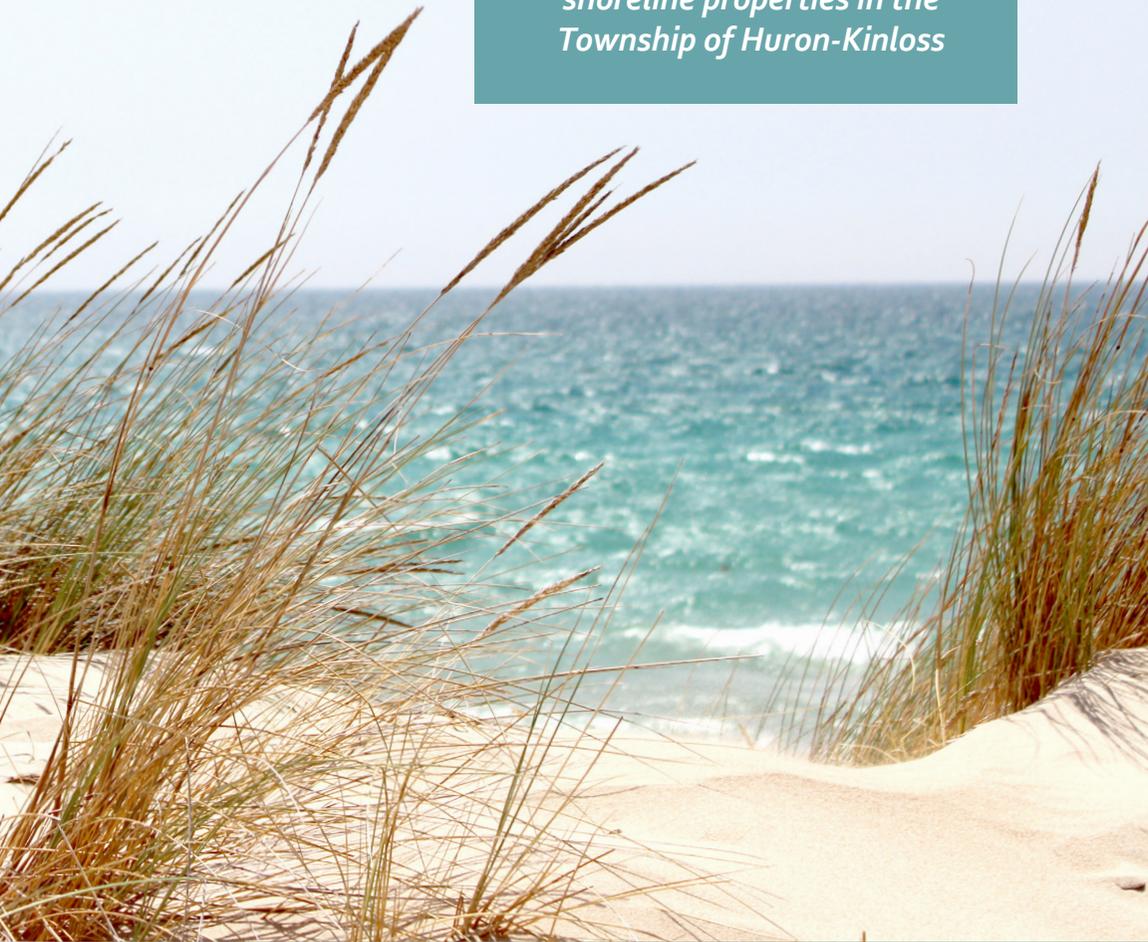


# HEALTHY SHORELINE HEALTHY YOU!

*A guide for sustainable  
shoreline properties in the  
Township of Huron-Kinloss*



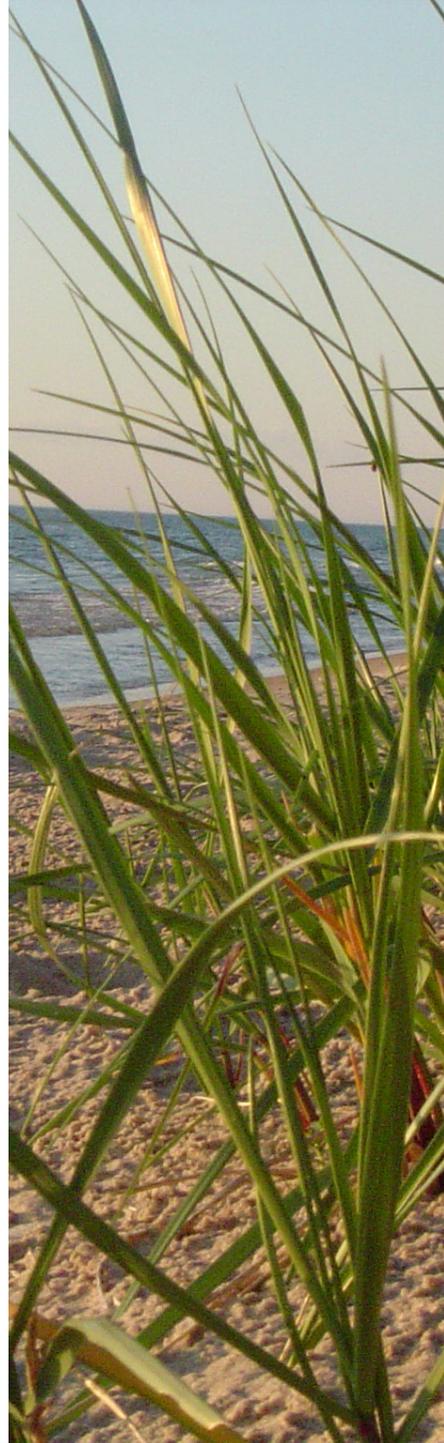
*Best management principals for the shoreline of...*

