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.
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 evident 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 Fallkill: 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 proposed tracts laid out for development on the north side, especially around College Hill.”

Pelton’s Mill Pond at Mill and Stafford Streets, Map of the City of Poughkeepsie Dutchess County New York, Creator M. 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 borne lesser of paramount importance, the location of industries near the railroad would increase dramatically elsewhere.”

HOW CAN THE CREEK BE USED?

FORMER USE: INDUSTRIAL AND RECREATIONAL ACTIVITIES

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 evident 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.
CURRENT USE: A LIABILITY AND A RESOURCE. Today, the creek is often neglected and used as a dumping ground. It is a liability for landowners, 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 proved to boost real estate values and attract tenants to adjacent neighborhoods.

- Bike and walking paths for recreation and commuting
- Pocket parks + Playgrounds + After-school programs
- Playing fields + Amphitheater + Performances + Film Screenings
- Business District picnic areas and gathering spaces
- Backyard and Community Gardens
- Outdoor classroom + Citizen science programs
- Fishing, bird-watching, snowshoeing + Nature-trail activities
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.
REGIONAL PATHS. Walkers 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 can run along or across the creek. Bus stops integrated into park space, and walkways connecting residents to bus lines can welcome residents to use the bus option. 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.

NEEDED PATHWAYS. Poughkeepsie’s major pedestrian and wheelchair 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.
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.
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—spans 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 in this area, and is caused by the use of pesticides, herbicides, and other pollutants 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.

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, exceeded 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 nutrients and 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).

CAUSING 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.

EXISTING WATER QUALITY

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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.”

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.”
GREEN INFRASTRUCTURE: COMMON GREEN INFRASTRUCTURE PRACTICES CAN BE ADOPED THROUGHOUT THE FALL MILL CREEK WATERSHED, AND ARE LISTED BELOW:

**GREEN ROOFS:** Layers of soil and vegetation installed on surfaces 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 DRAIPING:** 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 PAVEMENTS:** Permeable pavement surfaces with a stone reservoir underneath designed to allow stormwater to infiltrate through the surface.

New York State Stormwater Management Design Manual

**STREET TREE NETWORK:** A system of interconnected 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.

New York State Stormwater Management Design Manual

**RIPARIAN BUFFER RESTORATION:** A healthy vegetated buffer that can filter and slow polluted runoff.

http://www.dec.ny.gov/lands/58930.html

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

http://www.dec.ny.gov/lands/58930.html

**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.

New York State Stormwater Management Design Manual

**BIO-TECHNICAL EROSION CONTROL:** The use of live, wetland, and herbaceous plants to stabilize or protect creek banks.

New York State Stormwater Management Design Manual

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

New York State Stormwater Management Design Manual

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

New York State Stormwater Management Design Manual
The extensive flooding of the creek during Hurricane Irene in 2011 has underscored the need to address flood storage capacity throughout the watershed. Several strategies should be explored simultaneously:

• Create large flood storage areas such as wetlands, floodplains, and floodplain storage basins in the upper reaches of the creek, wherever possible.
• Implement green infrastructure practices throughout the watershed to slow the travel speed of water to the creek.
• Improve creek edge conditions. Whenever possible, transform the channelized creek edge to wider channels with planted edges. In other sites, in which existing property is located close to the creek's edge, repair and reinforce the existing wall.
• Reinforce regulations restricting new construction along the creek's edge.

Poughkeepsie Journal, August 30, 2011
The Fall Kill was channelized through a series of stone walls in the New Deal Era. These 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.

**EXISTING STONE WALL**

**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**

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 strategies for dealing with the wall’s eventual failure as it ages.
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 corridors. "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 natal 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, muskrats, and raccoons). Linear riparian zones can provide corridors for wildlife migration.

• Upland Habitat to contribute woody debris, and to shade the streams to keep water temperatures down, which will support breeding populations of cool-water fish and invertebrates.

• Creek restoration to support fish, insect and macroinvertebrate populations (e.g. macroinvertebrates such as caddisflies, insects such as ants and ants, aquatic worms, and aquatic insects such as dragonflies, 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.

EXHIBIT OF POTENTIAL HABITAT

- Riparian Buffer Zones
- Upland Habitat
- Creek Restoration
- Pest and Weed Control
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.
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
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.

