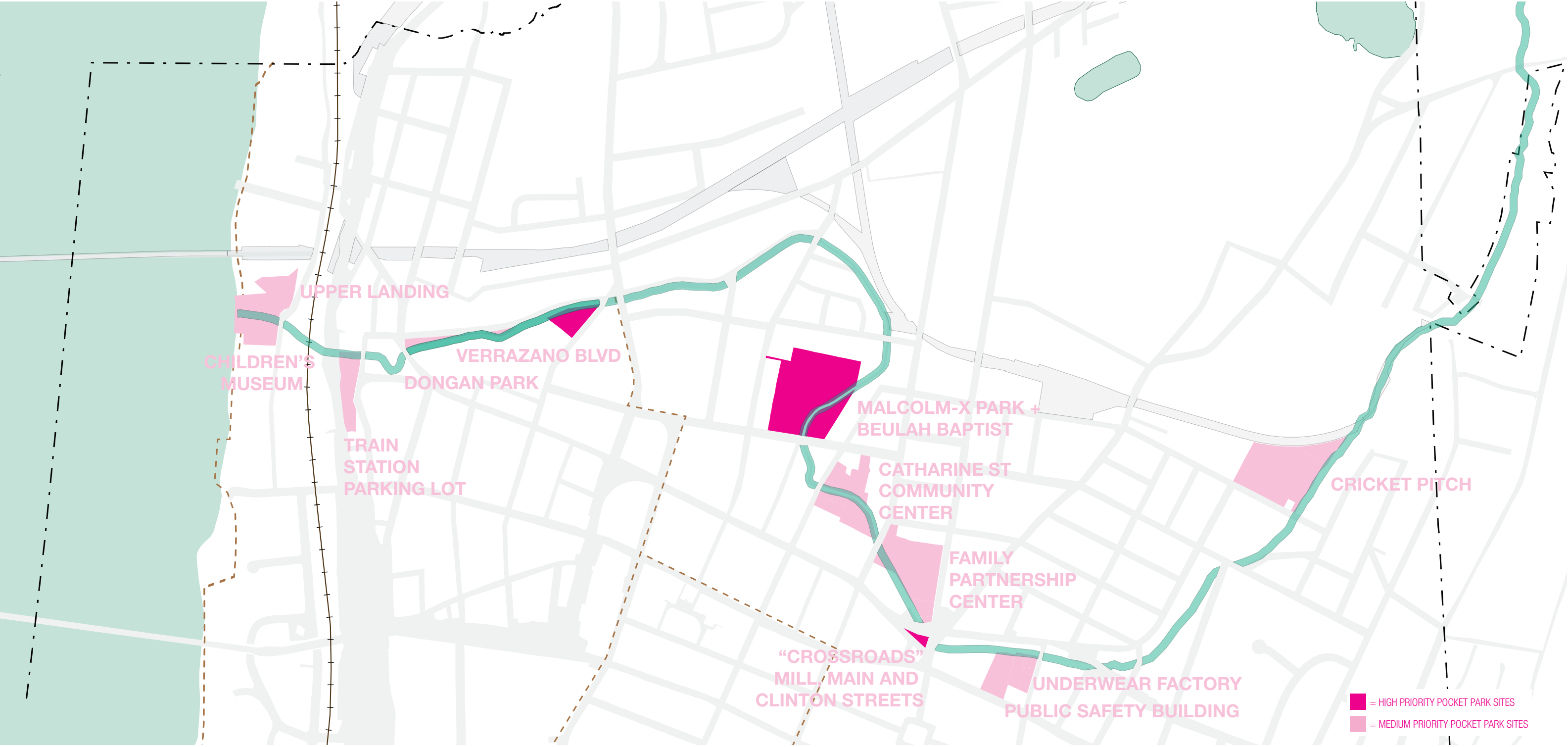
To implement these changes, the Plan designates the following high-priority sites for development into public pocket parks.

Sites have been chosen for their potential to act as new neighborhood centers. They are located at sites in which the creek connects to spaces of public significance, and/or have owners that provide public services.



POCKET PARKS

The locations highlighted here can be designated as future pocket parks sites. Sites have been chosen for their potential to act as new neighborhood centers. Here, the creek connects to spaces of public significance, corridors for bikes and pedestrians, and institutions that provide public or retail services to Poughkeepsie's communities. High priority sites noted here include areas already accessible the public or under public ownership that can feasibly be developed as pocket parks.



1 CHILDREN'S MUSEUM



2 TRAIN STATION



3 DONGAN PARK



4 MT CARMEL/ VERRAZANO



5 WASHINGTON STREET



6 MALCOLM X/ MORSE SCHOOL



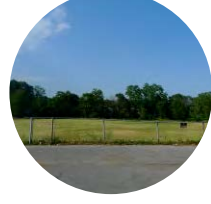
7 CATHARINE ST. COMMUNITY CTR



8 FAMILY PART. CTR.



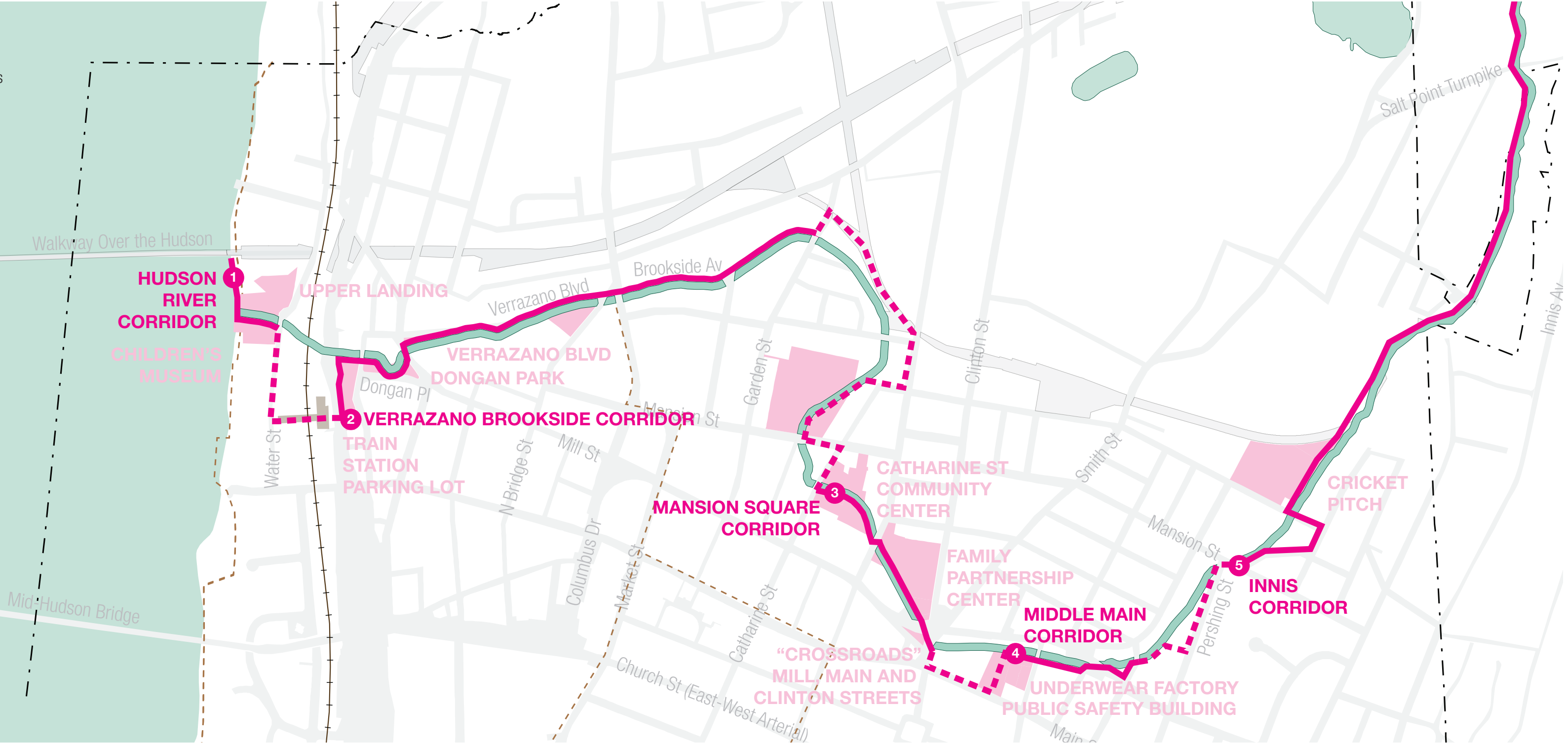
9 MILL + CLINTON + MAIN STREETS



10 CRICKET PITCH

CORRIDORS

Zones marked here create a series of publicly accessible walkway corridors along the creek. While this Plan seeks the eventual creation of a continuous walkway from the Hudson River to Val-Kill, these zones have been selected as high priority areas. They have been identified based on their ability to activate new neighborhood centers, and connect areas of public significance. They include sites designated in the city's land use plan as public, service, commercial and industrial uses.

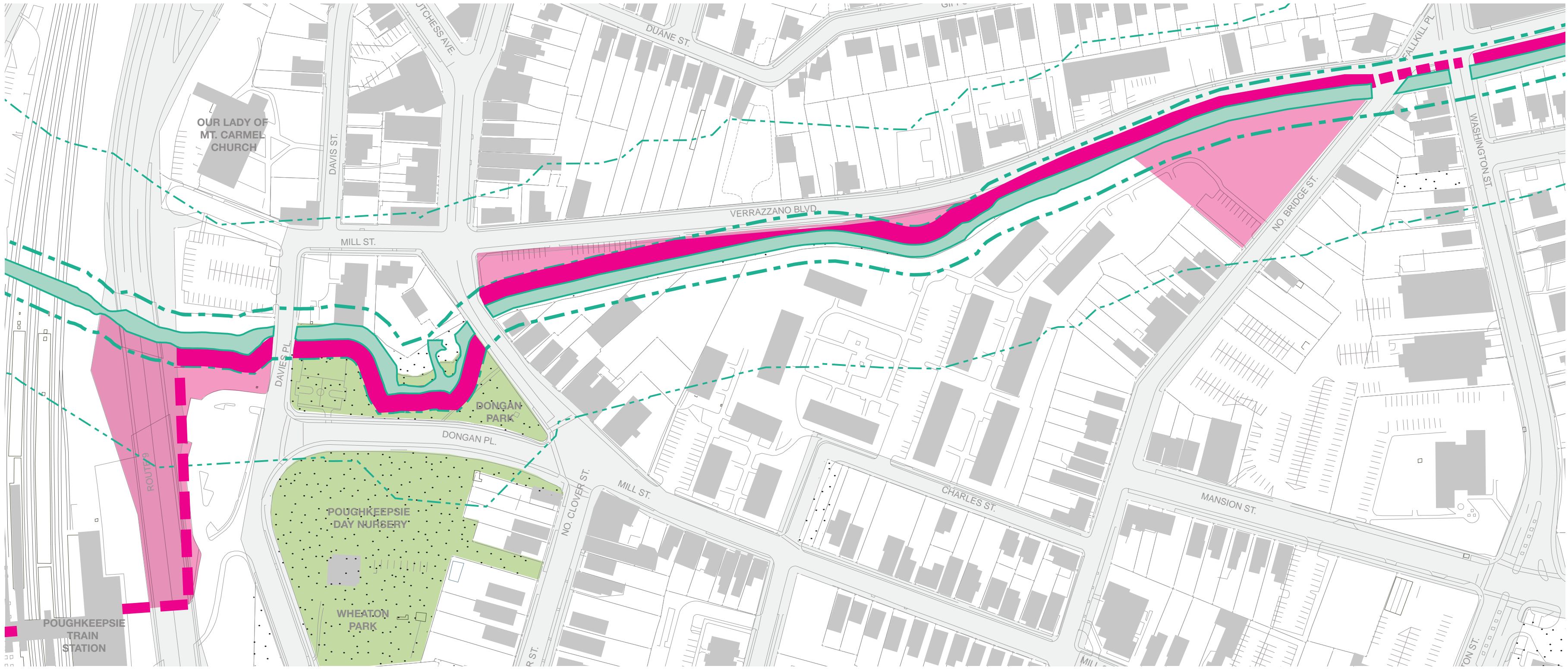


CORRIDOR DETAIL

VERRAZANO BROOKSIDE CORRIDOR (PART 1)

Text here

-  NORTH
-  FALL KILL CREEK CORRIDOR
-  STREET CORRIDOR CONNECTOR
-  30 FT SETBACK
-  ENVIRONMENTAL BUFFER
-  CITY OF POUGHKEEPSIE PARCEL
-  PARCEL LINE
-  PROPOSED PUBLIC PARK
-  EXISTING PUBLIC PARK
-  BUILDING



How can the Fall Kill create an inviting pathway from train station into the city?



@ Metro North Train Station

Can leftover infrastructural spaces be used for events or public art installations?



@ Route 9 Overpass

Can a Fall Kill walkway connect people to existing parks?



@ Davies Place, Dongan Park



PILOT SITES: VERRAZANO BOULEVARD

Verrazano Boulevard between Mill and Washington Streets offers an opportunity to create public access to the creek along a linear park. This site can connect the Poughkeepsie Train Station to the Walkway Loop Trail; draw people to the Mt. Carmel business area, and link residents in surrounding areas through active recreational spaces.

The site stretches along the south side of Verrazano Blvd, and includes the following, from west to east:

- a private parking lot (approx. 350'x50') used by residents of a Mill Street condo, flanked by a concrete ledge (approx. 350'x4') owned by the City of Poughkeepsie.
- a grass covered road embankment (approx. 800'x25') owned by the City.
- a grass covered road embankment (approx. 360'x30') that includes a culvert over the creek, owned by the City, and a (approx. 360'x100') grass lawn owned by Bixby Housing.

Designs for Verrazano Boulevard can also be extended for a similar stretch of land owned by the City on Brookside Avenue.



**HABITAT PROFILE:
INTERMITTENT
WOODLAND POOL**

An intermittent woodland pool habitat along Verrazano Blvd can create an enjoyable space for recreation, can filter runoff from the street, and provides important amphibious habitat in a narrow space. Woodland pool plants can filter water on street level before it reachese the creek below, and can tolerate wet and dry periods. Plants associated with this habitat can also be cultivated in a nursery setting and be made available to residents who want to build a rain garden on their property.

“An intermittent woodland pool is a small, shallow wetland mostly or entirely surrounded by forest and isolated from streams and other wetlands. It typically has standing water during winter and spring but dries up by mid-to late summer. The absence of fish (due to seasonal drying of the pool) is key for a special group of amphibians that require fish-free breeding and nursery habitats. Leaf litter from the surrounding forest is the base of the pool’s food web, and forest provides essential habitat for the amphibians during the non-breeding seasons.” - Hudsonia