## LAKE HURON



# CONTENTS

- 1 Purpose of this Guide
- 2 History of Lake Huron
- 3 Lake Levels
- 4 Beach Processes
- 5 Littoral Drift
- 6 Anatomy of a Healthy Beach
- 8 Healthy Dunes, Healthy You!
- 10 Restoring Your Beach
- 12 What's on my Beach?
- 14 Pathways & Setbacks
- 16 Threats to our Coast
- 18 Resilient Property Checklist
- 20 Where to Start



## PURPOSE OF THIS GUIDE



Human presence is increasing across the Lake Huron shoreline with cottages getting larger, towns expanding for tourism, and land use practices changing. There are many different opinions on how to manage your shoreline, coming from many different sources; federal provincial, municipal, conservation authorities and non-profit organizations.

This guide has been prepared to support landowner stewardship of private properties abutting public beach areas along Lake Huron's shores in the Township of Huron-Kinloss. The beauty of Lake Huron continues to attract year-round residents, and the importance of landowner contributions to best stewardship practices becomes increasingly significant if communities want to conserve beach quality. By reading this guide, you will also learn more about how Lake Huron 'works' as well as how we can all become more resilient to changes along the coast. We have structured this guide to equally consider conservation, development and recreation, with the understanding that we all have to work together to keep our lake healthy and beautiful for generations to come.

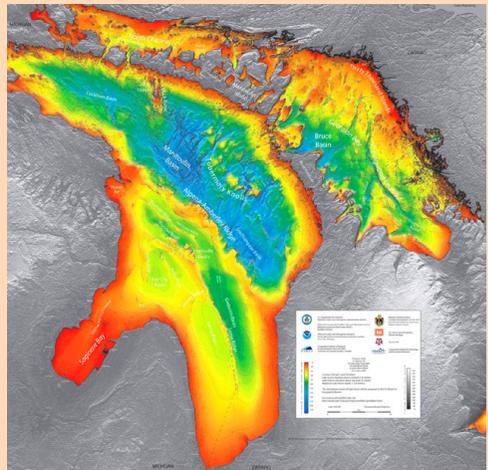
## HISTORY OF LAKE HURON

### LOOKING WAAAY BACK

Originally settled by First Nations and Métis people, Lake Huron has been enjoyed and has been used for transportation, recreation, and sustenance. French settlers of this area called Lake Huron “La Mer Douce”, which translates to “the fresh-water sea”. Over time there have been many influences to Lake Huron, including development, industry, power generation, and tourism. All of these play into the dynamic conditions of Lake Huron’s shoreline and nearshore waters. Lake Huron hosts over 1,000 shipwrecks, 43 lighthouses, and hundreds of communities. This lake has a residence time of 22 years, meaning that water on average will spend 22 years in Lake Huron. This shows the importance of reducing human inputs because of the long-term impacts they have on lake health. Today, Lake Huron is enjoyed by thousands of visitors and provides fresh drinking water to 2.6 million people.

