

ALONGSHORE – BEACH TREK ALONG THE EAST SHORE OF GT BAY®
 Eastport Barnes Park to Elk Rapids Dam Beach
 Township Neighbors Network

E.A.S.T Sub – Watershed Map



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Eastport Barnes Park to Elk Rapids Dam Beach. BY: Township Neighbors Network

Why this 15 mile Trek? Observe conditions of GT Bay east shore due to water level extremes for IJC to address, and prepare for autumn beach and water conferences.



This amazing shoreline provides great scenery, long vistas, diverse habitats, and beach recreation. Water levels change with storms, seasons and decades. Beaches are much better than in the low water years. Common sense response to water level change helps property and ecology values. This beach on the East Bay shore was real - current reality is different.

Water clarity is vital - Clear this summer! Zebra mussels are gone. cobble in clear water

TNN interviews ER Real Estate Broker. Markets have priced-in Grand Traverse Bay water levels change as part of big water, broad vistas, gorgeous sunsets and beaches. It's the quality of the beach that's important – more so than size. Beach grooming is beneficial to property values as is regulating water levels – within a range that balances property values with ecology.

Save Our Shorelines.org: "Shore-line development increases property values and are an important source of tax revenue for local governments (and schools). Beach grooming is necessary to keep property values high and allow enjoyment of beaches".



Living on East Shore of Grand Traverse Bay - Quiet mornings with bird calls after a family evening and kids in the water. Last night's loon cries have faded and a bald eagle carrying a fish remains a memory. Herons and humming birds visit - and sometimes a deer or coyote. Few seagulls and sandpipers are seen. Morning coffee on the deck with surf sounds and long vistas is a favorite.

July TNN Trek along the East shore of Grand Traverse Bay. (at or below OHWM)

Readers know the low water story from these pages – those years ended in January 2013. This is the story of higher water eroding parts of the east shore of GT Bay. To see what's happening, TNN trekked 15 miles alongshore of the Bay's mid-north reaches: the south half of Birchview Road to Elk Rapids' Dam Beach (Zone A) and Creswell Road north to Eastport's Barnes Park (Zone B). Please see Map.

Smaller high quality groomed beaches are balanced by willows, shrubs, guzzles, marshes, and ponds that protect the shore and can harbor life. Not much Macro-biotic life was seen in the shallows – Cause? Likely deep water Quagga mussels. Parts of the beach are submerged under 1 ft. of water; too high or about right? Depends on your lot - there is wide variation for neighboring lots.

Some beaches, bluffs and dunes were seen eroding – the water is pristine.

Shore erosion is due in part from excess outflows from Lake Superior (p.2 sidebar) but mostly heavy rain and snow, and complete ice cover in two of the last three winters. In this, the 4th summer of higher water, mud flats are gone. The last of the crud on cobble and rocks sheeted off in spring like wet wallpaper, and was scoured away by sand. Woody debris from eroded roots is still seen washed-up alongshore and as shadows in low spots in the water to be cleared by repeated 'blows' or storms.

Sugar sand beaches. Public beaches use heavy equipment to groom the sugar sand we love. But machine grooming was rarely seen alongshore for non-public beaches. People TNN chatted with alongshore understand the benefit of sand – and beach grass, willows and native plants that hold sand. They know that sand is a gift that keeps on giving and protects the shore. These folks labor wisely to groom their sand garden by hand to balance greenery, sunbathing and play.

Residents are the first line of defense for the 664 parcels along the eastern shoreline.

SUMMARY:

Excessive Water Level Range

Range is greater for L. Michigan than for L. Superior and the Lower Lakes.

As a Start, TNN suggests a water level range of 4½ feet
Low 576.8 - High 581.3 feet (July was 580.4) re: sea level.

Extreme high water was tough on shore owners during record highs of 1986. On the Grand Traverse Bay east shore, a small number had to harden their shore to protect homes built to code during normal water level times.

Water does not have to have extreme highs or lows: IJC must implement its 'Crisis Response Criteria'. **NOTE A.**

SAVE OUR SHORELINES "People have always kept beaches clean and safe."

Per Michigan Beach Grooming Law 2012 PA 247, Great Lakes shore owners can maintain beaches without first seeking a permit from MDEQ. But federal law still applies below the OHWM. "Shoreline development increase property values and are an important source of tax revenue for local governments (and schools). Beach grooming is necessary to keep property values high and for enjoyment of the beaches".

