

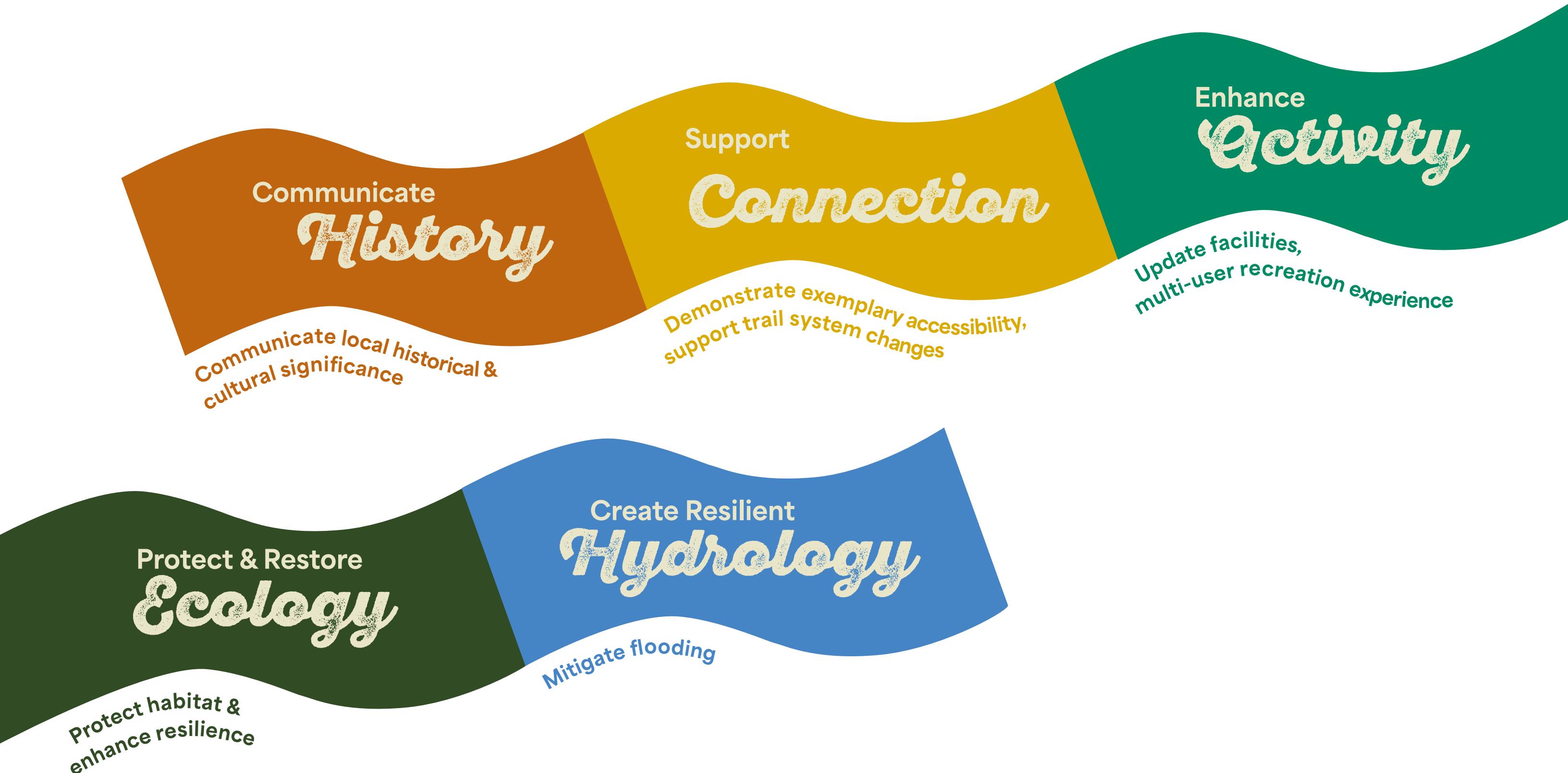


## Master Plan Concepts

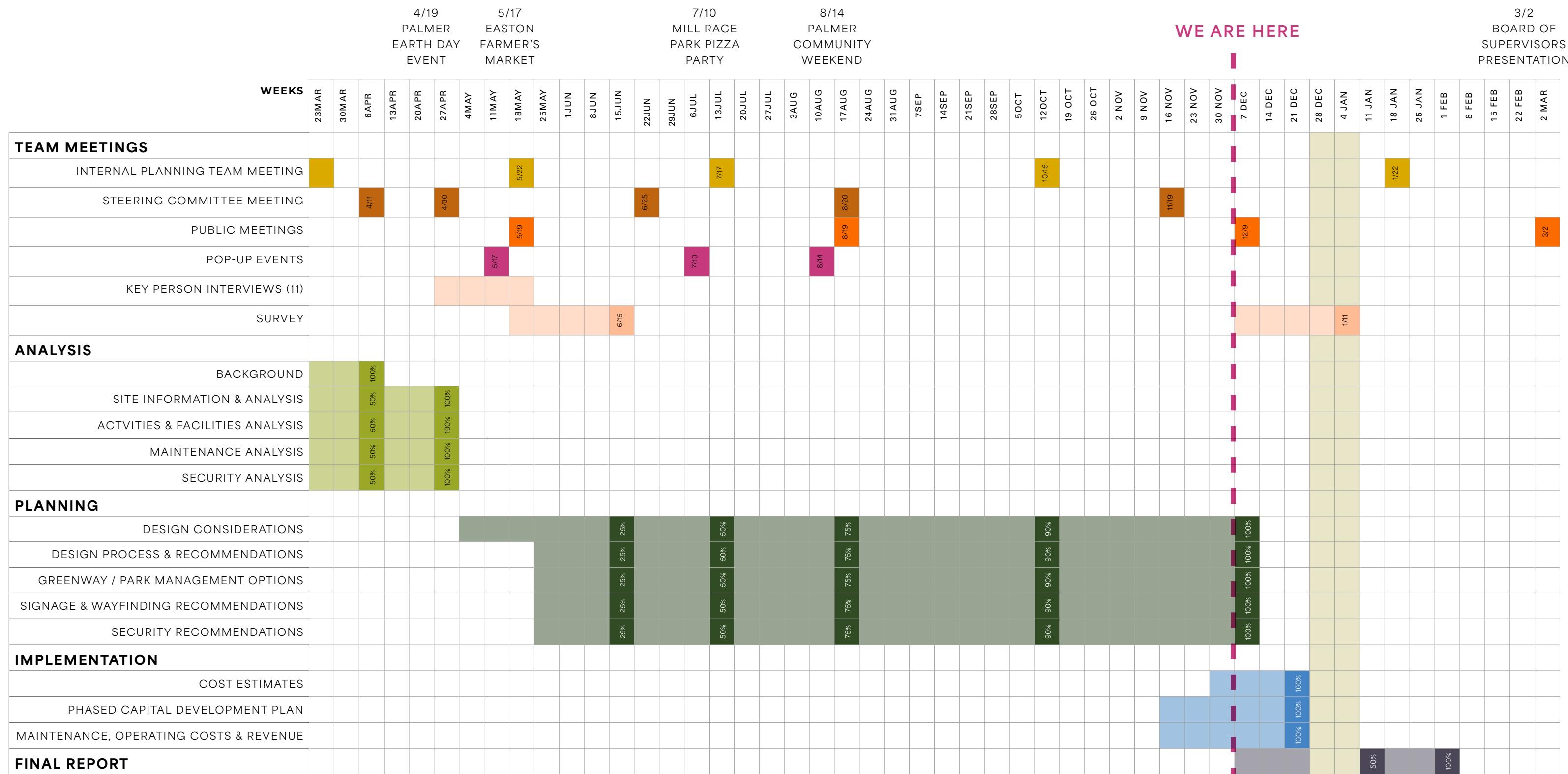
100% Planning  
December 9, 2025



# Project Goals



# Planning Schedule



# Regional Context

## Trail networks

### REGIONAL TRAIL NETWORKS:

- 1 9/11 National Memorial Trail (1,500 miles)
- 2 D&L Trail (140 miles)
- 3 Delaware River Water Trail (200 miles)
- 4 Forks Township Recreation Trail (2 miles)
- 5 Karl Stirner Arts Trail (2.2 miles)
- 6 Lehigh River Water Trail (75 miles)
- 7 Palmer Township Trail Network (1.4 miles)
- 8 Plainfield Township Recreation Trail (6.7 miles)
- 9 South Bethlehem Greenway (2.4 miles)
- 10 Stockertown Rail Trail (1 mile)
- 11 Tatamy Trail (0.25 miles)
- 12 Two Rivers Trailway (20 miles)
- The LINK Trail Network (125 miles)

### EXISTING TRAILS INCLUDED IN THIS STUDY:

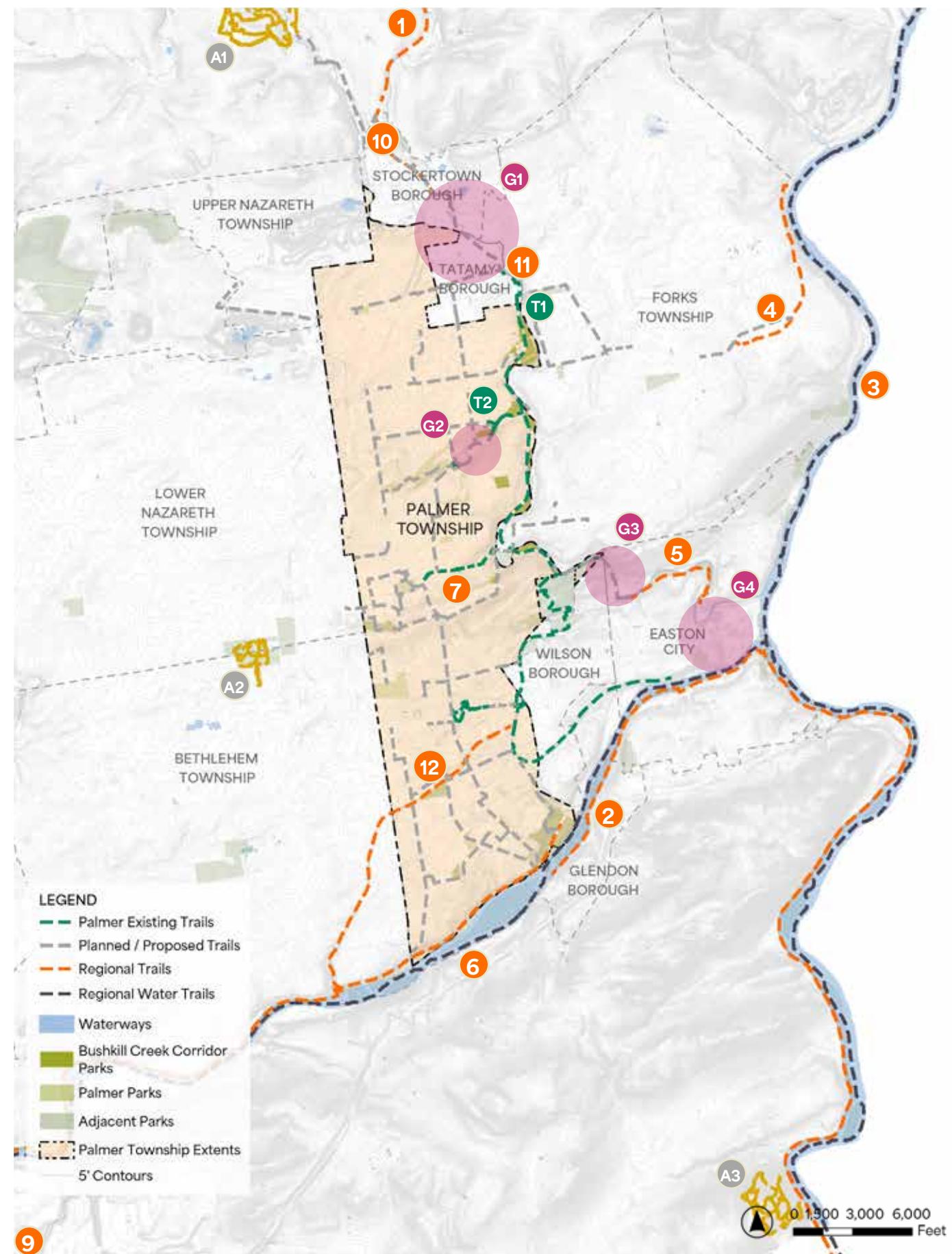
- T1 Palmer Bikeway (3.0 miles)
- T2 Schoeneck Creek Trail A.K.A. Penn's Grant Path (0.7 miles)

### ADJACENT PARK TRAILS:

- A1 Jacobsburg Environmental Education Center Trails (19.7 miles)
- A2 Louise W. Moore County Park Trails (2.7 miles)
- A3 Marlton Wildlife Sanctuary Trails (4.2 miles)

### REGIONAL TRAIL NETWORK GAPS:

- G1 Between Tatamy Trail & Stockertown Rail Trail
- G2 Between Schoeneck Creek Trail & Trail at Fox Run Open Space
- G3 Between Palmer Bikeway & KSAT at 13th Street
- G4 Between KSAT & D&L Trail through the City of Easton



# Bushkill Creek Greenway

What parcels are included?