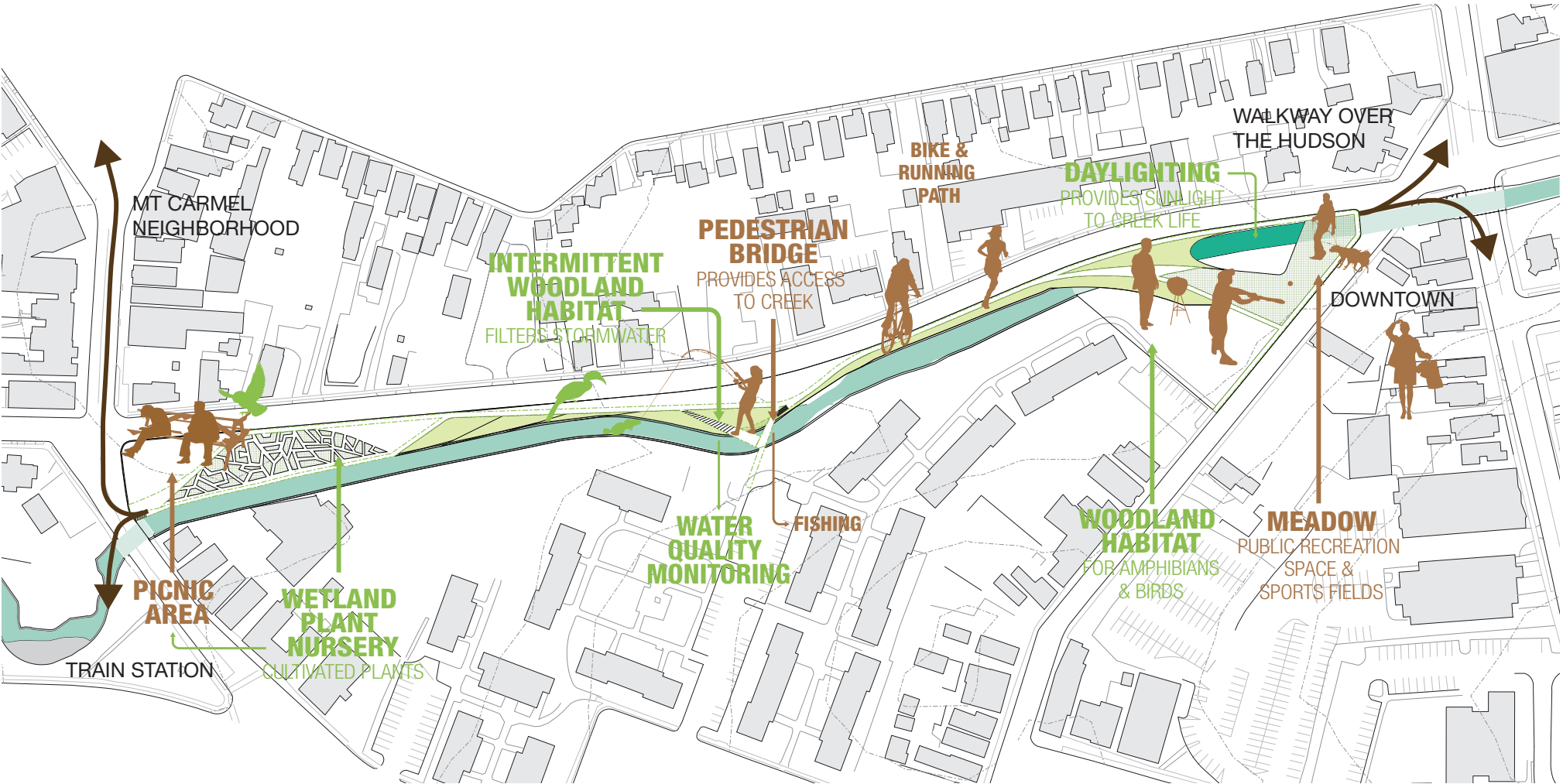
RED MAPLE



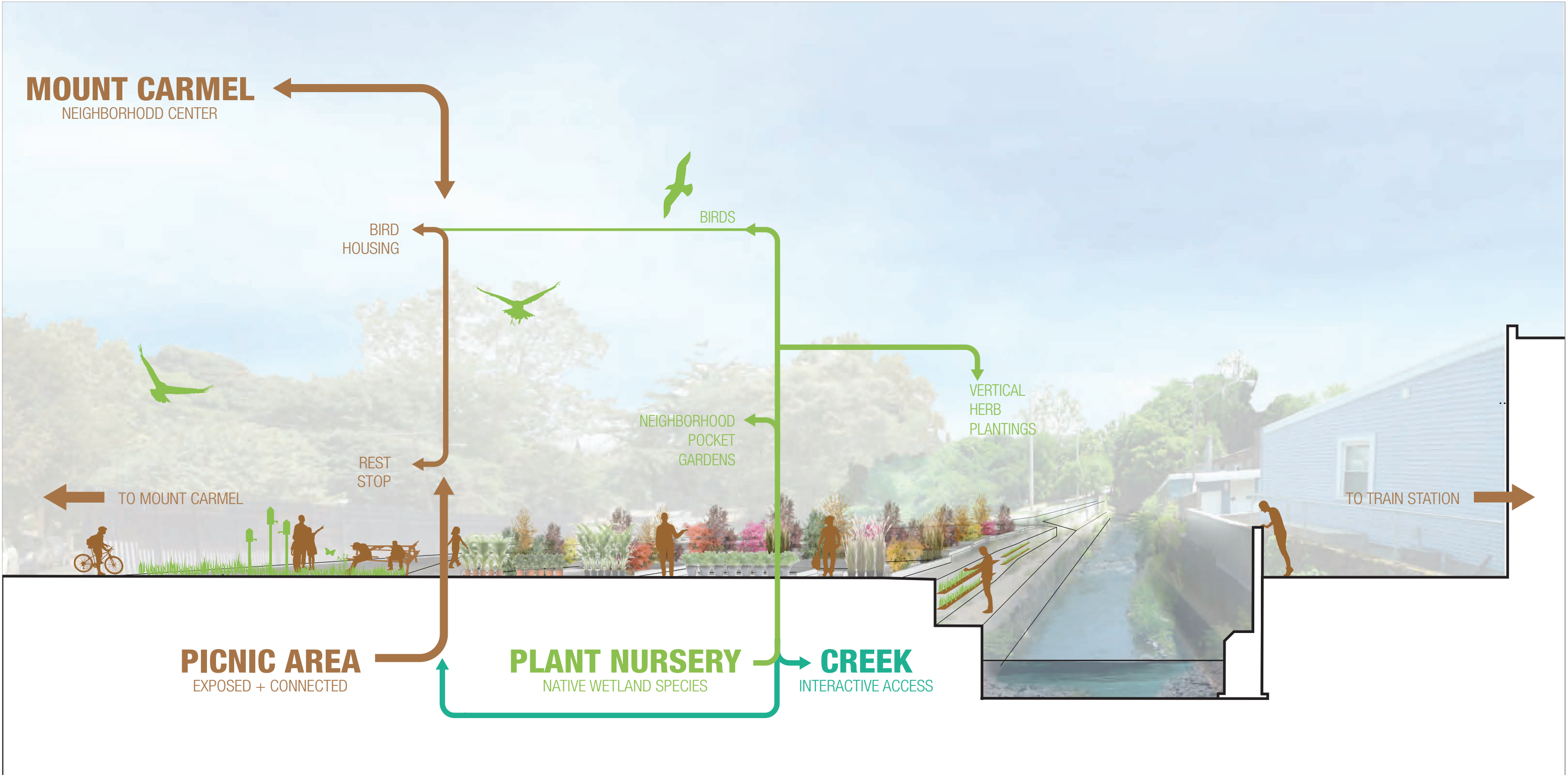
SENSITIVE FERN



SEDGES



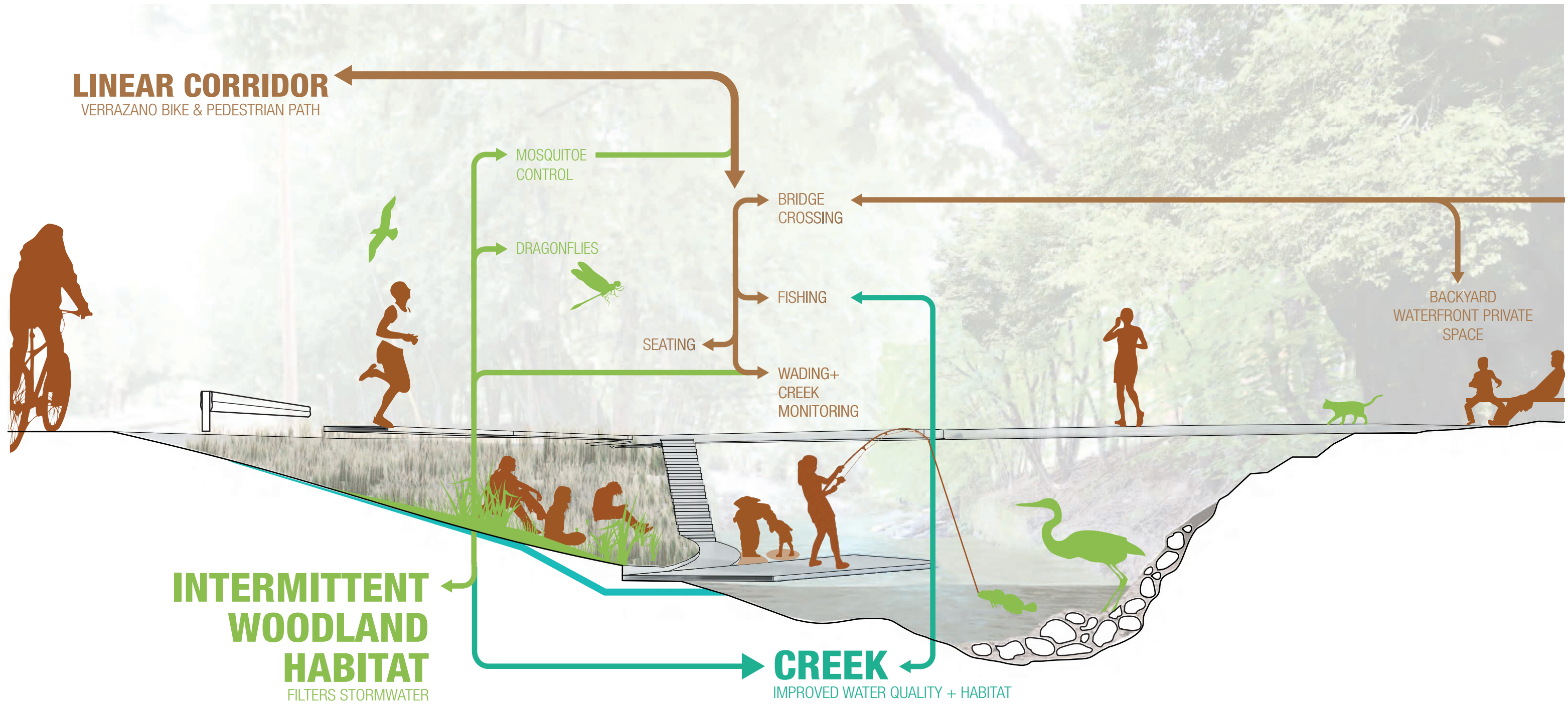
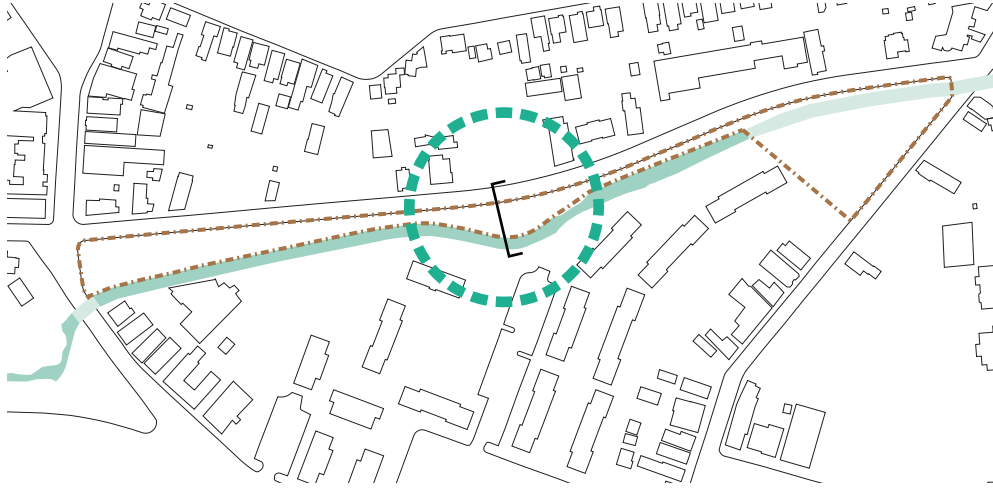
**PROPOSED:
SECTION THROUGH
WEST END**



**PROPOSED:
PERSPECTIVE AT
MILL STREET BRIDGE
CROSSING**



**PROPOSED:
SECTION THROUGH
MID-BLOCK**

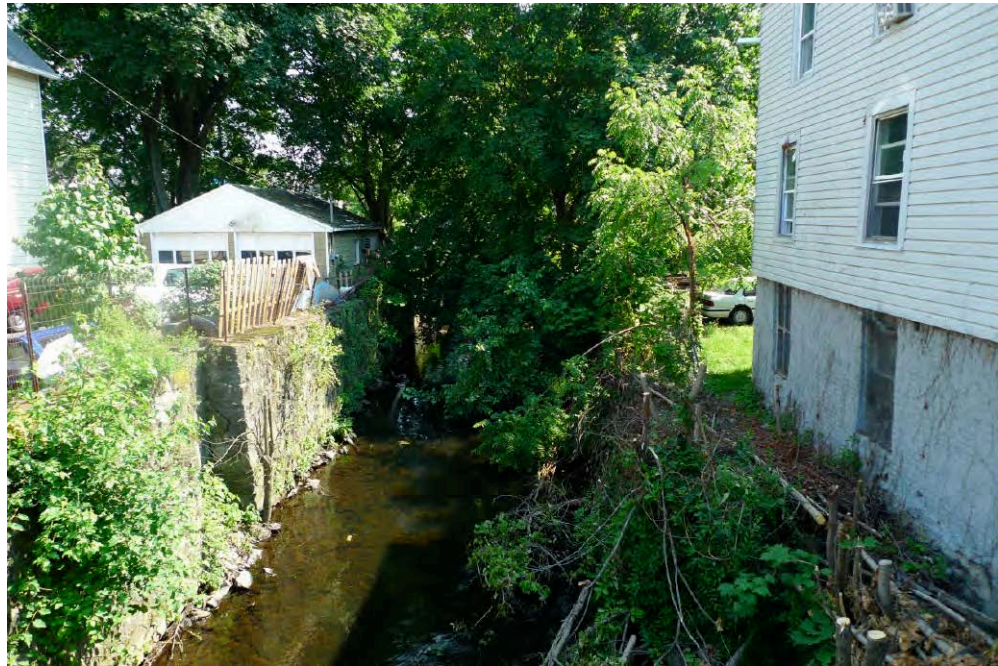


MANSION SQUARE
CORRIDOR

Text here

-  NORTH
-  FALL KILL CREEK CORRIDOR
-  STREET CORRIDOR CONNECTOR
-  30 FT SETBACK
-  ENVIRONMENTAL BUFFER
-  CITY OF POUGHKEEPSIE PARCEL
-  PARCEL LINE
-  PROPOSED PUBLIC PARK
-  EXISTING PUBLIC PARK
-  BUILDING





@ Malcolm X Park



@ Malcolm X Park



@ Mansion Street

How can the Fall Kill support schools, after-school programs, and neighborhood families?



@ Family Partnership Center

How can the Fall Kill support community centers and bring new audiences to local institutions?

MALCOLM-X PARK

Malcolm-X Park, located on the East side of the creek at Mansion Street, and between the S.F.B. Morse Young Child Magnet School (K-5) and Beulah Baptist Church, offers an extraordinary opportunity to create a neighborhood playground for residents of all ages alongside a significant wetland habitat. The site can activate partnerships with the school and church as well as other after-school programs and other community support organizations.

The site measures 388' in length and 35'-150' in width, and is owned by the Poughkeepsie City School District

Designs for Malcolm-X Park are also compatible with the Family Partnership Center, the triangular lot at Verrazano Boulevard and North Bridge, and other neighborhood-based pocket park sites.



**HABITAT PROFILE:
WETLAND FLOODPLAIN**

A wetland floodplain can provide diverse play and educational experiences for all ages, filter water from adjacent roadways and parking lots, and habitat for fish, amphibians, birds, and many other wildlife. The relatively wide area of Malcolm X Park offers an opportunity to cultivate ecotones between creek and upland areas.

“Wetlands (swamps, marshes, bogs, and similar areas) are areas saturated by surface or ground water sufficient to support distinctive vegetation adapted for life in saturated soil conditions. ” <http://www.dec.ny.gov/lands/305.html>

“Small and so-called “isolated” wetlands are rarely isolated from an ecosystem perspective, and provide valuable services to human communities. Isolated wetlands contribute to groundwater recharge and floodwater retention, and because they serve as nutrient sinks, they help to maintain water quality. In the Hudson Valley, small wetlands are important habitat for plants and animals, and are key to maintaining the Hudson River’s globally important amphibian and reptile diversity.” <http://www.dec.ny.gov/lands/47486.html>



