

# BROOKSIDE PARKING LOT GREEN INFRASTRUCTURE PROJECT

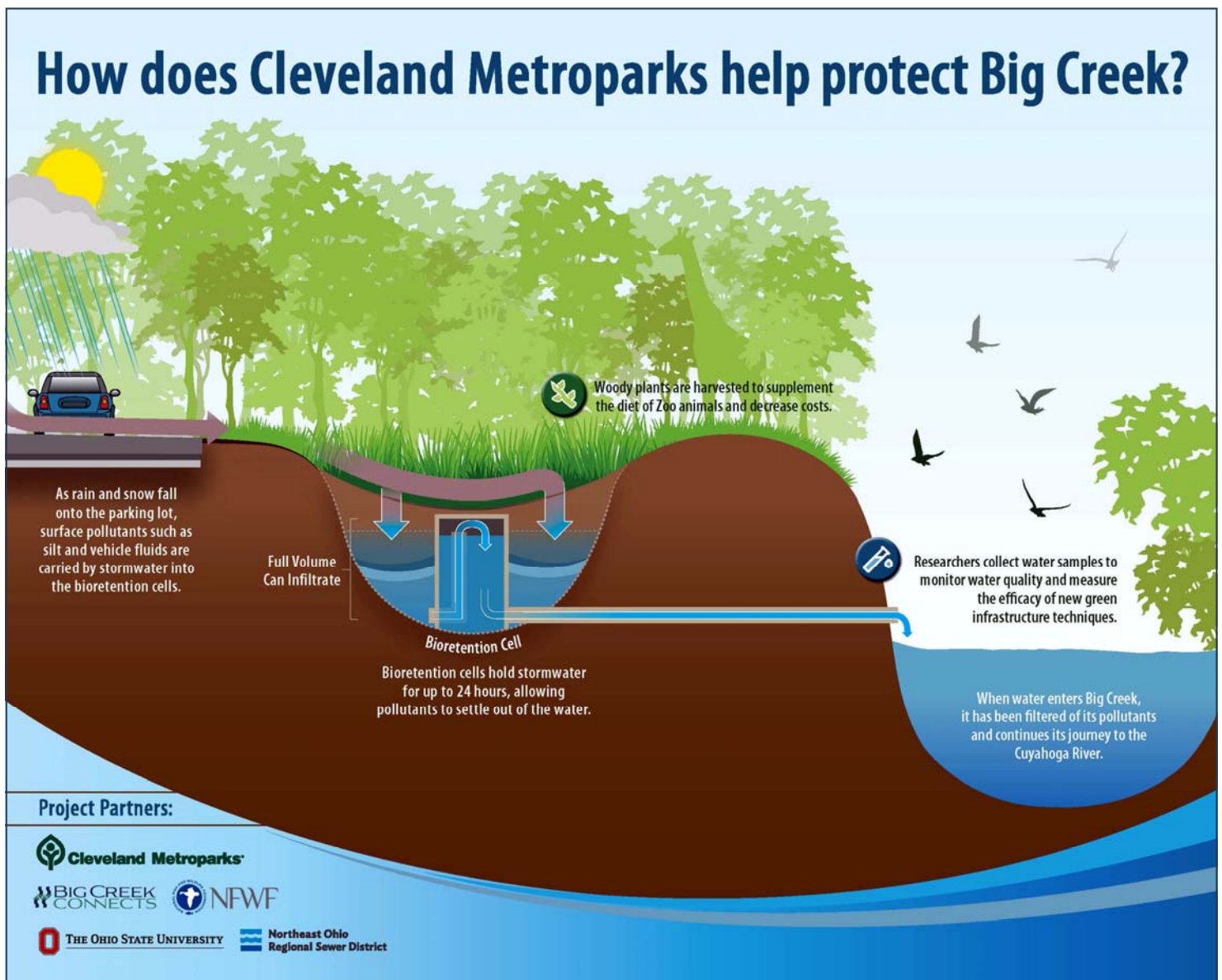
Four vegetated bioretention cells were installed in 2021 to manage stormwater runoff in Brookside Reservation and, after two full seasons of growth, are functioning as intended. The cells are located in the large parking lot adjacent to the Reservation's Football/Soccer Fields where runoff was contributing 2.5 million gallons annually of untreated stormwater to Big Creek. Initial estimates were for an increase of stormwater infiltration of 58%. However, its success rate is significantly greater than anticipated.

Jennifer Grieser, Cleveland Metroparks Director of Natural Resources noted recently that "With OSU's technical expertise, we were excited to

measure the amount of stormwater captured by the new bioretention cells in the 3.2-acre parking lot at Brookside. Results indicated that some cells capture 71% (turf grass) to 89% for the native grass/sedge and the native forb [broad-leafed, non-woody plant] cells. Data also showed that [although] very little pollutants (Nitrogen, Phosphorous, Suspended Sediment) ran off the parking lot without treatment, now the water will be even cleaner before it enters Big Creek."

In addition to its environmental impacts to Big Creek, the bioretention cells contribute aesthetic value to the large parking expanse and are a unique source of browse material for Zoo animals.

*Below: Interpretive signage at Brookside parking lot. Please see also photo on next page.*





*Ohio Spiderwort within the native forb bioretention cell. The monitoring station is in the brown box in the background.*

*Photo by Cleveland Metroparks*

## ABOUT BROOKSIDE RESERVATION

The historic Brookside Reservation is a green oasis in the heart of Cleveland's near-west side. As one of the oldest parks in the city, it has contributed value as a recreational destination while containing natural features that provide respite. In October, BCC hosted a tour where participants learned from guest speakers about the park's history, Big Creek's hydrology, and a created wetlands complex in the park. Similar tours within the Big Creek watershed will be announced later this year.

In the meantime, be sure to visit Brookside in mid-April when the Yoshino cherry trees along its famed Cherry Grove are in full bloom. The trees run along John Nagy Boulevard, beginning near the park's entrance off Ridge Road. To learn more about the trees and other park features visit [clevelandmetroparks.com/parks/visit/parks/brookside-reservation](https://clevelandmetroparks.com/parks/visit/parks/brookside-reservation).



*Participants on a tour in Brookside Reservation listen to NEORSRD's Michael Blair as he stands next to Big Creek's modified spillway.*