1 Mill Race Park & Morningside Tot Lot

2 Penn's Grant Open Space

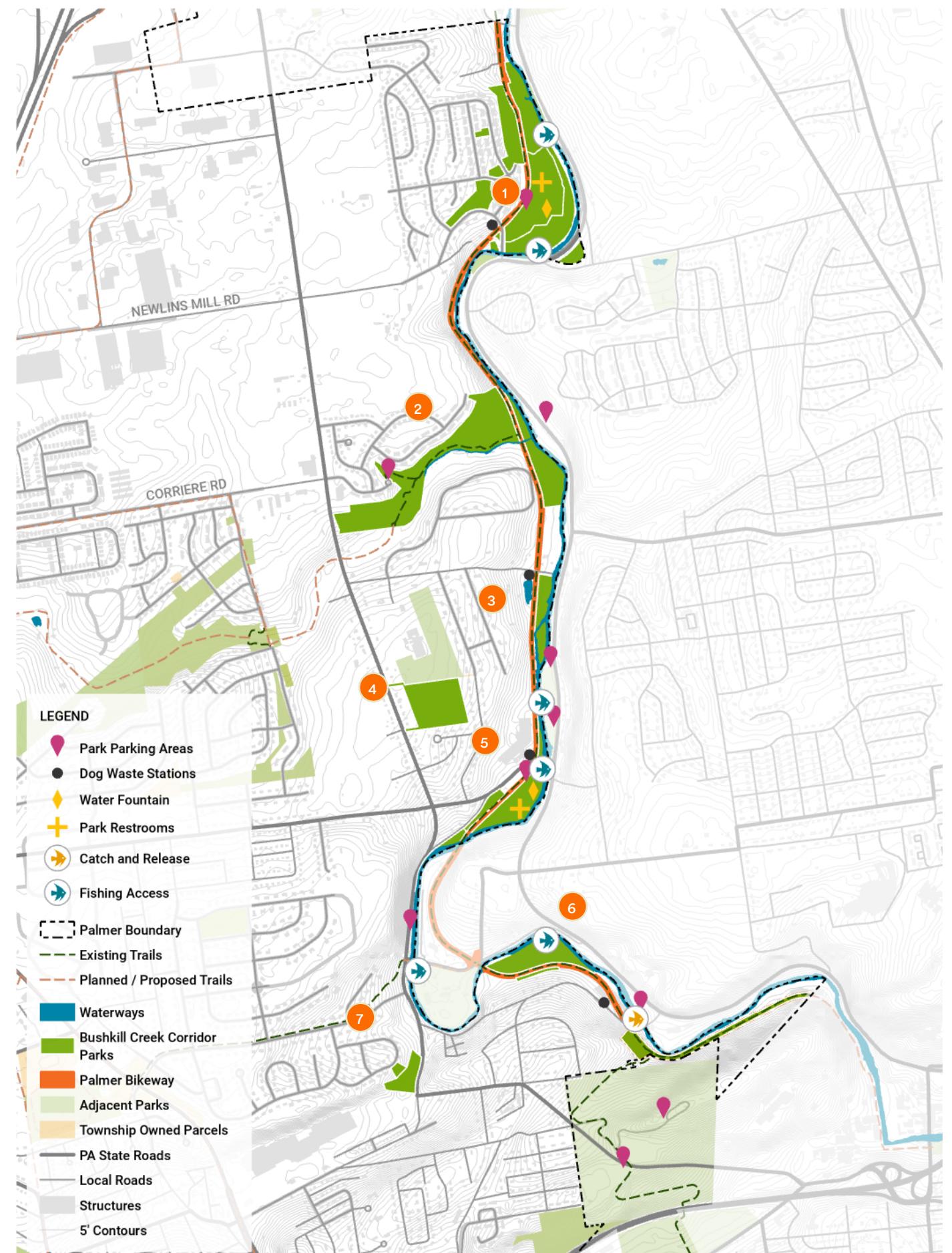
3 Two Fool's Island (Potential Future Acquisition)

4 Keystone Park

5 Penn Pump Park & Potential Future Open Space at Northwood Ave

6 Binney & Smith Preserve (Binney & Smith Open Space)

7 Hillcrest Open Space & Tot Lot



# Community Engagement

Public Participation  
Engaged with 700-800 people



5/16/25 Steering Committee Site Walk



5/17/25 Easton Farmer's Market Pop-Up  
21 write-in responses



5/19/25 Public Meeting #1



May to July: 11 Key Person Interviews



7/10/25 Pizza at Mill Race Park Pop-Up  
107 dot votes / 33 write-in responses



452 responses to Survey 1



8/14/25 Palmer Community Days Pop-Up  
94 write-in responses



8/19/25 Public Meeting #2



12/9/25 Public Meeting #3

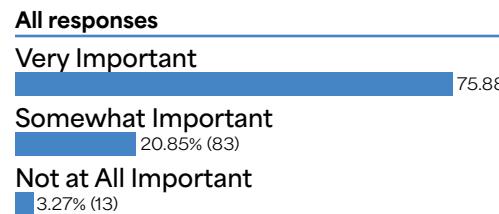


3/2/26 Board of Supervisors Meeting

# Climate Change & Conservation

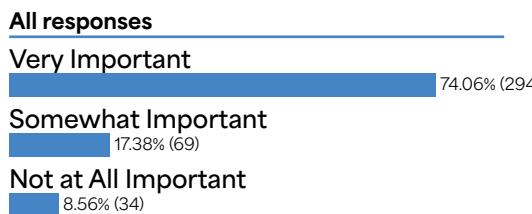
Q10: How important is it to you for Palmer Township to invest in **ecological restoration and conservation** of natural lands?

398 total responses (54 skipped)

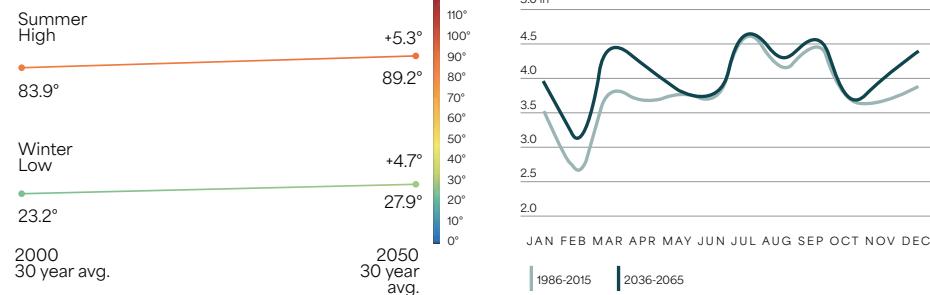


Q11: How important is it to you for Palmer Township to plan for **potential impacts of climate change** (such as flooding, habitat loss, extreme heat, etc.)?

397 total responses (55 skipped)

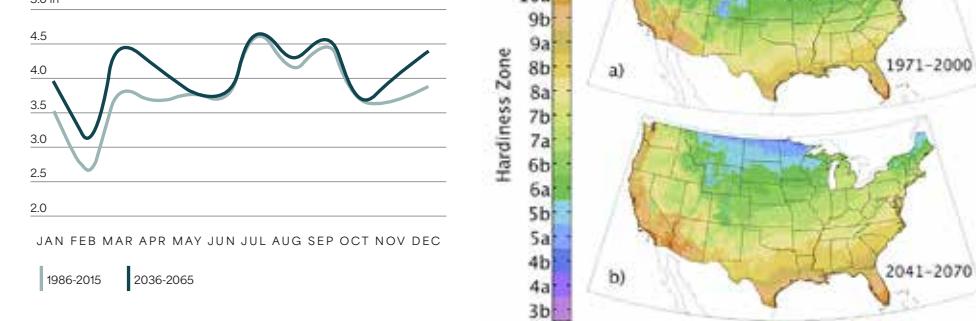


\*AVERAGE TEMPERATURE



In PA, over the past 110 years the temperature has increased by 1.8° F\*\*\*

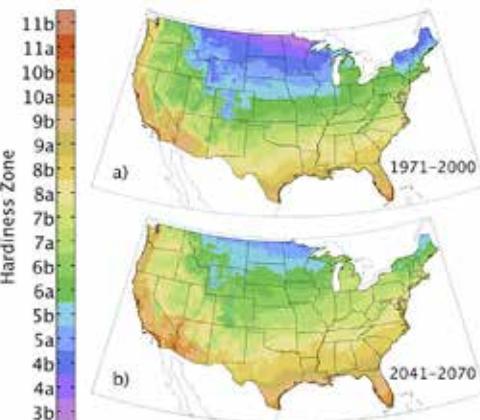
\*YEAR LONG PRECIPITATION



In PA, over the past 110 years there has been a 10% increase in the amount of precipitation on average\*\*\*