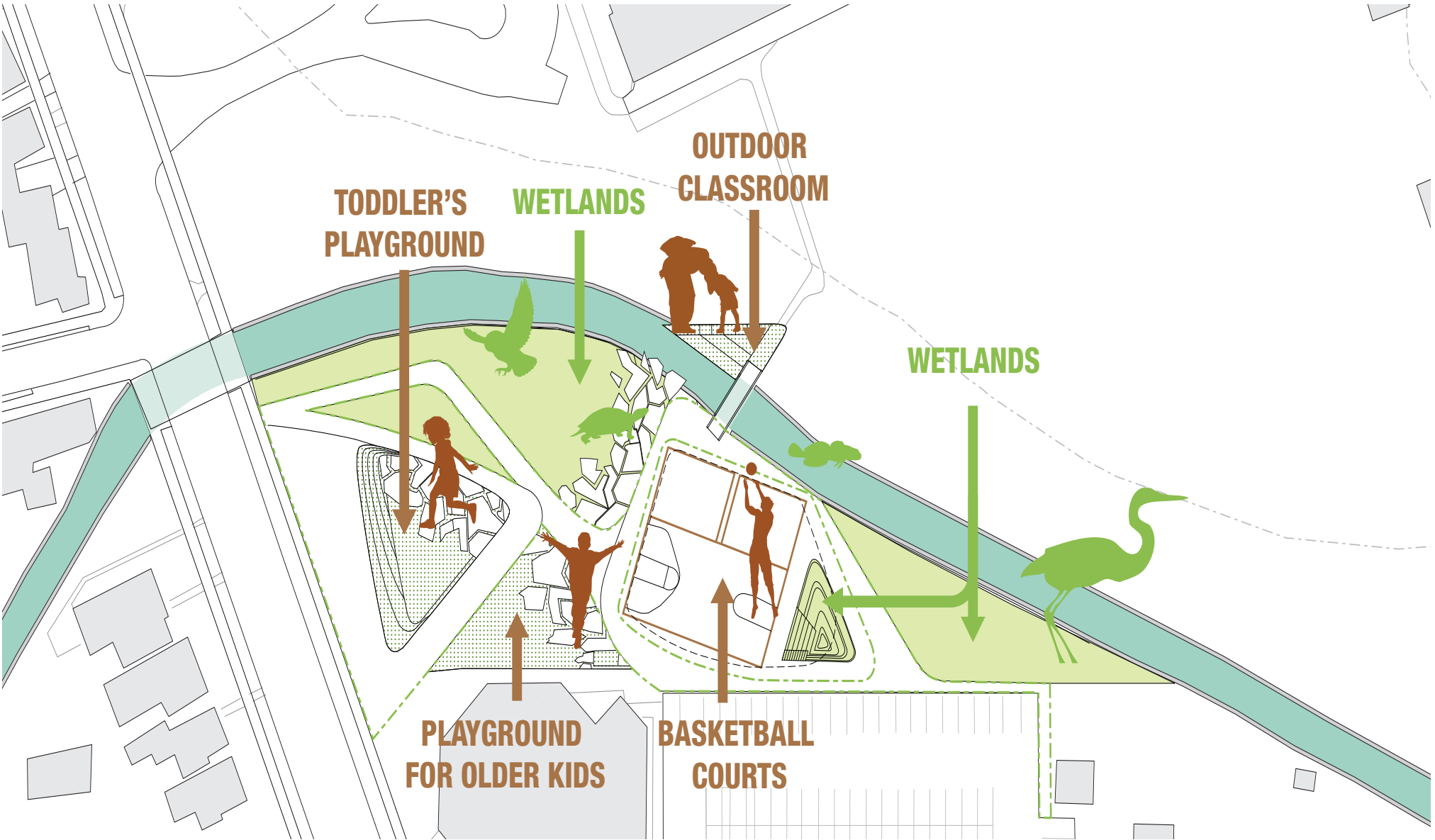
AMERICAN BEAVER



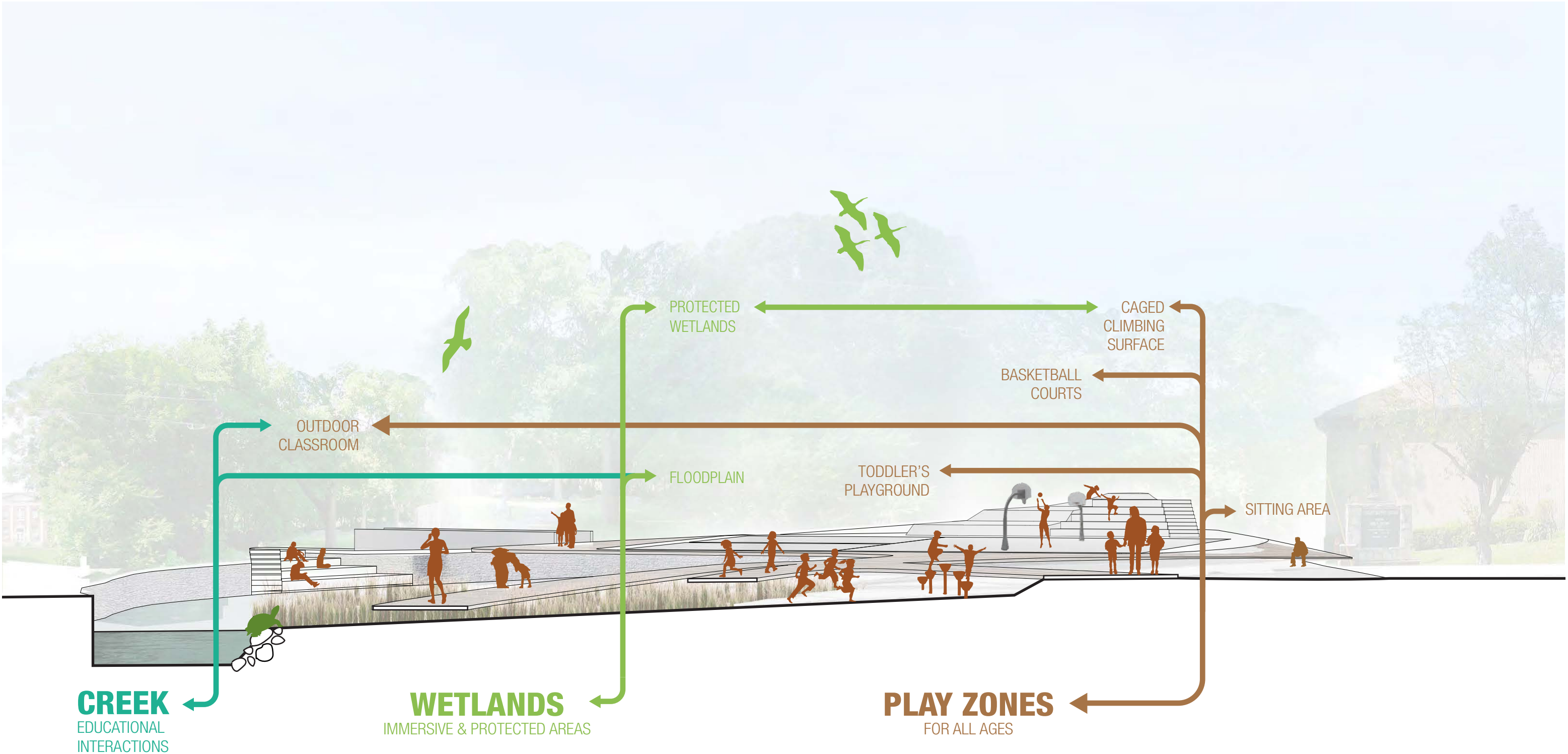
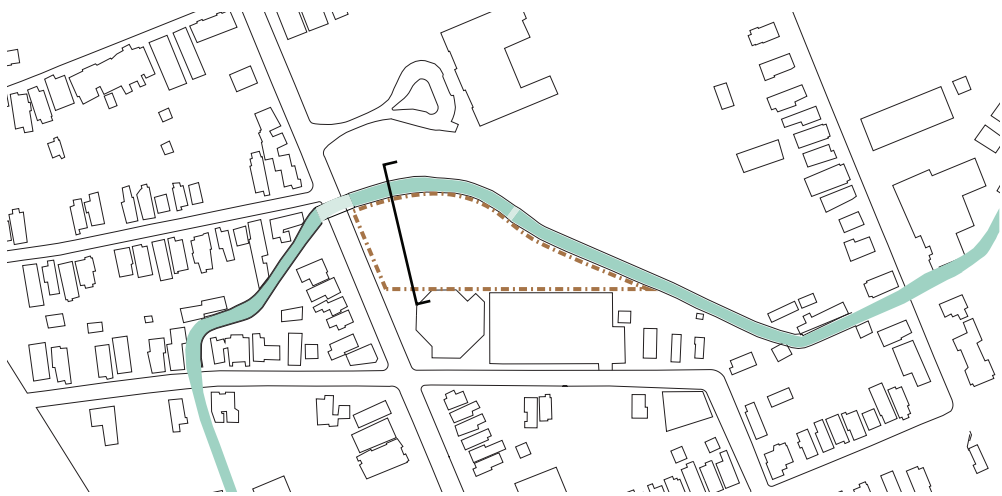
AMERICAN BLACK DUCK



**BLUE-SPOTTED
SALAMANDER**



**PROPOSED:
SECTION DRAWING
THROUGH WETLAND
WALKWAY AND
TODDLER PLAYGROUND**



**PROPOSED:
PERSPECTIVE AT
TODDLER PLAYGROUND**



CROSS-ROADS

(MILL, MAIN AND CLINTON STREETS)

At the intersection of Mill, Main and Clinton Streets lies a parking lot built over the Fall Kill Creek. This site offers an extraordinary opportunity to a public space that can activate the Middle Main district, and connect it to the institutions (including the Family Partnership Center and Ebenezer Baptist Church) and residences along Clinton. This is the site at which the creek comes closest to Main Street.

The site measures 120’-350’ in length and 8-105’ is owned by the City of Poughkeepsie.

Designs for this site are also compatible with the triangular lot at Verrazano Boulevard and North Bridge.



**HABITAT PROFILE:
MEADOW**

A meadow can provide the sightlines necessary for a large gathering space, and open onto a lawn for seating. Meadow grasses can filter runoff from the streets, and can thrive even in urban conditions with shallow soil.

“Meadows include most areas dominated by herbaceous vegetation, including dry upland meadows and wet meadows that have standing water or saturated soils for part of the year. While there can be significant habitat value in small wet meadows and patches of upland meadow (for invertebrates and small mammals, for example), large open areas are especially important for grassland-breeding birds.”
- Hudsonia



APHRODITE FRITILLARY



BOG TURTLE



NORTHERN HARRIER



UPLAND SANDPIPER



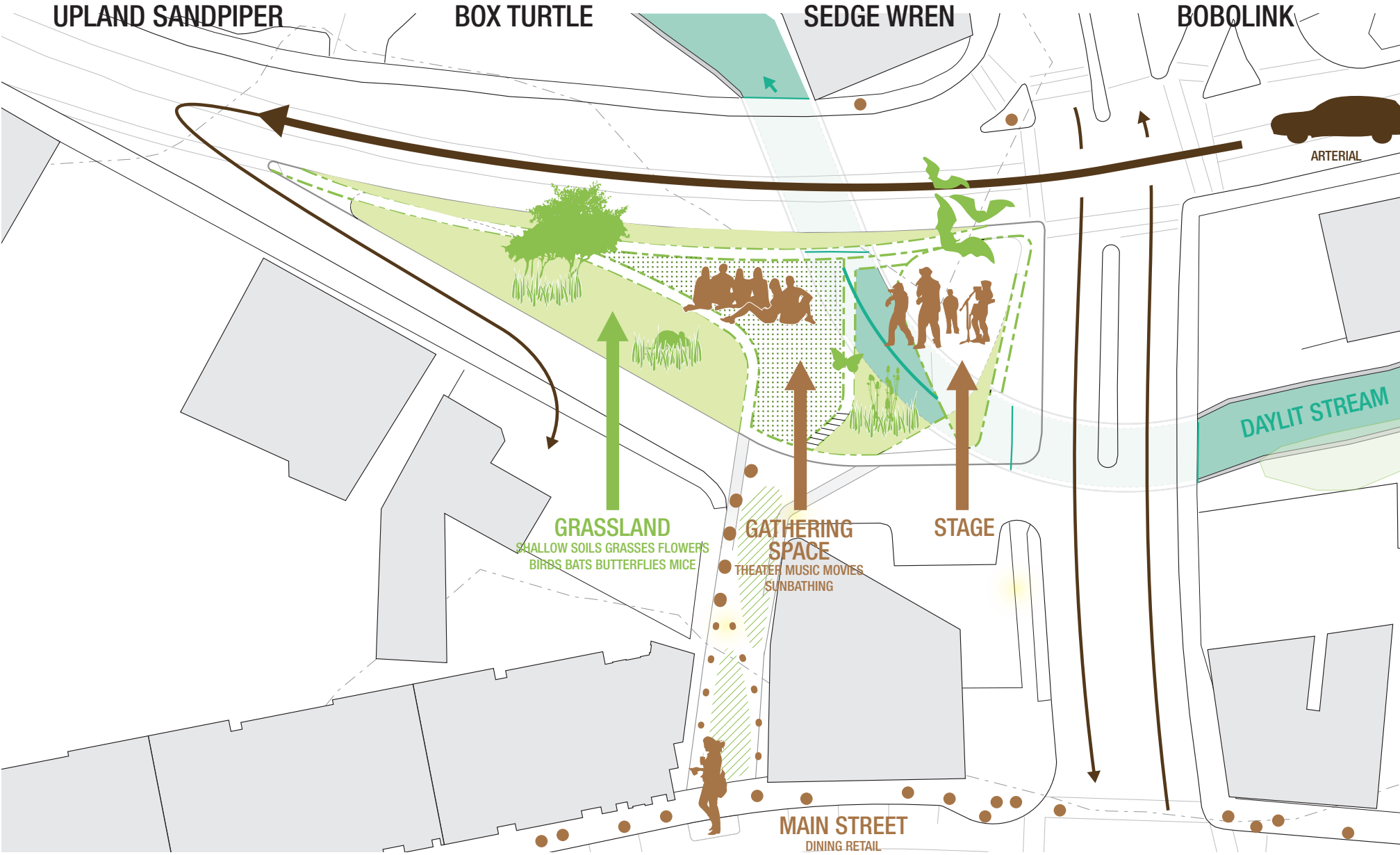
BOX TURTLE



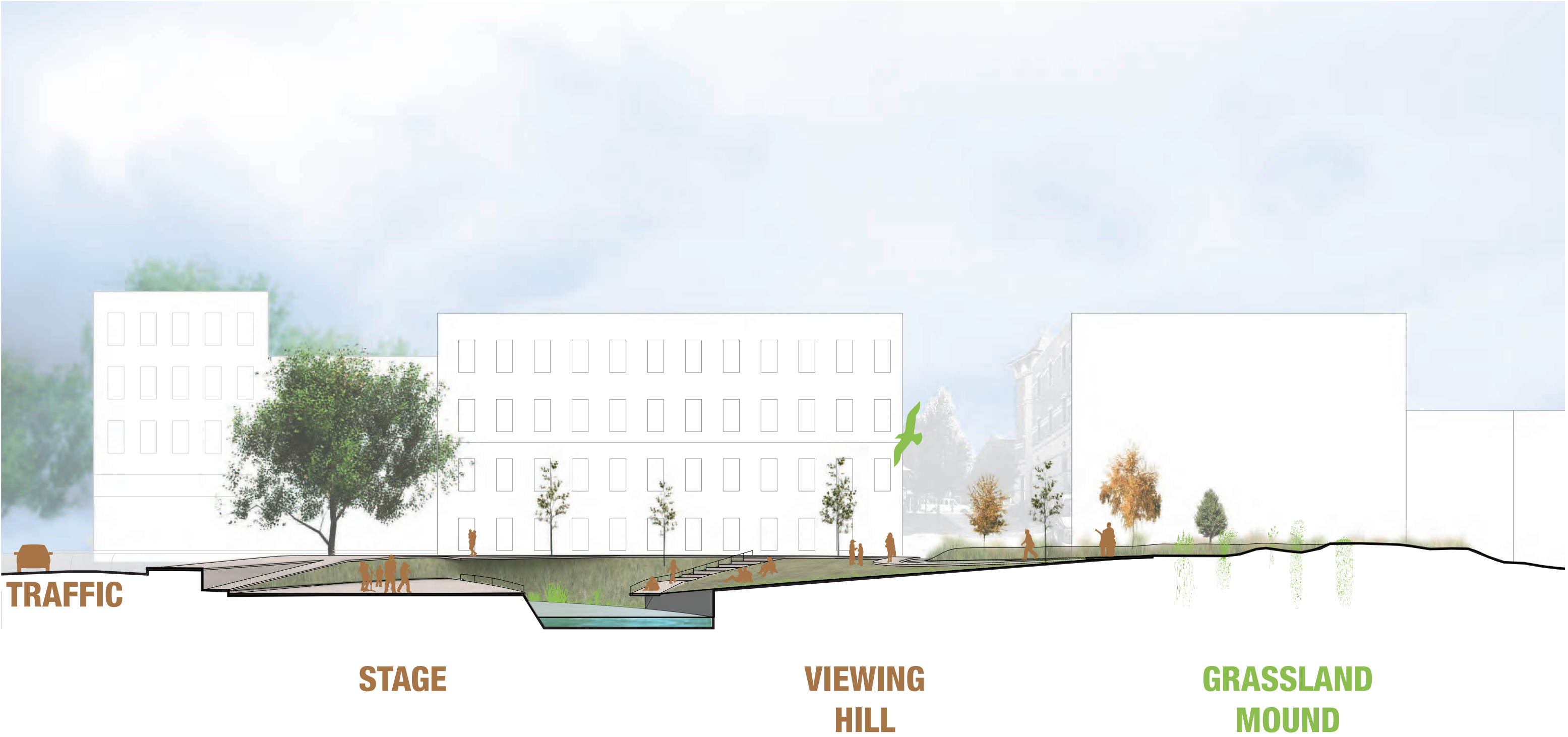
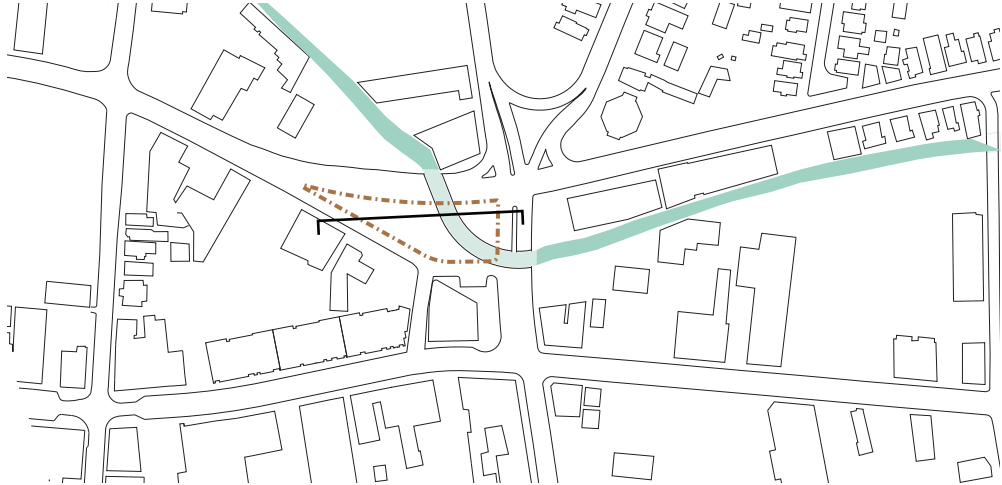
SEDE WREN



BOBOLINK



**PROPOSED:
SECTION THROUGH
AMPITHEATER**



**PROPOSED:
PERSPECTIVE
FROM MILL STREET
PEDESTRIAN APPROACH**



**AERIAL VIEW
PROPOSED**



USE

What are current uses at your 'home' streams?

What uses are lacking? What methods would you employ to design for new uses or enhance existing ones?

3: Outreach

ZONING

EXISTING ZONING CODE

CHARTER AND CODES OF THE CITY OF POUGHKEEPSIE

NY, v9 (Updated through L.L. No. 2-2010, Ord. No. O-10-17)

“SECTION 19-4.18 SETBACKS FOR USES ABUTTING FALLKILL CREEK

(1) Purpose. It is the intent of the Common Council to protect the Fallkill Creek from encroachment and to preserve, to the maximum practicable extent a linear open space along the length of the creek as it traverses the city for purposes of flood protection, aesthetics and recreation.

(2) Setbacks from creek.

(a) Any structure or use of land for other than parking, recreation or open space shall be located not nearer than thirty (30) feet to the top of the banks of the creek as defined by the Director of Planning and Development (DPD), notwithstanding any other provision relating to yards and setbacks in a particular district.

(b) Where land along the creek is to be utilized for off-street parking, such parking area may be located nearer than twenty (20) feet to the top of the banks of the creek as defined by the DPD.

(3) Surface drainage. Surface drainage for parking and loading areas shall be directed away from the creek.

(4) Landscaping and stabilization. All lands within the minimum stream bank setback area shall be landscaped and stabilized to assure that erosion will not occur. Plans for such landscaping and stabilization measures shall be approved by the Planning Board for all uses other than one- or two-family dwellings.”

LOCAL WATERFRONT REVITALIZATION PLAN (1998)

“POLICY 1-1a: Restore, revitalize, and redevelop deteriorated and underutilized waterfront areas for commercial, cultural, recreational

and other compatible uses. Vacant and undeveloped city-owned waterfront property ... should be developed for recreation, cultural, tourism and compatible commercial uses above the base flood level.

POLICY 11A: Protect the Fallkill Creek from encroachment and preserve a linear open space along the length of the creek for purposes of flood protection, aesthetics and recreation.

POLICY 17: Whenever possible, use non-structural measures to minimize damage to natural resources and property from flooding and erosion. Such measures shall include: (i) the set back of buildings and structures; (ii) the planting of vegetation; (iii) the reshaping of bluffs; and (iv) the flood-proofing of buildings or their elevation above the base flood level.

POLICY 19: Protect, maintain and increase the level and types of access to public water-related recreation resources and facilities. The means to provide for a linkage, such as construction of a walkway and/or easement or acquisition of private waterfront lands which would create linkage from the Fallkill Creek to the southern end of the DeLaval site, and participation in the Hudson River Greenway program, shall be explored. “

see also: **GREENWAY CONNECTIONS: GREENWAY COMPACT PROGRAM AND GUIDES FOR DUTCHESS COUNTY COMMUNITIES,** (MARCH 8, 2000)

POTENTIAL PLANNING AND FUNDING OPPORTUNITIES

The following strategies are listed here as possible priorities for discussion and review:

➡ TO CREATE WALKWAY CORRIDORS:

- Designate city-owned sites inside corridor zones as **parkland**.
- Adopt **rights-of-way easements** for properties inside corridor zones, and establish **deed restrictions** to release owners from liability for public use.
- Coordinate **agency cooperation**, and provide **maintenance support** for signage and lightweight infrastructure.

➡ TO CREATE POCKET PARKS:

- Designate city owned Pocket Park sites as **parkland**.
- **Convert infrastructural spaces** (roadways, bridge crossing, etc.) owned by the city into areas available for public arts installations, event programs, and pocket parks.
- **Connect existing park** space to the creek and the walkway.
- Make land available for property **swaps** with owners of potential pocket park sites.