Marist College + Farmer’s Market
Walkway Loop Trail
Downtown Walkway Loop Trail
Train Station
Neighborhood
Mt. Carmel Neighborhood
Mansion Square Neighborhood
Middle Main Neighborhood
Mt. Carmel Residents
Businesses
Churches
HISTORY TRAIL
Mansion Street
Residents
Businesses
Churches
Grassland Feeding Nesting Hunting Breeding
Hudson River
Fall Kill Creek
Wetland Watershed
Poughkeepsie Drinking Water
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 to the public or under public ownership that can feasibly be developed as pocket parks.

Proposed Pocket Parks
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.

Proposed Fall Kill Corridor

HUDSON RIVER CORRIDOR
VERRAZANO BROOKSIDE CORRIDOR
MANSION SQUARE CORRIDOR
MIDDLE MAIN CORRIDOR
INNIS CORRIDOR

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

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

Can a Fall Kill walkway connect people to existing parks?
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 grass lawn (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.
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 reaches 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
PROPOSED:
SECTION THROUGH
WEST END

MOUNT CARMEL
NEIGHBORHOOD CENTER

BIRD HOUSING

TO MOUNT CARMEL

REST STOP

PICNIC AREA
EXPOSED + CONNECTED

PLANT NURSERY
NATIVE WETLAND SPECIES

CREEK
INTERACTIVE ACCESS

VERTICAL HERB PLANTINGS

NEIGHBORHOOD POCKET GARDENS

TO TRAIN STATION

BIRDS

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

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
PROPOSED:
PERSPECTIVE AT
TODDLER PLAYGROUND
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
PROPOSED:
PERSPECTIVE
FROM MILL STREET
PEDESTRIAN APPROACH
Develop public pocket parks in partnership with local organizations as activators of further creek development. Public and community centers near the Fall Kill Creek that could house larger scale interventions and act as gathering nodes for the neighborhoods around them.

At each site, urban activities (in pink) are connected and related to riparian landscapes (in green).
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**

**CHAPTER AND CODES OF THE CITY OF POUGHKEEPSIE**

NY. 16 (Adopted L.L. No. 3-2010, Ord. No. D 0-10-17)

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**SECTION 19-4.18 SETBACKS FOR USES**

**POLICY 13A: Protect the Fallkill Creek from encroachment and ensure a linear open space along the length of the creek for purposes of flood protection, aesthetics and recreation.**

(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 area above the banks of the creek as defined by the Director of Planning and Development (DPD), notwithstanding any other provision relating to setback zones in a particular district.

(2) Setbacks from creek.

(a) Any structure or use of land for other than one- or two-family dwellings shall be set back a distance equal 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 setback zones 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.

(c) Surface drainage. Surface drainage for parking, recreation or open space shall be located and designed so as to prevent the top of the banks of the creek as defined by the DPD from being lowered any more than three-quarters of a foot and not nearer than one- or two-family dwelling.

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**POLICY 13B: Protect the Fallkill Creek from encroachment and ensure a linear open space along the length of the creek for purposes of flood protection, aesthetics and recreation.**

(2) Surface drainage. Surface drainage for parking, recreation or open space shall be located to prevent the top of the banks of the creek as defined by the DPD from being lowered any more than three-quarters of a foot and not nearer than one- or two-family dwelling.

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**POLICY 17: Wherever possible, use site-structural measures to minimize damage to natural resources and property from flooding.**

-(min) Flood protection, aesthetics and recreation.

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**POLICY 19: Protect, maintain and increase the maximum stream bank setback area that shall be landscaped and stabilized in areas that ensure that erosion will not occur.**

- Landscaping and stabilization. All lands within the minimum stream bank setback area that shall be landscaped and stabilized shall be approved by the Planning Board for all cases other than one- or two-family dwellings.

