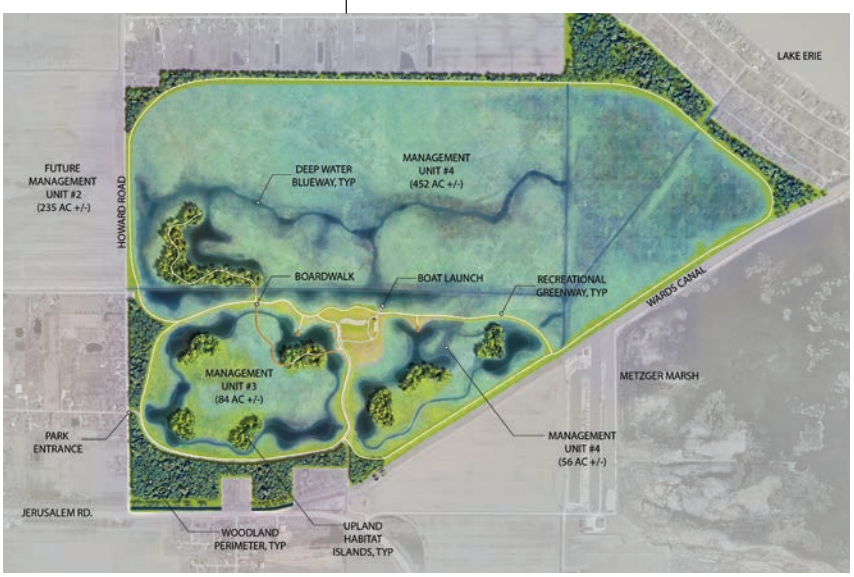
Sprawling Recreational Opportunities

Howard Marsh puts Toledo, Ohio, on the coastal wetlands map

BY EMILY MCKINNON

Howard Marsh, one of the newest parks within the Metroparks Toledo system, boasts a multitude of recreational opportunities across 750 acres of critical, restored, coastal, marsh wetland habitats. Located approximately 15 miles from downtown Toledo on the shores of Lake Erie, the park aims to draw visitors from the surrounding community—and well beyond. Over seven miles of greenways are incorporated throughout the site for strolling, hiking, and running. The trails are looped to provide a variety of distances for users, and more importantly are interwoven within diverse habitats to provide visitors with varying visual experiences as they traverse the park.



Designed to reconnect the park's coastal wetlands to Lake Erie, Howard Marsh also provides an array of opportunities to explore the area by water, including more than seven miles of blueways for kayaking or canoeing and a small boat launch for access to fishing and seasonal hunting.

Located within a significant migratory bird corridor, birding possibilities at Howard Marsh serve as a significant tourism draw to the region and help boost economic activity. To draw birders to this location, overlooks and resting and gathering spaces have been integrated within the trail networks to provide ample venues.

AMONG THE BENEFITS OF CONVERTING 750 ACRES OF FARMLAND TO COASTAL MARSH WETLANDS IS THE REDUCTION OF PHOSPHOROUS, WHICH IS KNOWN TO CUASE HARMFUL ALGAL BLOOMS IN LAKE ERIE.

RENDERINGS: SMITHGROUP

WOVEN THROUGH SIGNIFICANT ECOLOGICAL ENHANCEMENTS

But what makes Howard Marsh unique? Most successful parks include a variety of recreational opportunities. Here, those are driven by a connection to restored habitats. As funding for traditional community-enhancement projects becomes more competitive, municipalities and designers will need to develop creative solutions to provide much-needed social-gathering spaces for community members. At Howard Marsh, primary funding sources were based on the ecological benefits that a restored coastal wetland habitat had on the region. The Ohio Department of Natural Resources Division of Wildlife played a significant role in the project, committing several million dollars in land acquisition as well as wetland restoration—with the commitment to provide hunting and trapping opportunities within the park. Another design team member, Ducks Unlimited, was able to secure a $2.8-million grant through the Great Lakes Restoration Initiative, funded by the National Oceanic and Atmospheric Administration. Thanks to this creative combination of funding sources, the vision to create an integrated, recreational habitat park was born.