➡ TO ENCOURAGE PRIVATE LANDOWNERS TO DEVELOP OPEN SPACE AND ADOPT GREEN INFRASTRUCTURE PRACTICES:

- Create a **Fall Kill Zoning Overlay** to allow for **mixed-use development**.
- Create a Fall Kill Zoning Overlay to reduce **parking requirements**.
- Allow **higher density development** in areas near but not adjacent to the creek (e.g. north side of Verrazano Blvd) to allow for property trades with sites adjacent to the creek.
- Make land along the creek available for **community gardens** and community garden swaps for backyards converted to publicly accessible walkway areas.
- Create **incentive programs** for green infrastructure for landowners.
- Coordinate with City Planning on Draft Zoning Proposal, Walkway Overlay Zoning, and other plans in development.

➡ TO MITIGATE WALL COLLAPSE AND ENCOURAGE RIPARIAN CORRIDOR RESTORATION:

- Clarify **ownership and maintenance responsibilities** for the creek wall, waiving maintenance responsibilities of landowners or providing incentives to repair, replace, and regrade wall.
- Explore **FEMA** or other federal and state emergency response and mitigation programs for future Fall Kill flooding.

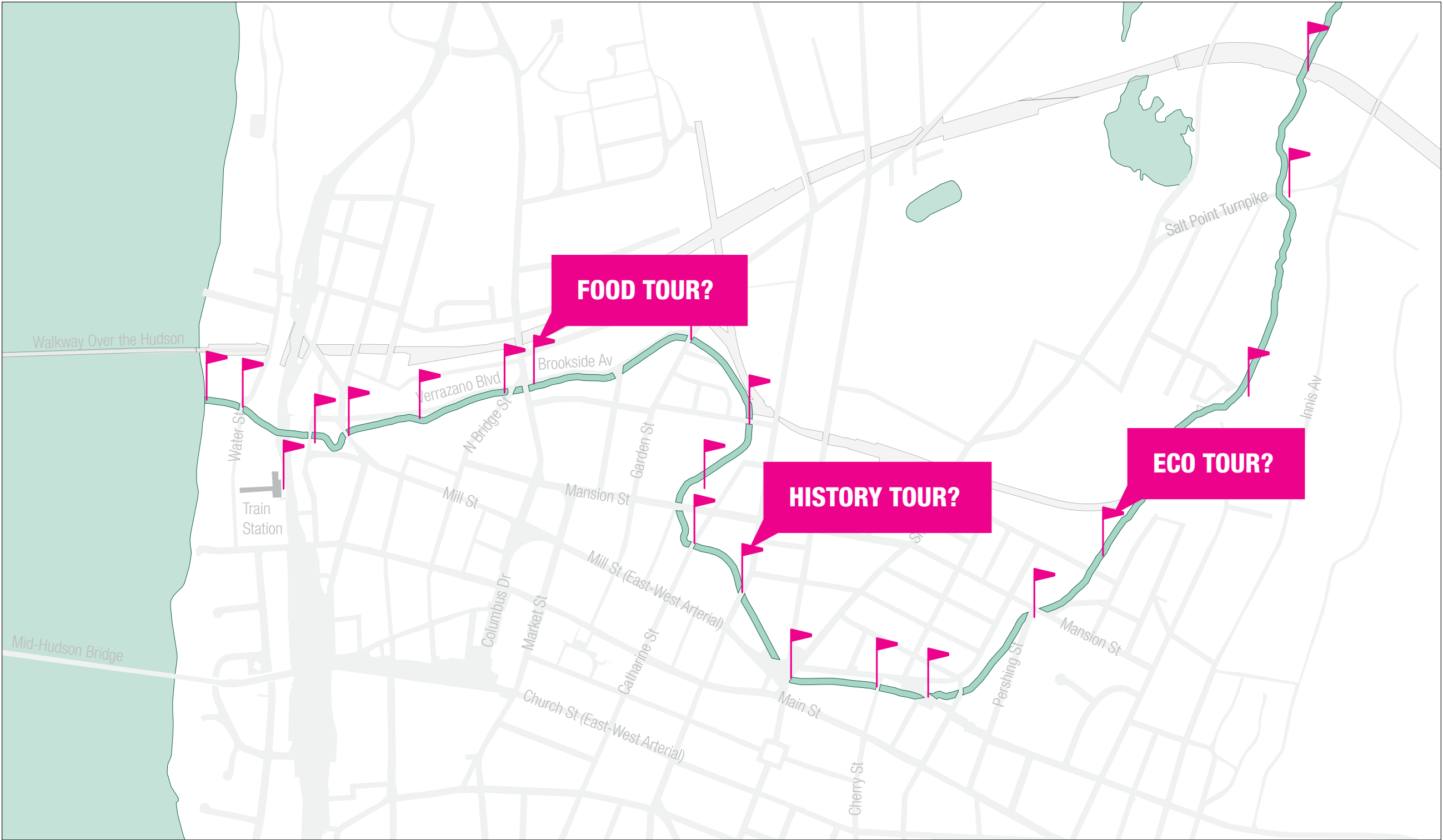
PHASING

The following phasing steps have been identified as a guideline to provide both feasible, low-budget improvements and an ambitious, shared vision for the creek.

1: SIGNAGE

Create inexpensive but durable installations along the creek to:

- Attract attention to the creek
- Create gathering spaces
- Provide information about the adjacent neighborhood, the creek's ecosystems, and water quality.

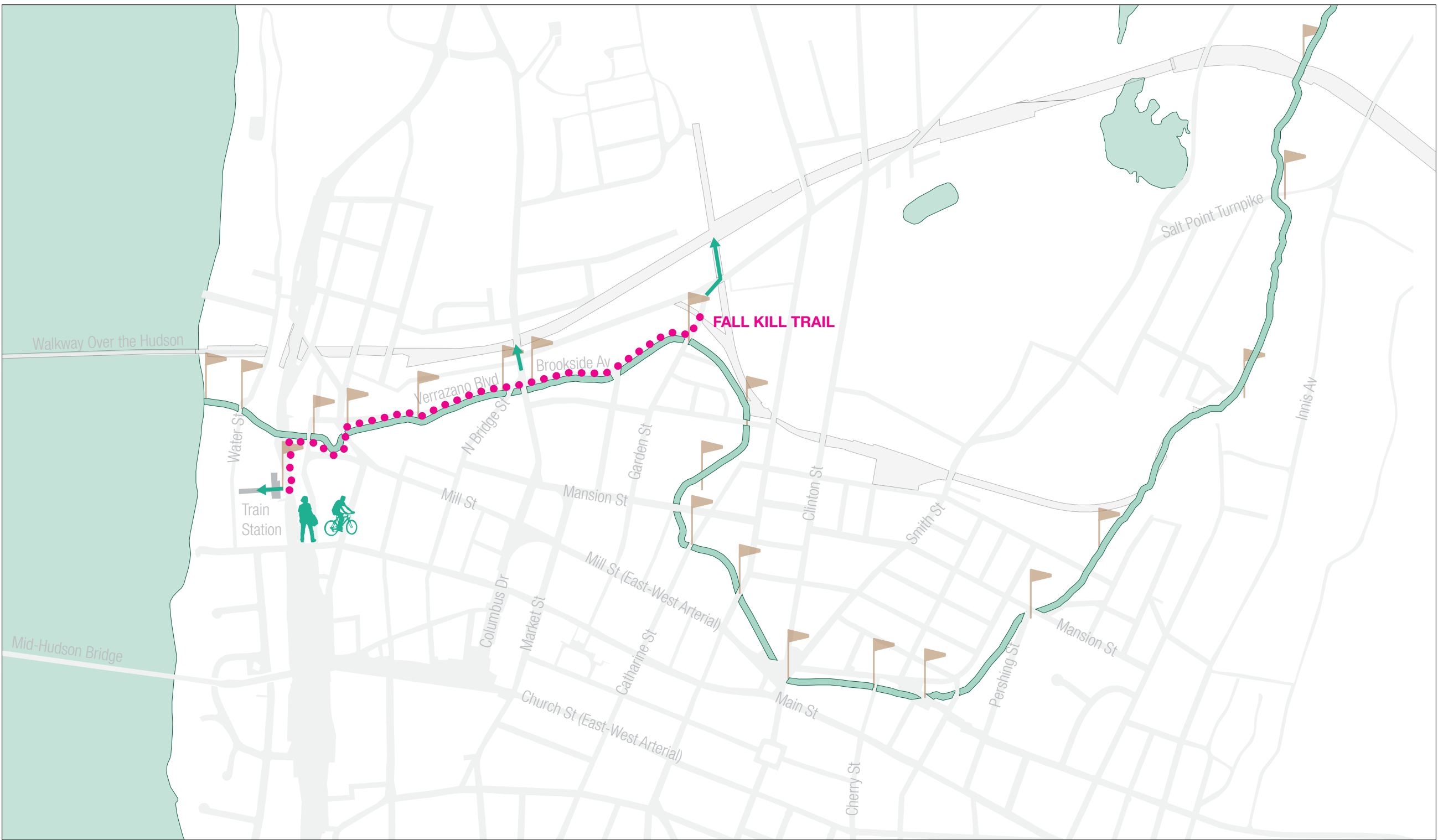
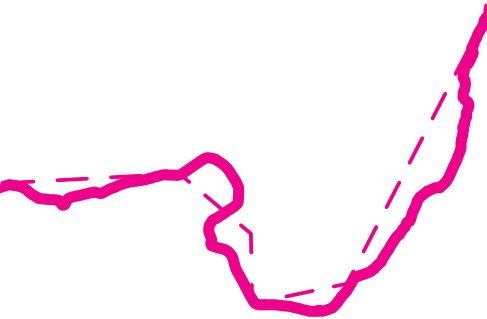


Place in History installation, Union Street Bridge in Gowanus, Brooklyn.
http://www.placeinhistory.org/projects/gowanus_canal/

2: LIGHT INFRASTRUCTURE

Install a lightweight and inexpensive walking path along areas currently open to the public but not easily accessible. This pathway is to link to the Walkway Loop Trail.

Lightweight infrastructure can also include a bike lane connected to the city-wide bike lane system.

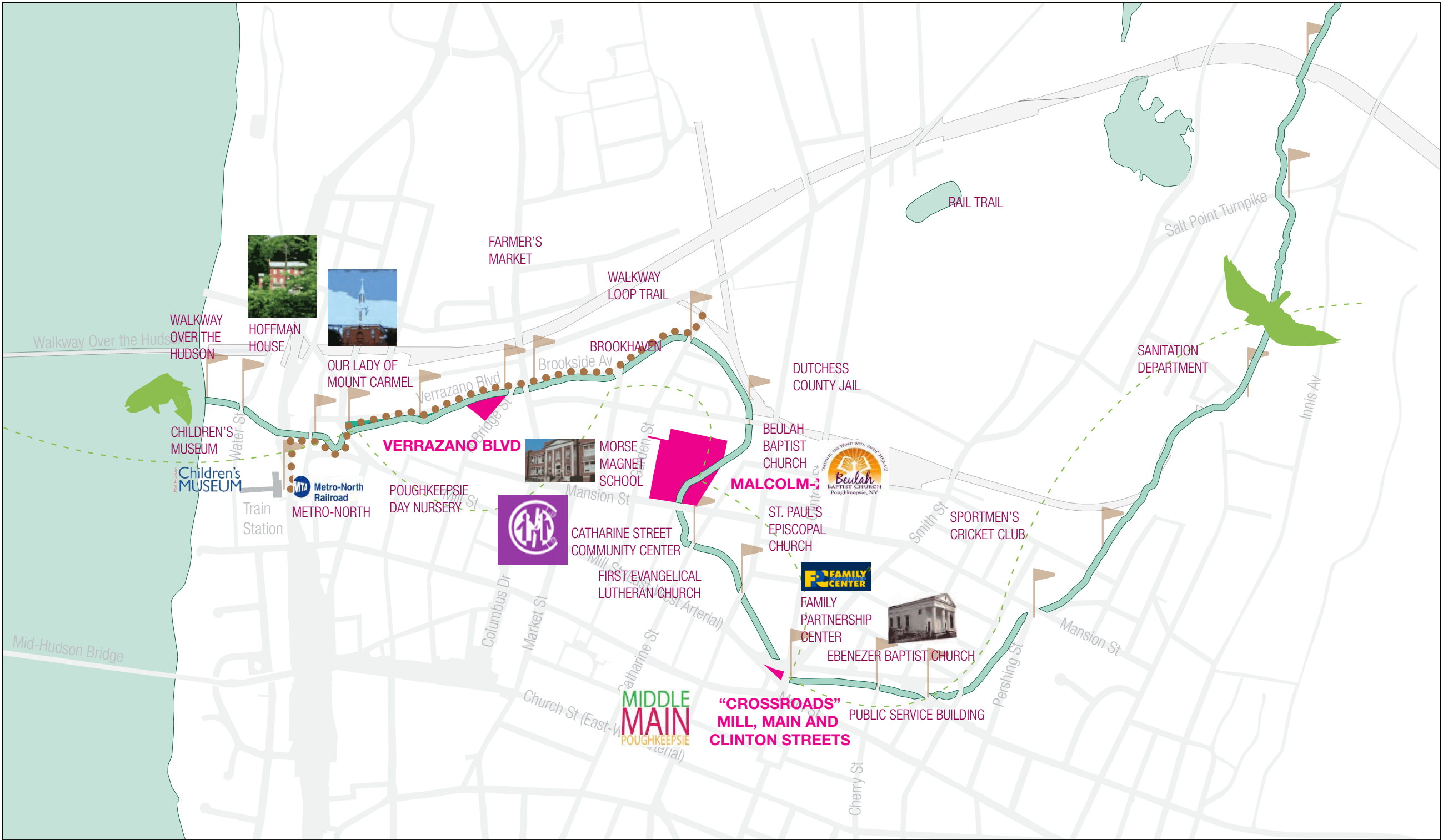


Transit Revitalization Investment District Plan
Interface Studio

3: PILOT SITES

Create pocket parks in partnership with institutions and public service organizations alongside the creek. Each park is to connect neighborhood activities to the creek and its ecosystems.

For example, three sample pilot sites have been identified here. Pilot sites can be determined by each owners’ initiative, and in partnership with other city and non-profit agencies.

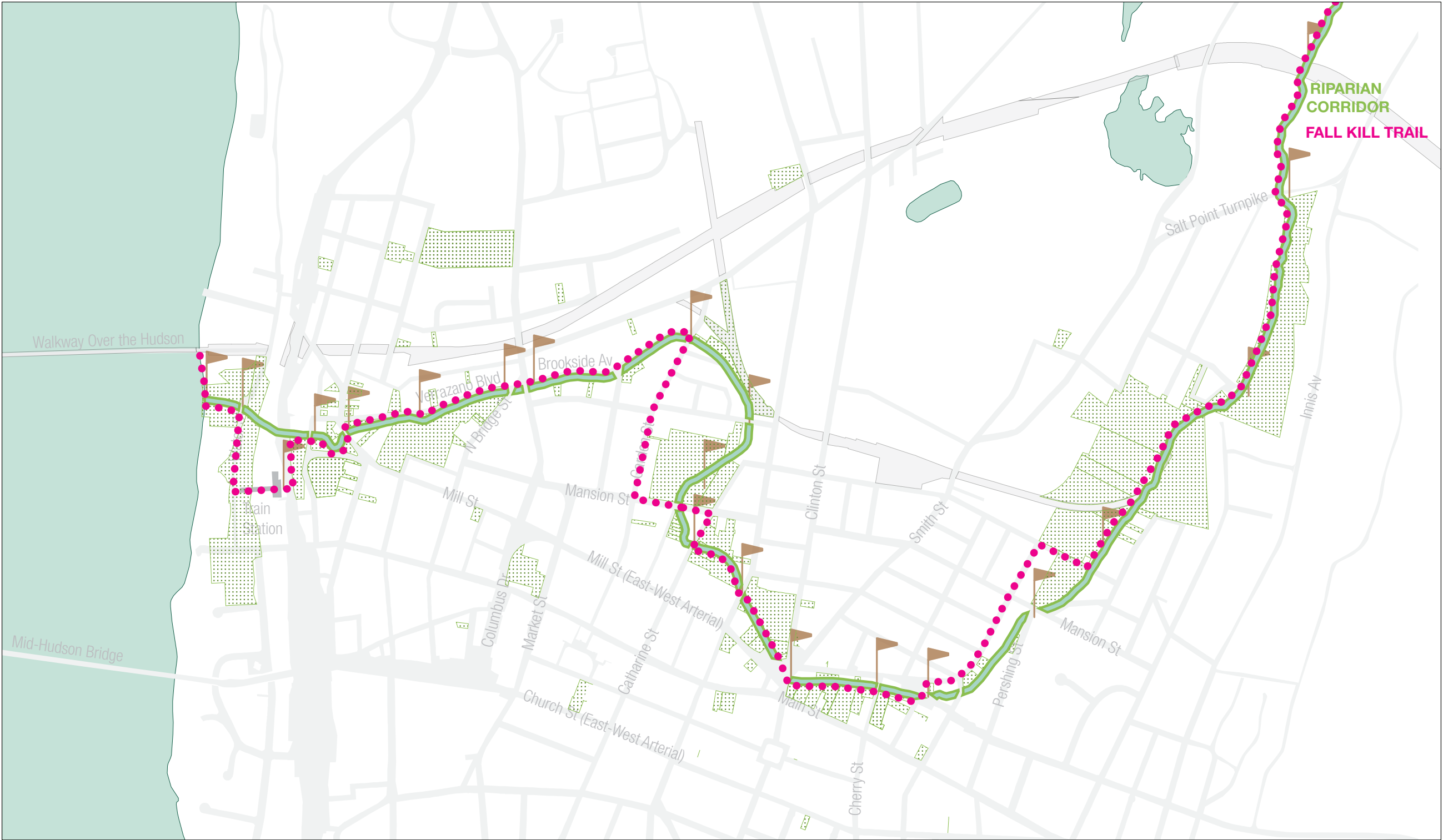
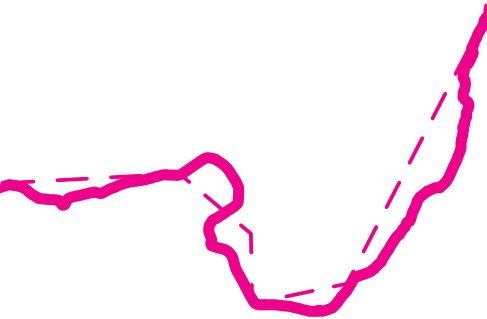


Buffalo Bayou Promenade, Houston, TX.

