



THE BAY VIEW WETLAND MILWAUKEE MASTER PLAN



ACKNOWLEDGEMENTS

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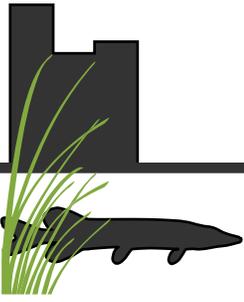
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Photo Captured by the University of Wisconsin-Milwaukee

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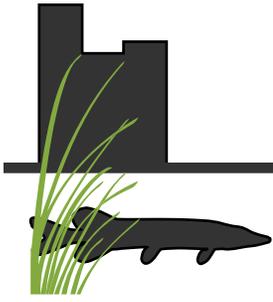
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1. INTRODUCTION



The Milwaukee Estuary, at the confluence of the Milwaukee, Menomonee, and Kinnickinnic Rivers, played a central role in the history of the Milwaukee Area. When Europeans first came to the area, they found 10,000 acres of wetlands. This landscape was first utilized by Native Americans and later by European immigrants and their descendants.

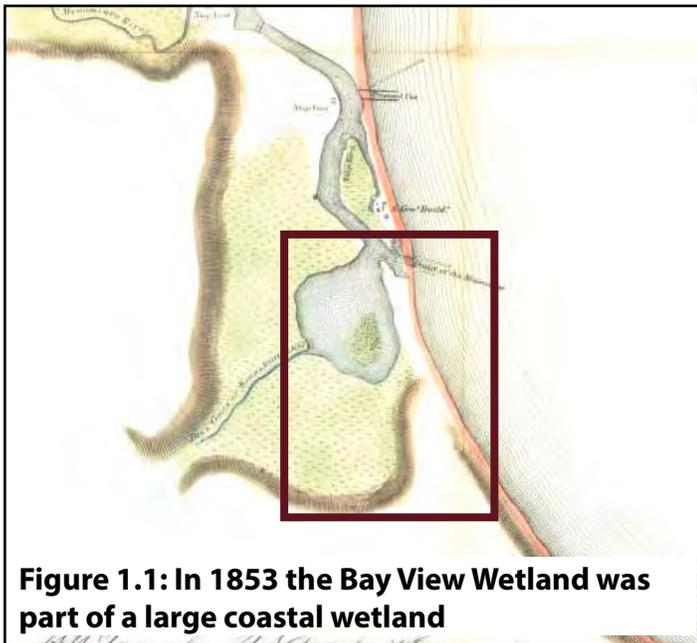


Figure 1.1: In 1853 the Bay View Wetland was part of a large coastal wetland

Almost from its inception Milwaukee's character, development patterns and aesthetic has been defined by the industrial facilities located in and adjacent to the estuary. In the process these companies dramatically changed the landscape, filled wetlands, dredged canals, armored river banks and even relocated the mouth of the Milwaukee River to serve their needs.

Today, much of Milwaukee is less industrial than it once was. Over time, due to changes in economy, technology and globalization, many of these mighty industries moved to other locations or became obsolete, leaving behind a rust belt landscape of brownfields, blight, and large parcels of land that have laid unused or marginally used for decades. In

the current era of Milwaukee's history, Milwaukee is rediscovering its past as the basis for creating a vibrant and sustainable future.

The Bay View wetland project area is a 28 acre parcel of land owned by the Port of Milwaukee that was formerly the Grand Trunk railroad yard, excluding a contractor yard on the northern 11.6 acres of the site. The project area contains a 6.5 acre delineated wetland which does not cover the entire project area. A development site outside the delineated wetland was anticipated at the outset of the project.

The delineated wetland in the project area may be the last 6.5 acres of the original thousands of acres of wetland once found in Milwaukee's estuary. It is approximately ½ mile from the original mouth of the Milwaukee River and discharges to the Kinnickinnic River. A map from 1835 superimposed on the site classified the site as a wetland at the time of European settlement (Figure 1.1).