NOTE A: News Reports: Erosion on the shores of Lake Michigan

Record Eagle-South Bend Tribune-Chicago Tribune-Milwaukee Sentinel report significant beach loss in their states. Higher water is reported to be the cause of eroding beaches, bluffs & dunes – up 4 feet since 2012 .

International Joint Commission (IJC) U.S. Canada governs Great Lakes.

Lake Michigan (and Huron) levels vary much more than other Great Lakes. TNN Pres. Termaat with partner ROWI met with the U.S. - IJC Chair in May on higher water shore erosion. The IJC declined to regulate water levels by acting on its '*Crisis Response Criteria*'.

IJC did approve excess water release from L. Superior at the Sault despite higher water on L. Michigan–Huron.

Beaches

Public

Elk Rapids Veterans Memorial Beach is grand – and maintained with mechanical equipment which moves and grades clean sand pumped from the Harbor.

Records show - up to 5 acres of beach lie below water that is now 1 foot above average and 4 in. above last July.



Kayaks on non-public beach

This beach is about 40 by 100 feet. It was fed by sand from a former spit now eroded by high water storms and deposited on-shore. Nature gives to some beaches and takes away from others.



Also Blessed by Nature

Here Nature's bounty has produced a wide beach which continues for multiple parcels. There are others – erosion of beaches varies by location – even neighboring beaches can be vastly different.



Pocket Beach

Willows and shrubs grow to waters' edge leaving room to read a book or sunbathe but not Badminton. Natural growth protects the shore by holding sand and nudging human footprints into the water.

Pocket beaches can be 40 feet wide and 20 feet deep, maintained by raking and moving sand by hand. In 15 miles of shore trek, only 2 of 664 parcels showed signs of mechanical grooming

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Beaches (Cont'd)



Eroded by high water

These shore owners have not been as blessed. Late spring storms eroded this beach which now lies in part below water's edge.

Small boats cannot be left unattended or they will soon be claimed by surf driven sand.



Boat hoists solve the problem

It takes paid brawn to place the hoist in spring and remove it in autumn. Not to do so risks a metal pretzel twisted by winter storms or a hoist buried in sand.



'Cottage 'Harbors

This group of boat hoists in front of Bay cottages forms a 'harbor'. Dozens exist to satisfy a prized desire of boating from home without a commute to a marina. But launch and removal of boats still depend on Elk Rapids Harbor.

Guzzles*



Guzzles* are a low spot usually on a barrier beach over which the Bay now and then flows into ponds. Usually a guzzle floods in an onshore storm. It can also be a very shallow channel through a sandbar – formed by outflow of a river, creek, or brook..

* This definition and the title of this piece are drawn from the book, *Alongshore* by John R. Stilgoe, published by Yale University Press in 1994. It is a cherished gift from daughter Barbara. This is a salt water book - excerpts were adapted to our freshwater seas while on the TNN trek alongshore the Grand Traverse Bay East shore.



Smaller guzzles at the outflows of a creek (left) and a brook (right). Many brooks and several creeks were observed alongshore although once common seeps are now mostly under water. Note the bridge to allow passage for beach walkers. Note also the hoist left too close to the Bay last fall. It was dug out later in the summer.



Example Beach Profile SEAGRANT



Surf Woody debris

Tree line

Beach grass

Beach

SAVE OUR SHORELINES.ORG "People have always kept beaches clean and safe." Michigan Beach Grooming Law, 2012 PA 247 was enacted July 2012. Shore owners along Great Lakes can maintain their beaches without first seeking a permit from MDEQ. But federal law is still in place below the OHWM. "People still need to consider whether they need federal permits from the Corps of Engineers" to groom their beach below the ordinary high water mark to the water's edge. "Shore-line development increases property values and are an important source of tax revenue for local governments (and schools). Beach grooming is necessary to keep property values high and allow for enjoyment of the beaches".

Near-Shore Marshes

Storm driven sand overwhelms marshes during high water times – and sometimes builds them. Shore residents accept marshes to a point and build board walks across them. But sometimes the smell and insects are too much and a small marsh or pond may be filled-in by hand to form a pocket beach suitable for child play. (These were filled-in by surf)



Pretty to look at (below) but not much fun for swimming. These shallows seen but once were drowned by high water but not enough to kill reeds as in all other areas of the east shore.