4: LINKED CORRIDOR

Eventually, the goal of the Plan is to establish a continuous public walkway from the Hudson River to the edge of the city, with the potential to extend beyond, to Val-Kill; and a continuous riparian corridor that can support land-based wildlife such as amphibians and reptiles along the creek.

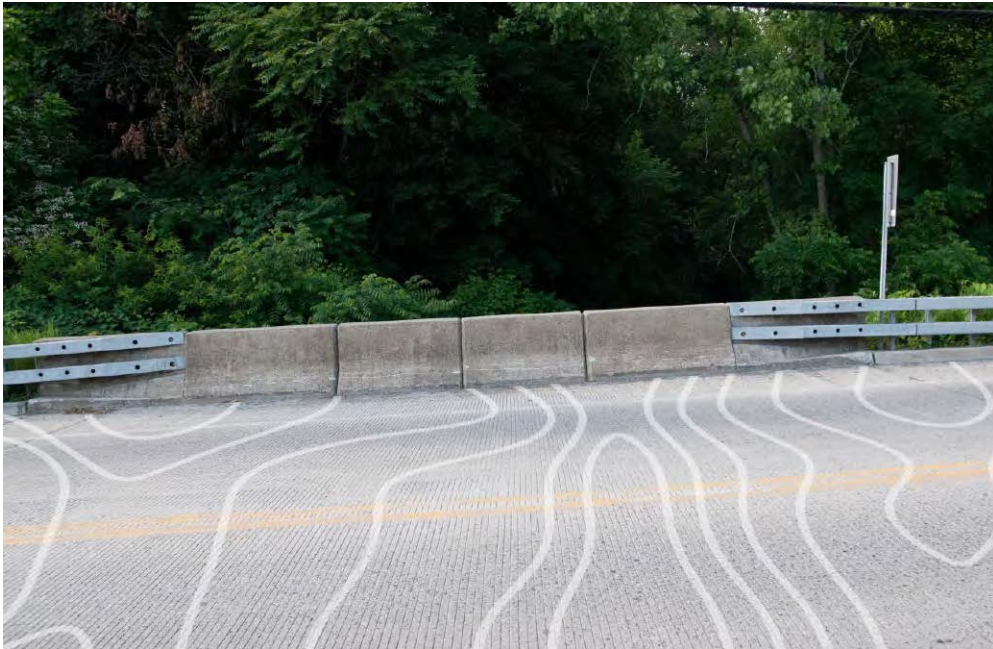
As landowners along the creek create public right-of-ways, additional pathways can be created. Like the lightweight infrastructure in Phase 2, this can include inexpensive walkways. The corridor can also provide connected linear park areas that can function as water filtration buffers and wildlife corridors.



Cheonye Stream, Seoul, Korea.

SIGNAGE USE STRATEGY

- Potential uses for signs:
- Recognition of creek
 - Activate social space or event spaces
 - Community bulletin board
 - Urban nature trail
 - Wayfinding
 - Creek Monitoring



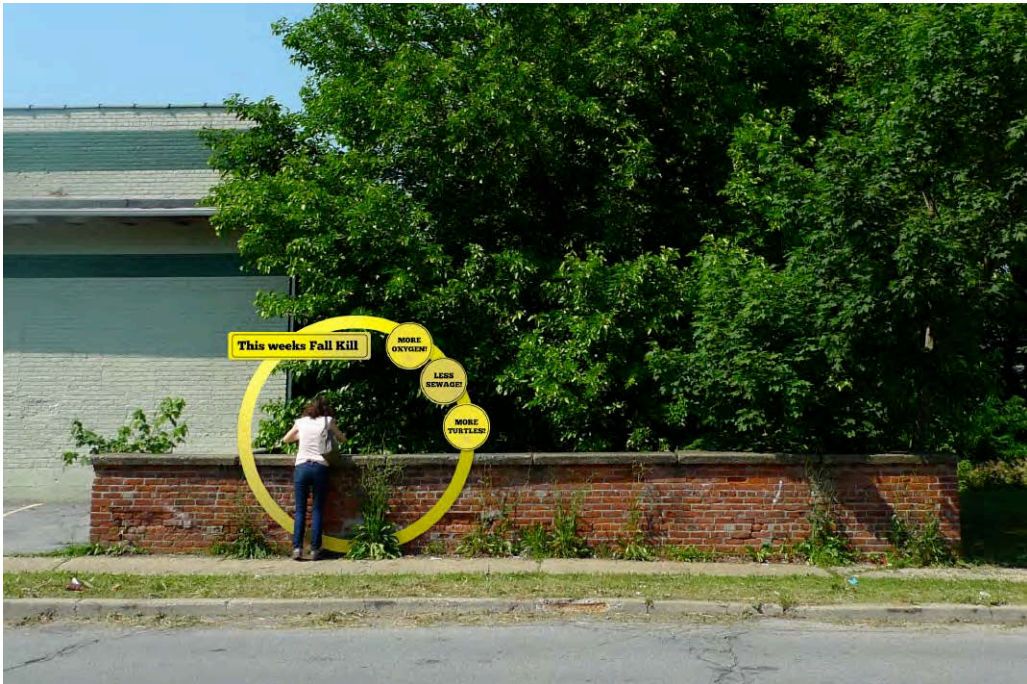
RECOGNITION OF CREEK



ACTIVATE SOCIAL SPACE



CREEK MONITORING



COMMUNITY BULLETIN BOARD



URBAN NATURE TRAIL



WAYFINDING

SIGNAGE

OUTREACH STRATEGIES

Form connections with local partners in order to carry out citizen engagement programs.

- Potential outreach strategies:
- Block Parties
 - Tours of the creek
 - On-site environmental research
 - Film screenings
 - Market Festival
 - Clean-up Events
 - Planting Installation and maintenance

BLOCK PARTIES



GREEN MARKETS



CREEK MAINTENANCE



FILM SCREENINGS

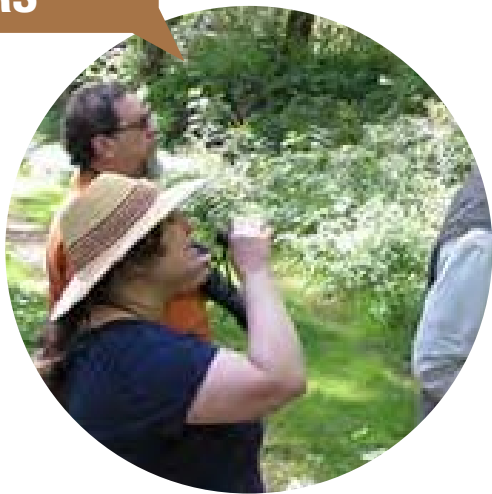


CLEAN-UP EVENTS



ENVIRONMENTAL RESEARCH

CREEK TOURS

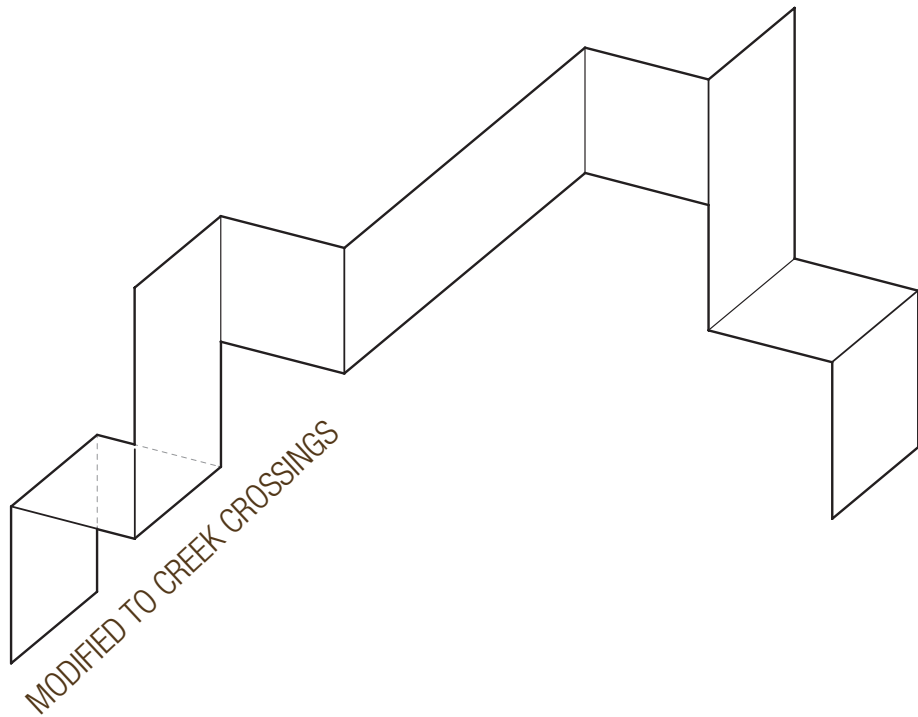
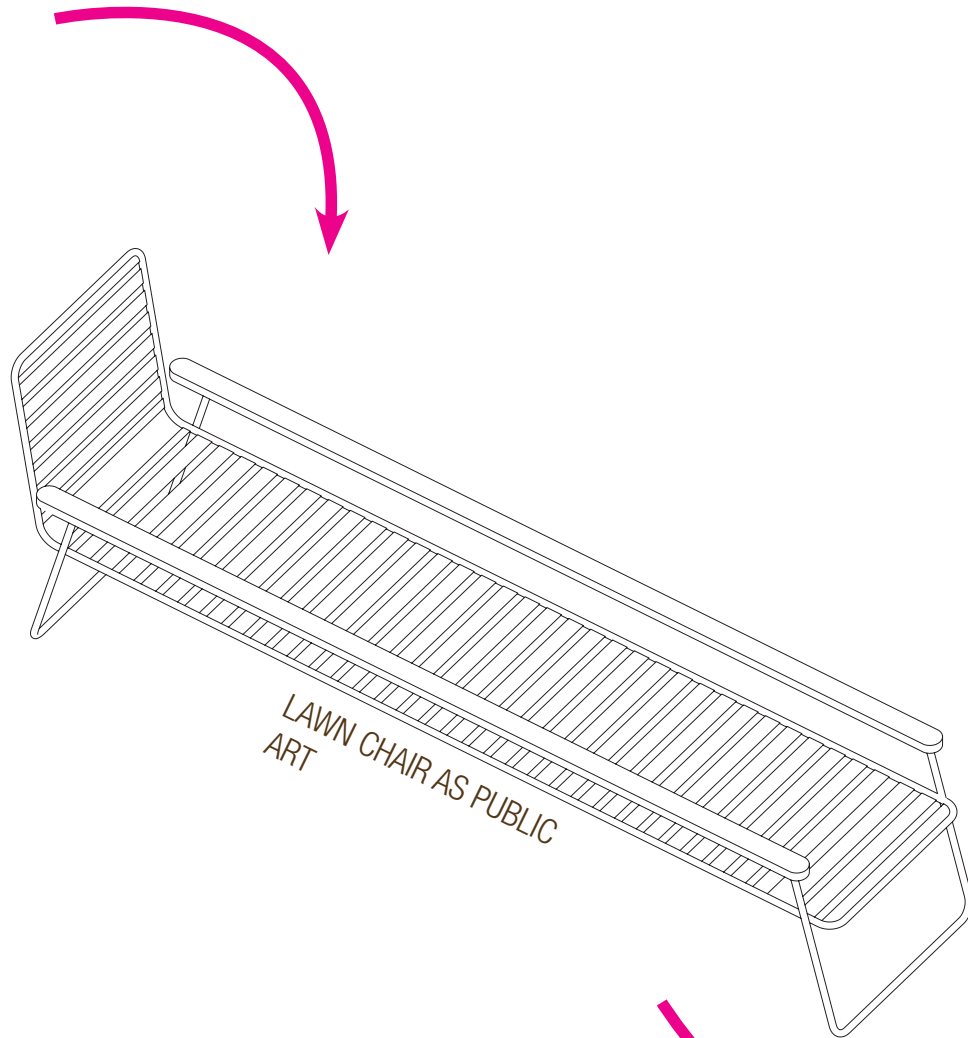
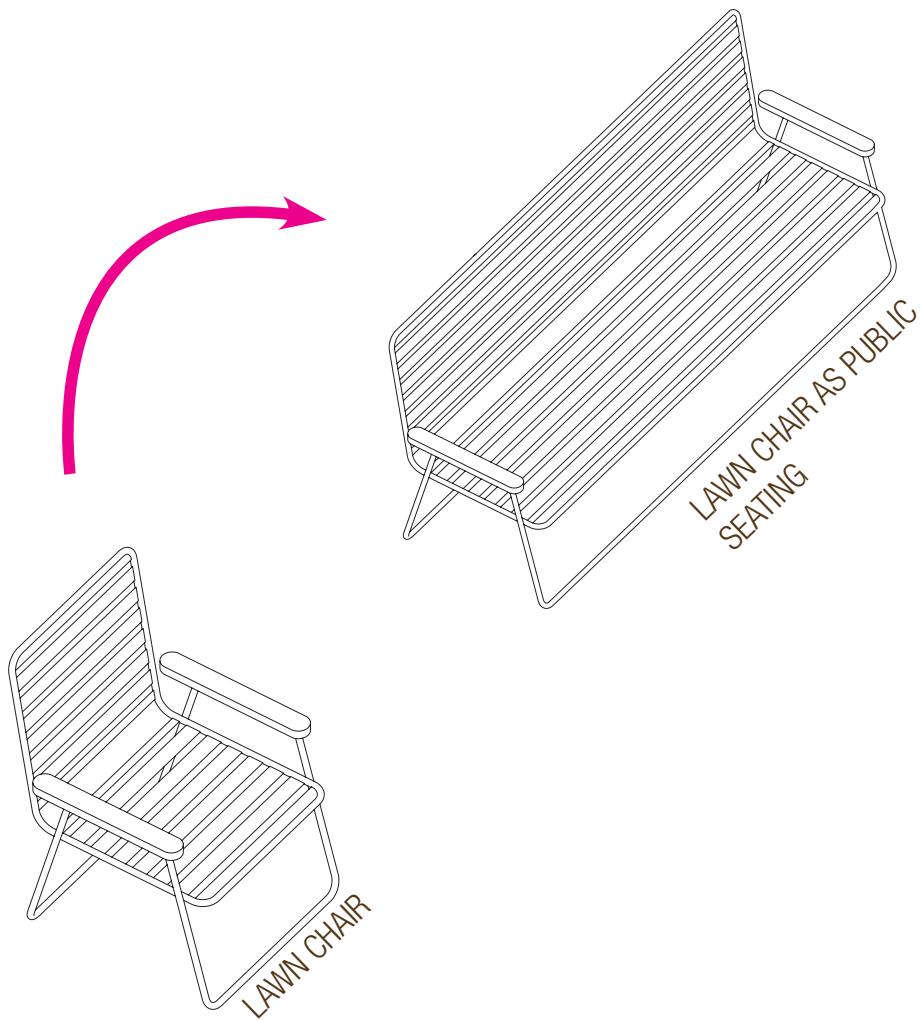
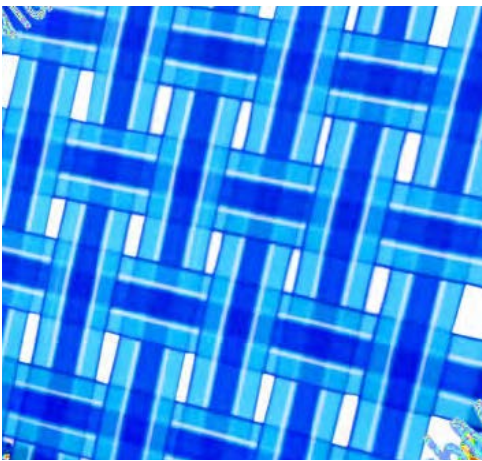
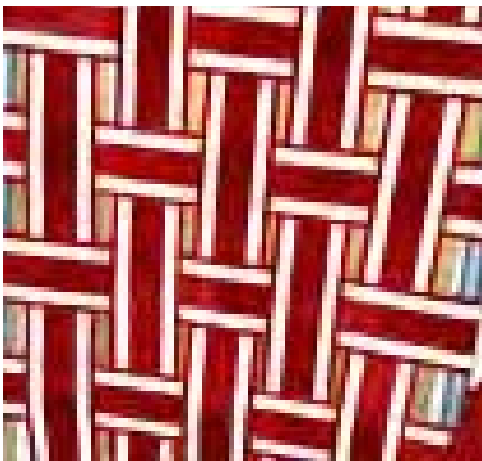


SIGNAGE

COMMUNAL BACKYARD

Use of a familiar pattern of outdoor domesticity to create street furniture and new landscapes.

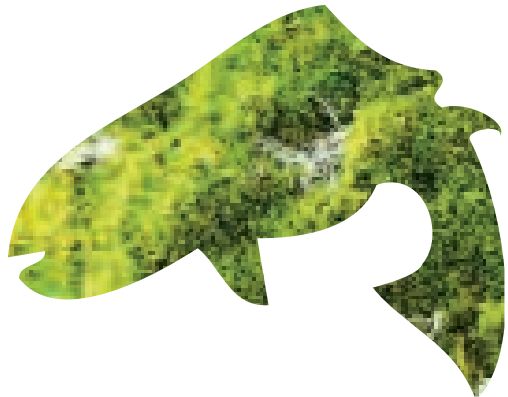
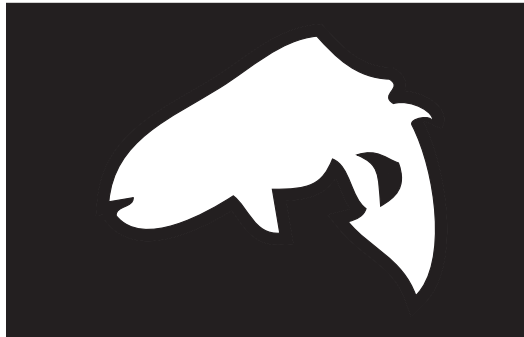
- Recognition of creek
- Wayfinding
- Community Bulletin Board
- Activate Social Space
- Creek Monitoring



SIGNAGE
MOSS
GRAFFITI



MOSS RECIPE
Easily made using yogurt, sugar, and moss!





A USER'S GUIDE TO THE FALL KILL CREEK

HOW TO USE THIS GUIDE

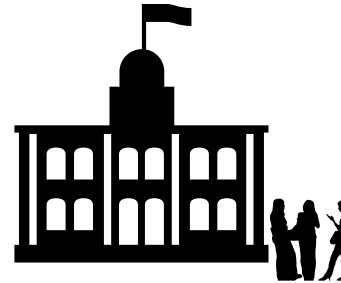
Shown here are design ideas for property owners and residents to create unique spaces along the creek that support user's activities and green infrastructure practices at the same time. In each case, readers should consider the following questions, and ask how these are suited to their needs, budget, space available, and the conditions of their property along the creek's edge.

