Michigan Municipal League - Statewide Estimate of Damages from Shoreline Erosion & High Waters

Community	Damages & Repairs Needed	Cost Estimate	Resolutions
City of Alpena	City has spent city funds on shoreline repairs and infrastructure & preventative measures as of September 2019.	\$12,000	
,	Replacement of local ballfield restrooms, concession stands & storage buildings (2018). Accumulated		
	cost of additional municipal staff time. Damage to the downtown park by flooding, construction of	44 242 222	
City of Eaton Rapids	seawalls. Upgrades to mitigate future flooding of ballfields including the installation of larger pumps.	\$1,310,000	
City of Grand Haven	Currently handling the overflow of stormwater drains that our now overflowing into the city streets and causing flooding.	\$3,580,000	
City of Grand Flaven	Lausing nooding.	\$3,380,000	
City of Grosse Pointe	Most of the Grosse Pointes muni marinas have had to build up their docks at a significant expense.	\$167,000	
City of Grosse Pointe Farms	Damage to Marina Pier platforms.	40,000	
City of Grosse Pointe Park	Eroded stormwater outlet at Lake St. Clair & marina pier platform replacement.	130,000	
	Repairs needed for sinkhole on Lakeshore Drive, damages to sanitary pipe, and the purchase of		
City of Grosse Pointe Shores	sandbags.	85,000	
City of Grosse Pointe Woods	Damage to Marina Pier platforms and purchase of sandbags.	66,000	
,	Damage to lift station, board walks, seawalls and boat launches. Significant flooding to Windmill Island		
City of Holland	Gardens, limited access availible. Several roads underwater.	\$976,000	
	Intersection underwater, limited access to homes. Damage to Maritime Museum. Ludington Youth		
City of Ludington	Sailing School Facility is inaccessible due to high water. Repairs needed for boat launch.	3,653,000	
	Insurance proceeds have cover a majority due to the meteotsunami - barametric pressure deal, lost		
	350ft of their riverwalk to erosion \$750k-\$1 million estimate in damages for 2020, breakwall is damaged		
City of Manistee	to the extent of closure.	3,540,000	Yes
	Demand along lakashaya Tusik maytiga af the tusik colleged due to evering Deach Studet, wayk days to		
	Damage along Lakeshore Trail - portion of the trail collasped due to erosion, Beach Street - work done to stabilize the shoreline. City is working on an engineering study to address long-term repairs for the		
City of Muskegon	shoreline.	\$10,760,000	
City of Maskegon	Parking lot removal and replacement, sidewalk removal and replacement , boardwalk redeck, turf	ψ10)7 00)000	
City of North Muskegon	restoration, irrigation, and miscellaneous site feature repairs.	\$259,900	
	Replacement of 35 ft Mona Lake steel sheeting, dredging sand from channel, walkway replecement,		
	sinkhole repairs along seawall of Lake Harbor Drive, need to move the sanitary sewer along Lake		
	Michigan. Rental of auxillary pump for sanitary sewer lift, replacement of auxillary turnout near Lake	4272.000	.,
City of Norton Shores	Michigan. Rebuilding the East Pier Path and repairs to adjacent property. Repairs and bank stabilization to erosion	\$272,000	Yes
	at Marina Park and Island boardwalks. Stabilizations of two histroical building foundations. Repairs to		
	inudated sanitary sewers. Repais to storm water drains and lift on Zinc St. Repairs to river bank erosion		
City of Ontanogon	along River Road .	\$1,185,000	

	Engineering study for restoriation of Arrowhead Shores, sewer main relocation at Bayfront Park, repairs		
City of Petoskey	and installment to the floating doc system.	\$4,535,000	
	Coast Guard / Army Corns have funds they are using to sever some costs. Bort Huran has insurred about		
City of Down House	Coast Guard/Army Corps have funds they are using to cover some costs. Port Huron has incurred about	150,000	
City of Port Huron	\$150,000 in damages.	150,000	
City of Sault St. Marie	Repairs to electric utilities and fuel lines. Installment of modified shoreline protections and boardwalk	\$727,707	
·	Significant damages to coastal & riverbank, harbor wave proagations, beach erosion and maintanence,	` '	
	marinas and stormwater infrastructure and utility infrastructure. Flooding and contamination to water		
City of South Haven	filtration plan located on shoreline.	\$16,000,000	
City of St. Clair Shores	Plugs / Pumps / Equipment / Sandbagging / Erosion / Repairs to storm system.	\$230,000	
- 1, 1 20 200 200	Anticipating repairs to non-motorized trail, parking lot, well house, storm water is mixing with the lake	` '	
	water. Ther are limited contractors availible. Anticipating 1ft-18 inches of new water in the coming		
Rogers City	months. Lake water flooding in the wastewater treatement plant.		Yes
Saugatuck Township	Severe erosion along Lakeshore Drive.		Yes
	Culvert failure on the Yonker drain, hardening of sanitary sewer structures that will be submerged in the		
Spring Lake Township	spring of 2020	\$270,000	
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	Damage to Tawas Point State Park in East Tawas, multiple instances of damage to Tawas City's		
	waterfront parks and coastal flooding of residential properties along Lake Huron – the latter of which		
	prompted losco County Emergency Management Coordinator Ed Rohn to help acquire more than 48,000		
Tawas City	sandbags recently from the U.S. Army Corps of Engineers, to be used by impacted residents.	\$3,540,000	Yes
Traverse City		\$997,500	
,	Nov.19 - Board of Trustees approved \$20,000 in infrastructure repairs - to "double-seal" the harbor's		
	electrical pedestals (now underwater), and to order rip-rap for a waterfront corner where erosion could		
Village of Elk Rapids	wash out a street.	\$20,000	Yes
	Temporary fix needed to stabilize the land to keep our water intake structure from falling into Lake		
Village of Lexington	Huron.	\$15,000	Yes
	Pentwater has a causeway to a bridge that is washed out & closed, sunken sidewalks, two storm drains		
Village of Pentwater	have collapsed, damage to municipal docks and Yatch Club.	\$660,000	Yes
	Damages to the Mineral Springs Park playground area and parking lot. Replacement of the sphalt		
	parking area, concrete sidewalk. Construction for dock extentions, eletrical upgrade and site lighting for		
City of Frankfort	the Frankfort Marina Project and 200 ft of armoured stone rip-rap along portion of critical due.	\$10,098,000	
	Mill Point Park Parking Lot Improvements, Jackson Street Dock Repairs, Grand River Greenway Repairs		
Village of Spring Lake	(From Mill Pt. Park Boardwalk to Park St.), Alden Street Repairs.	\$432,000	
	Total \$ of Repairs	\$63,711,107	8