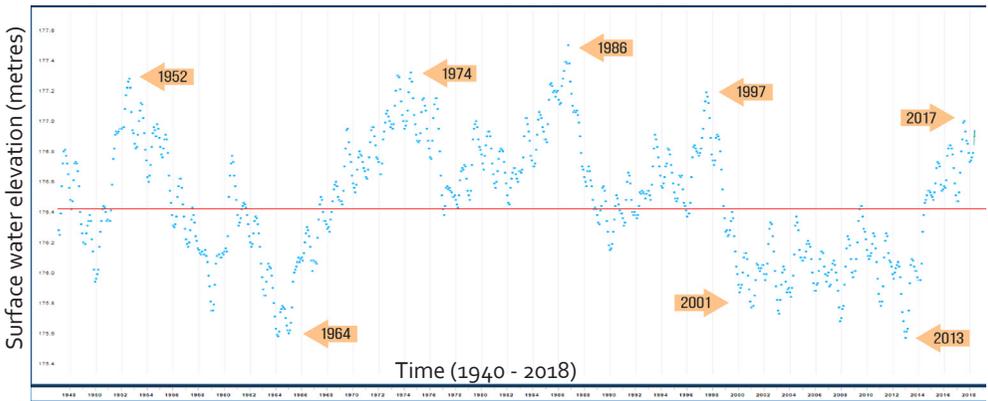


**FISH FINDER TRIVIA!** There is an underwater ridge from Alpena, Michigan to Amberley, Ontario. 9,000 years ago, lake-levels were lower, exposing the ridge, which currently lies 76-metres under the surface of Lake Huron. The ridge was used by Aboriginal Peoples to intercept migrating caribou herds. Divers have found stone hunting structures along this narrow land bridge. Lake levels were lower because glaciers from the last ice age trapped large amounts of fresh water. As the glaciers melted, the Great Lakes water levels rose to near-current conditions. This map shows water depths across Lake Huron. Red colours symbolize shallow areas, whereas dark blues symbolize deep areas of the lake. You can see the ridge going from Alpena to Amberley “cutting” Lake Huron into two deep basins.



## THE HIGHS & LOWS OF LAKE HURON

Lake Huron is part of the 5-lake system of the Great Lakes. Water level fluctuations cause this system to experience seasonal and annual water level changes. Most seasonal fluctuations occur due to evaporation over the 59,588 km<sup>2</sup> surface area of water, but are also influenced by human alterations including water takings, and runoff from land entering the lake through streams and gullies. You can find real-time data at NOAA's website (find on p.21 of this guide).



## DUDE, WHERE'S MY BEACH?

Lakeshore residents are often concerned about lake level changes. Without long-term planning and proper set-backs, rising water levels can impact cottages, roads and beaches. Low levels are concerning for those who use water lines, and for supplying coastal wetland areas. With climate change, we can expect longer durations of highs or lows, more sporadic annual changes in lake levels, and more intense storm events. In some areas, the recent 20-years of low levels has enabled vegetation to venture farther out towards the water's edge. In 2017, lake levels rose to a typical high, and because of this, vegetation appears to be dominating the beach area. This is a natural phenomenon and not cause for concern; high energy waves will gradually remove vegetation over the fall and winter months. In this guide you'll find tips and tricks to adapt to these changes on your property.

## ASK AN EXPERT!

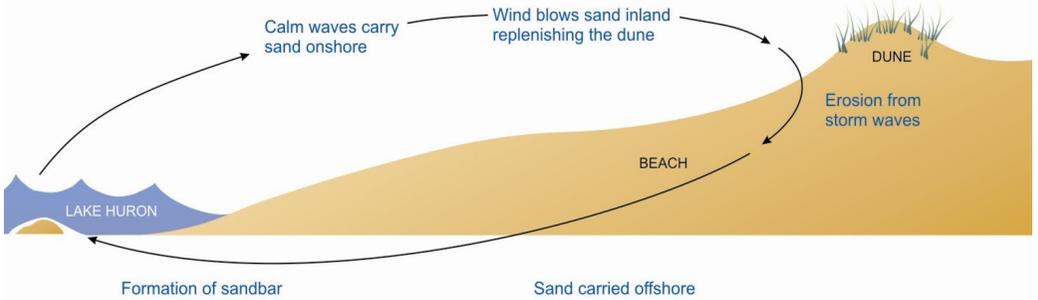
*"Lake levels change a lot on my property and I never know what to expect! How can I ensure my property is safe?"*

Lake levels can fluctuate up to 10 metres horizontally per year on some properties. Our advice is to become familiar with your shoreline's high and low levels; anticipate changes by checking the NOAA Great Lakes Water Level Dashboard online; and implement long-term strategies to prevent damage. Improving dune health on your beach, having thick vegetated buffers between your home and the shoreline, keeping structures back from the shoreline, and keeping small boats under decks will all reduce risk to your property.