Larger marshes up to 1000 feet inland (not shown)

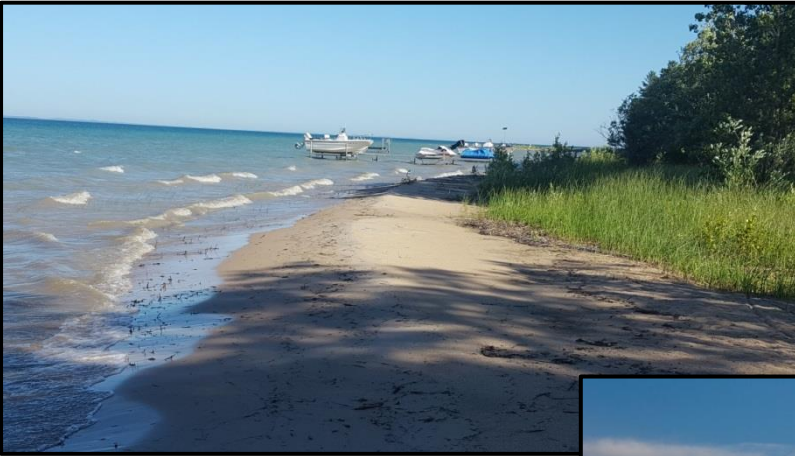
Marshes behind barrier dunes, bluffs and barrier beaches only flow out. They are plugged to inflows from Bay waters.

Not by homes or streets whose bridges and culverts allow water flow to the Bay. Rather, streams are choked upland by fallen tree boles, mud banks, and eroded slopes. A farmer claims as a boy he caught salmon on the farm 1 mile in – today this fish would have to walk.

Inflows to large marshes from higher L. Michigan water could ease water level variation if carried out around Lake Michigan.



Harbors



'Cottage' Harbor

This group of boat hoists in front of Bay cottages forms a 'harbor'. Dozens exist to satisfy a prized desire of boating from home without a commute to a boat slip. But launch and removal of boats still depend on Elk Rapids Harbor.

Elk Rapids' E.C. Grace Memorial Harbor
Regional harbor - renowned statewide. Virtually all mid-east shore GT Bay boaters depend on ER Harbor – either with a slip - or seasonal /daily launch. The upper Harbor supports inland boaters.



Photo by Tom Vranich



Photo by Permission of Owner.

Silted-up Public Harbor

This harbor of thirteen slips silted up with sand driven by higher water and lies empty. Area boaters travel the Elk Rapids Harbor for launch and take-out.

Inwood Harbor – Not Public
Scenic Inwood Harbor is successful and has been dredged by the Property Owners Association. It is a peaceful respite from seasonal crowds in Elk Rapids.

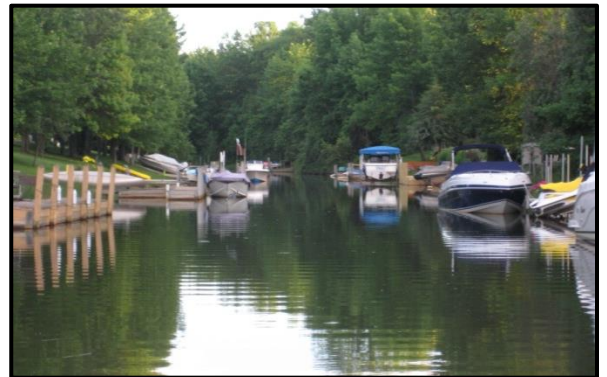


Photo: <http://www.inwoodharbor.com/gallery.html>

Bluffs and Dunes.

The power of water is greatest north of Old Mission (Zone B). The Peninsula protects the East shore of the Bay at more southern latitudes. But eroded bluffs are also seen in Elk Rapids Township and in Milton Township. Storm driven high water undercut the foot of the bluff and cascaded sand, natural plants and a White Pine into the 'sea'



Only once did TNN see a natural dune that slid into the Bay. Like bluff erosion more commonly seen, undercutting cascaded sand, White Pines and a Hemlock into the 'sea.



A step too far



Woody debris. Ground-up roots and bushes dislodged by storms soon deposit on shore – but often lies in low spots on the bottom near the shore – look for dark shadows in the water.

