

PHED Committee #1  
July 11, 2016

## MEMORANDUM

July 7, 2016

TO: Planning, Housing, and Economic Development (PHED) Committee

FROM: Marlene Michaelson, <sup>MM</sup> Senior Legislative Analyst

SUBJECT: Funding and Phasing Plan for Willett Branch Greenway Park

During the Council's discussion of the Westbard Sector Plan, Councilmembers asked for additional information on the proposed Willett Branch Greenway Park and asked the Department of Parks to provide a funding and phasing plan for development of the park. Several issues related to the Park will need to be addressed in the near-term in the context of development plans that are expected to be submitted to the Planning Board in the coming year, while other issues related to the "Long-term Phase" are not likely be addressed for many years.

As indicated in more detail below and in the memorandum from the Department of Parks on © 1-12, the Department has already begun preliminary engineering work and is exploring opportunities for acquiring land to enable the development of the park. The Department of Parks will provide a briefing to the Committee on the status of their efforts.

### BACKGROUND

Detailed background information on Willett Branch and the vision and concept is provided in the memorandum from the Department of Parks on © 1-5. Willett Branch is a stream in the Little Falls watershed that drains directly into the Potomac River. In the Westbard Sector Plan area, the stream is approximately two miles upstream of the Potomac River and runs entirely in a concrete channel, exposed to daylight in most areas and through culverts and tunnels in other sections. It is in an extremely deteriorated condition and is used for illicit dumping and graffiti. High velocity, uncontrolled runoff from significant impervious cover on surrounding properties has a major impact on the stream, particularly when this stream joins Little Falls. More than two-thirds of Westbard's impervious surfaces are devoted to roads and parking lots for vehicles. Major trunk sewer lines are parallel to the stream.

## **VISION**

The Willett Branch Greenway Park is intended to “reveal and revive the forgotten Willett Branch stream to create an open space corridor, providing the Westbard community with access to the stream to native wetlands, meadows and forested areas, while also creating critical pedestrian linkages between River Road, Westbard Avenue, and the Capital Crescent Trail. This innovative greenway corridor will celebrate Willett Branch as a unique natural feature in the Sector Plan area, connect residents to new and existing park spaces and businesses, shed light on the forgotten African American history of this area, and improve stormwater runoff into the Little Falls Branch and Potomac River.

## **CONCEPT**

The Department of Parks believes that implementation of the Willett Branch Greenway as a continuous open space corridor is most likely to succeed under the control of one public entity and that the Department of Parks, as experts in stream valley restoration and management, trails, and recreation, should be the entity to provide consistent standards for design, naturalizations, maintenance, policing, and programming of the Greenway corridor.

The Greenway will serve two main purposes:

- to provide greatly needed pedestrian and bicycle linkages across the plan area and between the two existing linear parks in the Westbard Sector Plan area (Capital Crescent Trail and Little Falls Stream Valleys Units 1 and 2); and
- to improve the ecological functioning of Willett Branch and stormwater management, and thus Little Falls and the Potomac and Chesapeake Bay.

There are several overall performance objectives for the design of the Greenway corridor:

- The Greenway design should emphasize placemaking elements where possible.
- Placemaking elements should artistically tie local history in to recreation amenities. Examples of placemaking elements include locally found boulders (see Westbard Sector Plan Appendix); stone from the Fuller Stone Plant; wayfinding; and artistic elements as outlined in the Historic recommendations sections.
- Access points throughout the Greenway should be visible, inviting, safe, and convenient and allow for greater pedestrian circulation across the plan area.

Another large open space recommendation in the Westbard Sector Plan, a park type called a Countywide Urban Recreational Park, is located adjacent to the Capital Crescent Trail, south of River Road. This proposed park is part of the Willett Branch Greenway corridor and described as part of the Greenway.

The Department of Parks has divided the Willett Branch Greenway into eight sections, starting where the stream enters the plan area near Dorset Avenue and ending where it joins the Little Falls Branch, just north of Massachusetts Avenue (see map on © 10). The eight sections include:

- The Meadow**                      A hard-surface trail provides a safe, accessible, and convenient link between the Little Falls Trail and the Capital Crescent Trail.
  
- The Stream Walk**                A hard-surface trail provides a safe, accessible, and convenient link between the Capital Crescent Trail and River Road, while also providing easy trail access to businesses at Kenwood Station.
  
- The Confluence**                 A safe, accessible gateway area that acts as an inviting entrance to the section of the Willett Branch Greenway between Ridgefield Road and the Capital Crescent Trail.
  