By 2050, we can expect an additional 8% increase in precipitation\*\*\*

COLD HARDINESS ZONE SHIFT\*\*

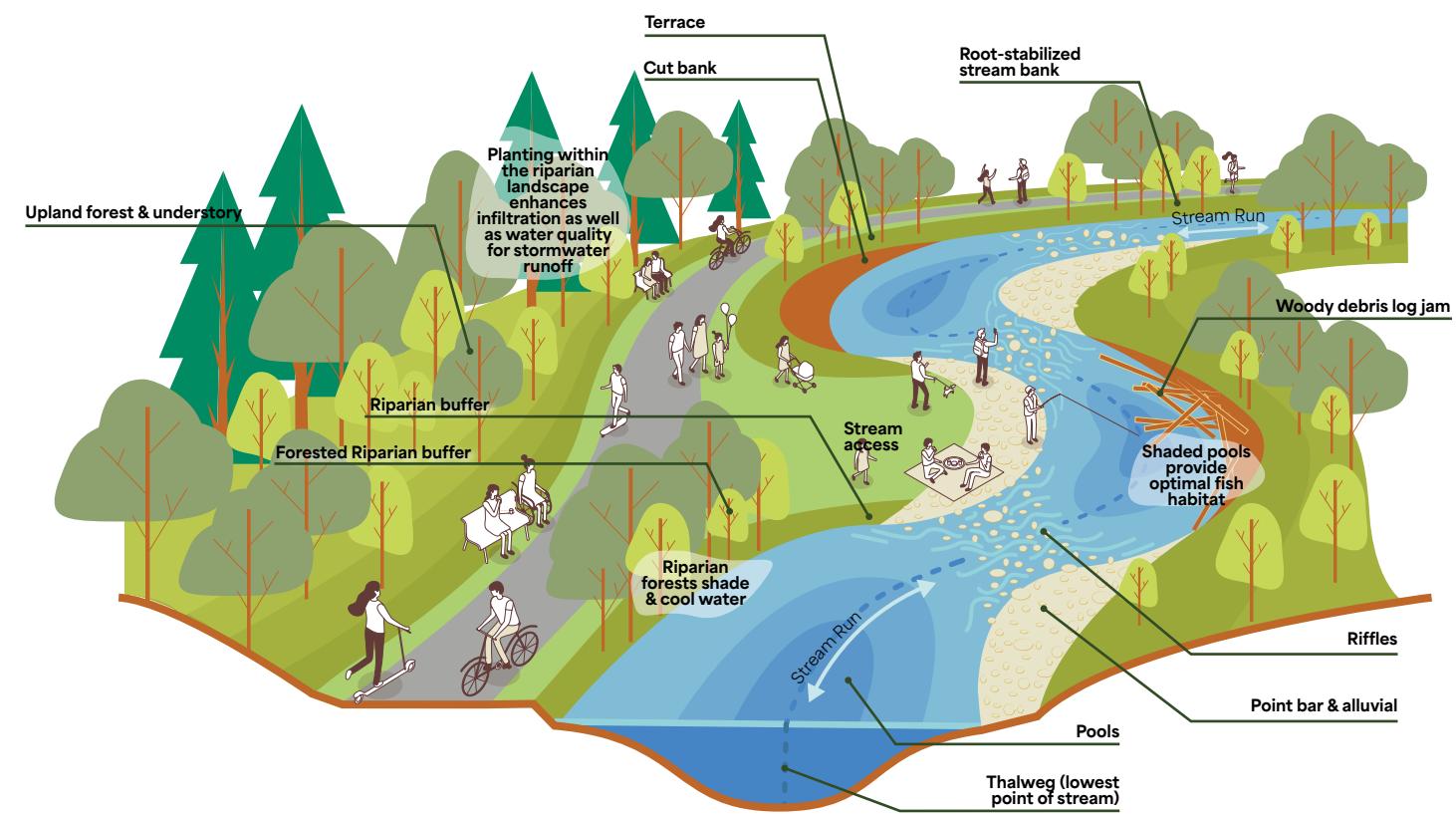


Plant hardiness zones shifting north at a rate of around 13 miles per decade based on the average of 20 different predictive climate models.

Northampton County is currently in zone 6A and 6B - Predicted to shift into zones 7A and 7B by 2070



Supercharge ecological restoration to enhance habitat, water quality, flood mitigation, while at the same time supercharging **spaces for people** along the Creek for recreation.



\*\*<https://iopscience.iop.org/article/10.1088/1748-9326/11/3/034001/pdf>

\*\*\*<https://www.vox.com/a/weather-climate-change-us-cities-global-warming>

\*\*\*<https://www.dep.pa.gov/Citizens/climate/Pages/default.aspx#:~:text=In%20Pennsylvania%20our%20climate%20has,amount%20of%20precipitation%2C%20on%20average>

# Bushkill Creek Greenway

## Trail Amenities

**Survey No. 1, Select responses related to trails**

**Q7: To enhance amenities & safety, which elements should be improved or added to the Bushkill Creek Greenway?**

**Choose up to 3.**

396 total responses (56 skipped)



Public restrooms / **57.07% (226)**



Water fountains & bottle-filling stations / **52.78% (209)**



Signage / **42.17% (167)**



Seating / **26.01% (103)**



Dog-friendly spaces / **25.25% (100)**



Better safety & security measures / **21.97% (87)**



Bike repair stands and pumps / **18.94% (75)**



Shade / **18.94% (75)**



Public art / **14.9% (59)**

# Evolution of the Bushkill

## Historic Mills & Dams



Walter's Mill & Dam  
Sources: Sigal Museum, NCHGS Marx Room at the Easton Public Library



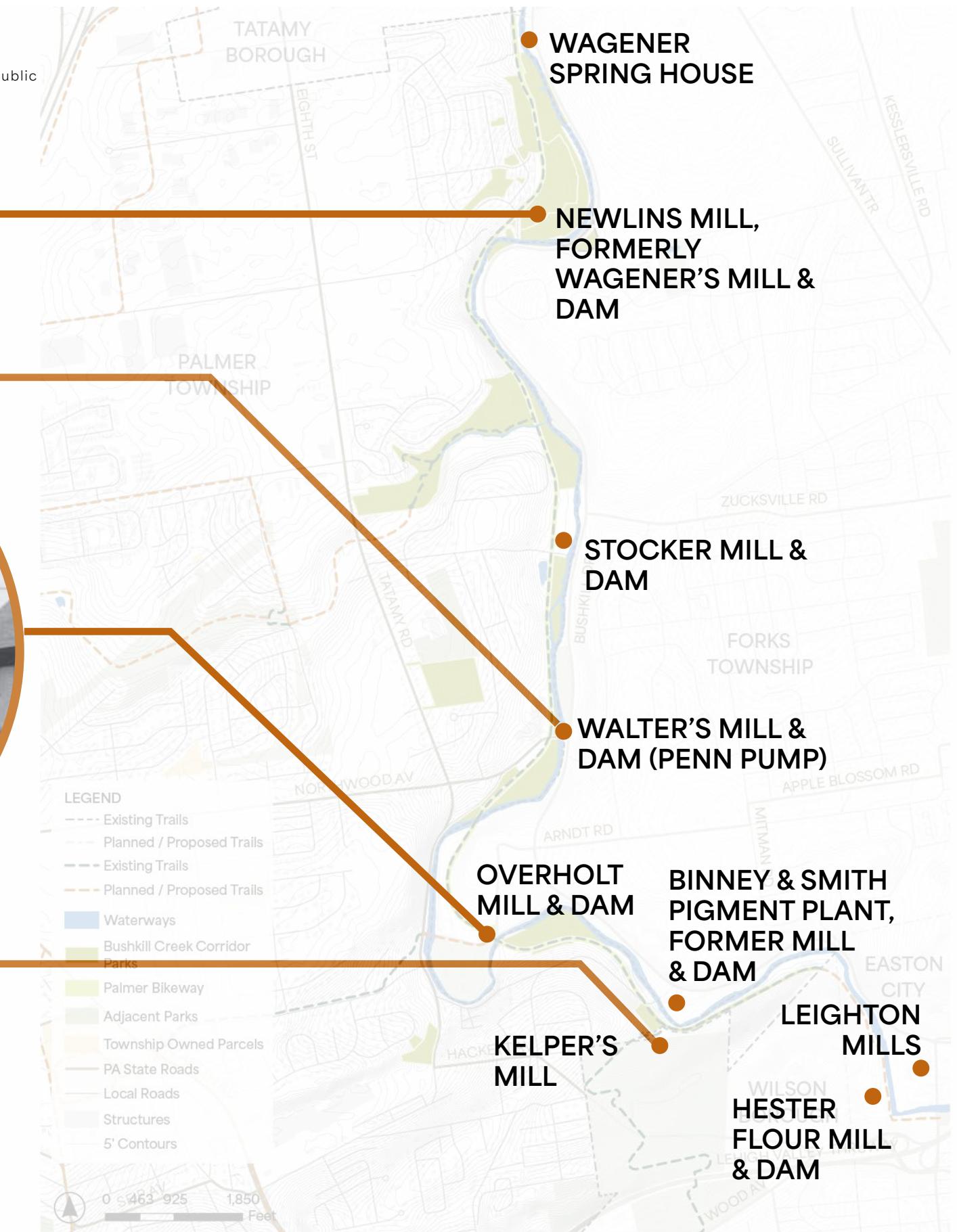
Kelper's Mill  
Source: Sigal Museum, NCHGS



Wagener Homestead & Dam  
Source: Marx Room at the Easton Public Library



Overholt Mill, 1944  
Source: NCHGS



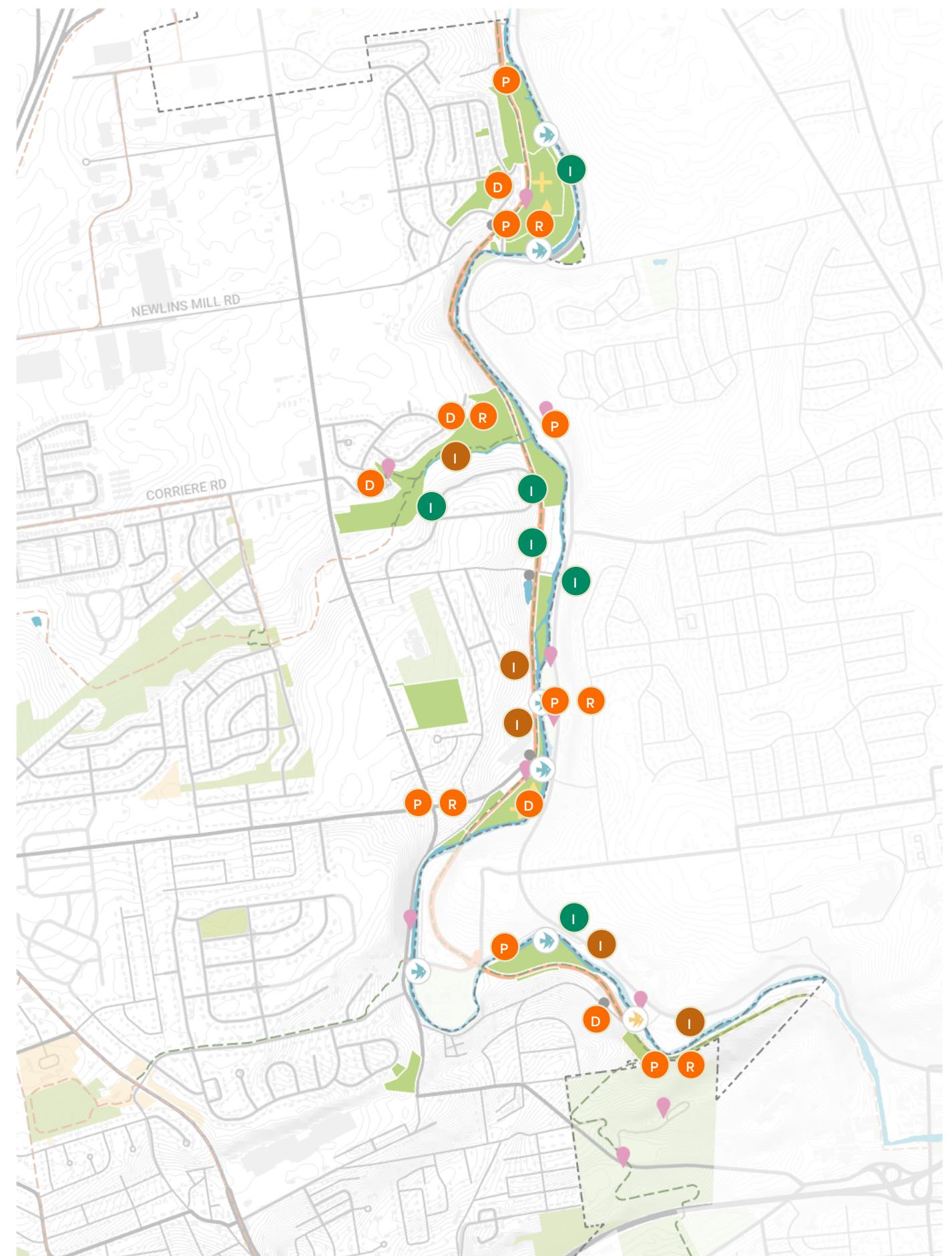
# Bushkill Creek Greenway

## Signage & Wayfinding



### Interpretive Signage Locations: Ecology

Mill Race Park - riparian buffer  
 Penn's Grant Park - scrub/shrub at power lines  
 Trout Unlimited Sign Updates  
 Blue Easel  
 Two Fool's Island - wetland setting  
 Wildland's Conservancy Binney & Smith Preserve



# Ecology + Activity

**Q9: To enhance ecology, what should be added or improved in the Bushkill Creek Greenway? Choose up to 3.**

378 total responses (74 skipped)