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**LOCAL WATERFRONT REVITALIZATION PLAN (1996)**

**POLICY 1-1: Reuse, revitalization, and redeveloping deteriorated and underserved waterfront areas for commercial, cultural, recreation, tourism and other compatible uses.**

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

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**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, bridges, 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 Verrazzano Blvd) to allow for property trades with sites adjacent to the creek.
  - Make land along the creek available along the corridor 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.
  - Create a 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 responsibility 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.
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.
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.
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.
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.
Potential uses for signs:
- Recognition of creek
- Activate social space or event spaces
- Community bulletin board
- Urban nature trail
- Wayfinding
- Creek Monitoring
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

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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

LAWN CHAIR
LAWN CHAIR AS PUBLIC SEATING
LAWN CHAIR AS PUBLIC ART
MODIFIED TO CREEK CROSSINGS
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

GARDEN PATH + WALL RECONSTRUCTION
PARKS:
BASKING BEACH

EXISTING CONDITION:
wide site with wall

BIO-TECHNICAL EROSION
CONTROL

INFRASTRUCTURE:
THEATER + EVENT SPACE

EXISTING CONDITION:
Bridge crossing

MOVIE
SCREENING
+ ART EXHIBITION
INSTITUTIONS:
PARKING LOT + EVENT SPACE

EXISTING CONDITION:
narrow site with a wall

PERMEABLE PAVERS

EVENT SPACE + GRASS PAVERS

INSTITUTIONS:
TIDAL POOL + OUTDOOR CLASSROOM

EXISTING CONDITION:
narrow site with a soft slope

RIPARIAN BUFFER RESTORATION

ACCESS + LAND TILES
INDUSTRIAL BUSINESSES: WETLAND NATURE TRAIL

EXISTING CONDITION: wide site with a soft slope

RIPARIAN BUFFER RESTORATION

STORMWATER WETLAND + TRAIL

INDUSTRIAL BUSINESSES: INDUSTRIAL HISTORY TOUR

EXISTING CONDITION: wide site with a soft slope

BIOSWALE

PHYSIO- REMEDIATION + HISTORY TOURS

CALCIA MAGNESIUM CHLORIDE
COMMERICAL BUSINESSES:
BEER GARDEN

EXISTING CONDITION: bievel edge with a wall

VERTICAL GARDEN

COMMERICAL BUSINESSES:
GREENWAY + TO GO WINDOW

EXISTING CONDITION: wide site with a wall

RIPARIAN BUFFER RESTORATION

BEER GARDN + RAIN GARDEN

ADVERTISING
COMMERCIAL BUSINESSES:
PICNIC AREA

EXISTING CONDITION:
wide site with a wall

RIP RAP

PUBLIC PICNIC PLAZA

RESIDENTS:
PLAYGROUND + PARKING LOT TIMESHAKE

EXISTING CONDITION:
narrow with a wall

XXX:
xx

SHARED HOT TUB + BIRD BATH
RESIDENTS: SHARED BACKYARD + HOT TUB

EXISTING CONDITION: narrow 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?
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.
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

Fall Kill Creek

17, 31, 33 Rose St.

5 Rose St.
White-Cherry-Rose Redevelopment

- Historic Poughkeepsie Underwear Factory Adaptive Reuse
- Main Street streetscape enhancement area
- Fall Kill Creek potential Greenway
- Housing rehabilitation projects
White-Cherry-Rose Redevelopment

- Historic Poughkeepsie Underwear Factory Adaptive Reuse
- Fall Kill Creek potential Greenway
- Barrett ClayWorks
- Public Safety Building
- Palombo Group redevelopment site
- Main Street streetscape enhancement area
- OH Booth Hose Co.
- 17-33 Rose
- 5 Rose
- 535 Main Street
- Housing rehabilitation projects
- 2010 NYMS Grantees
White-Cherry-Rose Redevelopment
White-Cherry-Rose Redevelopment

- Large canopy tree plantings along trail
- Parking lot and street tree planting
- Downspout runoff drains to landscaped area with tree pit and permeable paving
- Green alley: Permeable Infiltration strip in street
- Proposed trail
- Proposed park
- Blotter area can be sized to capture street and parking lot runoff
- Rain gardens integrated into landscaping, sized to capture WQV
- Street trees set back from edge of paving and overhead wires

**NORTH CHERRY/ROSE STREET REDEVELOPMENT PLAN**

- Permeable paving
- Blotter
- Tree planting
- Green roof

**Graphic Scale (In Feet)**

*Drawn by:* [Name]
*Base Image:* [Source]
*File Name:* [File Name]