- The Bridge**                      An environmentally-sensitive crossing such as a bottomless culvert that allows for a naturalized stream environment and wildlife passage underneath.
  
- The Wetland**                    An area in the Greenway that is a “crossroad” and includes wetland and meadow plantings.
  
- The Woods**                      A hard-surface trail across the bridge provides trail users safe, convenient access to the Capital Crescent Trail, to the HOC apartments, the Countywide Recreational Park, River Road (via the road behind the McDonald’s), and to the Westwood Shopping Center.
  
- The Countywide Urban Recreational Park**    A gateway between the Capital Crescent Trail and the Willett Branch Greenway with a variety of recreational opportunities.
  
- The Link**                        A hard-surface trail offers a safe and convenient access for cyclists and pedestrians between Little Falls and the Capital Crescent Trail, and the Countywide Recreational Park.

More detailed information about each section is presented on © 3-5.

## **PHASING**

During the preliminary planning and recommendation writing stages, the idea for the Greenway was divided into two phases based on several factors, including potential feasibility due to property ownership and likelihood for redevelopment. These two phases are referred to as The Initial Phase and The Long-term Phase.

## **Initial Phase**

The initial phase consists of the section of Willett Branch between the intersection of Ridgefield Road and River Road continuing downstream to where the stream flows under the Capital Crescent Trail (see map on © 11). This phase includes the following conceptual sections:

- The Confluence
- The Bridge
- The Wetland
- The Woods
- The Countywide Urban Recreational Park.

## **Long-term Phase**

The Greenway concept has two Long-term Phase areas (see map on © 11). The first consists of the section of Willett Branch from where it enters the Sector Plan area at Dorset Avenue downstream to where it flows under River Road. The second consists of the section where Willett Branch flows under the Capital Crescent Trail and runs downstream to where it is visible again at the Little Falls Place townhomes, just west of Little Falls Parkway. The Long-term Phase consists of the following conceptual sections:

- The Meadow
- The Stream Walk
- The Link.

The Department of Parks is focusing its current efforts on strategies and preliminary planning for the Initial Phase.

## **PROPERTY ACQUISITION STRATEGY**

Property Acquisition for the Initial Phase of the Willett Branch Greenway concept relies on the following strategies:

- **Dedication** through the regulatory review process. This strategy is premised on the idea that portions of private properties that contain the stream and sensitive environmental areas (stream buffer and riparian zone) are not developable and should be dedicated to the Parks Department for the development of the Greenway as a public amenity.
- **Fee-simple acquisition** via:
  - Legacy Open Space (LOS) funds. Both the Willett Branch Greenway and the Countywide Urban Recreational Park are designated as LOS Urban Open Spaces in the Sector Plan under Parks, Trails and Open Space.
  - Program Open Space (POS)
  - Advanced Land Acquisition Revolving Fund (ALARF).

The map on © 12 illustrates the property acquisition strategy. Although a large portion of the initial phase is shown as being acquired through dedication, it is possible that some acquisitions will be

necessary, especially since many of the properties were not zoned to encourage redevelopment. The Committee may wish to explore the intended timing of acquisition of the Initial Phase and whether the Department of Parks believes there are opportunities for dedication in advance of development.

## **ENGINEERING, DESIGN, AND CONSTRUCTION**

M-NCPPC Department of Parks, Montgomery County has begun conceptual engineering design for the Initial Phase of the Willett Branch stream naturalization project. This effort will utilize existing GIS information (topography, utilities, etc.) to complete hydraulic/hydrologic modeling and develop conceptual design for the stream, trail, and other greenway amenities. This effort assumes the land assemblage of the necessary properties and pieces of properties to create a continuous greenway through the Initial Phase area.

## **FUNDING AND COST ESTIMATES**

The Department of Parks had money within its existing budget for preliminary engineering work and has hired an outside consultant to complete hydraulic/hydrologic modeling and develop the conceptual design for the stream, trail, and other greenway amenities. Funding the design of the Willett Branch Greenway corridor and construction of trails and related infrastructure would be achieved through a combination of County funds, grants, and private sector contributions that would feed into the Department of Parks Capital Improvements Program (CIP). Preliminary cost estimates in the attached memorandum are \$4-6 million for Willett Branch Stream Naturalization (assuming most acquisitions will occur through dedication) and \$9-12 million for the Countywide Urban Recreational Park (including acquisition costs). The memorandum does not indicate whether there will be a priority for the Stream Naturalization or Urban Recreational Park, and this may be a necessary decision since it may not be possible to fund both at the same time.