1. How do you want to use the creek?
2. How can you improve water quality and habitat?
3. How can you manage erosion?

While some ideas involve simple, do-it-yourself strategies, others suggest significant changes to the creek's edge. These more complex approaches will require consultation with the City of Poughkeepsie Planning Division, an architect or landscape architect, a hydrology engineer, a habitat restoration specialist, and/or a licensed contractor.

In addition, readers are also encouraged to use this guide to ask how the creek can be used in a broader sense. You might, for example, host activities such as a block party or a workshop researching the creek with a school, church, or youth group. You might join a local non-profit and participate in creek clean-up events. You might record an audio tour of the creek including stories of residents along the creek for others to enjoy. Or you might join a local institution and work together to organize, fundraise and build a \ pocket park in your neighborhood.

This guidebook is aimed at all Poughkeepsie citizens, including:



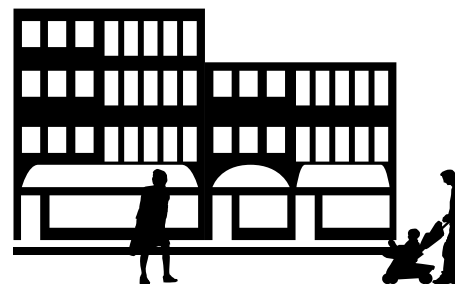
THE CITY

At a large scale, the city and its community partners can direct initiatives throughout the creek. This can include signage and infrastructural changes, or planning and regulatory changes that can help set up public rights-of-way agreements with private landowners.



COMMUNITY INSTITUTIONS

Community centers, schools, public service agencies, after-school programs, and other community institutions can play a central role in creating pocket parks and public access to the creek. These areas can provide event space for these institutions, and attract new people to their neighborhoods.



BUSINESSES AND RETAIL DISTRICTS

Improved access areas along the creek can provide space for outdoor dining, marketplaces, picnic areas, and other functions for retail districts. Pocket parks and walkways along the creek can help to foster a vibrant and safe street life during both day and night, and help to invite visitors from the region.



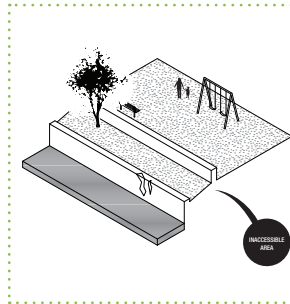
HOMEOWNERS AND TENANTS

Homeowners and tenants can implement changes on their private property. Changes to the backyard can transform homes into creekfront properties, and attract tenants to multifamily residences.

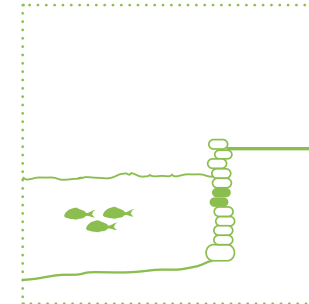
DESIGN IDEAS FOR:

PARKS
PUBLIC INFRASTRUCTURE
INSTITUTIONS
INDUSTRIAL BUSINESSES
COMMERCIAL BUSINESSES
RESIDENTS

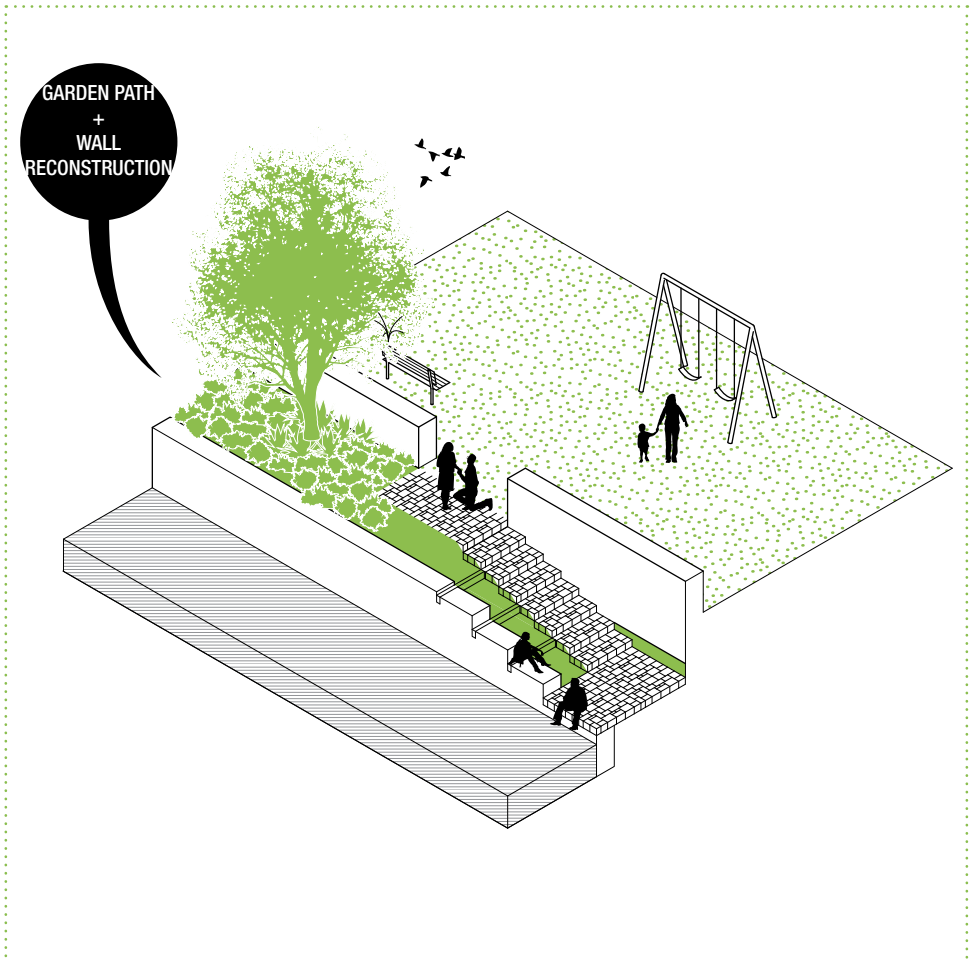
PARKS: GARDEN PATH



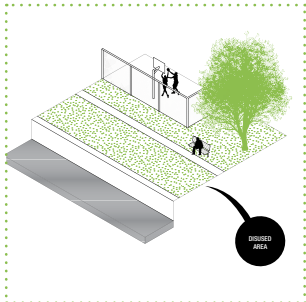
EXISTING CONDITION:
bilevel edge with wall



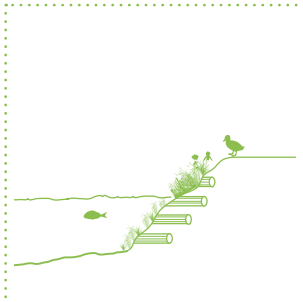
WALL PATCH



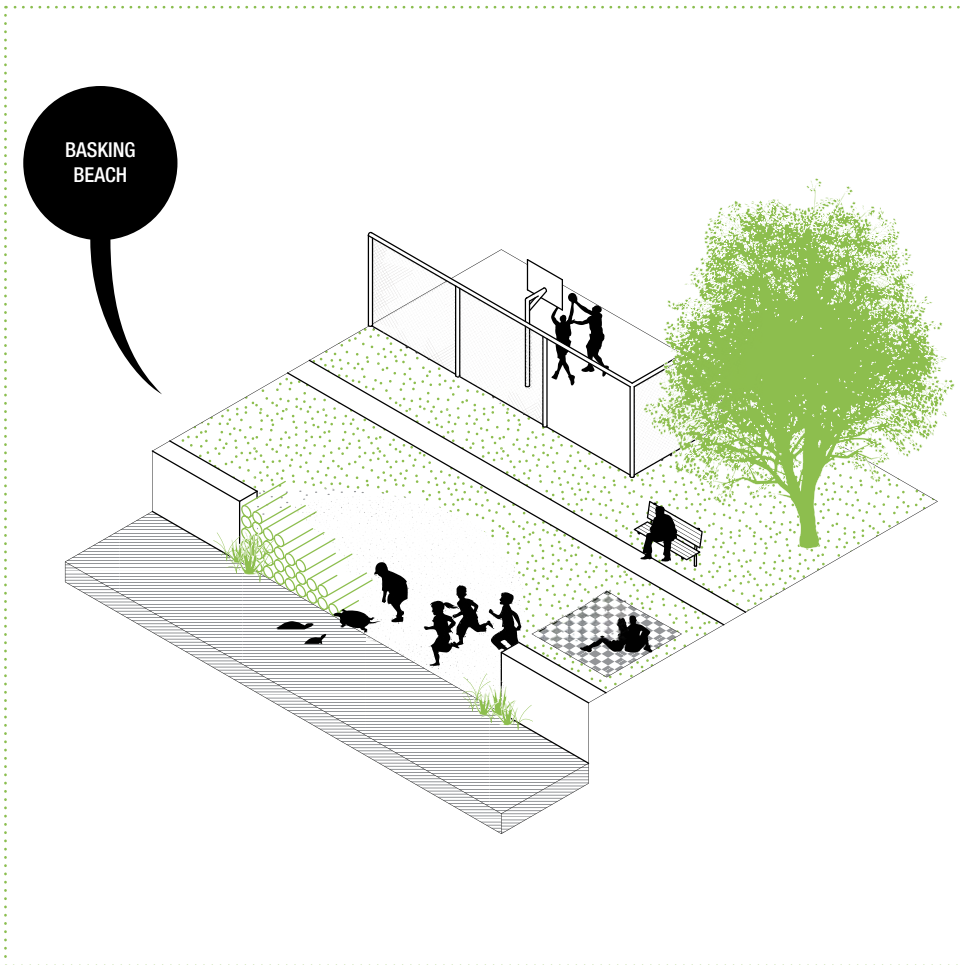
PARKS: BASKING BEACH



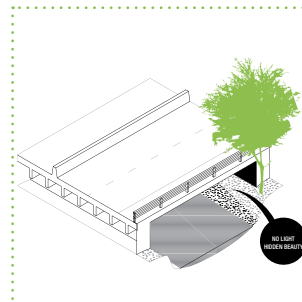
EXISTING CONDITION:
wide site with wall



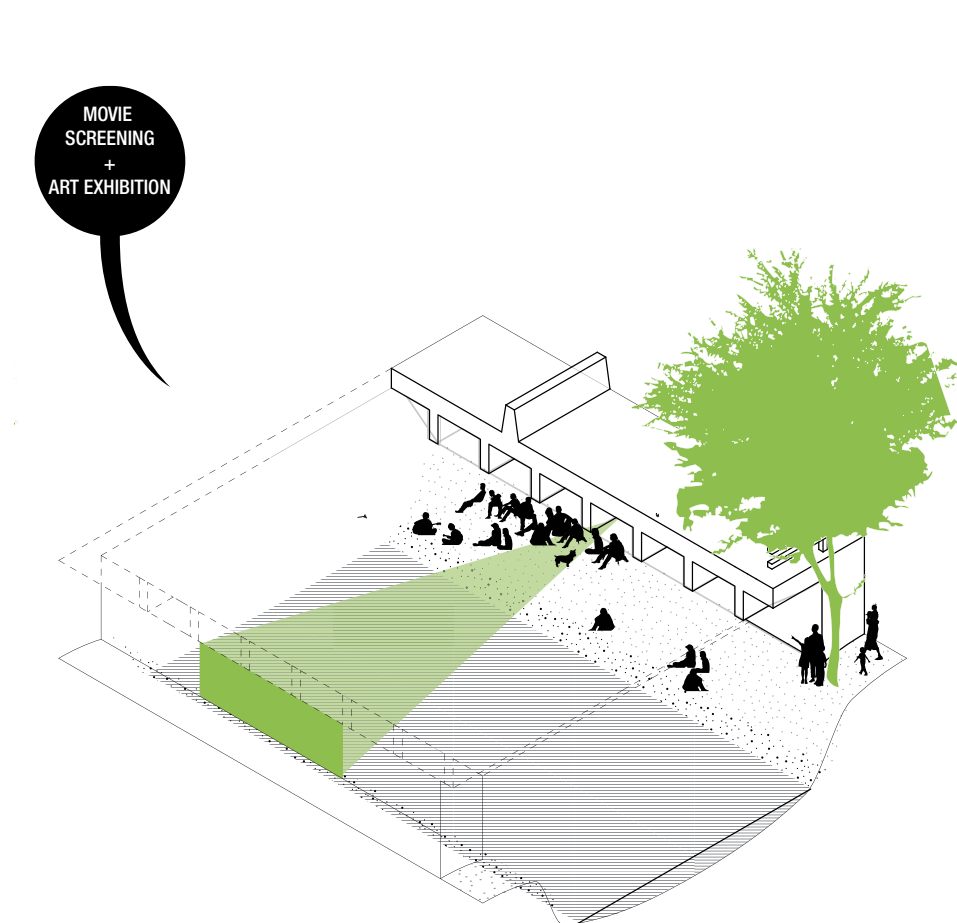
**BIO-TECHNICAL EROSION
CONTROL**



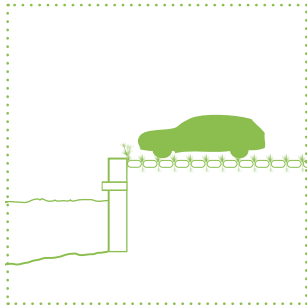
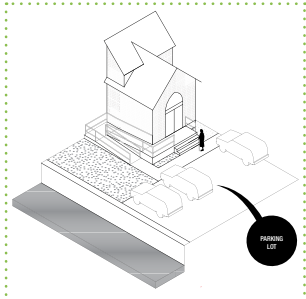
INFRASTRUCTURE: THEATER + EVENT SPACE



