



US Army Corps
of Engineers

HARBOR INFRASTRUCTURE INVENTORIES Vermilion Harbor, OH



Harbor Location: Vermilion Harbor is located on the southern shore of Lake Erie in the city of Vermilion, OH about 40 miles west of Cleveland, OH.

Authority: River & Harbor Acts of 1836, 1875, 1905 and 1958.

Project Description: Originally authorized by the River and Harbor Act of 1836, Vermilion Harbor is a shallow draft recreational harbor. Protective structures consist of east and west laid up stone piers with a total length of 1,792' and a steel sheet pile with concrete cap detached breakwater with a length of 864'.

Congressional Interest:

- Representative Marcy Kaptur D-OH-9
- Senator Rob Portman R-OH
- Senator Sherrod Brown D-OH

Current Condition Assessment: **C**



Date of Site Visit: 15 June 2010.

Summary of Impact: Prevailing waves come from the northwest to northeast direction. Failure of the protective structures would cause a significant increase in wave action propagating upstream in the Vermilion River. This would result in damage to the Vermilion Port Authority Transient Docks located adjacent to the water treatment plant. The private homes and beach of the Vermilion Lagoons would also be damaged as a result of failure. Increased shoaling within the channel due to failure would also be detrimental to the operations of the marinas along the river. Presently, the detached breakwater causes problems over the winter months with ice jams, but the City of Vermilion has stated that during the summer months, the breakwater is vital to the city.

Examples of Protected Infrastructure:



1. Assorted Marinas along the Vermilion River: Thirteen privately owned recreational marinas with a total of 1,522 slips dependent on an open channel for lake access. Also home to 51 charter vessels, 2 commercial fishing vessels and 2 ferry boats. Breakwater failure would lead to shoaling of the channel and limited access to the lake.

2. City of Vermilion Water Treatment Plant and Vermilion Port Authority Transient Docks: 3 million gallon per day water treatment plant built in 1904. 18" intake line extending 1,500' into the lake. Two story main building, with an underground settling basin and an intake structure on shore. Serves a population of about 5,500 in the City of Vermilion. On shore structures are well protected and the only negative impact likely resulting from breakwater failure would be to port authority run transient docks located at the plant. Increased wave action would reduce use and cause damage to docks.



3. Vermilion Lagoons' Association: Privately owned 60 acre 150 home neighborhood on the lake with a shared beach and beach house. Breakwaters serve to protect homes and beach from wave action under west-northwest winds.



Potential Impact Area: The following graphic displays property parcels that could be impacted within various zones defined by different setbacks from the shoreline behind existing Federal coastal structures. Values are based on real property tax assessments from these parcels, and don't reflect any detailed coastal zone damage assessments. Figures simply reflect property values at various setbacks.

Setback Feet	Land Value	Improvements Value	Total Value
1,000	\$52M	\$27M	\$79M
1,500	\$63M	\$34M	\$97M
2,000	\$66M	\$39M	\$105M



- Federal Structure
- Shoreline_1000_ft_buffer
- Shoreline_1500_ft_buffer
- Shoreline_2000_ft_buffer
- Parcels_1000_ft_buffer
- Parcels_1500_ft_buffer
- Parcels_2000_ft_buffer

VERMILION HARBOR

Vermilion, OH