## MEMORANDUM

**DATE:** July 11, 2016

**TO:** Marlene Michaelson, Legislative Analyst

**FROM:** John E. Hench, Ph.D., Chief, Park Planning and Stewardship Division (PPSD)

Brooke Farquhar, Supervisor, Park and Trail Planning Section

Susanne Paul, Senior Planner, Park and Trail Planning Section

**SUBJECT:** Willett Branch Greenway Recommendation Briefing to the PHED Committee on July 11, 2016

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## BACKGROUND

Willett Branch is a stream in the Little Falls watershed, which drains directly into the Potomac River. Willett Branch's own watershed drains 1,248 acres, which includes portions of downtown Bethesda, the Kenwood County Club, and suburban residential neighborhoods. In the Westbard Sector Plan area, the stream is approximately two miles upstream of the Potomac River and runs entirely in a concrete channel, exposed to daylight in most areas and through culverts and tunnels other sections.

Few, if any, commercial development centers in Montgomery County have a river or stream running directly through the middle. In the 1950s Willett Branch was engineered into a concrete-lined trapezoidal channel to function as a storm drain. Today it remains as such, however in an extremely deteriorated condition and is used for illicit dumping and graffiti. High velocity, uncontrolled runoff from significant impervious cover on surrounding properties is a major impact to the stream, particularly when this stream joins Little Falls. More than two-thirds of Westbard's impervious surfaces are devoted to roads and parking lots for vehicles. Major trunk sewer lines are parallel to the stream.

In 1930 and then again in 1950 the Washington Suburban Sanitary Commission (WSSC) installed sewer lines in the area of Willett Branch. In 1956 WSSC engineered Willett Branch into the concrete-lined trapezoidal channel that exists today. The majority of the land uses and developments adjacent to the stream have not changed since they were developed in the late 1950s and 1960s. Many of these properties have significant retaining walls and are built on layers of fill and culverts. This infrastructure is failing, along with the trapezoidal channel itself. This Greenway recommendation developed as first an environmental and then Parks Department recommendation in the 2016 Westbard Sector Plan update.

## VISION

The Willett Branch Greenway will reveal and revive the forgotten Willett Branch stream to create an open space corridor, providing the Westbard community with access to the stream, access to native wetlands, meadows and forested areas, while also creating critical pedestrian linkages between River Road, Westbard Avenue and the Capital Crescent Trail. Because of its connection on both ends to this extremely popular rail-trail, the Willett Branch Greenway is envisioned as a regional gem in the Montgomery County park and trail system. This innovative greenway corridor will celebrate Willett Branch as a unique natural feature in the Sector Plan area, connect residents to new and existing park spaces and business, shed light on the forgotten African American history of this area, and improve stormwater runoff into the Little Falls Branch and Potomac River.

## CONCEPT

Implementation of the Willett Branch Greenway as a continuous open space corridor is most likely to succeed under the control of one public entity. As experts in stream valley restoration and management, trails, and recreation, the M-NCPPC Department of Parks, Montgomery County can provide consistent standards for design, naturalizations, maintenance, policing, and programming of the Greenway corridor.

Willett Branch Greenway is conceptually divided into eight sections, starting where the stream enters the plan area near Dorset Avenue and ending where it joins the Little Falls Branch, just north of Massachusetts Avenue. Map 1: Willett Branch Concept Framework illustrates the Greenway concept.

The concept aims to meet two goals:

- to create an accessible, walkable trail,
- and an ecologically improved and naturalized stream corridor.

The Greenway will serve two main purposes:

- To provide greatly needed pedestrian and bicycle linkages across the plan area and between the two existing linear parks in the Westbard Sector Plan area (Capital Crescent Trail and Little Falls Stream Valleys Units 1 and 2), and
- To improve the ecological functioning of Willett Branch and stormwater management, and thus Little Falls and the Potomac, Chesapeake Bay.

There are several overall performance objectives for the design of the Greenway corridor:

- The Greenway design should emphasize placemaking elements where possible.
- Placemaking elements should artistically tie local history in to recreation amenities. Examples of placemaking elements include locally found boulders (see Westbard Sector Plan Appendix); stone from the Fuller Stone Plant; wayfinding and artistic elements as outlined in the Historic recommendations sections.
- Access points throughout the Greenway that are visible, inviting, safe, and convenient and allow for greater pedestrian circulation across the plan area.

Another large open space recommendation in the Westbard Sector Plan, a park type called Countywide Urban Recreational Park (as defined by the Parks, Recreation and Open Space Plan, page 15, approved by

the Board in 2012) is located adjacent to the Capital Crescent Trail, south of River Road. This proposed park is part of the Willett Branch Greenway corridor and described as part of the Greenway.