Soil borings taken from the site show "grey to green organic silt to clay with variable amounts of shell fragments, peat, and fine sand" extending down as far as 50 feet. The depth of the shell fragments as well as the presence of peat and fine sand from the soil report suggests the project area was once a coastal wetland with a direct hydrologic relationship to Lake Michigan. These soil boring results also indicate that the site has been incrementally filled from its original grade at European settlement through natural and manmade processes.

The overall mission of this project is to restore a Port of Milwaukee-owned wetland on the former Grand Trunk site as habitat and a community resource in a manner that complements surrounding port and industrial uses. The goal is to restore the wetland as a coastal wetland with particular interest as a "seiche wetland." Seiche wetlands are the freshwater equivalent of a salt water tidal marsh. Water levels in seiche wetlands rise and fall as a result of oscillations or 'sloshing' that occurs in the larger



 Property Boundary

Basemap Source:
ESRI World Topographic Base Map

0 500 1,000 2,000
Feet



Figure 1.2: The project parcel is located just North of Milwaukee’s Bay View neighborhood

waterbody to which they are connected. This effect is caused largely by regional atmospheric forces. Water levels fluctuate at unpredictable time intervals ranging from every few hours to every few days.

This project preserves our last opportunity to get back the only remaining remnant of these coastal seiche-influenced wetlands. Milwaukee doesn't appear to have any other coastal wetlands, not anymore, and this is the last chance to really protect and enhance this valuable resource.

The objectives of this Restoration and Preliminary Design Plan at the former Grand Trunk Railroad yard are as follows:

- **Enhance fish habitat** between Lake Michigan and the Milwaukee Estuary tributaries. By replacing a non-functioning culvert, managing vegetation, and removing fill along the intervening ditched waterway to partially restore former elevations, the project will vastly improve fish habitat, especially for northern Pike.
- **Restore native plants.** Vegetation will be managed by removing invasive plants such as Phragmites and planting native species appropriate for wet prairie, sedge meadow and emergent wetlands.
- **Create habitat.** In addition to providing shelter for migrating birds and animals, all habitat areas will be designed to include hibernacula for the threatened Butler's garter snake, thought to be the last of this species in the estuary.
- **Foster Education.** The School of Freshwater sciences has been involved in the project since its inception, as has the UWM College of Architecture and Urban Planning. The Bay View Wetland Master Plan includes continued academic study at the site that will benefit generations of students and the site's restored ecosystems.
- **Create a Community Resource.** The concept calls for involving local volunteers and school children to participate in monitoring the project. Providing roles for citizen scientists will enrich our understanding of the ecosystems at the Bay View Wetland while also enriching citizens' appreciation for the wild places just outside their own backyards.

This plan also explores ways to incorporate trails and visitor facilities into the site to encourage casual, unstructured exploration for Milwaukee residents. This will be a place in the city to experience nature.

- **Stimulate Sustainable Development.** This project explores ways that development can enhance the experience of the site and help its restoration areas thrive. Development which may occur at the Bay View Wetland should serve as a model for sustainable design that raises the bar for new development in industrial areas.

The Bay View Wetland, in its present state, may not look like much from the outside. But those who have visited can attest to the **power it already has to remove the visitor from the daily bustle of urban life and experience the timelessness of the natural world.**

The project outlined in this master plan will enrich existing and **reintroduce historic ecosystems** to the Bay View Wetland. It will also suggest ways to **weave people and development into the site** in order to enhance the integrity of the restored wetland ecosystem.



Property Boundary Project Area

Basemap Source:
SEWRPC 2010 Ortho Photography

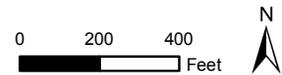


Figure 1.3: The Bay View Wetland Property and Project Area

The project area includes a small portion of adjacent railroad right of ways and industrial properties. Some of these areas are hydrologically connected to the property and consideration of how these areas will relate to the proposed restoration will be crucial to its success.