The environmental benefits that arise from the conversion of over 750 acres of farmland to coastal marsh wetlands are significant. Farmland is traditionally the largest contributor to phosphorous loading, so the park made a big first step in removing 750 acres of fertilized farmland from the Lake Erie basin. It also serves to remove phosphorous from the upstream drainage areas—still predominately rural residential farmland—by capturing, storing, and treating upstream runoff before discharging to the lake. "According to the scientific literature, one acre of restored Lake Erie coastal wetland can remove 13 pounds of phosphorus from the water per year," says Tim Schetter, Ph.D., Director of Natural Resources for Metroparks Toledo. With hundreds of acres of marshlands that can be subjected to varying flood volumes, the park plays a huge role in providing flood storage capacity and improving water quality within the watershed, all of which should contribute to lessen the reoccurrence of harmful algal blooms in Lake Erie.

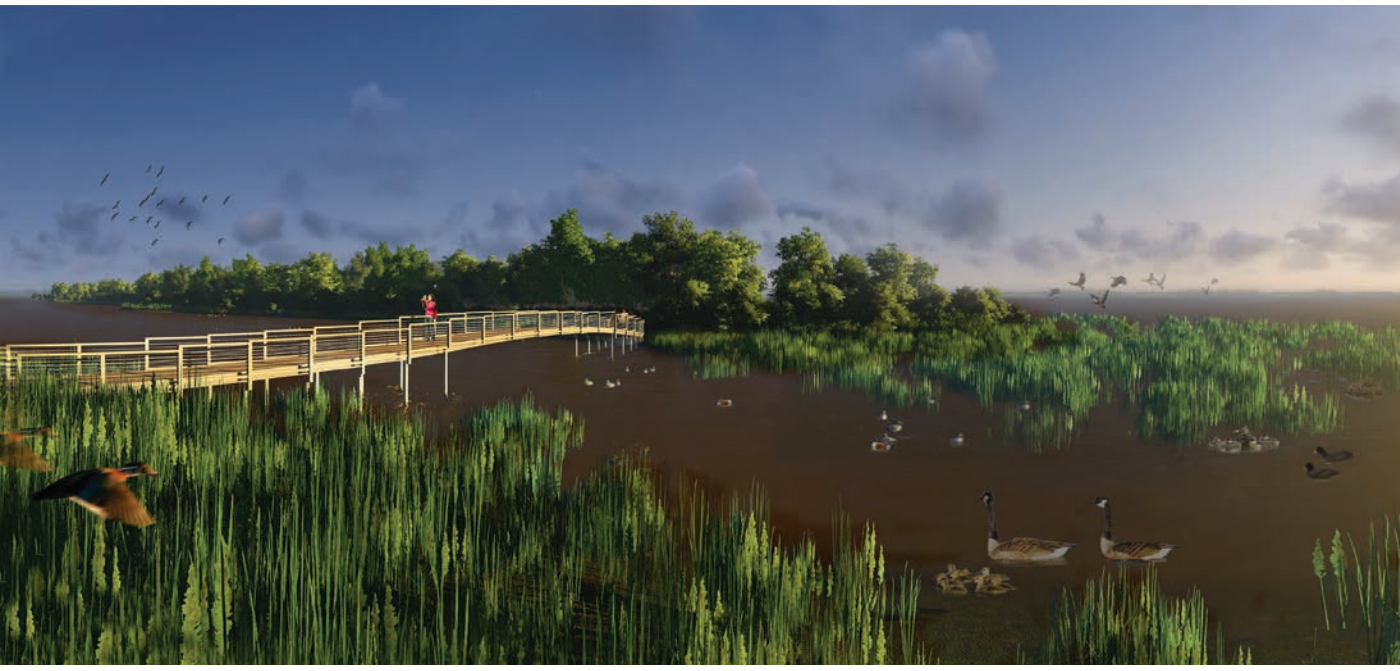
SUCCESS IS IN THE DESIGN DETAILS

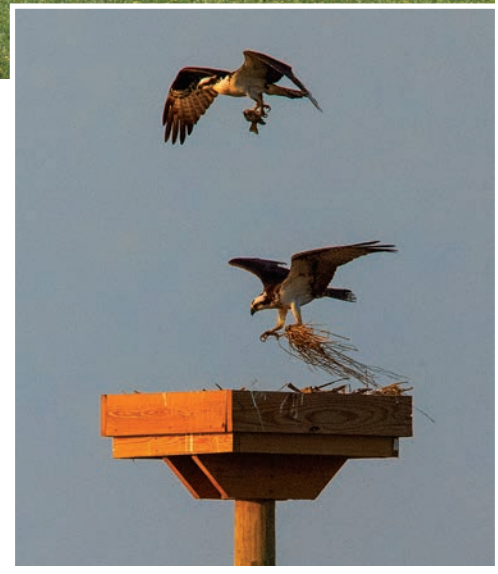
The technical design of the park required patience from the SmithGroup design team as well as the owner and regulatory stakeholders. Creating a 750-acre park that wouldn't overwhelm a casual park visitor needed a delicate balance between aesthetic and technical design—specifically regarding the creation of dikes to encompass the new wetland cells.