The Willett Branch Greenway Concept is divided into the following sections:

**Table 1: Concept Framework and Performance Objectives**

Section	Performance Objective
<b>The Meadow</b>	<ul style="list-style-type: none"> <li>• A hard-surface trail provides a safe, accessible, and convenient link between the Little Falls Trail and the Capital Crescent Trail.</li> <li>• A day lit, naturalized stream creates habitat for aquatic life and enables groundwater infiltration. Riparian plantings provide shade, create habitat and absorb stormwater runoff.</li> <li>• Trail users encounter interactive placemaking elements such as Indiana Limestone blocks for sitting and play that reflect the history of this part of the Greenway (the former site of the Fuller Stone Plant, which fabricated this type of stone).</li> </ul>
<b>The Stream Walk</b>	<ul style="list-style-type: none"> <li>• A hard-surface trail provides a safe, accessible, and convenient link between the Capital Crescent Trail and River Road, while also providing easy trail access to businesses at Kenwood Station. A community open space at River Road provides shade and seating for trail users and Kenwood Station customers.</li> <li>• A naturalized stream creates habitat for aquatic life and enables groundwater infiltration. Riparian plantings provide shade, create habitat and absorb stormwater runoff.</li> </ul>
<b>The Confluence</b>	<ul style="list-style-type: none"> <li>• A safe, accessible gateway area that acts as an inviting entrance to the section of the Willett Branch greenway between Ridgefield Road and the Capital Crescent Trail. This includes shaded areas, seating, and signage.</li> <li>• A safe pedestrian and cyclist crossing of River Road at grade.</li> <li>• Greenway design is seamlessly integrated into the Westwood II development, providing trail users and Westwood II customers with direct, easy, and inviting access between the two spaces, allowing both the Greenway and the Westwood II site to benefit from being adjacent to one another.</li> <li>• A hard-surface trail extends downstream from the intersection of Ridgefield and River Roads, offering a safe and convenient access for cyclist and pedestrians. This trail provides easy access to the Capital Crescent Trail, the Countywide Recreational Park, the HOC apartments, and to the Westwood Shopping Center.</li> <li>• A naturalized stream creates habitat for aquatic life and enables groundwater infiltration. Riparian plantings provide shade, create habitat and absorb stormwater runoff.</li> </ul>
<b>The Bridge</b>	<ul style="list-style-type: none"> <li>• An environmentally-sensitive crossing such as a bottomless culvert that allows for a naturalized stream environment and wildlife passage underneath.</li> <li>• A hard-surface trail across the bridge provides trail users safe, convenient</li> </ul>



Section	Performance Objective
	<p>access between the trail and businesses on either side.</p> <ul style="list-style-type: none"> <li>• A naturalized stream creates habitat for aquatic life and enables groundwater infiltration. Riparian plantings provide shade, create habitat and absorb stormwater runoff.</li> </ul>
<b>The Wetland</b>	<ul style="list-style-type: none"> <li>• An area in the Greenway that is a “crossroad”.</li> <li>• A wider area in the Greenway that allows for flooding, with wetland and meadow plantings.</li> <li>• A hard-surface trail across the bridge provides trail users safe, convenient access to the Capital Crescent Trail, to the HOC apartments, the Countywide Recreational Park, River Road (via the road behind the McDonald’s), and to the Westwood Shopping Center.</li> <li>• An architecturally pleasing pedestrian / cyclist bridge where the trail crosses the stream.</li> <li>• A naturalized stream creates habitat for aquatic life and enables groundwater infiltration. Riparian plantings provide shade, create habitat and absorb stormwater runoff.</li> <li>• Interpretive signage acknowledging the archeological resources and history of these properties.</li> <li>• Seating where appropriate.</li> </ul>
<b>The Woods</b>	<ul style="list-style-type: none"> <li>• A hard-surface trail across the bridge provides trail users safe, convenient access to the Capital Crescent Trail, to the HOC apartments, the Countywide Recreational Park, River Road (via the road behind the McDonald’s), and to the Westwood Shopping Center.</li> <li>• Trail should be located on the slope where feasible so that it allows trail users to enjoy a park setting, as opposed to at the top of the slope along the parking lot edge</li> <li>• Access between the trail and adjacent development may require stairway or switchback.</li> <li>• A naturalized stream creates habitat for aquatic life and enables groundwater infiltration. Riparian plantings provide shade, create habitat and absorb stormwater runoff.</li> </ul>
<b>The Countywide Urban Recreational Park</b>	<ul style="list-style-type: none"> <li>• A gateway between the Capital Crescent Trail and the Willett Branch Greenway.</li> <li>• A safe, visible, inviting and seamless transition from the Capital Crescent Trail and the Recreation Park.</li> <li>• A variety of active recreation opportunities, such as but not limited to: skate/pump track facility, dog park facility, adult fitness equipment</li> <li>• Seating, shade, signage</li> <li>• A hard-surface trail that transitions directly into the Willett Branch Greenway trail</li> <li>• Internal pathways linking various park facilities</li> <li>• A naturalized stream creates habitat for aquatic life and enables groundwater infiltration. Riparian plantings provide shade, create habitat and absorb stormwater runoff.</li> </ul>