# BEACH PROCESSES

## YOUR SHORELINE IS ALIVE! But how does it work?

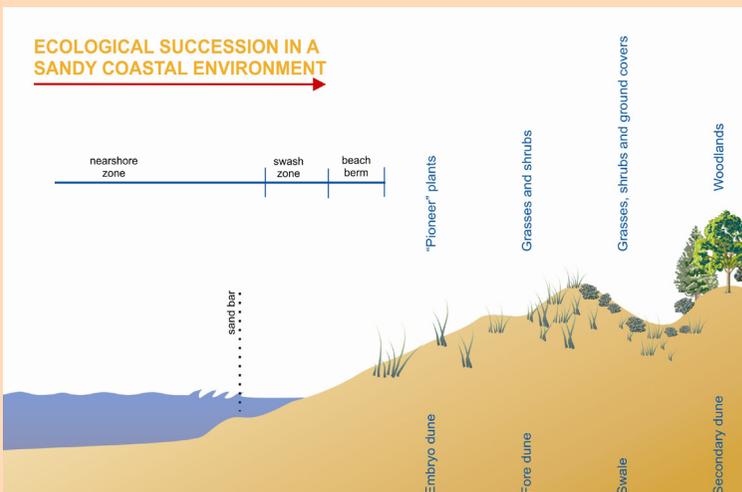
One-third of Lake Huron’s shoreline is made of sand, silt, clay, and till . Wind and wave action constantly changes shorelines by picking up fine sand particles in wind or waves carrying them onto beaches and trapped by vegetation like dune grass. During calm periods, beaches are able to thicken with this added sand, creating beautiful sandy beach areas. If powerful wind and waves from a storm erode sand from the beach, it is carried offshore, often forming a sand bar.



For illustrative purposes only. For more information, go to [www.lakehuron.ca](http://www.lakehuron.ca)

Lake Huron has high and low energy beaches. High energy beaches, like Point Clark see a “give-and-take” of sand throughout the year. Low energy beaches like Sauble Beach have more sand removed by wind and wave action, than is added. On low energy beaches, protecting the sand is essential because they’re slower to recover from misguided management. In high energy beaches, multiple dunes form

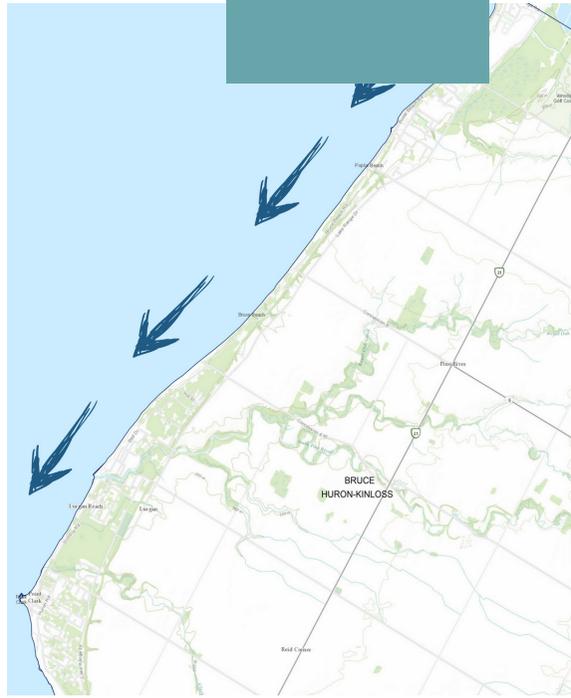
over time providing a ‘sacrificial buffer’ during high lake levels. Vegetation grows larger further inland from the water’s edge, transforming from dune grass and sedges, to shrubs, and eventually trees. This ‘succession’ of dunes is natural and is unique habitat for many rare species.



## LITTORAL DRIFT

### WHAT I DO AFFECTS MY NEIGHBOURS TOO

Did you know there is a 'highway' in the waters close to shore? Long-shore transport is the movement of sand, sediment, and garbage fragments along the coastline in the shallow nearshore waters. In Lake Huron, the general flow of long-shore transport is from North to South. Long-shore transport is the culprit for moving beach sand from one beach to another. The bluffs of Lake Huron naturally erode, adding sediment to the lake, eventually feeding beaches south of that bluff. For example, if you throw a basketball into the water in front of your cottage, in a matter of hours, it will travel south to a cottage in a whole different community! Changes made to shoreline properties will inevitably affect others further down the coast. Working together as a community to protect the shoreline is the best way to keep all the investments on Lake Huron safe and the water clean for all to enjoy.



### ASK AN EXPERT!

*"The previous owners of my cottage raked the beach a lot, now I have a wet beach with no sand dunes! Should I bring in more sand to help restore this area?"*

Bringing in sand or sediment from other areas could increase your risk for introducing invasive species like *Phragmites australis* and can be extremely expensive. If you want to re-build a dune, the most cost-efficient method is to install wooden slat sand fencing from a local hardware store. You will see a new sand dune begin to build within the first year! Planting locally sourced dune grass will also help keep this new sand in place. Ask a neighbour with a healthy patch if you can take some dune grass to re-plant on your property

### WE ALL SHARE THE SAND!

The sand feeding beaches in the Township of Huron-Kinloss is on quite the ride! Most sand comes from areas to the north, sourced from open beaches and bluffs. Sediment travels in near-shore waters and funnels into the lake through streams and rivers. High energy beaches like those between Point Clark and Kincardine have high sand deposition and removal throughout the year due to intense wind and wave action. The image above illustrates how sand travels through nearshore waters, affecting our neighbours.