## All responses

Biodiversity & restored wildlife habitat

 60.58% (229)

Native planting restoration & pollinator gardens

 59.26% (224)

Invasive plant removal / management

 56.36% (213)

Reduced lawns, and more native wildflowers

 39.15% (148)

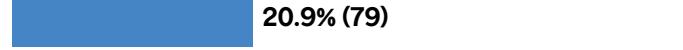
Riparian edge buffer planting for water quality

 38.36% (145)

Enhanced fishing spots along the creek bank

 30.42% (115)

Rain gardens & infiltration zones

 20.9% (79)

Rain barrels & reclaimed water use

 17.72% (67)

Enhanced mussel & waterfowl habitat

 17.46% (66)

Edible food forests

 13.49% (51)

Other (please specify)

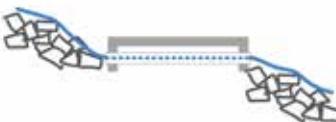
 6.35% (24)

# Restoration & Conservation Strategies

## HYDROLOGY



Dam Removal



Culvert Repair / Management



Upland rain gardens for water cleansing & infiltration

## POLICY



Incentivize conversion to regenerative agriculture



Reduce impervious development and/or adapt with green roofs, upland meadows, rain gardens & microforests



Remove invasive plants & replace with aggressive natives

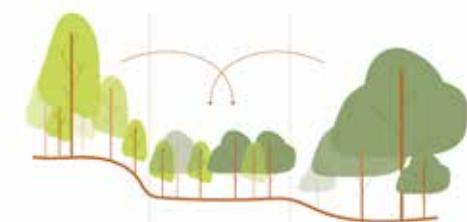


Replant riparian buffers with native plants



Allow deadfall for logjams to create habitat for fish & invertebrates, and lessen sedimentation

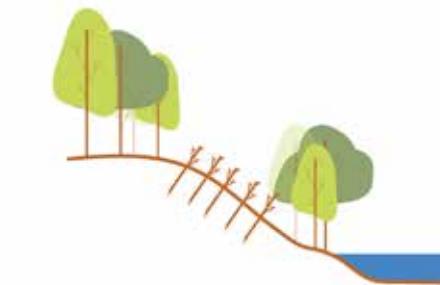
## ECOLOGY



Reconnect Floodplain Habitats



Crib logs to prevent erosional runoff



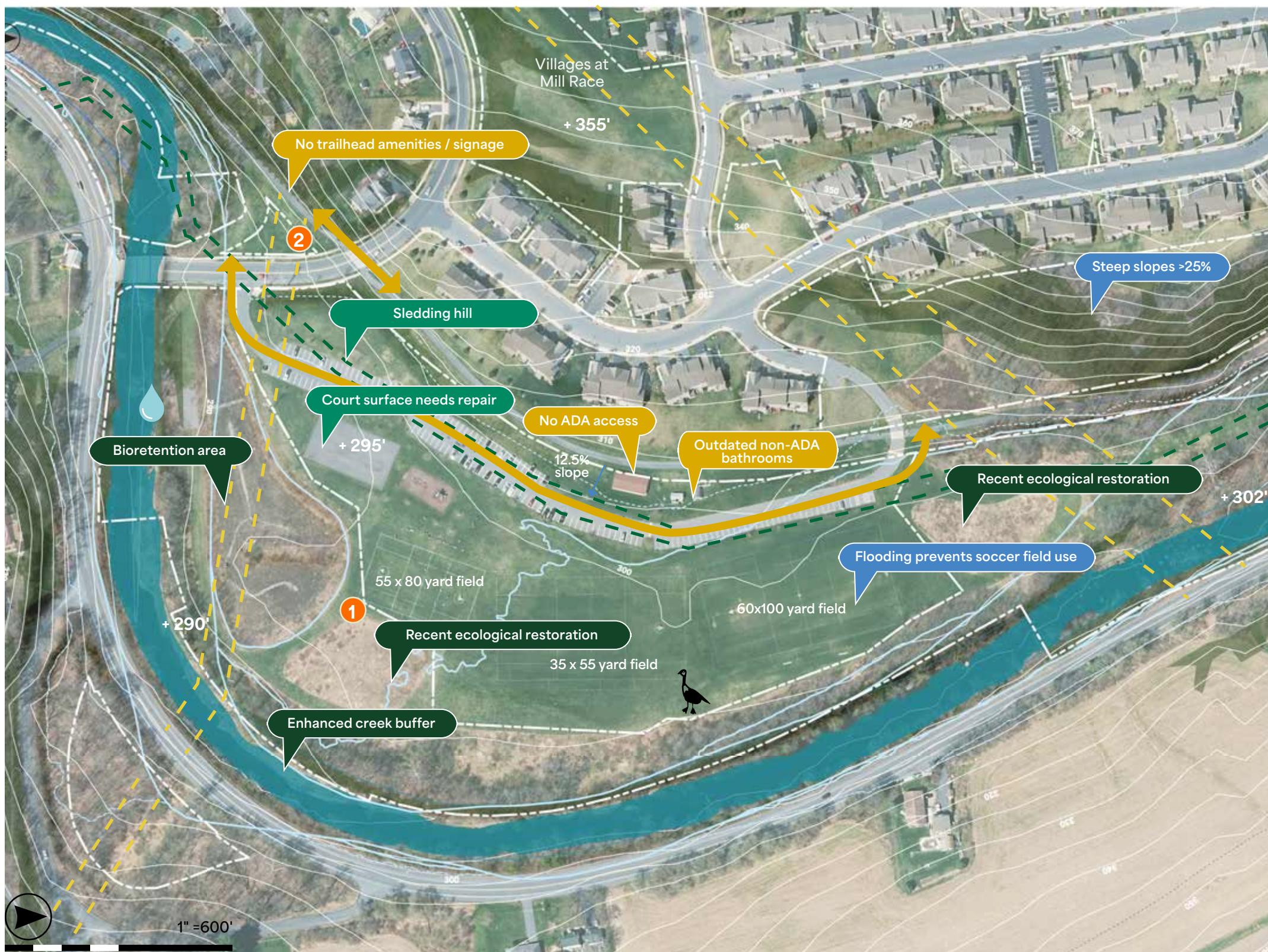
Live staking for root stabilization on slopes



Install fencing & interpretive signage at restoration areas

# Mill Race Park & Tot Lot

## Analysis



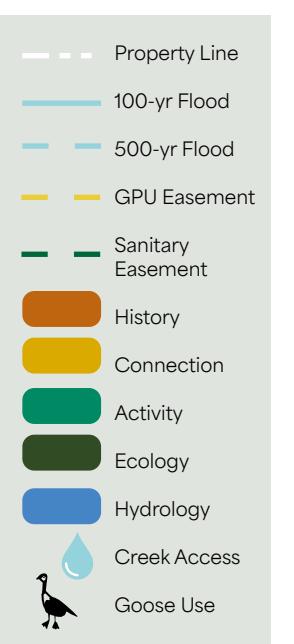
1 Soccer field after a heavy rain, 2019  
Image courtesy of Dave Dampel



2 Soccer Field after flooding at elevation ~296, 2020  
Image courtesy of Dave Dampel

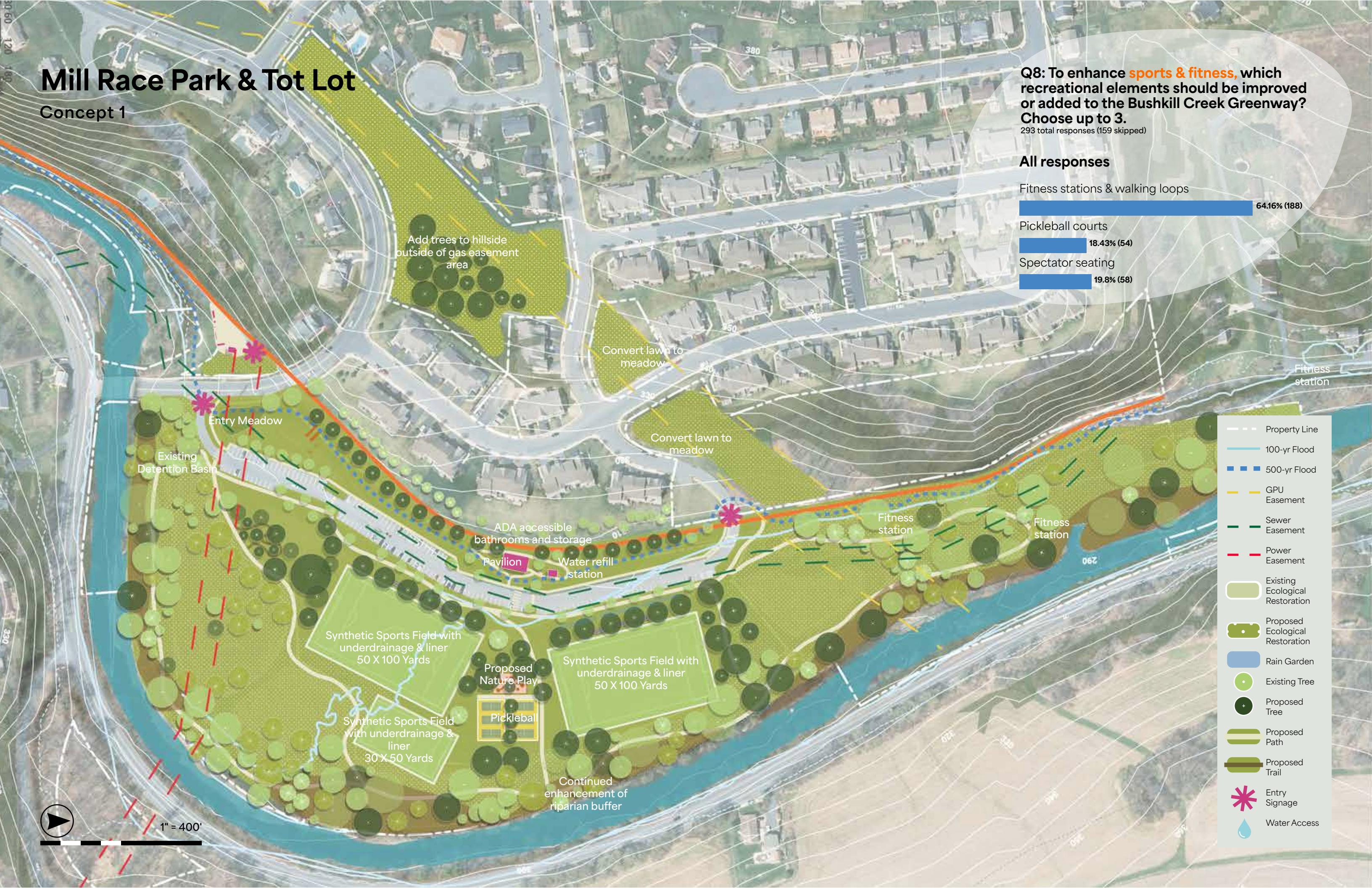
## Goals

- Enhance habitat
- Perform floodplain restoration and enhancement
- Locate new facilities out of the 100-year floodplain



# Mill Race Park & Tot Lot

Concept 1



Q8: To enhance **sports & fitness**, which recreational elements should be improved or added to the Bushkill Creek Greenway?  
Choose up to 3.  
293 total responses (159 skipped)

## All responses

Fitness stations & walking loops

64.16% (188)