Section	Performance Objective
<b>The Link</b>	<ul style="list-style-type: none"> <li>• A hard-surface trail offers a safe and convenient access for cyclists and pedestrians. This trail provides easy access between Little Falls and the Capital Crescent Trail, and the Countywide Recreational Park.</li> <li>• A naturalized stream creates habitat for aquatic life and enables groundwater infiltration. Riparian plantings provide shade, create habitat and absorb stormwater runoff.</li> </ul>

**Preliminary Program of Requirements (POR)**

The following chart outlines the Preliminary Program of Requirements for the Willett Branch Greenway and the Countywide Urban Recreational Park.

<b>Willett Branch Greenway</b>	<b>Countywide Urban Recreational Park</b>
Hard-surface trail Naturalized stream corridor Wetland / meadow area Interpretive signage Pedestrian bridges Seating Landscaping with mature plants	Dog Park Skate Park / Pump Track Outdoor Fitness Equipment Trail / Pathways Landscaping Seating WiFi access

**IMPLEMENTATION**

*Phasing*

During the preliminary planning and recommendation writing stages the idea for the Greenway was divided into two phases, based on several factors including potential feasibility due to property ownership and likelihood for redevelopment. These two phases are referred to as:

- The Initial Phase
- The Long-term Phase

Map 2 illustrates the phasing strategy.

*Initial Phase*

The initial phase consists of the section of Willett Branch between the intersection of Ridgefield Road and River Road continuing downstream to where the stream flows under the Capital Crescent Trail (see Map). This phase includes the following conceptual sections:

- The Confluence
- The Bridge
- The Wetland
- The Woods
- The Countywide Urban Recreational Park

### *Long-term Phase*

The Greenway concept has two Long-term Phase areas (see Map). The first consists of the section of Willett Branch from where it enters the Sector Plan area at Dorset Avenue downstream to where it flows under River Road. The second consists of the section where Willett Branch flows under the Capital Crescent Trail and runs downstream to where it is visible again at the Little Falls Place townhomes, just west of Little Falls Parkway. The Long-term Phase consists of the following conceptual sections:

- The Meadow
- The Stream Walk
- The Link

The remainder of this document will discuss strategies and preliminary planning for the Initial Phase.

## **PROPERTY ACQUISITION STRATEGY**

Property Acquisition for the Initial Phase of the Willett Branch Greenway concept relies on the following strategies:

- Dedication through the regulatory review process. This strategy is premised on the idea that portions of private properties that contain the stream and sensitive environmental areas (stream buffer and riparian zone) are not developable and should be dedicated to the Parks Department for the development of the Greenway as a public amenity. See the Montgomery County Environmental Guidelines and Section 66B of the Maryland Annotated Code regarding protection of stream buffers for a perennial Use I-P stream.
- Fee-simple acquisition via:
  - Legacy Open Space (LOS) funds. Both the Willett Branch Greenway and the Countywide Urban Recreational Park are designated as LOS Urban Open Spaces in the Sector Plan under Parks, Trails and Open Space (see Section 2.4.2 E).
  - Program Open Space (POS)
  - Advanced Land Acquisition Revolving Fund (ALARF)

Map 3 illustrates the property acquisition strategy.

## **ENGINEERING, DESIGN, AND CONSTRUCTION**

M-NCPPC Department Parks, Montgomery County has begun conceptual engineering design for the Initial Phase of the Willett Branch stream naturalization project. This effort will utilize existing GIS information (topography, utilities, etc.) to complete hydraulic/hydrologic modeling and develop conceptual design for the stream, trail, and other greenway amenities. This effort assumes the land assemblage of the necessary properties and pieces of properties to create a continuous greenway through the Initial Phase area.

## **FUNDING AND COST ESTIMATES**

Funding for this project is anticipated to come from several sources.