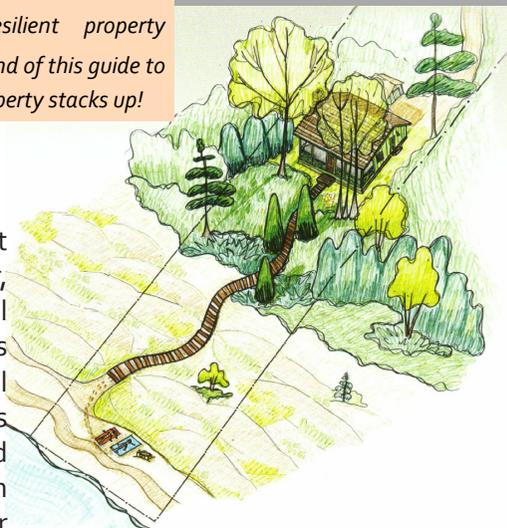
# ANATOMY OF A HEALTHY BEACH

## PROPERTY TIP:

*Review the resilient property checklist at the end of this guide to see how your property stacks up!*

## GRADE 'A' COASTLINE!

Along Lake Huron's shores, the perfect property isn't hard to find! However, properties that can withstand seasonal storm surges, sporadic water levels have a common thread. They are all vegetated! Real estate companies claim that properties with vegetated shorelines sell up to **\$150,000 more** than those with groomed, non-vegetated or hardened lake shores. Some solutions to sustainable properties are affordable or free and will increase your property values and protect your investment! The image above shows the "ideal" coastal property. Although historical development in Huron Kinloss allowed cottages to be built on the dunes, experts say it is even more important to have a buffer zone of vegetation to protect your investment.

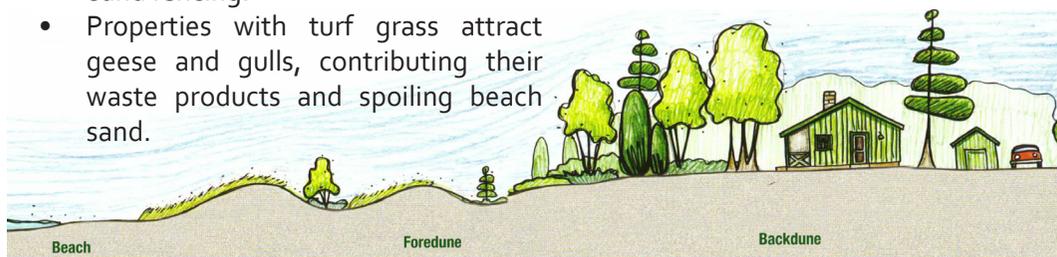


Although historical development in Huron Kinloss allowed cottages to be built on the dunes, experts say it is even more important to have a buffer zone of vegetation to protect your investment.

## MAKING THE CHANGE

Structures aren't easy to move. If you want to improve your property to be more resilient, think about:

- Keeping a buffer of plants and trees between your cottage and the lake (strategic pruning is your best friend!).
- Plants like dune grass and evening primrose provide important food and habitat for migratory birds, Monarch butterflies, and small mammals.
- Encourage dune formation on your property. 10-15 metres is a good width of dunes during high water levels. Dunes will take the brunt of the damage from storm surges, and will re-grow after high water level events.
- Hardened shorelines are less effective than natural ones. Save your money and cancel plans to install a stabilization wall. Instead, invest in vegetation and sand fencing.
- Properties with turf grass attract geese and gulls, contributing their waste products and spoiling beach sand.



## NEEDS IMPROVEMENT



This landowner made a garden and sitting area on the beach. These plants cannot adapt to the scalding heat of the beach and lack of nutrients sand contains. Turf grass attracts geese and gulls, increasing animal waste and potential for e-coli. Planting native beach vegetation like dune grass will be more successful, requires no watering, will discourage nuisance birds and will look gorgeous with the surrounding landscape.

## STRAIGHT A's



These owners used dune grass to fill in their yard adjacent to the beach. Not only does this remove the need to irrigate, but it provides an oasis of habitat for butterflies and songbirds. In summer, a narrow winding path allows migration to the beach. The dune grass planted continuously across their yard will trap sand from the beach and prevent it from gathering near their porch and stairway.

## ASK AN EXPERT!

*"I love my gardens at the cottage! Do I have to remove them to have a healthy shoreline?"*

If your garden contains native vegetation (sorry, Hostas aren't native!), then you don't need to make many changes! Keeping your gardens small and close to your cottage will benefit both you and the plants. Using native vegetation will also reduce deer damage, and these species can be landscaped beautifully into gardens. The Coastal Centre has a free native plant guide you can view online at: [www.lakehuron.ca/coastal-plant-guide](http://www.lakehuron.ca/coastal-plant-guide).