Pickleball courts

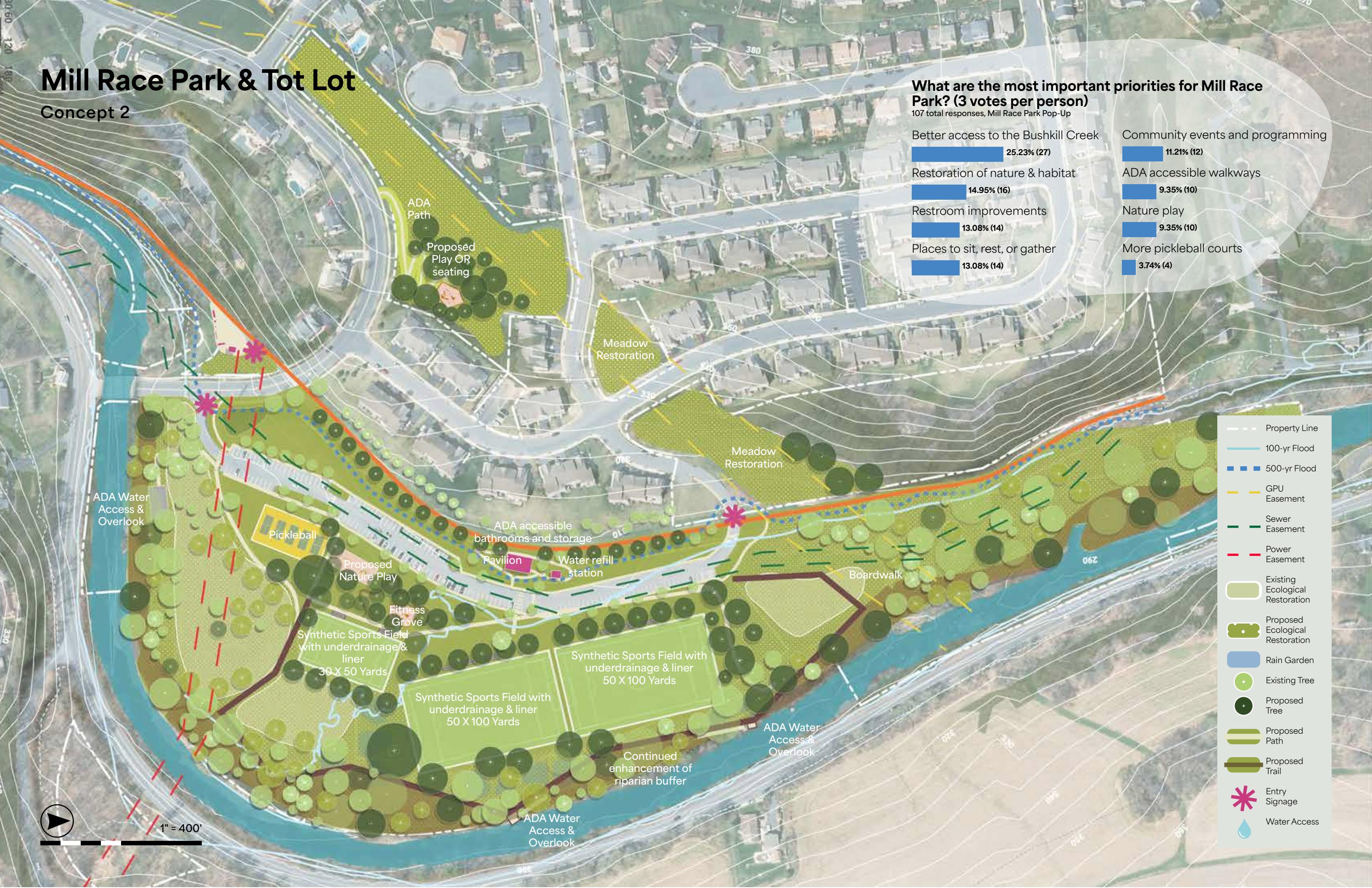
18.43% (54)

Spectator seating

19.8% (58)