Shore Hardening

Blue Shale Bluff hardens the shore naturally for a few hundred feet alongshore – shale bluffs are reported to be extensive in Zone C below Norwood



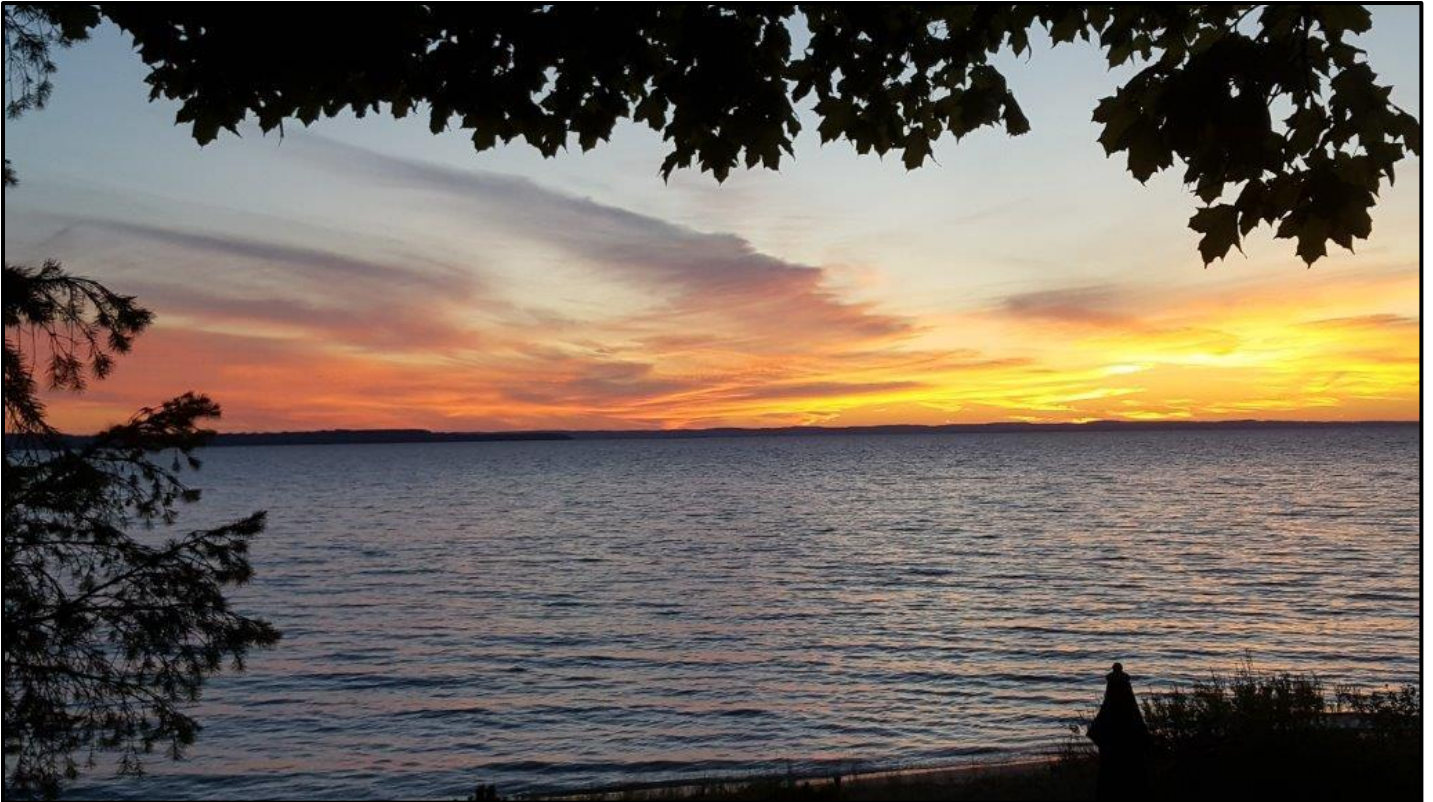
Shore hardening structures protect only a small part of the shoreline.

Seawalls range from rocks, boulders and timber alongshore. Groins perpendicular to the shoreline are most commonly rock filled timber cribs, vertical boards jettted into the sand, and grout bags.

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And of course the sunsets.



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