## HEALTHY DUNES, HEALTHY YOU!

### GRASS FOR DAYS

American Beachgrass (dune grass), is a native plant providing many benefits to landowners. In addition to creating habitat for coastal species, dune grass builds dunes by trapping sand on beaches, increasing the depth and breadth of beach. Dune grass roots can grow up to 3 metres long, stabilizing the sand and preventing erosion during storm events. Since healthy dune systems provide free shore protection, they are a cost effective, natural alternative to hardened shorelines and are better for the overall health of the shoreline. Dunes and shoreline vegetation will also improve the lake's water quality. Loss of sand dunes and beach grass cause a lower beach profile which leads to wet beaches, creating ideal conditions for E. coli and bacterial outbreaks. E.Coli seriously affects our safety to swim in the lake, so it's in everyone's best interest to keep a healthy beach. The natural services dunes provide equates to a value of \$2,000 per linear metre. Talk about a return on investment!



### ASK AN EXPERT!

*"The waves are too strong! Should I build a retaining wall to protect my property?"*

On Lake Huron, natural infrastructure will protect your shoreline more efficiently and affordably than anything man-made. In the 1960s and 1980s, it was common practice to install metal or stone armoring to combat high lake levels. Engineers and scientists now widely consider this an option of last resort. Armoring is expensive and unsightly.



Natural dunes and a heavily vegetated buffer zone are the most resilient and cost-effective way to protect against high water levels and storm surges. The lifespan of armored structures on Lake Huron rarely exceeds 20 – 25 years, plus yearly maintenance typically costs 2% - 5% of the total upfront cost of the structure. Armoring shoreline or re-building derelict structures also requires permit approval by Saugeen Conservation, the Township of Huron Kinloss, and the Ministry of Natural Resources and Forestry.



## THE BIRD IS THE WORD

Dunes and native vegetation like dune grasses and flowers deter geese and gulls from using the area and keeps their waste off of your beach!

## HOLD ON TO YOUR SHOVELS

During high lake levels, it's tempting to remove areas of dune vegetation for recreation or beach use. However, removing areas of dune vegetation on Lake Huron is in violation of various regulations of your local Municipality and Conservation Authority. Landowners committing a violation are responsible for restoring the damaged area at their own cost. In some cases, dune restoration has cost \$5,000 - \$10,000. Summer storms will pull away some of the vegetation at the waters edge giving you more room to enjoy your beach. In a few years, lake levels will be down again and you will have meters of sandy beach back. Experts say that keeping your beach vegetation is even more important during high lake level years to protect cottages from the upcoming fall storms. For more information on this recommendation, visit [www.lakehuron.ca](http://www.lakehuron.ca).

Experts don't recommend cutting out trees, shrubs and grass to "improve" your view. Instead, strategically trim low branches using hand pruners; NOT lawn mowers, brush saws, rotor-tillers, bobcats, augers, or heavy machinery. Do not use pesticides or round-up to kill plants either. Pruning will provide more privacy to onlookers, and keep soil stable. Any tree removal on the beach requires a permit from the Township of Huron-Kinloss. Please contact the township office for more information.

### RECIPE FOR A HEALTHY DUNE

1. *Abundant and continual supply of dry sand (high energy beach)*
2. *Wind and waves to move sand high onto the beach*
3. *Vegetation that captures & retains sand*