# Mill Race Park & Tot Lot

## Concept 2



# Proposed Materials



Boardwalks



Ground Murals



Ecological Restoration - Meadow



Ecological Restoration - Floodplain restoration

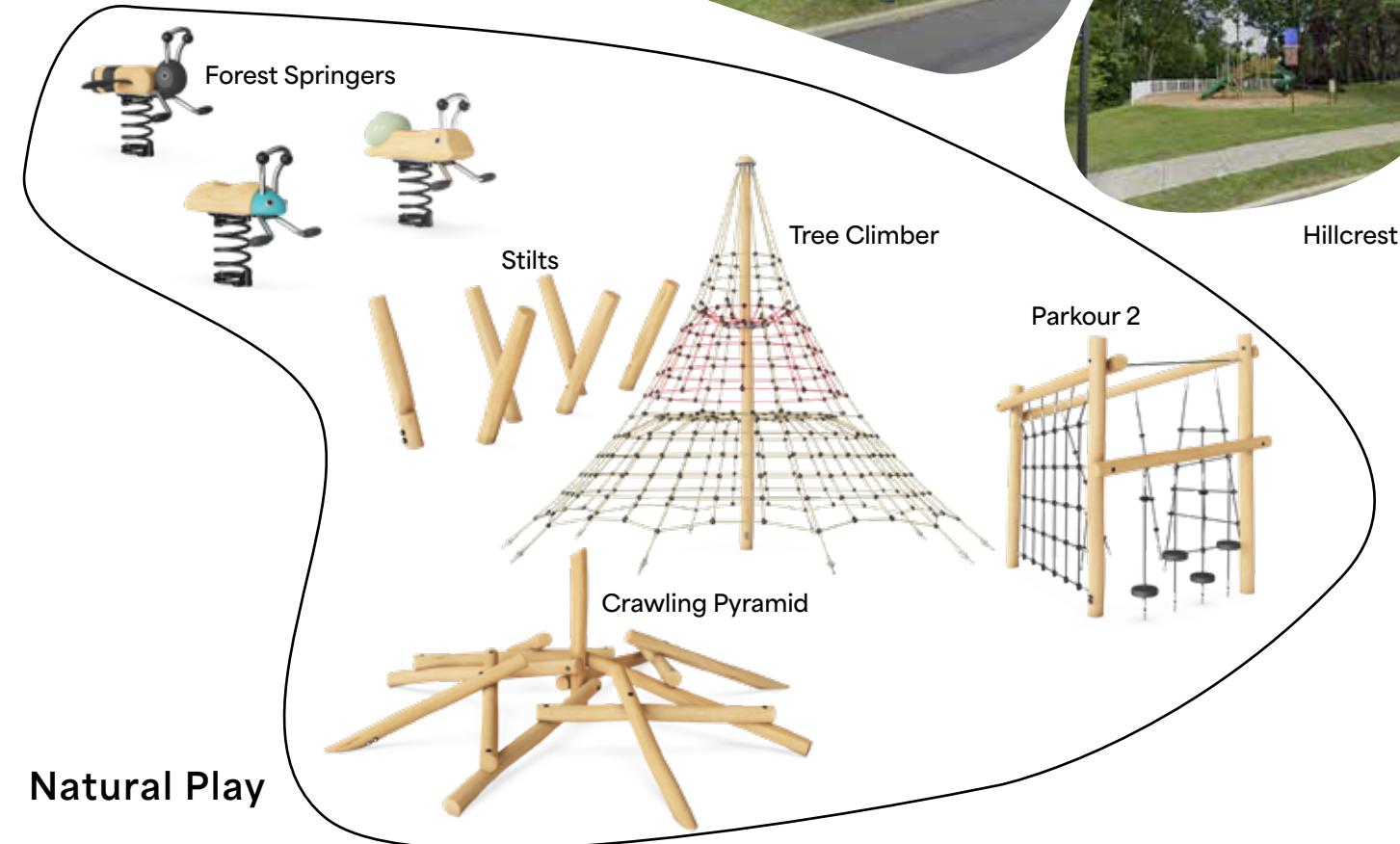


Ecological Restoration - Riparian Buffer

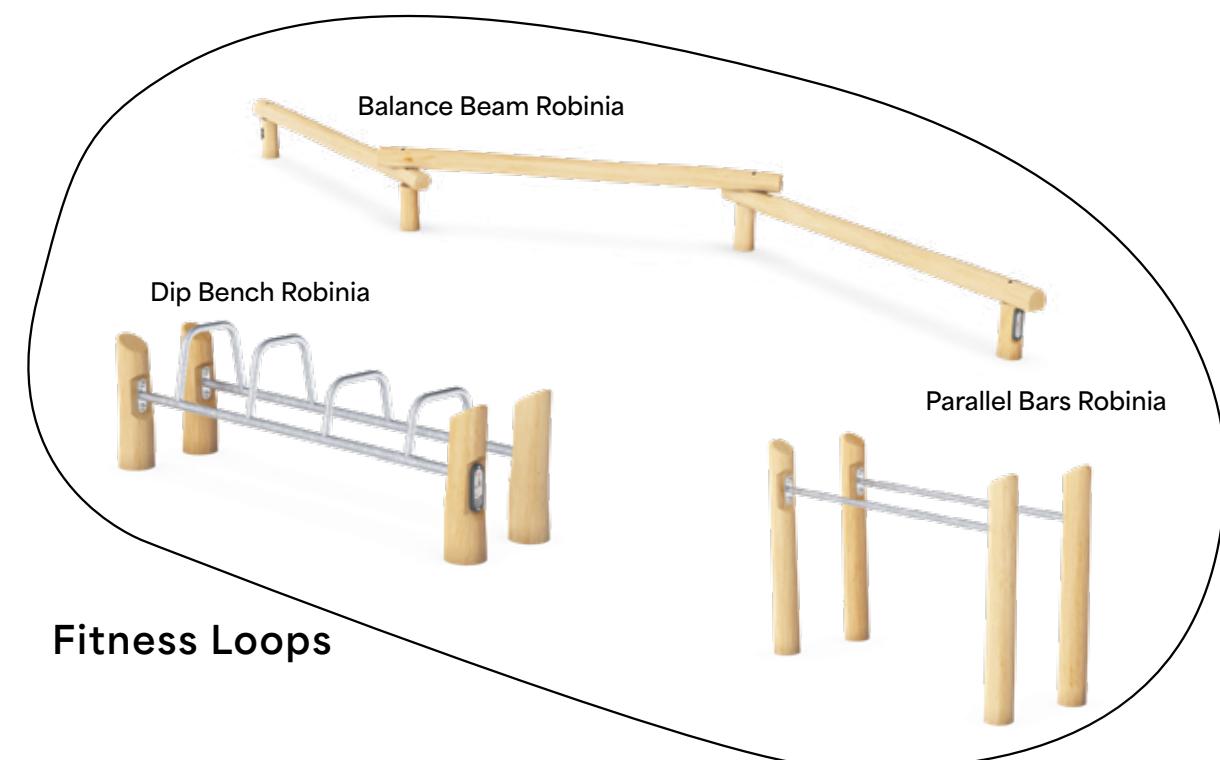


Upgraded Bathrooms

Mill Race Tot Lot



Natural Play



Fitness Loops

# Mill Race Park



Existing

## Mill Race Park: 100-year flood event



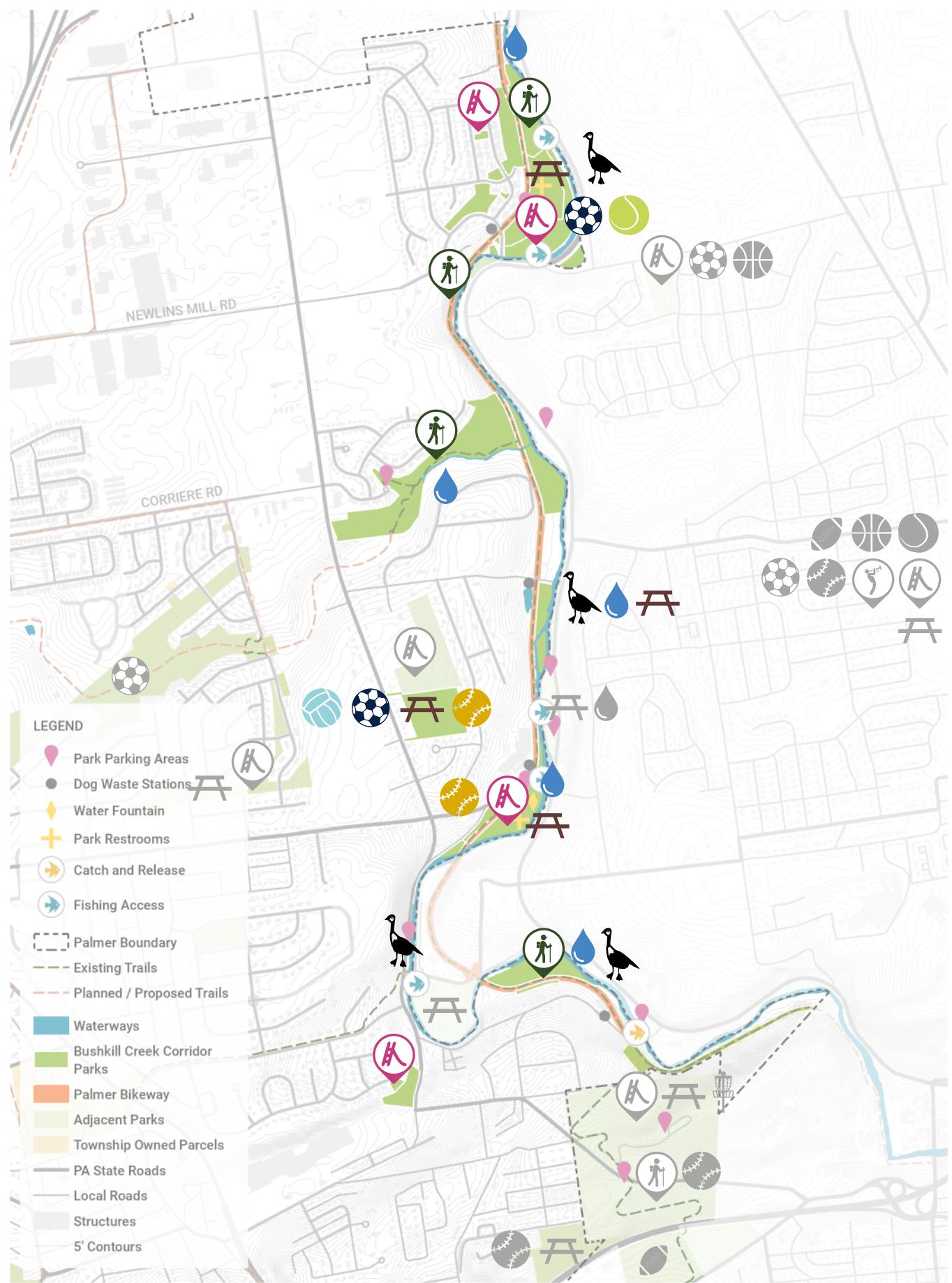
Existing

# Recreational Resources

## Amenities & Programming

### LEGEND:

-  Hiking / Walking Trails
-  Play Areas
-  Live Music
-  Picnicking Areas
-  Baseball Fields
-  Basketball Courts
-  Disc Golf Courses
-  Football Fields
-  Soccer / Multi-use Fields
-  Tennis / Pickleball Courts
-  Volleyball Courts
-  Water Access Areas
-  Waterfowl Areas
-  Not Within Scope

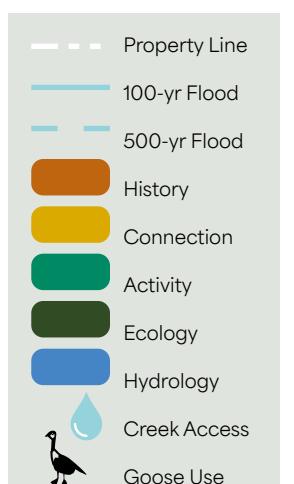
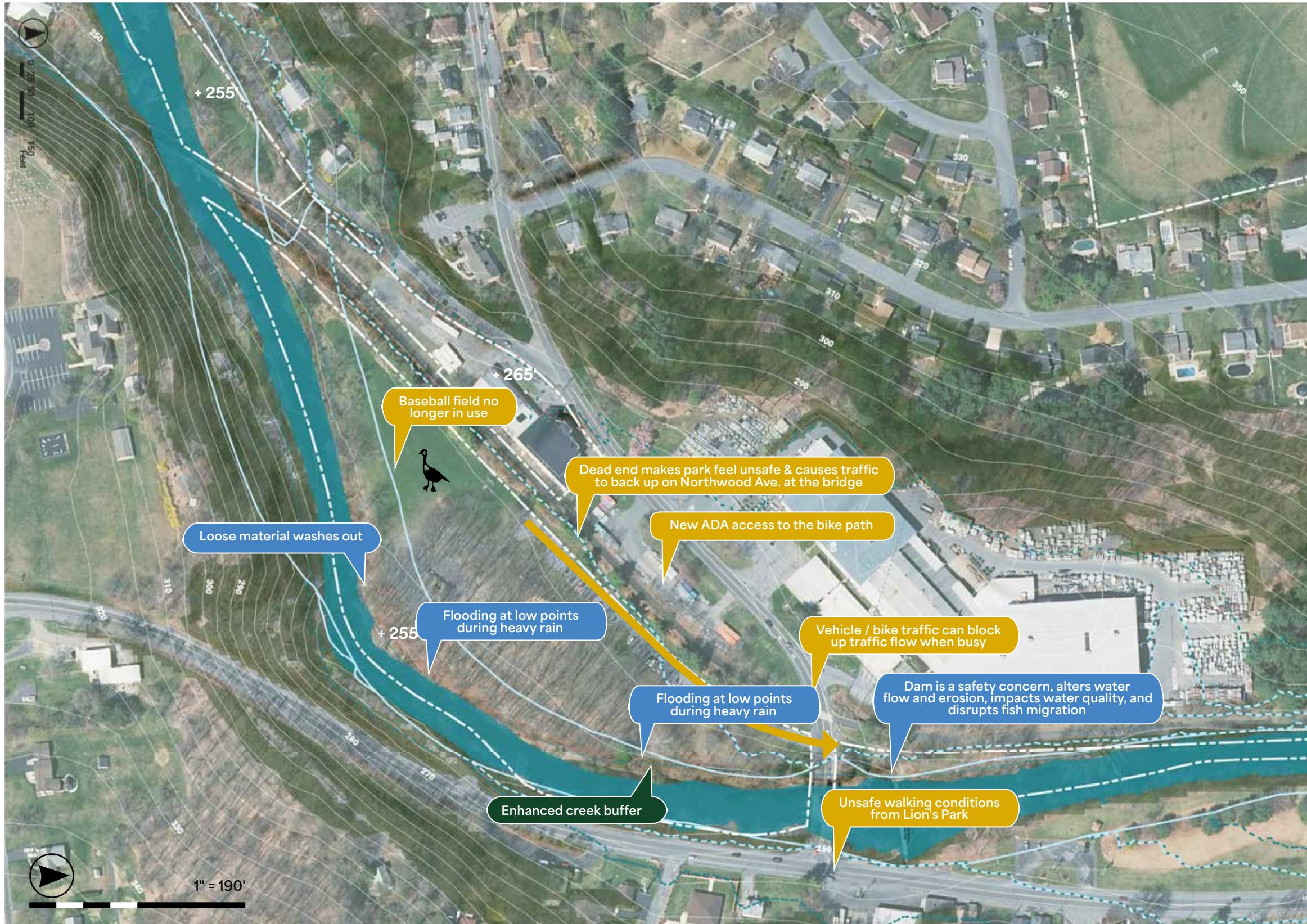


# Keystone Park



# Penn Pump Park

## Analysis



# Penn Pump Park - Dam No. 6



Image courtesy of Rudy Miller, Lehigh Valley Live

## PROS OF DAM REMOVAL

1. Restoring creek banks enhances water retention capacity, reducing both the frequency/severity of flood events.
2. Stream restoration improves water quality by reducing sedimentation and enhancing overall ecosystem health.
3. Restored fish passage & aquatic habitat for fish & freshwater mussels
4. Removing dams eliminates a public safety hazard & increased liability for the Township
5. The dam is a focal point for recreation, contributing to park congestion and increased law enforcement presence.
6. Funds are available through DRBC mitigation funds, NFWF, PA DEP, PA DCNR, and Northampton County

**LOCAL**

### These dams look harmless. They're deceptive, dangerous and deadly

**JD Mullane, Michele Haddon and Chris Ullery**, Bucks County Courier Times

Updated May 29, 2025, 11:06 a.m. ET

Advertisement

**Neshaminy Creek flooding**  
A heavy winter storm sent the Neshaminy Creek in Middletown over its banks along Periwinkle Avenue on Wed. Jan. 10, 2024.

A screenshot of a news article from the Bucks County Courier Times. The headline is "These dams look harmless. They're deceptive, dangerous and deadly". Below the headline, it says "JD Mullane, Michele Haddon and Chris Ullery, Bucks County Courier Times". It also says "Updated May 29, 2025, 11:06 a.m. ET". There is a video player showing a waterfall. At the bottom, there is a caption: "Neshaminy Creek flooding A heavy winter storm sent the Neshaminy Creek in Middletown over its banks along Periwinkle Avenue on Wed. Jan. 10, 2024.".

# Dam Removal Process

## Dam #2 Case Study by Wildlands Conservancy



Day 1: Notching & drilling



Day 2: Demolition & removal



Month 1: Currents re-forming the stream bed



Month 1: Riffles forming where dam once stood

## Mill Race Park Ecological Restoration



Day 1: Riparian Buffer installation



Year 1: Native planting buffer

# Fishing Pier at the former Dam 6



Fishing pier at Dam 6 with interpretive/historic signage

Native riparian corridor restoration

Wood duck boxes (some existing)

Narrower stream channel



Seeded mussel beds

Invertebrates & expanded fish populations

**Q6: To enhance visitation, which offerings should be added to the Bushkill Creek Greenway? Choose up to 3.**  
176 Palmer Township responses (11 skipped)

## All responses

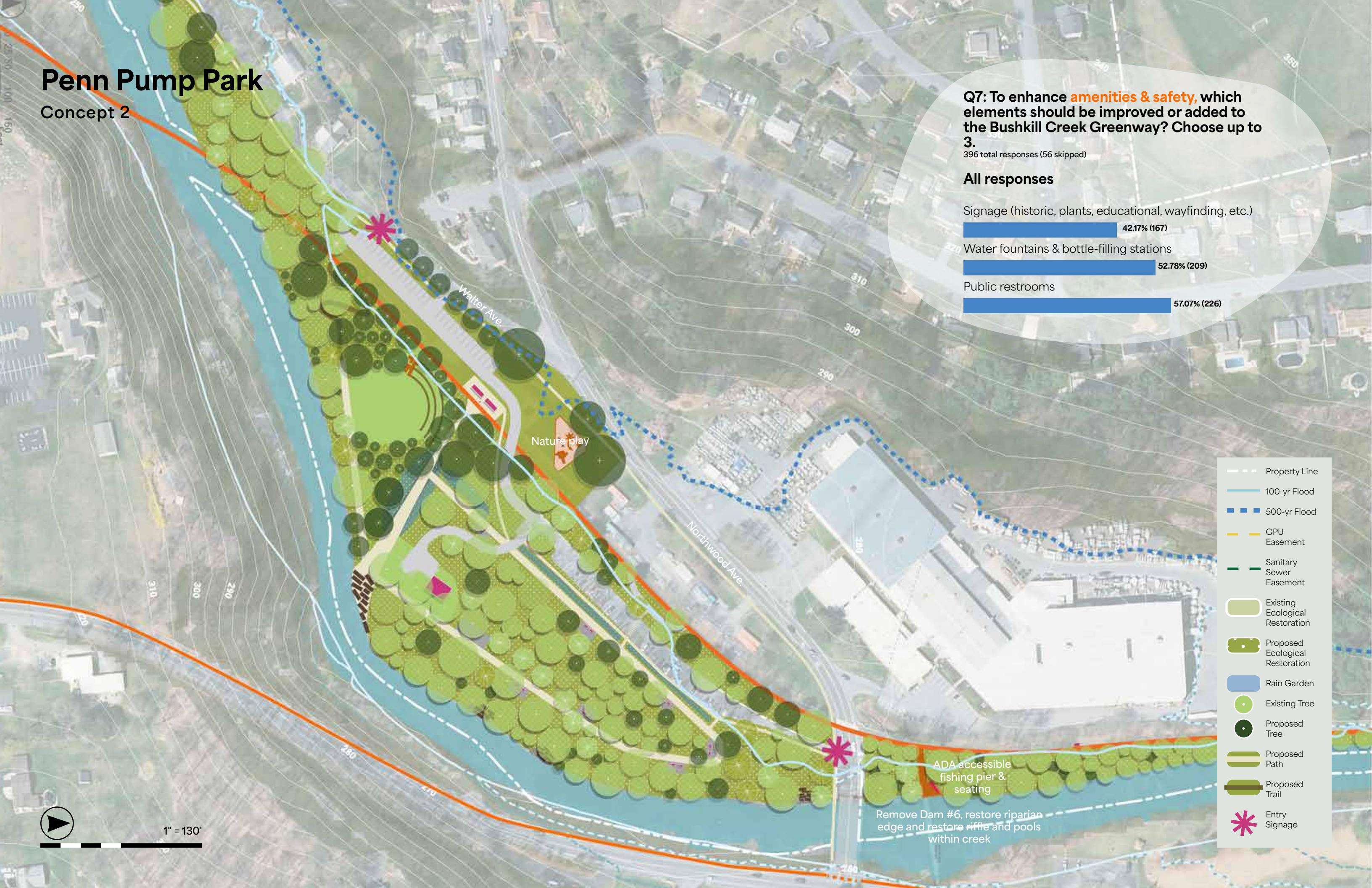
Ecological education (trout, mussels, bird-watching, etc.) **39.9% (158)**