Review of the existing site-drainage patterns and conditions resulted in a three-cell geometric layout. The northern cell—encompassing approximately 450 acres—is the largest and accepts runoff from the surrounding rural residential areas by intercepting drainage channels and pumping upstream runoff into the diked cell. The detailed pump outlet from the park to the lake has to provide for varying flow capacities and fish passage between the lake and the wetlands, but only for the preferred species, not invasive or nuisance fish. The other two cells are smaller—roughly 84 and 56 acres respectively—and are the focus of most of the recreational components within the park.

The project included almost 700,000 cubic yards of earthwork, which required numerous iterations to balance volumes within the overall site and accommodate localized "phasing" limits in each cell to limit the distances that equipment would have to haul dirt.

Despite the relatively flat elevations across the existing





HOWARD MARSH OFFICIALLY OPENED AT THE END OF APRIL 2018, JUST IN TIME TO BE A HOST SITE FOR THE BIGGEST WEEK IN AMERICAN BIRDING, AN ANNUAL EVENT THAT DRAWS VISITORS FROM ACROSS THE STATE OF OHIO, AS WELL AS ACROSS THE COUNTRY.

farmlands, each of the wetland cells is intended to be managed at different water levels to provide greater diversity in user experiences within the park. Equalization culverts with control structures are used between the cells to facilitate drawdown and flooding within cells as needed to manage the various habitat zones.

The final detailed grading plans resulted in a diverse combination of wetland habitats: 92 acres of open water wetlands (greater than 6 feet deep), 476 acres of wetlands (0 to 6 feet deep), 24 acres of forested habitat islands, and nine acres of upland recreational area. Finally, dikes were typically set back from adjacent roadways and residential homes to provide a significant landscape buffer—over 50 acres of wooded perimeter. In total, over 8,800 trees and 3,500 shrubs were planted throughout the park.

ECONOMIC IMPACT ON COMMUNITY

Howard Marsh officially opened at the end of April 2018, just in time to be a host site for the Biggest Week in American Birding, an annual event sponsored by the Black Swamp Bird Observatory in early May that draws visitors from across the state of Ohio, as well as across the country. Due to the size and variety of recreational amenities, the park can become a destination for avid paddlers, hikers, and anglers, and will supplement the vast array of other recreational and educational attractions within the greater Toledo area. Bringing visitors from near and far to spend several days exploring the region will help support community businesses as well as trigger new development opportunities.

IMPORTANCE OF ENGAGING URBAN RESIDENTS IN NATURAL ENVIRONMENTS

Parks do more for communities than provide recreational opportunities. They connect people to nature—and people need nature to thrive. The benefits of interacting with green spaces—large or small, rural or urban—have been measured numerous times, and any number of agencies will promote the benefits derived from time spent in nature, including healthier lifestyles, improved mental health, reduced stress levels, the lessening of Attention Deficit Disorder symptoms in children, and more. Similarly, parks and open spaces have repeatedly been shown to improve neighboring property values, encourage redevelopment, and promote investment in local communities. But these are only two legs of the triple bottom line. Not to be overlooked—and equally as vital—are the environmental benefits that parks provide. As critical habitat is being lost across the globe at increasing rates due to global warming, urban sprawl, urban densification, and other critical factors, the importance of protecting, restoring, or re-creating ecological habitats has never been so important.

One critical need to maintain and push for protection and restoration of our diverse ecological habitats is the vocal support of people. Bugs, animals, birds, plants, and trees need advocates to fight for them. Society must consider this: How can we continue to develop the next generation of conservationists if large segments of the population move to urban areas? One solution: We must create green open spaces within and immediately adjacent to urban centers. These spaces can and should vary in scale from small neighborhood parks to large community open spaces that promote a wide variety of uses, including preservation areas surrounding the urban core.

Howard Marsh Metropark is an excellent example of a large preservation area that has transformed over 750 acres of rural farmland into diverse coastal wetland habitats. Providing thoughtful recreational opportunities within beneficial habitats, the space does an exceptional job drawing nearby urban residents to visit. Environmental habitats and recreational activities can seem like competing ones at times, but through careful, intentional design, both can succeed. **PRB**

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