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Horner Park Restoration Project



from **Engineering With Nature: An Atlas, Volume 1.**

by **US Army Engineer Research and Development Center**



Chicago, Illinois, United States

Horner Park is located in Chicago, Illinois, on the north branch of the Chicago River. The relatively long, narrow, fourteen-acre restoration area, which includes 2,600 feet of riverbank, meets up with Montrose Avenue to the north, Irving Park Road to the south, runs along the Chicago River to the east, and into a section of Horner Park to the west; the area is a backdrop for the existing athletic fields. This project is part of the overarching U.S. Army Corps of Engineers (USACE) Chicago District's (LRC) goal to restore and reconnect sustainable habitat along the Chicago River. To restore the area to its natural state, as much as was feasible given the totality of current site conditions, the plan reestablished stream hydraulics and morphology; restored the riparian zone (where the land and river interface) habitat and vegetation; restored the oak savanna habitat; and prevented and removed invasive species. Both the design and the construction efforts were funded by the Great Lakes Restoration Initiative (GLRI). This project will be implemented by contractors for USACE LRC; USACE LRC is working in partnership with the Chicago Park District (CPD).

The project is due to be completed in 2018, when invasive species control activities have been executed.

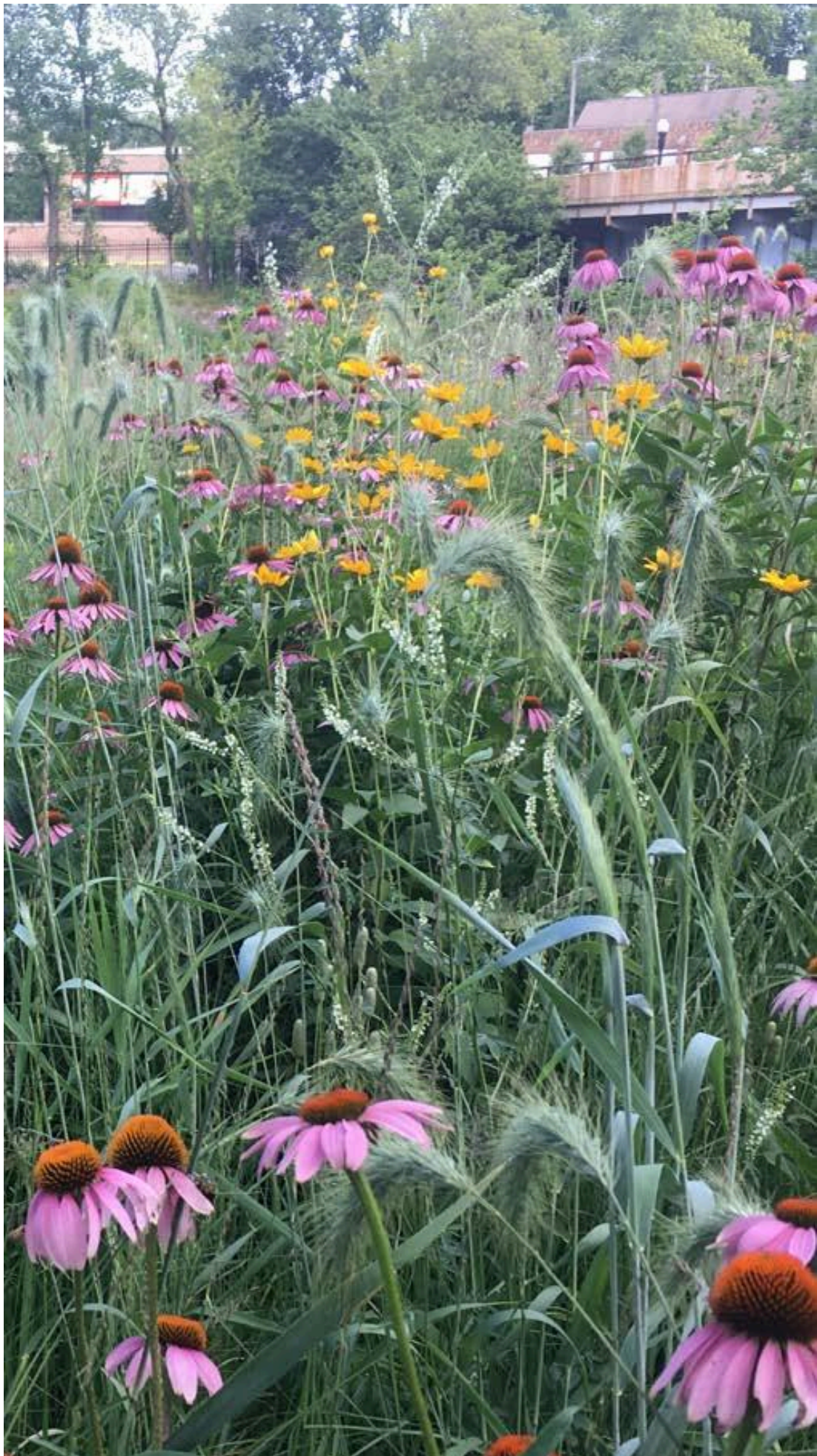
Article cover: Young trees and native vegetation help stabilize the streambank along the Chicago River at Horner Park. (Photo by USACE Chicago District)