### *Acquisition*

For fee-simple property acquisition the primary sources are

- Program Open Space
- Legacy Open Space (LOS) funds. The following recommendation is made in the Sector Plan, Section 2.4.2 E: *“Designate the Willett Branch as an important Urban Open Space and Greenway Connection within the Legacy Open Space Functional Master Plan (2001). The restoration of this stream valley meets the following Legacy Open Space criteria:*
  - *Creates an important restored natural area to serve the green space needs of the growing Westward community*
  - *Provides interconnectivity of the urban green infrastructure”*
- Program Open Space (POS)
- Advance Land Acquisition Revolving Fund (ALARF)

### *Preliminary Engineering*

Park and Planning has secured funding for preliminary engineering work and hired an outside consultant to complete hydraulic/hydrologic modeling and develop conceptual design for the stream, trail, and other greenway amenities.

### *Construction and Design*

As segments are acquired, funding the design of the Willett Branch Greenway corridor and construction of trails and related infrastructure would be achieved through a combination of County funds, grants, and private sector contributions that would feed into the Department of Parks Capital Improvements Program (CIP).

The following tables show preliminary cost estimates for the stream naturalization and Recreational Park based on comparable park projects and facilities. They are initial, preliminary estimates.

**Table 2: Approximate Cost Estimates for Willett Branch Stream Naturalization and Countywide Urban Recreational Park.**

<b>Willett Branch Stream Naturalization</b>	<b>Range</b>	<b>Assumptions</b>
<i>Property Acquisition</i>	Dedication	Property dedicated through the regulatory review process.
<i>Stream Naturalization and Associated Park Improvements</i>	\$4 – \$6 million	Engineering, demolition, removals, construction. Based on other stream naturalization projects, subject to change.
<b>Range estimate (total)*</b>	<b>\$4 – \$6 million</b>	*combination of public and private funds

<b>Countywide Recreational Park</b>	<b>Range</b>	<b>Assumptions</b>
<i>Property Acquisition</i>	Fee simple \$2.5 – \$3.5 million / acre	Approximately 2 acres. Based on assessed values today, subject to change
<i>Park Development</i>	\$4.5 – \$5 million	Includes design, engineering, and construction; subject to change
<b>Range estimate (total)</b>	<b>\$9 – \$12 million</b>	
<b>Operating Budget Impact (combined)</b>	\$180,000	Annual, approximate

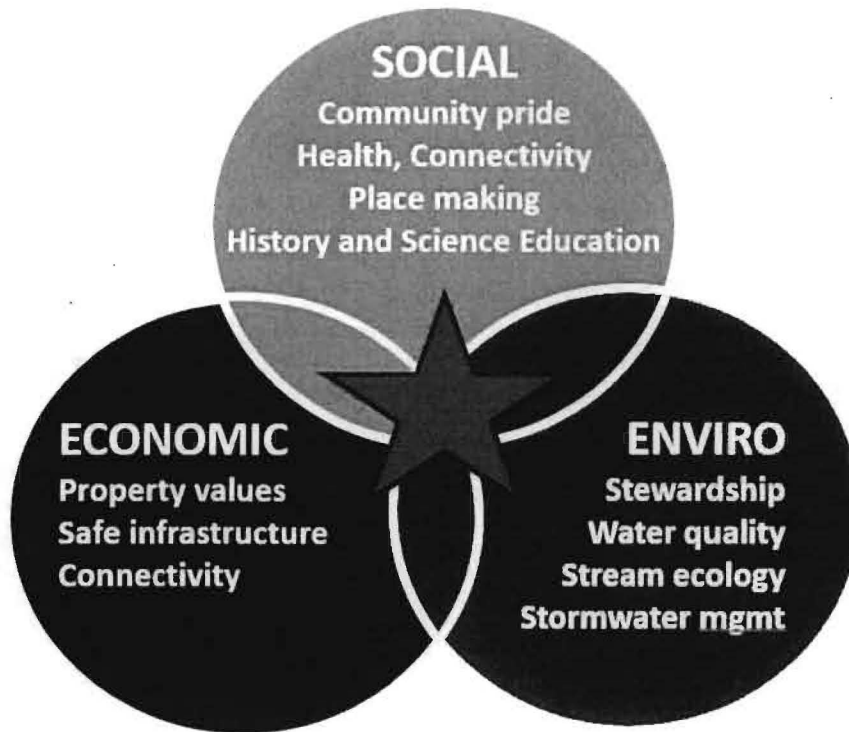
## CONCLUSION

The benefits of naturalizing Willett Branch in the Westbard Sector Plan area are numerous and interrelated. Transforming this stream corridor can create shared pride for a space that has been called “shameful” by the community. With a new trail, a bridge, and access points in multiple areas, this greenway corridor will create a new place, improve pedestrian and bicycle connectivity, and increase opportunities for social interaction. The greenway will shed light on the forgotten African American history of this area and create educational opportunities for students and visitors. A naturalized stream also provides a learning environment for ecology and environmental science education.