Foraging & plant identification walks **34.85% (138)**

Play, Nature-based **27.02% (107)**

# Penn Pump Park

Concept 2



Q7: To enhance **amenities & safety**, which elements should be improved or added to the Bushkill Creek Greenway? Choose up to 3.

396 total responses (56 skipped)

## All responses

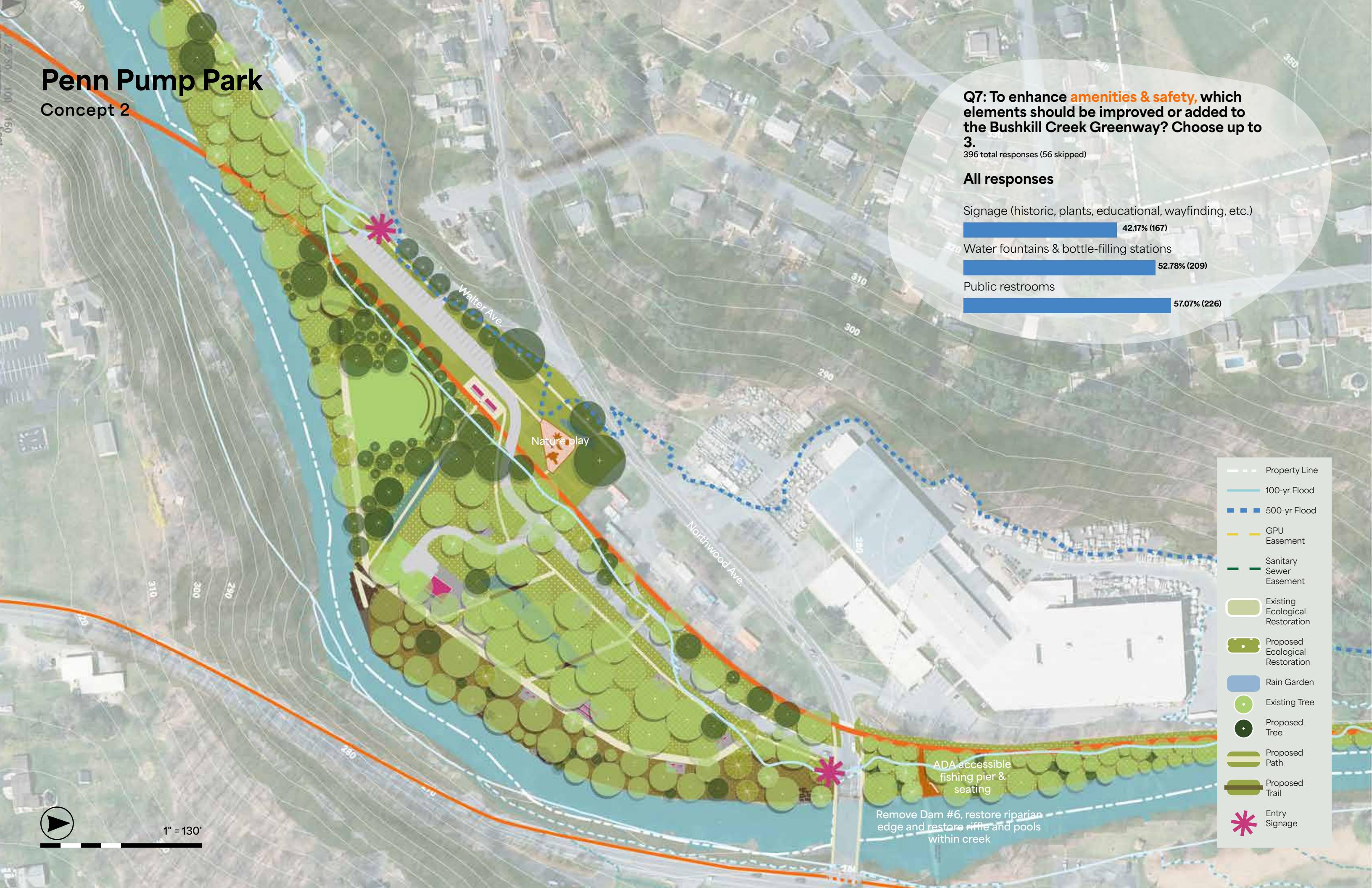
Signage (historic, plants, educational, wayfinding, etc.)  
42.17% (167)

Water fountains & bottle-filling stations  
52.78% (209)

Public restrooms  
57.07% (226)

# Penn Pump Park

Concept 2



# Penn Pump Park Pavilion



# Penn Pump Park Floodplain Improvements



# Northwood Avenue Connectivity



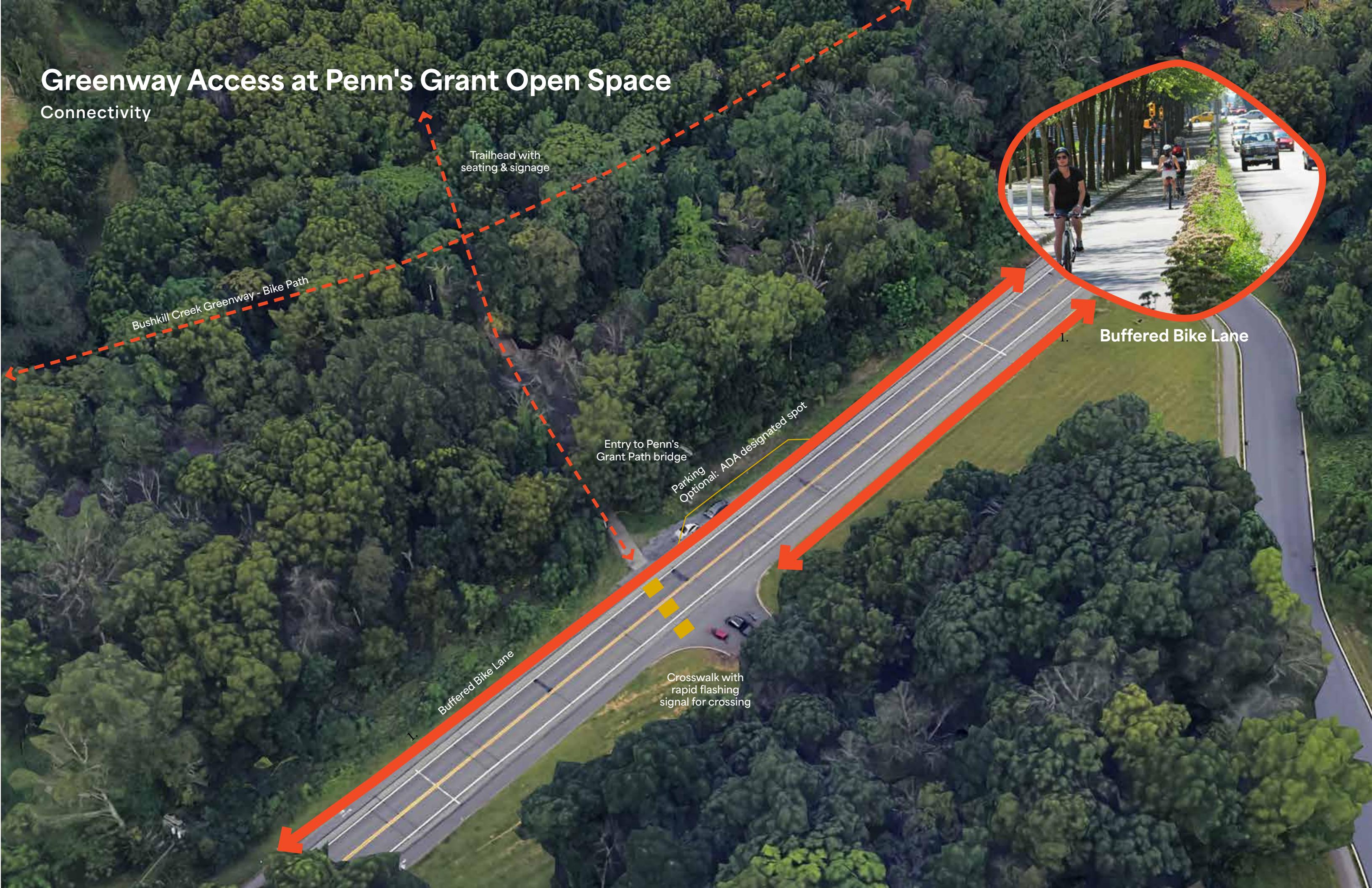
# Penn Pump Park

## Connectivity



# Greenway Access at Penn's Grant Open Space

## Connectivity



# Penn's Grant Open Space

## Analysis



# Penn's Grant Open Space

## Concept



Increase railing height to 42"



