

Whistler Woods Riparian Restoration

Lat/ Long of the project

41.6545° N, 87.6373° W

Portion of the shoreline to be stabilized: The south bank of the Little Calumet River along Whistler Woods Forest Preserve from Halsted east to the Little Calumet River Bridge, aka the Major Taylor Trail. 41.65705, -87.641108 to 41.657712, -87.63076. It is about a half mile of riverbank

Project goals

The primary project goals include creating design and engineering plans that will enable us to:

- Preserves the existing riverbank using native hardy vegetation
- Repair gullies to prevent erosion and sedimentation
- Restore instream and upland habitat to improve suitable conditions for plant species, wildlife species, and migratory birds (see below - habitats and species list)

The secondary project goal is to:

- Remove invasive plant species and introduce native ones
- Improve overall habitat and protect the adjacent Major Taylor Trail and the preserve while integrating a community desired accessible overlook into the ecological restoration

Existing site conditions

- Whistler Woods is a 130 acre site bordered on the north by the Little Calumet River, on the east by the Conrail railroad tracks, on the south by 134th Street and on the west by Halsted Street.
- The site is a mosaic of woodland, savanna, prairie, recreational areas, and unassociated woody growth.
- An oak woodland, probably a riparian remnant, exists on the north end, adjacent to the Little Calumet River.
- A disturbed area of mostly invasive brush and some ruderal trees occurs in the northeast with a

small component of native prairie vegetation.

- This area is classified as “savanna” although it is not a savanna remnant.
- A much degraded wet-mesic to wet prairie occurs in the southeast corner which is now dominated by exotic grasses.
- The center of the site contains second-growth, ruderal trees such as cottonwoods (*Populus deltoides*) and silver maples (*Acer saccharinum*) growing on a spoil pile.
- This site also contains parking lots, picnic groves and a bike trail that is frequently used for recreation.
- U.S. Public Land Survey maps and surveyor notes indicate that, in the early 19th century, Whistler Woods consisted of prairie (probably mesic prairie) with elements of wet prairie and marsh along the periphery.
- These historic data also suggest that the north part of the site adjacent to the Little Calumet River was wooded as it is now.
- A 1938 aerial photograph and other historic documents indicate that the central portion of the site was the location of a large waste dumping operation, probably consisting of material dredged from the river by the U.S. Army Corps of Engineers in the early 20th century.
- Thus, much of this site is highly disturbed and displays unassociated woody growth due to human-caused factors in the 20th century.

Desired site condition

Erosion issues in the riparian woodland need to be investigated and mitigated.

The Forest Preserves of Cook County has provided a letter of support for this project and staff specifically mentioned the need for bank stabilization, addressing the steep banks and associated gullies and erosion in addition to ecological restoration.

<https://storymaps.arcgis.com/stories/49633d2508474ad48a1d6d341e14b459>

https://www.dropbox.com/s/gyk9t24z9pviryr/River%20Edge%20Development%20Resource%20Guide_Friends%20of%20the%20Chicago%20River.pdf?dl=0

Habitats/species that might benefit

- Aquatic habitat, riparian woodland, and prairie patch stand to benefit greatly from restoration.
- A variety of wildlife species including bald eagles, banded killifish, black crowned night herons,

channel catfish, osprey, and smallmouth bass will benefit from this project.

- Whistler Woods is an important migratory bird stopover as well.

Partners/Stakeholders

- Forest Preserves of Cook County
- Friends of the Chicago River
- Friends of the Forest Preserves
- Friends of the Major Taylor Trail
- Friends of the Major Taylor Trail Keepers
- IDNR Coastal Management Program

Site Owner

Forest Preserves of Cook County

Prior studies to indicate specific cause of erosion

- Medium to severe gullies and erosion at Whistler Woods are a documented site condition in
 - Forest Preserves of Cook County in their 2022 ecological site management plan,
 - the Metropolitan Planning Council in the Little Calumet River Watershed-Based Plan issued by Metropolitan Planning Council in 2017,
 - Friends of the Chicago River in our 2014 gully study in the Cook County Forest Preserves along the river.
- The combined causes are believed to be
 - runoff from the trail, road and parking lots;
 - invasive plants and a dense canopy blocking light to the ground layer preventing natural native plant growth/soil retention;
 - the slope of the riverbank,
 - fluctuating water levels,
 - and wave action from commercial and recreational boat traffic.
- “A Cycle of Sedimentation and Erosion in Urban River Channels” by M. Gordon Wolman (Johns

Hopkins University) is often cited as a source authenticating the impact/causes of channel erosion

Potential Contamination

- When provided with the question about potential contamination, Forest Preserves of Cook County ecology staff provided me with language from their management plan for Whistler Woods Forest Preserves.
- They did not share any concern about any potential for existing contamination that would impact restoration activities.
- Site history: The U.S. Army Corps of Engineers dumped dredged material onto this site in their efforts to lower and straighten the Little Calumet River.
 - Most of this material is likely sand and silt-sized sediment (Kay et al. 1997).
 - Aerial photographs from 1938 (Figure 1/See below) verify the presence of large spoil piles along the western and northeast edges of the site (USGS1938).
 - In fact, the entire central portion appears to be a scraped, disturbed area lacking in vegetation. This dumping ground “was soon forested by volunteer cottonwood seedlings” (Mann 1965).
- A document search for contamination reports was not forthcoming.
 - The Metropolitan Water Reclamation District (Habitat Improvement Report, LymnoTech, 2010) which included this reach of the river does not mention contamination as a limiting factor for fish and aquatic life.
 - The U.S. Army Corps of Engineers Chicago Waterways Framework Plan (2022) includes known sources for contaminated sediments for other reaches of the river which are called out such as manufactured gas near Bubbly Creek.
 - There is no documentation of contamination in the framework for this reach of the river.
- Over the years volunteers have been active doing invasive plant removal and maintenance through a partnership between the Forest Preserves, Friends of the Chicago River and Friends of the Forest Preserves.
 - No contamination issues have surfaced.



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