## RESTORING YOUR BEACH

### WHAT CAN I DO TO PROTECT & RESTORE MY SAND DUNES?

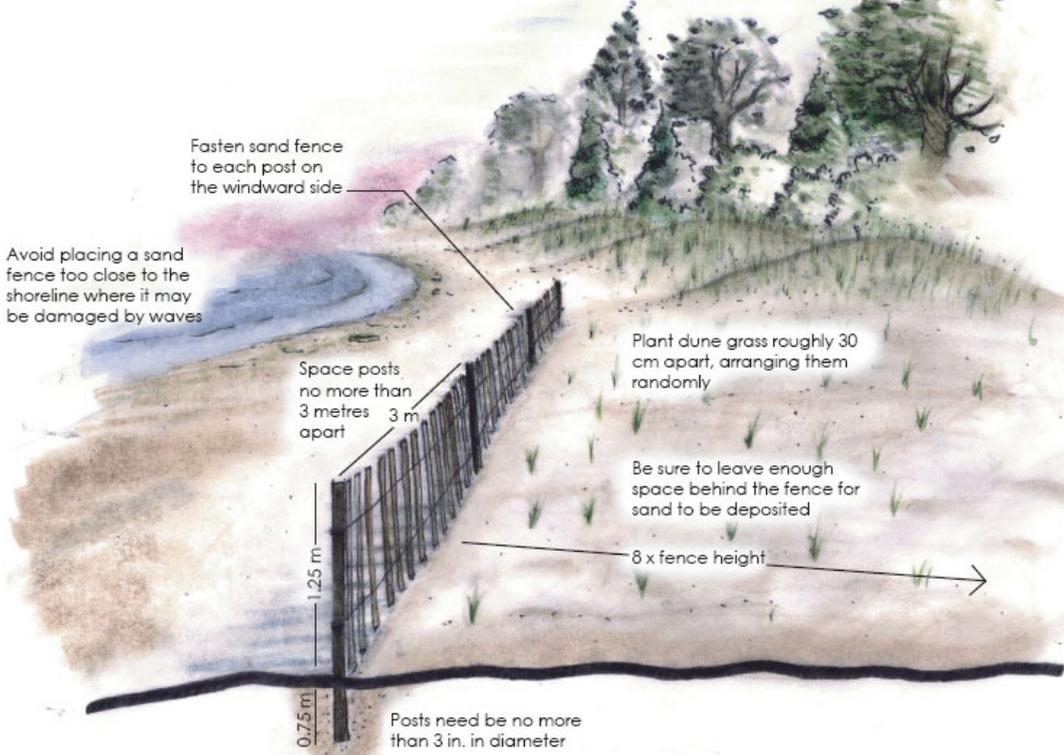
Maintaining natural vegetation and practicing “dune friendly landscaping” allows landowners to benefit from the natural services like flood and wind protection that dune ecosystems provide. Restoration of damaged or degraded dunes can be done easily using sand fencing and native dune vegetation to rebuild the thickness of the beach sand for long term stabilization. Sand fencing slows down wind blown sand and allows it to build behind the fence. Wooden slot style fencing is an effective and inexpensive method to increase the accumulation of sand and to maintain existing sand on beaches. Once a thick layer of sand has established an “embryo dune”, vegetation such as dune grass can be introduced to stabilize the loose sand. Creating designated pathways through established or restored dunes can reduce the effects of erosion and the stress on native vegetation.



### WHAT TO PLANT

The best plants to use for dune restoration include: American Beach Grass, Wheat Grass, Wild Rye, and sandbar flowers. After a few years, once these plants are well established, oak trees and birch trees can be planted on your private property to improve the buffer zone between your cottage or home and the lake. Want more information? **Check out the Coastal Centre’s “Dune Planting Guide”** available online or in hardcopy at [www.lakehuron.ca](http://www.lakehuron.ca).





Avoid placing a sand fence too close to the shoreline where it may be damaged by waves

Fasten sand fence to each post on the windward side

Space posts no more than 3 metres apart

1.25 m  
0.75 m

Posts need be no more than 3 in. in diameter

Plant dune grass roughly 30 cm apart, arranging them randomly

Be sure to leave enough space behind the fence for sand to be deposited

8 x fence height

## MANAGING DUNES DURING HIGH LAKE LEVELS

In low lake levels, dunes and beach grass migrate out towards the shoreline, but when lake levels rise, the front edge of these dunes gets washed away by wave action. This causes a loss of beach area between water and dune. In most cases, dune grass is the only thing preventing waves from eroding your beach all the way up to your cottage, so it is important to keep them in place. Be patient. When lake levels go down again, you will have plenty of non-vegetated shoreline to enjoy.

A healthy dune in Huron-Kinloss includes a wide foredune vegetated to the wave-uprush point. A typical healthy foredune has sand that is 6 metres wide and 1.2 metres tall. Mature dunes can be much larger.

### HOW TO BUILD A SAND DUNE

1. Use sand fencing made of non-treated natural wood installed parallel to shoreline, 3 metres wide by 1.2 metres tall
2. Plant dune grass behind sand fence, 30 centimetres apart in September or October, harvested from a local source (ask a neighbor to share!)
3. Keep turf-grass lawn out of the dunes, it will attract geese.
4. Create one 'S' curved pathway 1.2 metres wide maximum from cottage to water to reduce wind erosion
5. Keep vehicles off the dune. Their heavy wheels will crush the plants and cause damage.

## WHAT'S ON MY BEACH?

As much as we try to care of our beach, the lake can bring some unsightly items to shore during storms. Here are some common items that wash up on the Lake Huron shoreline.



**Natural organic materials** are beneficial to beach environments because they provide nutrients to beach plants and nesting habitat for some bird species. Most wash-ups of organic material are manageable and can be left alone, but in some cases, for example, a wash-up of loose tree trunks or multiple feet-deep of grass and branches, hand removal may be necessary. It is best to consult with the Township of Huron-Kinloss, Saugeen Conservation, or the Coastal Centre if a large wash-up event has occurred to obtain information and direction on how to clean up the affected area.