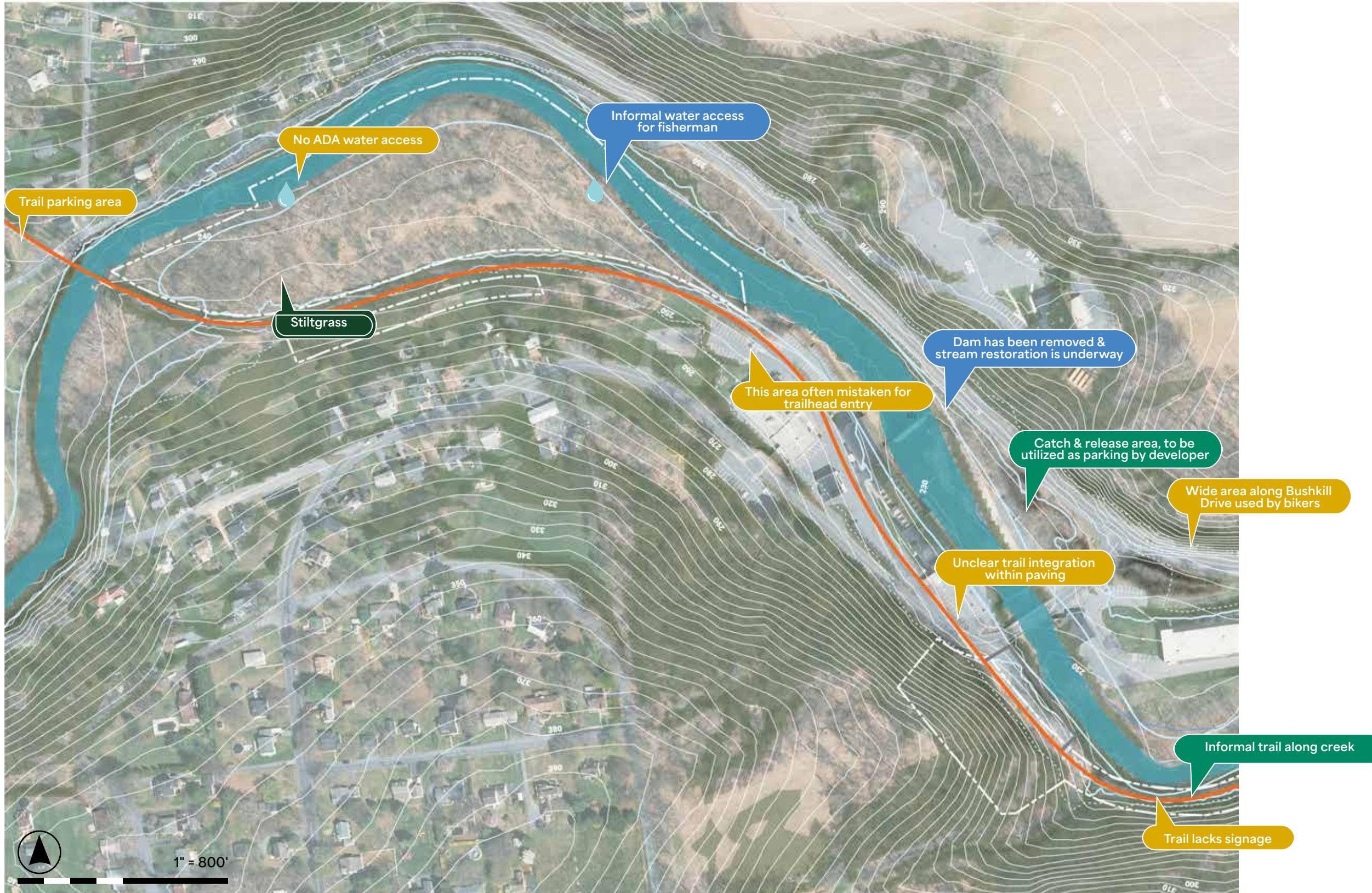
Focus on upland erosion control



Integrate seating & public art

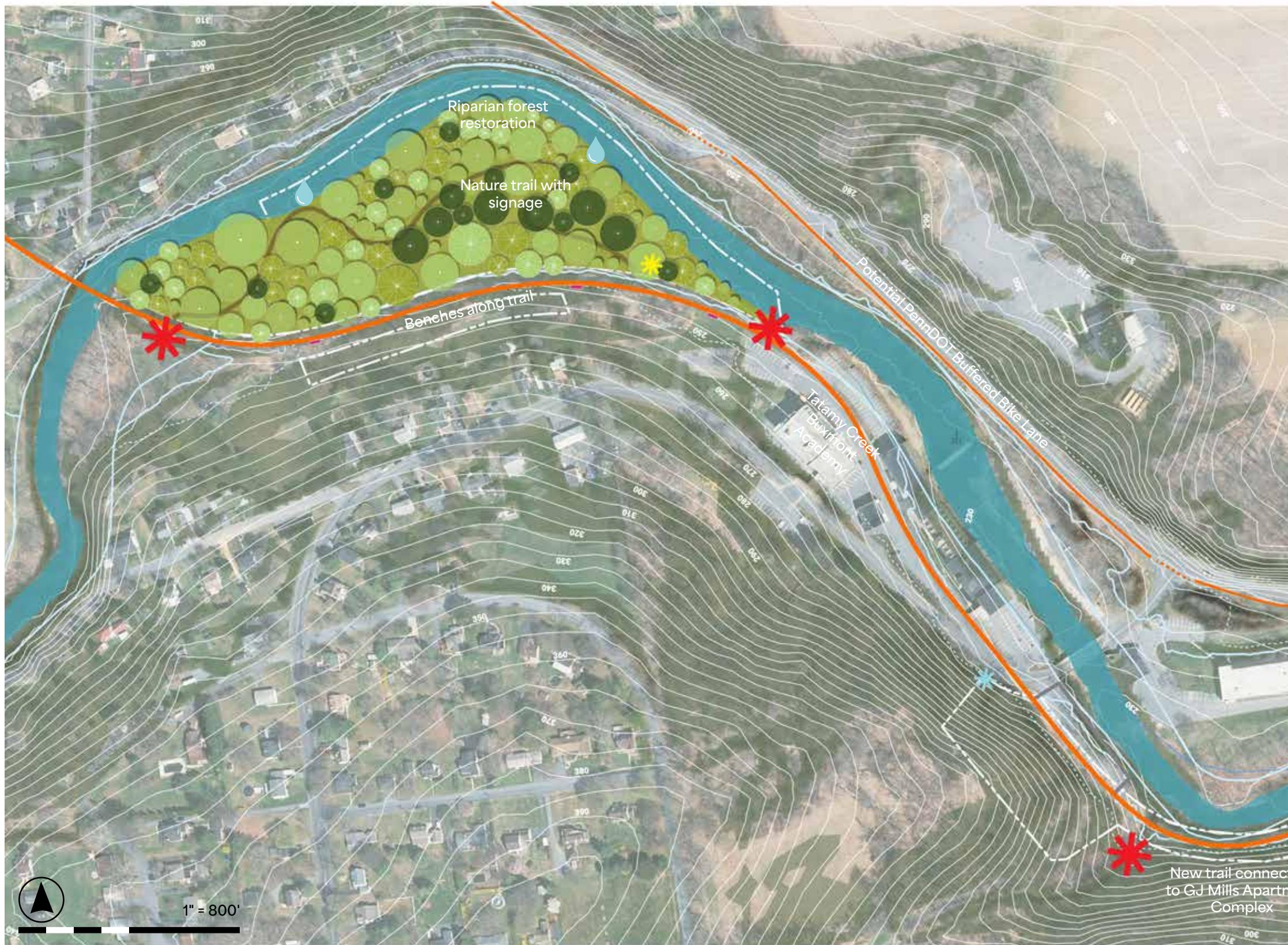
# Wildlands Conservancy Binney & Smith Preserve

## Analysis



# Wildlands Conservancy Binney & Smith Preserve

## Concept



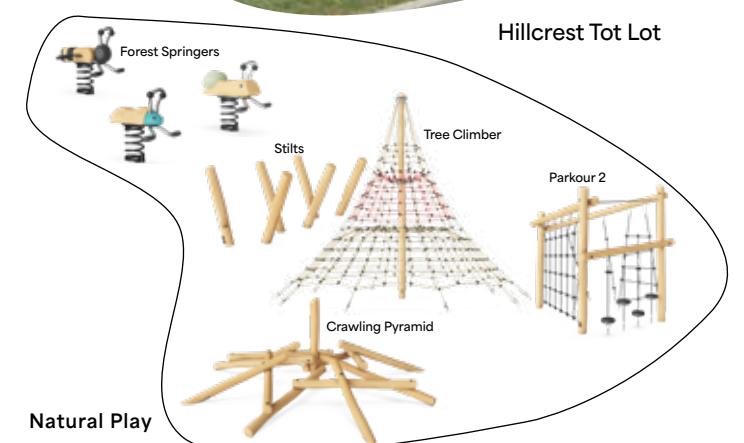
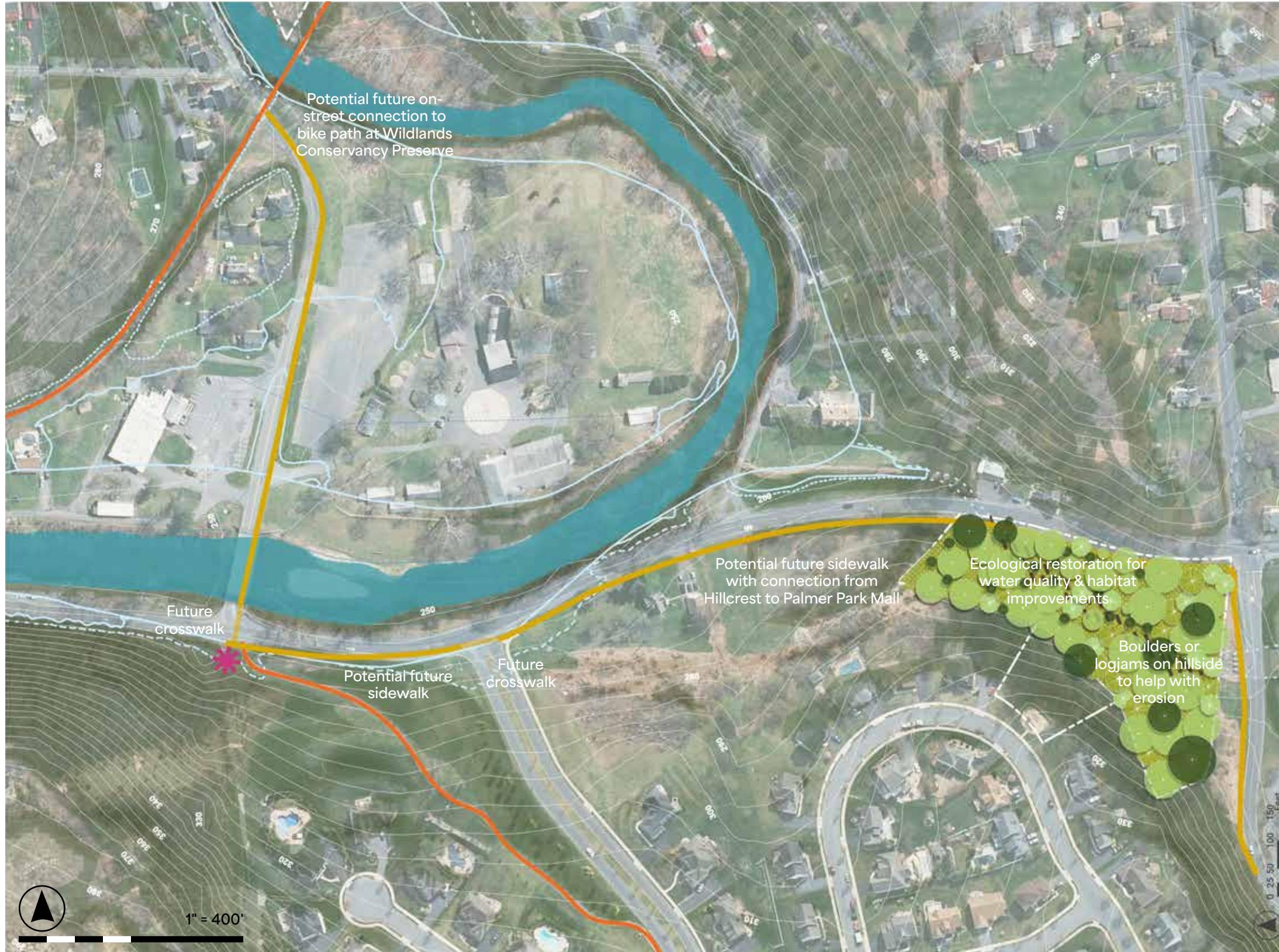
# Hillcrest Open Space & Morningside Tot Lot

## Analysis



# Hillcrest Open Space & Morningside Tot Lot

## Concept



# Bushkill Creek Greenway



NTS

## Next Steps

Attend the next public event at Palmer Township Community Building:  
**3/2, 7 PM, Board of Supervisors Meeting**

Follow along for project updates:  
**[www.palmertwp.com/bushkill-creek-greenway.html](http://www.palmertwp.com/bushkill-creek-greenway.html)**

Questions?  
**Email [info@omnes.studio](mailto:info@omnes.studio)**