EXISTING CONDITION:
Bridge crossing

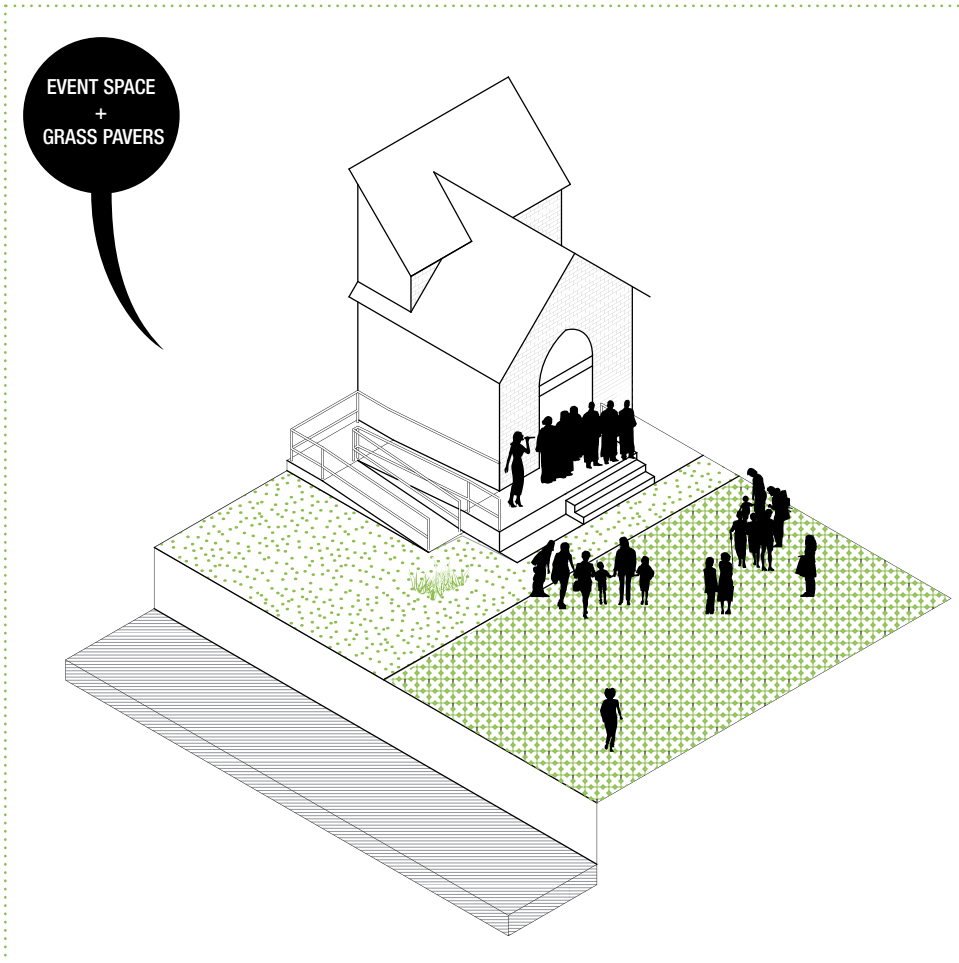


INSTITUTIONS: PARKING LOT + EVENT SPACE

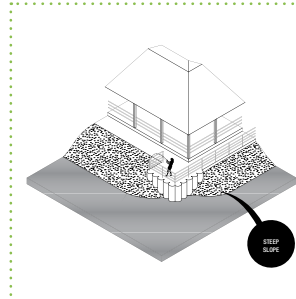


EXISTING CONDITION:
narrow site with a wall

PERMEABLE PAVERS

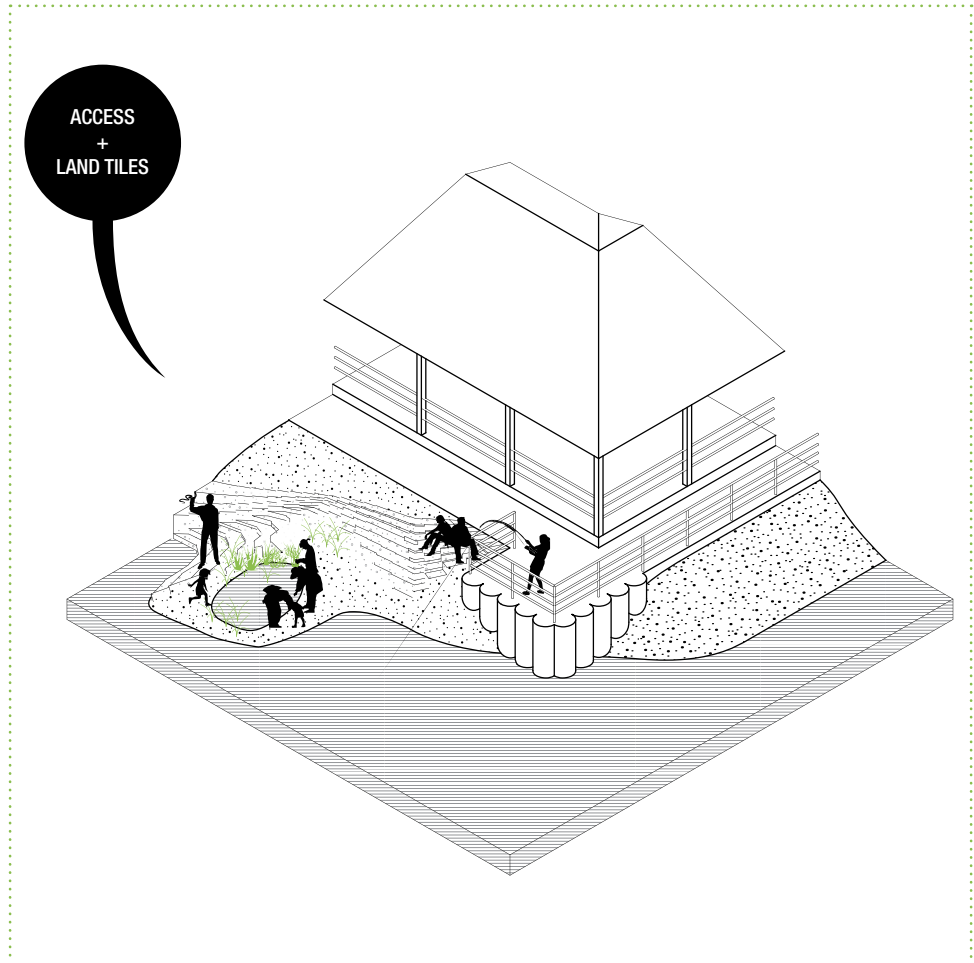


INSTITUTIONS: TIDAL POOL + OUTDOOR CLASSROOM

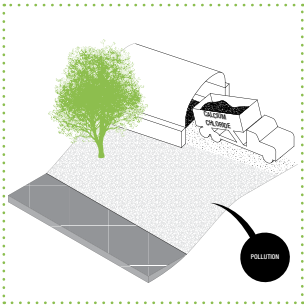


EXISTING CONDITION:
narrow site with a soft slope

**RIPARIAN BUFFER
RESTORATION**



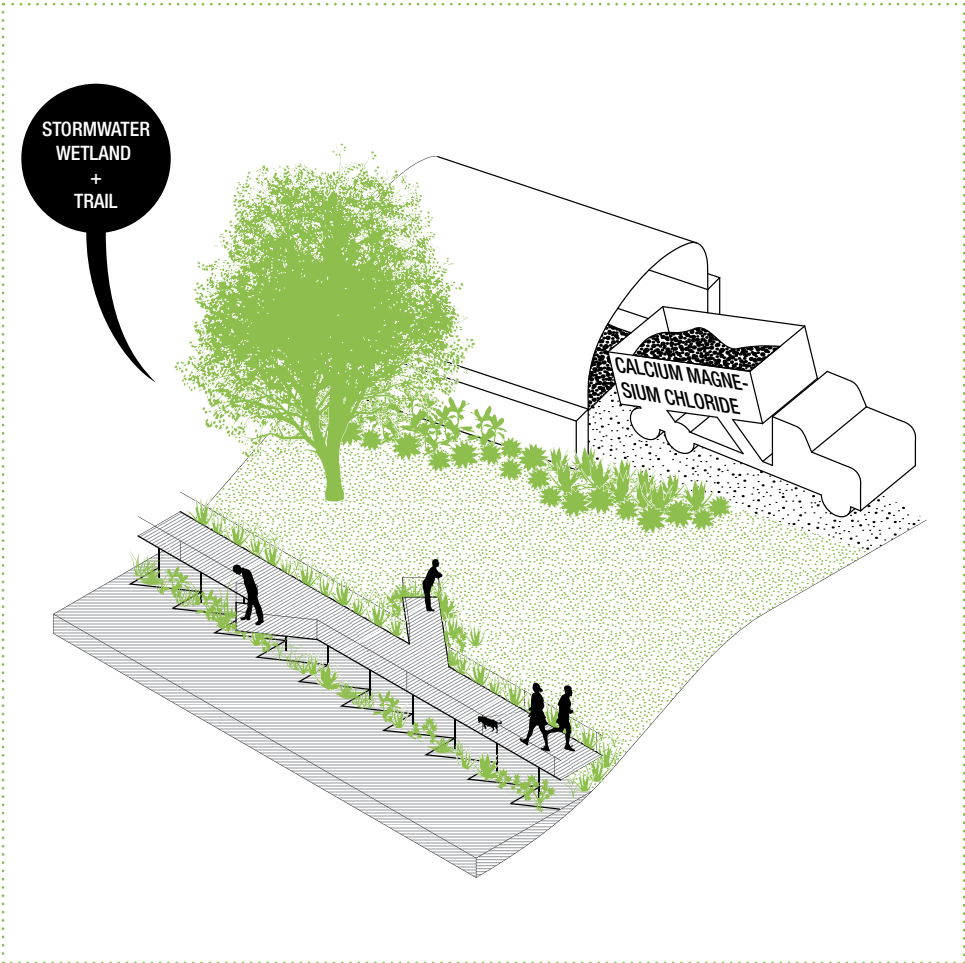
**INDUSTRIAL BUSINESSES:
WETLAND NATURE TRAIL**



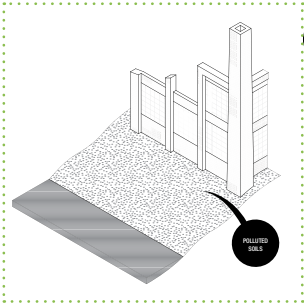
EXISTING CONDITION:
wide site with a soft slope



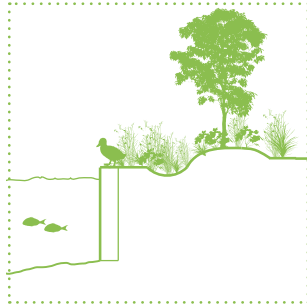
**RIPARIAN BUFFER
RESTORATION**



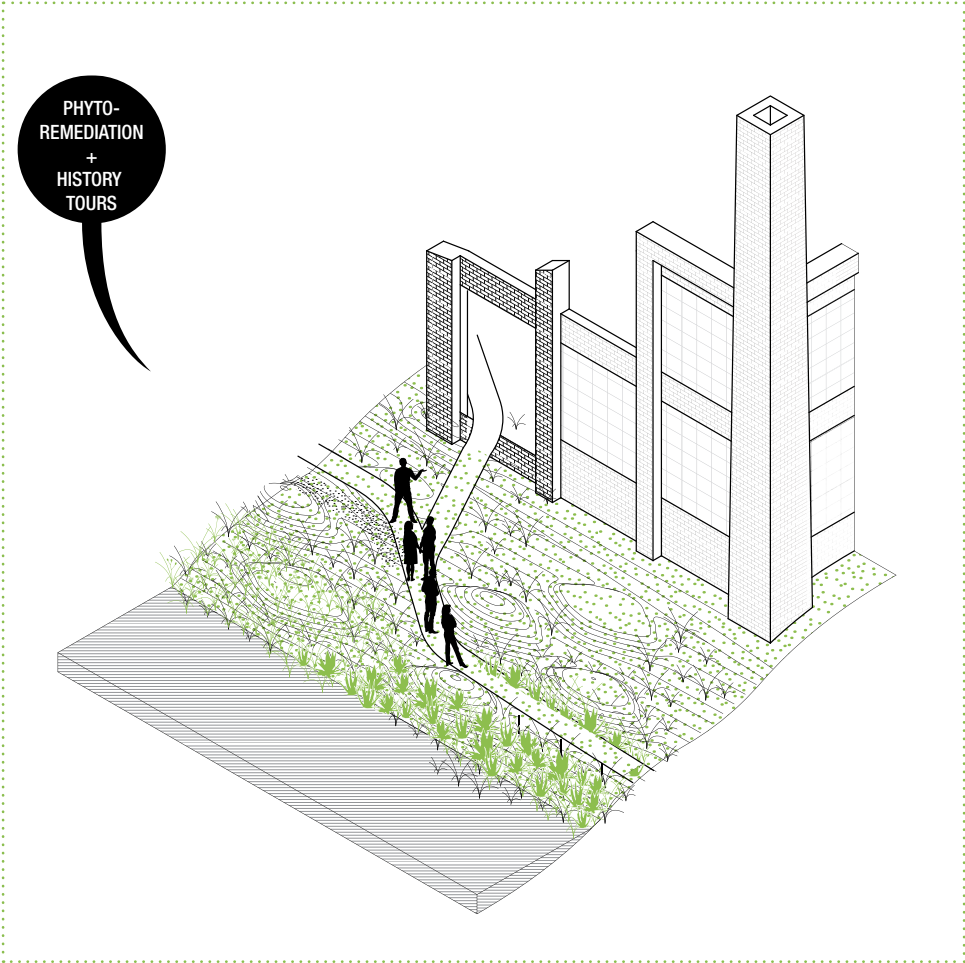
**INDUSTRIAL BUSINESSES:
INDUSTRIAL HISTORY TOUR**



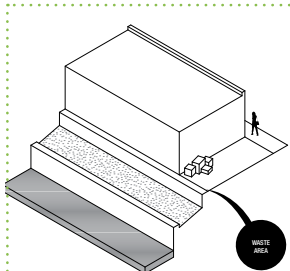
EXISTING CONDITION:
wide site with a soft slope



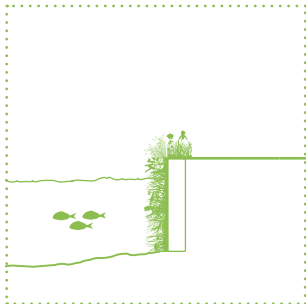
BIOSWALE



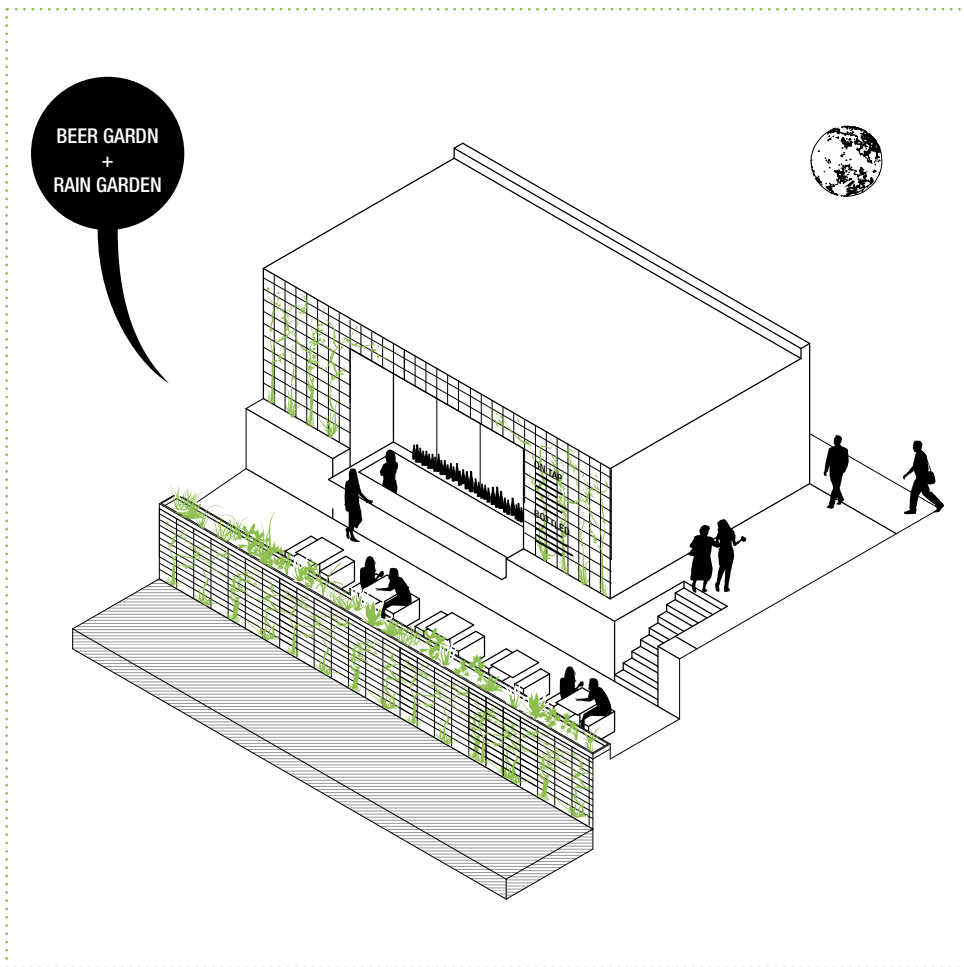
COMMERCIAL BUSINESSES: BEER GARDEN



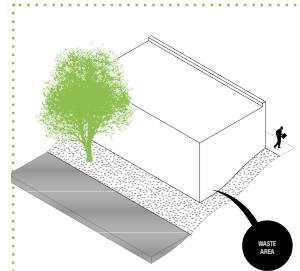
EXISTING CONDITION:
bilevel edge with a wall



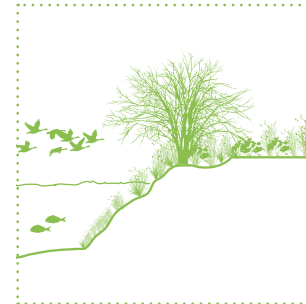
VERTICAL GARDEN



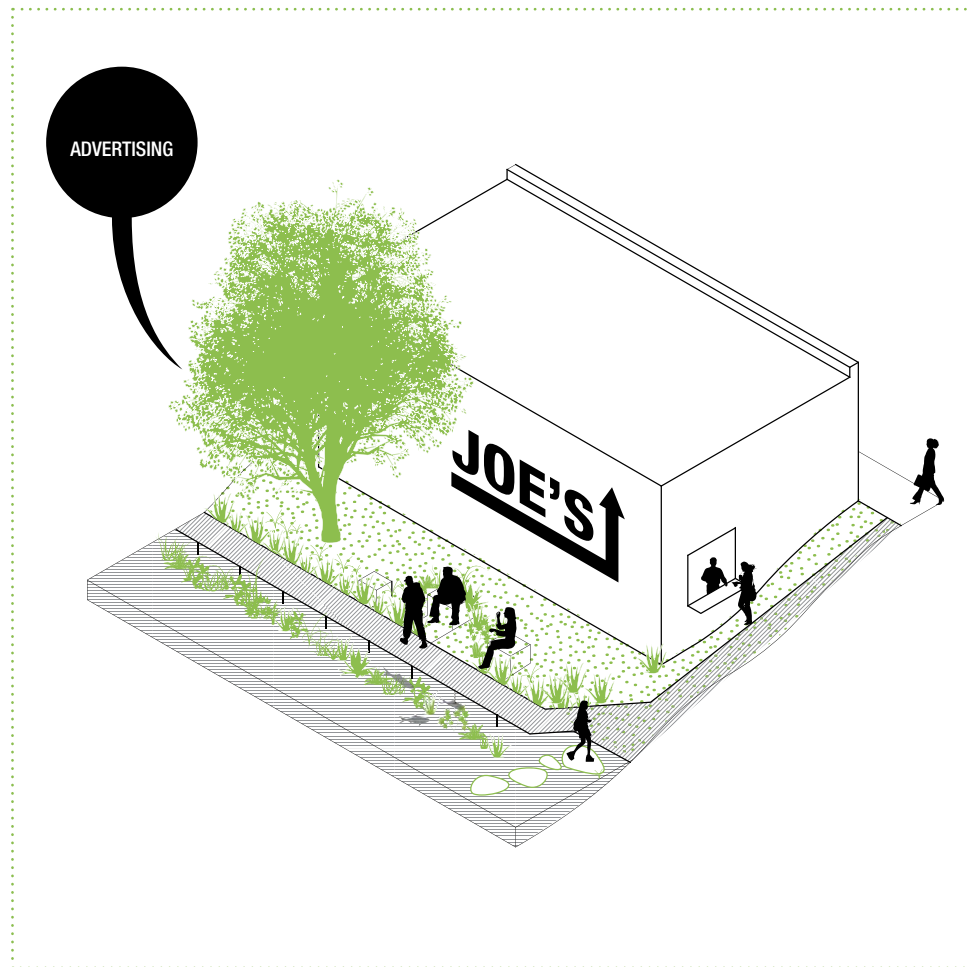
COMMERCIAL BUSINESSES: GREENWAY + TO GO WINDOW



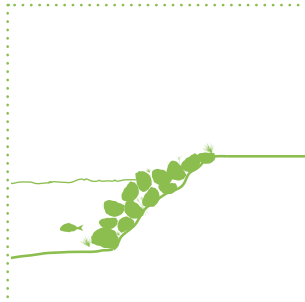
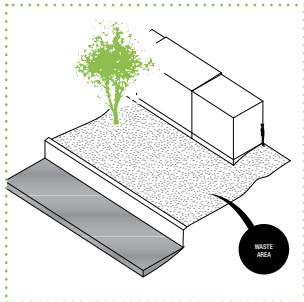
EXISTING CONDITION:
wide site with a wall