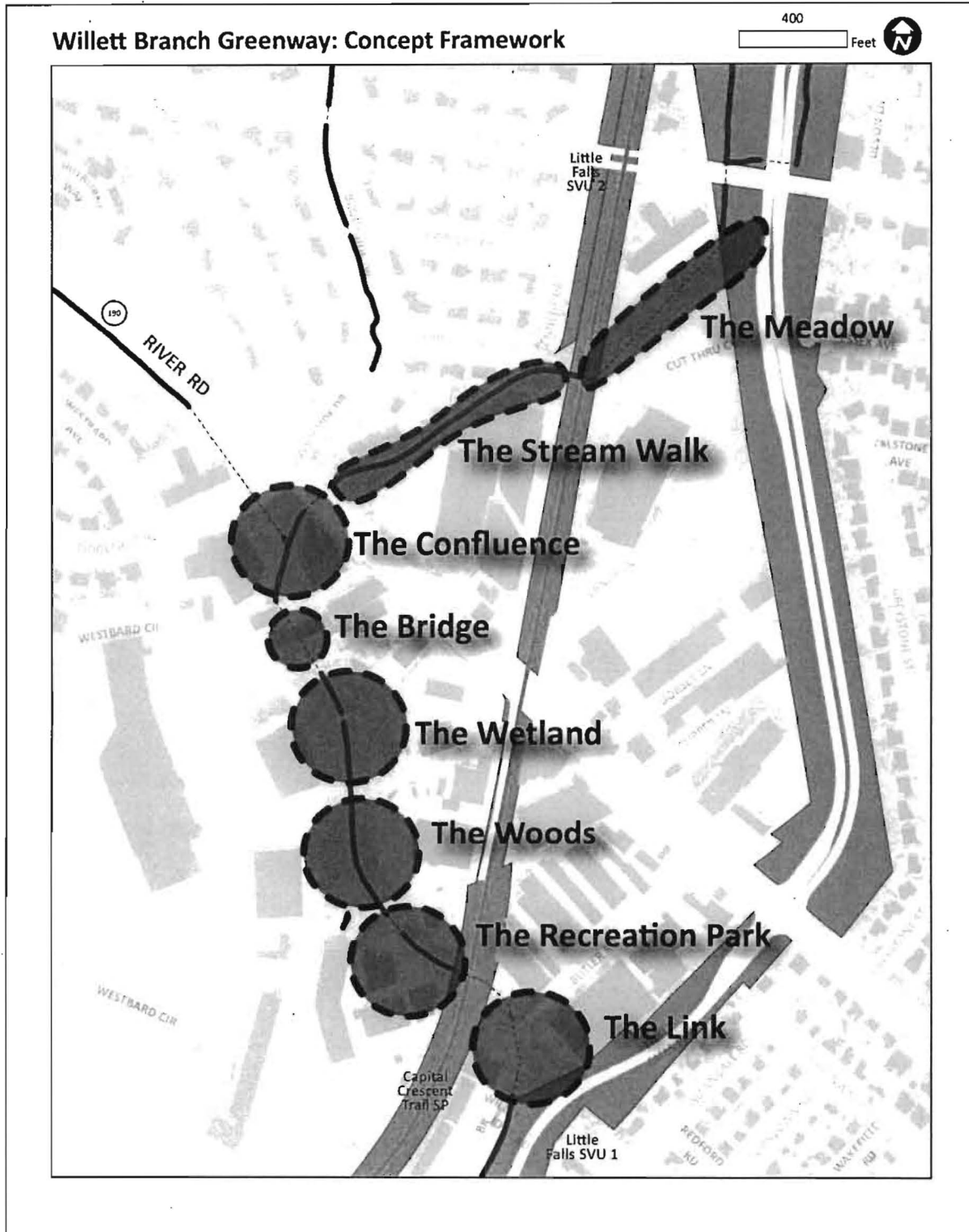
The economic benefits are obvious: businesses and residences located next to a celebrated park consistently have higher property values than those located next to a trash-filled, graffiti covered derelict dumping ground. Safer infrastructure provides long-term financial and physical stability for property owners and increased connectivity means customers can more easily reach businesses.