Producing Efficiencies

At the request of CPD, USACE LRC completed an evaluative study of the area. One finding was that significant erosion was occurring along the riverbanks due to a variety of factors. The problems contributing to the erosion were all interrelated: steep riverbanks are less than ideal environments for establishing a native riparian community, including native herbaceous ground cover and shrub cover; and the banks' steep grade, coupled with the lack of herbaceous vegetation, led to significant areas of bare dirt that were likely to erode at a faster rate than would areas heavily armored by herbaceous vegetation. Regrading the riverbanks, removing invasive species—including invasive tree species—and establishing native herbaceous, shrub, and tree species were all necessary steps towards combating the erosion as well as providing enhanced wildlife habitat.

Using Natural Processes

The invasive European buckthorn understory was removed, along with larger native trees, such as silver maple and green ash, which could grow quite aggressively. With the removal of these elements, the upper habitat zone, or canopy, became more open, allowing a highly diverse, native herbaceous understory to develop. The addition of native seeds and young plantings also enhanced the healthy understory. In addition, regrading the riverbanks improved the connection of the riparian zone to the Chicago River, creating better habitat for reptiles and amphibians.





A diverse array of grasses and flowers create a robust native community.
(Photo by USACE Chicago District)

Broadening Benefits

This project corrects serious issues that contributed to erosion along the banks of the Chicago River, while contributing recreational trails for residents' enjoyment and preserving a native habitat for the future. The project improves wildlife migration corridors, in particular for valuable waterfowl species, by increasing the quantity of quality aquatic and riparian habitats— including native plant and insect diversity. The effort also provides public education opportunities about the important historic and current Chicago River ecosystem.



Native plantings create habitat for pollinators.

(Photo by USACE Chicago District)

Promoting Collaboration

USACE LRC was contacted by CPD about park users' concerns regarding riverbank and parkland conditions. USACE LRC completed a study to investigate these concerns; the results eventually led to this ecosystem restoration effort. USACE LRC and CPD participated in four public meetings conducted by the Horner Park Advisory Council (HPAC) to discuss aspects of the project and listen to public comment. USACE LRC also met with HPAC to present the plan and maintained contact with HPAC throughout the lifecycle of the project. USACE LRC received and responded to comments from the U.S. Fish and Wildlife Service, the Department of Natural Resources, the Historic Preservation Agency, and the Nottawaseppi Huron Band of the Potawatomi and the Kickapoo Tribe. GLRI funded the restoration project's design and construction.



Cobble bars help prevent erosion and stabilize the banks.

(Photo by USACE Chicago District)



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3min pages 124-127



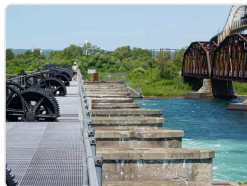
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4min pages 265-268



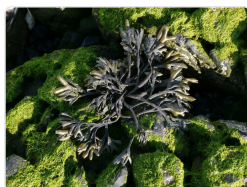
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4min pages 260-263



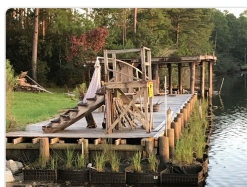
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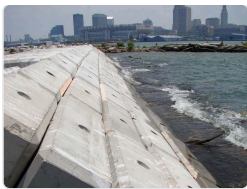
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3min pages 248-251



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3min pages 244-247



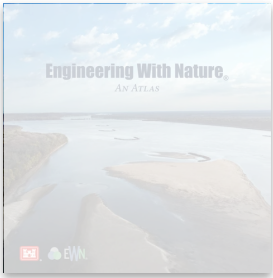
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