**RIPARIAN BUFFER
RESTORATION**

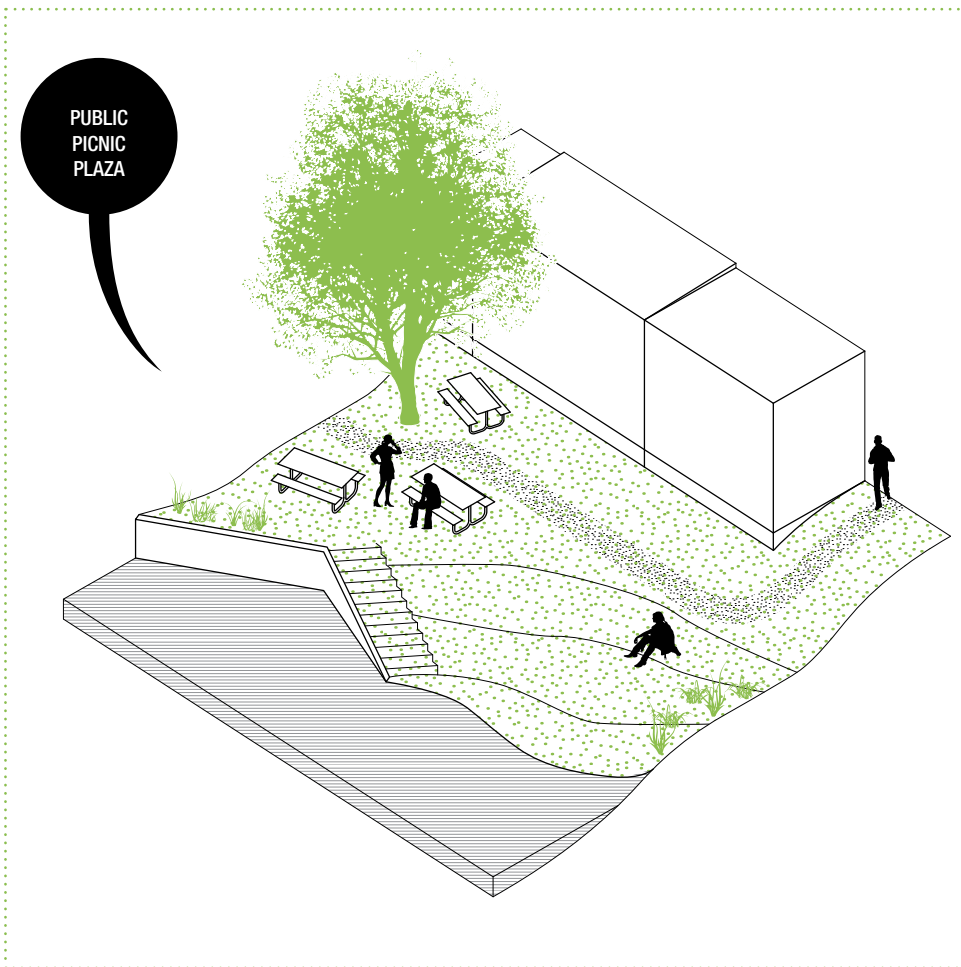


COMMERCIAL BUSINESSES: PICNIC AREA

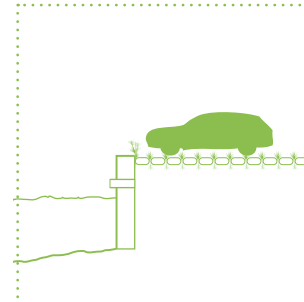
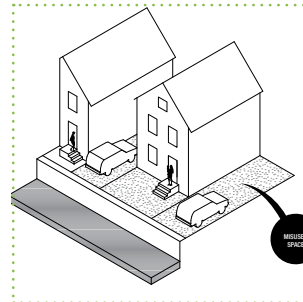


EXISTING CONDITION:
wide site with a wall

RIP RAP

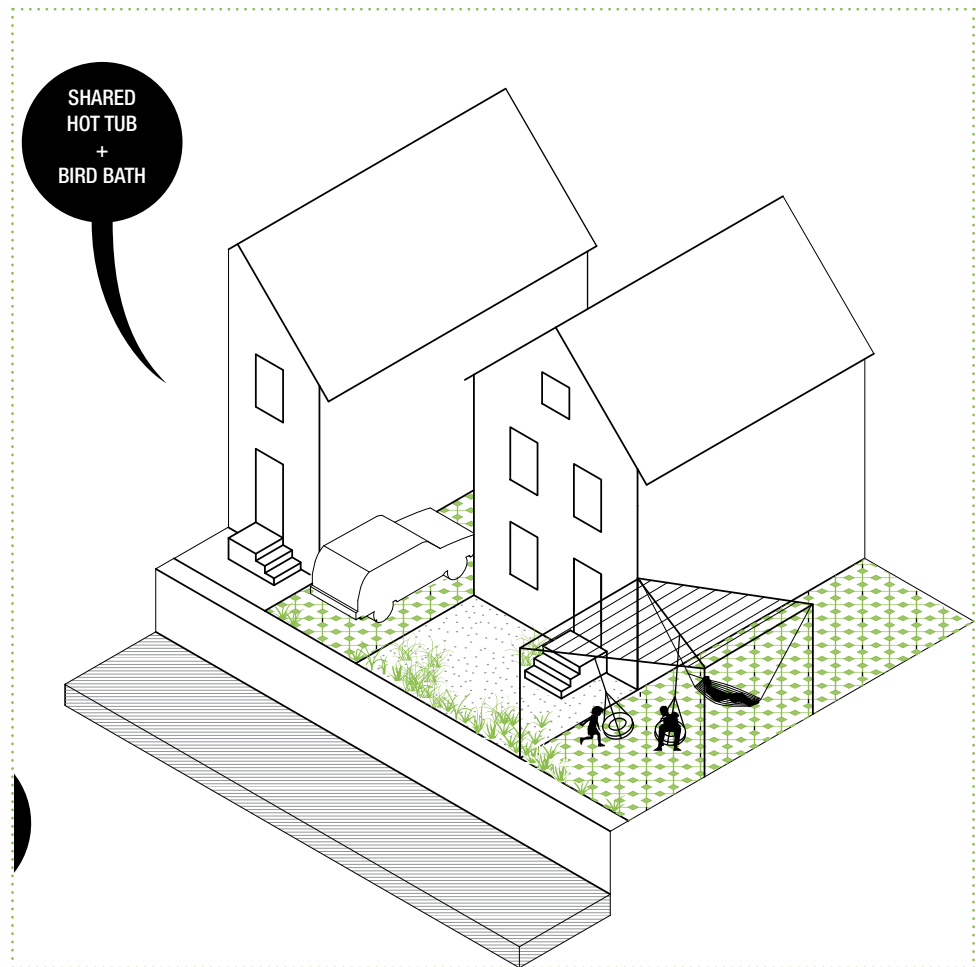


RESIDENTS: PLAYGROUND + PARKING LOT TIMESHARE

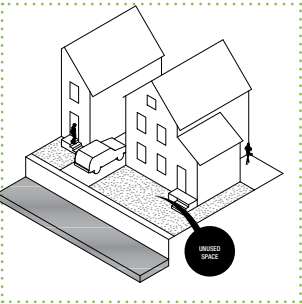


EXISTING CONDITION:
narrow with with a wall

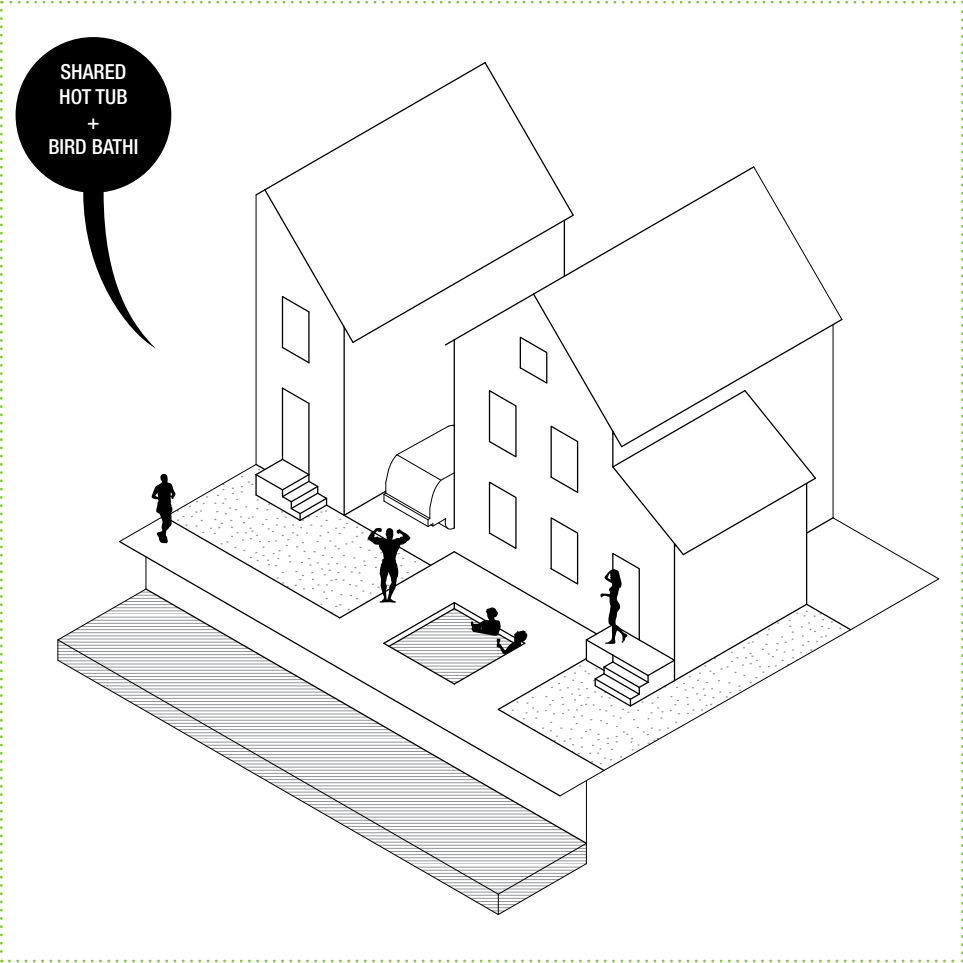
xxx:
xx



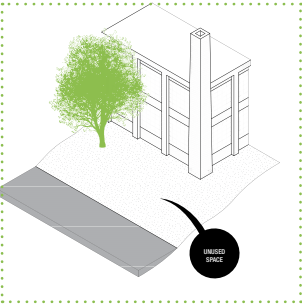
**RESIDENTS:
SHARED BACKYARD + HOT TUB**



EXISTING CONDITION:
narrow with with a wall



**RESIDENTS:
DECK**



EXISTING CONDITION:
wide site with a soft slope



**BIO-TECHNICAL EROSION
CONTROL**



OUTREACH

How to avoid the “Plan Sitting on a Shelf” problem? What are strategies for going to planning to implementation? What kind of innovative outreach and engagement strategies have you come across?

What is Middle Main?



Housing with compassion...
Development with a vision

What is Middle Main Revitalization?



The objective of Middle Main Revitalization is to advocate for, support, and undertake efforts to improve conditions for residents in the Middle Main neighborhood, in order to create a more attractive, safer, and more inclusive community.



*Housing with compassion...
Development with a vision*

Why Middle Main?



Reframing the dialogue: an asset-based approach

- *ACT: Foster an environment that provides opportunities to achieve economic, social, and physical well-being, especially for low-income residents.*
- *COLLABORATE: Promote the people and institutions that are our community resources.*
- *ADVOCATE: Encourage the creation and preservation of public spaces that enhance quality of life for residents.*



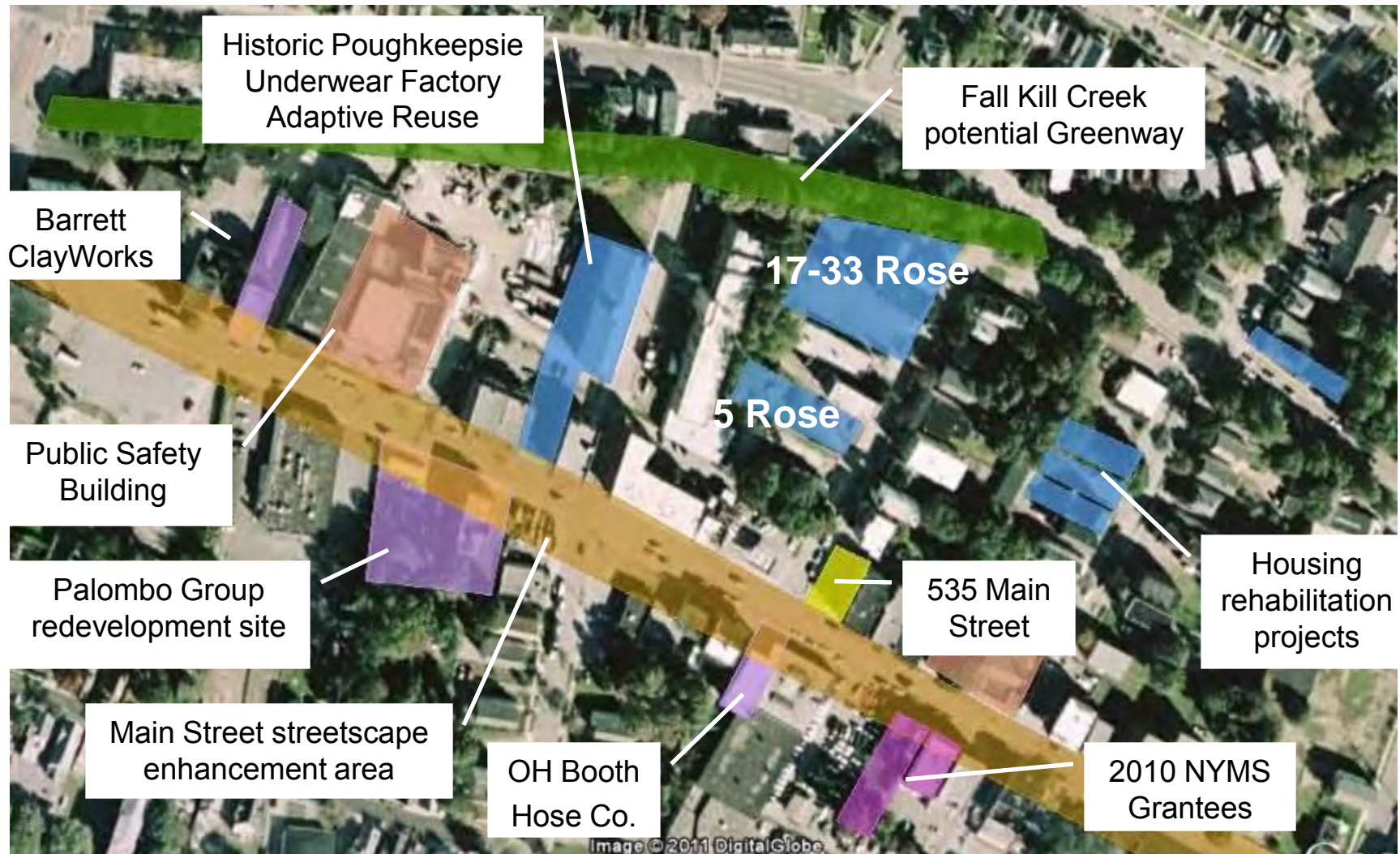
White-Cherry-Rose Redevelopment



White-Cherry-Rose Redevelopment



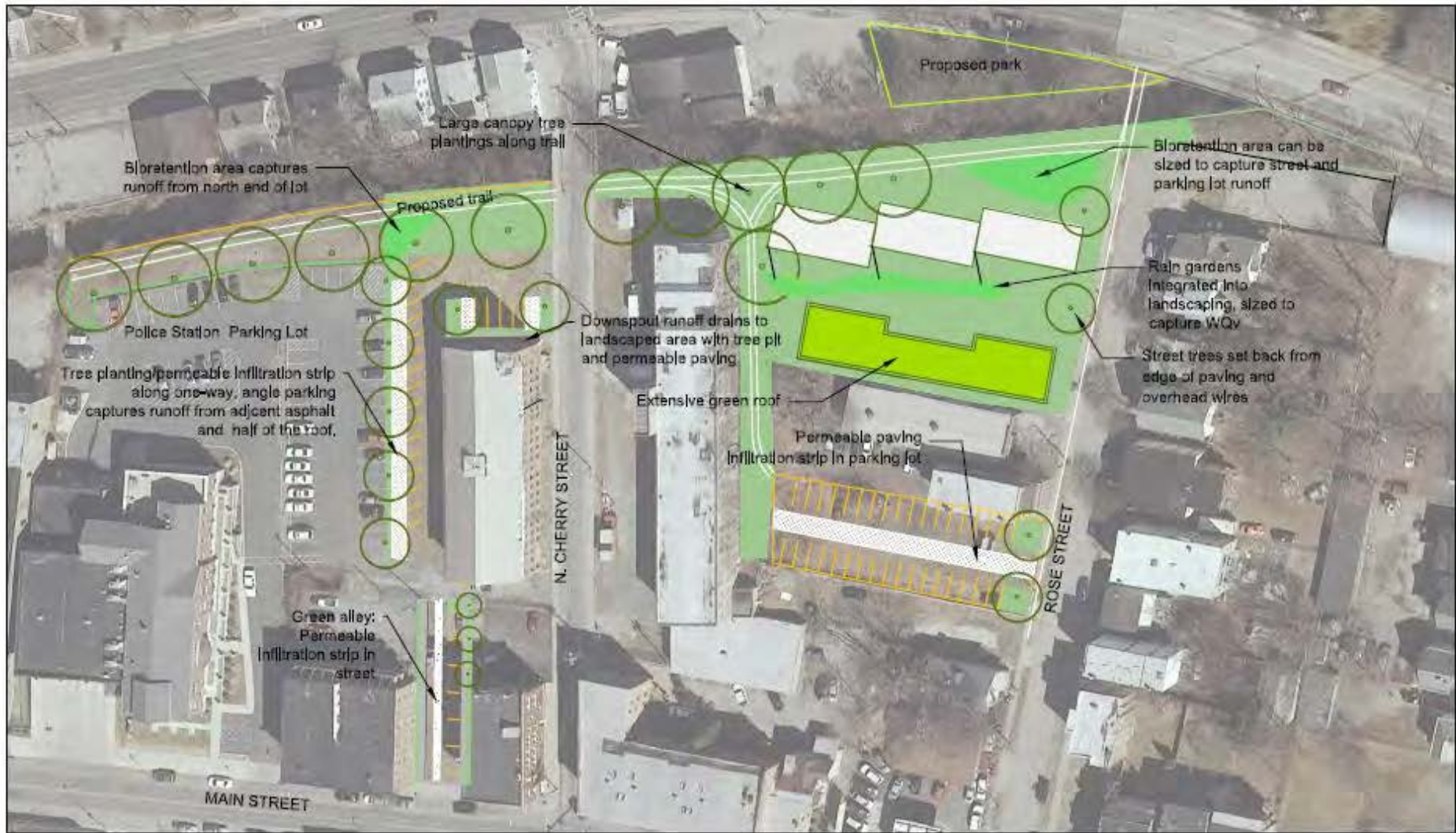
White-Cherry-Rose Redevelopment



White-Cherry-Rose Redevelopment



White-Cherry-Rose Redevelopment



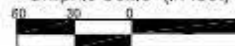
NORTH CHERRY/ROSE STREET REDEVELOPMENT PLAN

1- Permeable paving 2- Bioretention 3- Tree planting 4- Green roof

This project was funded by the Hudson Valley Region and Dutchess County. All rights reserved. This is a preliminary plan. For more information, please visit www.nyworks.gov or call 845.486.1234.



Graphic Scale (in feet)



Date: 1/23/2011
 Drawn by: mtd
 Base Image: NYSGIS2008
 File name: R010000000000