As explained above, the environmental benefits of naturalizing this greenway corridor are tremendous. There is very little living in Willett Branch today. Removing the concrete-lined channel will allow water to infiltrate into the soil and stream bottom, thus reconnecting stormwater to groundwater. Naturalization of the channel and edges will create instream habitat for aquatic life, allow for increased nutrient uptake, and improve water quality through biological nutrient cycling. A naturalized riparian zone and stream buffer will provide shade, while step pools and cross vanes will create riffles and increase dissolved oxygen in the stream, which is critical for aquatic life. By creating opportunities for stormwater infiltration both in the stream and at the edges, naturalization of this corridor will reduce the intensity of the erosive flows currently hitting Little Falls where the two streams meet.

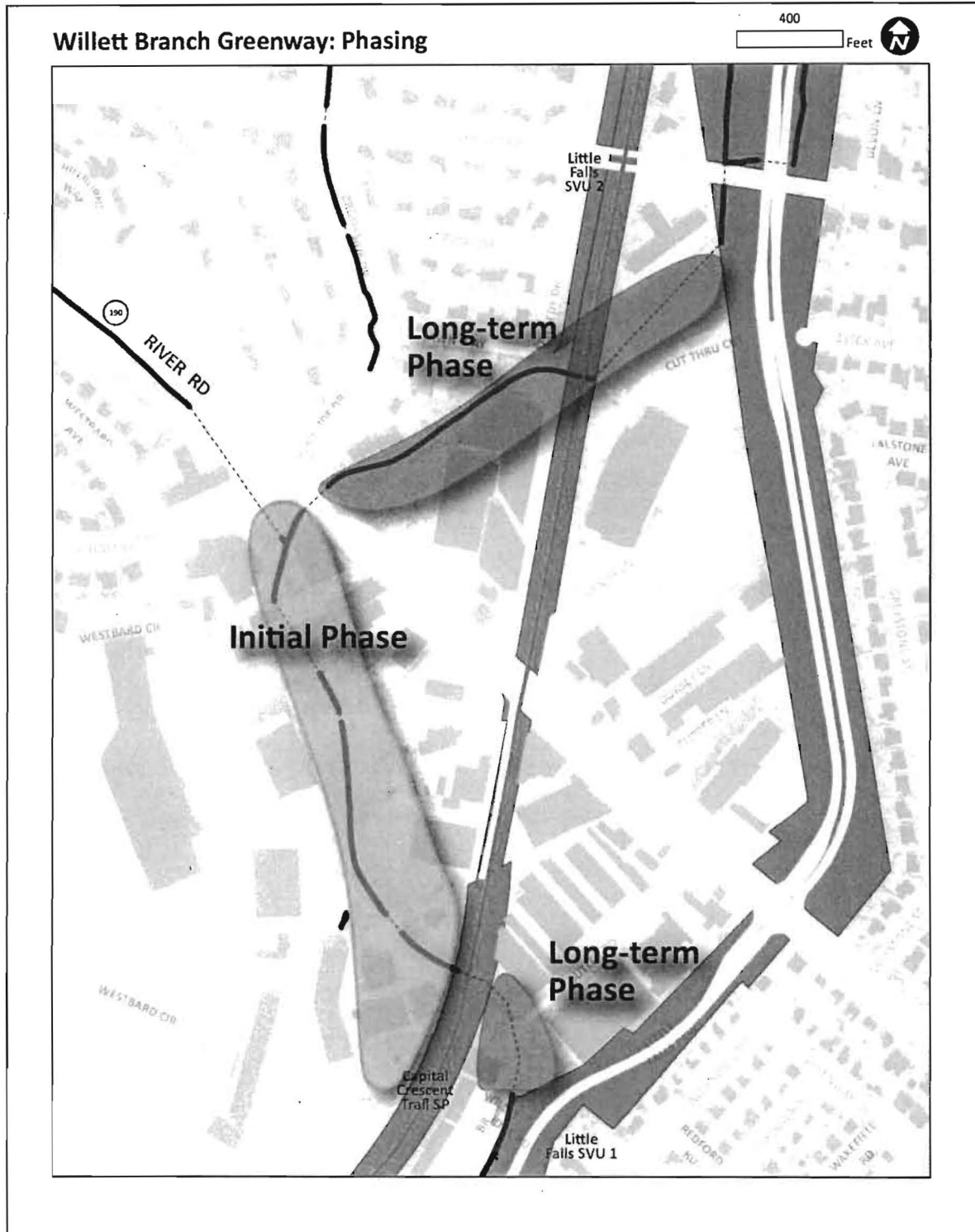
*Figure 1: A few of the many benefits of Willett Branch Stream Naturalization*



Map 1: Willett Branch Greenway Concept Framework



Map 2: Willett Branch Greenway Phasing





Map 3: Willett Branch Greenway Property Acquisition Strategy

