

# Middle Bass Island Mitigation Design-Build

Middle Bass Island, Ohio



*Newly created vernal pools and revegetated shorelines are restoring function and stability to an area that had been degraded by a marina expansion.*



top: One of the constructed vernal pools  
bottom: Planted category 3 wetland

The Lake Erie Marina, located on Middle Bass Island just north of Port Clinton, Ohio, was in need of safety upgrades to fulfill the pressing needs of a growing boating community. In addition to replacing the marina, the Ohio Department of Natural Resources needed to add campground facilities and related grading, paving and storm drainage.

Biohabitats and its sister construction company, Ecological Restoration & Management,

devised a revegetation plan to allow for marina upgrades and campground construction while also enhancing the site's ecological function and satisfying federal and state permit and mitigation requirements.

After examining restoration approaches and details with the U.S. Army Corps of Engineers and Ohio Environmental Protection Agency, Biohabitats developed a technical memorandum documenting the best approach, or 'value engineering,' for the site's planting plan.

The plan recommendations, which maximized planting success and optimized project costs relative to satisfying permit and mitigation

requirements, included: vernal pool planted with 133 trees; category 3 wetland planted with 37 shrubs; vegetated shallows planted with 6,898 submerged aquatic plants; and 0.24 acres of American lotus replacement.

With Biohabitats' planting plan installed, the upgraded marina not only has improved safety and value, but also ecological function as a harbor refuge.

## SERVICES

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