**Algae blooms** are natural in lake ecosystems. Blue-green algae can be a health concern for humans and wildlife. If algae is present, do not drink, touch or swim in these areas unless the Health Unit has verified it safe to do so. Often after a major storm event, algae will wash up on the shore after dislodging from the bottom of the lake because of high energy storms. We have seen more algae in recent decades due to lake temperature warming, increased nutrient inputs and clearer water from zebra mussels consuming plankton.

Before using a beach, ask yourself:

1. Are local beaches posted with warning sign or listed online?
2. Has there been a heavy rainfall in the last 24-hours?
3. Can you see your feet in the water at adult waist height?
4. Are there other hazards present, like dead fish or birds?





**Man-made materials** are never beneficial to shorelines, and should be cleaned up immediately. Plastic and man-made waste can take many different forms. It can be as large as tires, jugs, or fishing nets, or as small as straws, water bottle lids, helium balloons, or microbeads. In all cases, these items can pose a safety hazard to humans and animals. Often, animals become victims by entanglement, or mistaking the waste for food. If there is a large plastic wash-up event, contact the Coastal Centre or Township of Huron-Kinloss to document the event and determine if it can be prevented in the future or to arrange a community beach clean-up.

**Animal die-offs** are common in the Great Lakes, but are still very important to document. They can be a result of natural factors such as storm surges or oxygen depletion in the water. If there is a lot of dead wildlife washing up on your shore, take photos and report it to Saugeen Conservation or the Coastal Centre for more research. Fish die-offs should also be reported to the Ministry of Natural Resources and Forestry. There is a "Fish Die Off" hotline at 1-800-667-1940; and for more information visit: [www.ontario.ca/page/dead-animal-or-fish-found-your-property](http://www.ontario.ca/page/dead-animal-or-fish-found-your-property).



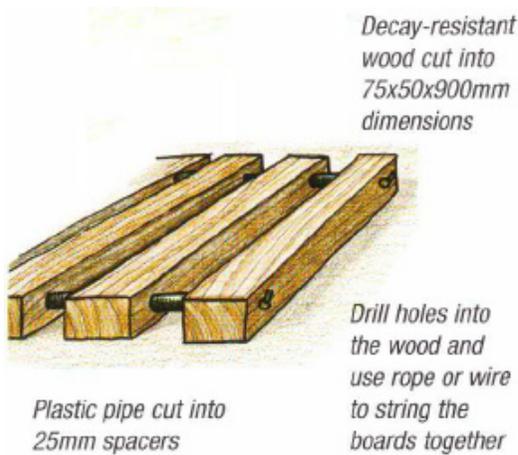
## ASK AN EXPERT!

*"We get wash-ups of weird substances and garbage every year! Who should I call for help removing this from my beach?"*

If there is a large spill or wash-up of oil, chemical, or unknown substance, always contact the Ontario Ministry of Environment and Climate Change Spills Actions Centre to report the damage at 1-800-268-6060. Take pictures if possible to document the spill or wash-up!

## PATHWAYS & SETBACKS

Beaches and dunes are vulnerable to excessive human activity. Specialized dune vegetation and the structure of the dune system can become compromised when shortcuts across the dune are repeatedly used or lawn furniture is used in the dune. Creating designated pathways or boardwalks can minimize the impact that human activities have on dunes and shorelines. By creating an "S" shaped path, erosion of the dune by winds can be minimized. Keeping toys, furniture, and structures off the dune will benefit you and the beach over the long term.



- Boardwalks are an effective way
- to direct traffic across a property.
- They can be installed as temporary structures in the spring and removed in fall. They can also be used to
- improve accessibility on sand and cobble beaches. Flexible boardwalks
- are best, and help keep toes from burning on hot sand! Remember,
- boardwalks should only be used
- on your own property, not in public beach zones.



### RECIPE FOR A PERFECT BEACH PATHWAY

1. One "S" shaped pathway per property, or share with your neighbor;
2. Less than 1.2 metres wide;
3. Angle away from prevailing winds to minimize funneling effect;
4. All new pathways must be approved by SVCA policy and regulation.

## HOW CLOSE IS TOO CLOSE?

Coastal properties provide great water access for recreational watercraft. Proper storage of watercrafts is an important part of protecting coastal properties. Here are some guidelines to follow when identifying storage areas:

- Keep boats and chairs far enough from the high- water mark so waves won't cause damage or pull them from shore.
- Storing canoes and kayaks on dunes can damage vegetation, contributing to erosion and destruction of habitat – choose to store them under your deck or beside your house, out of the sun.
- Consult the Township of Huron-Kinloss and Saugeen Conservation if altering built structures or building new structures along the shoreline, including boardwalks. MNRF approval may also be required when building or altering shoreline structures including in-water structures.
- The beach is public property in the Township of Huron-Kinloss, and during times of high water levels, we all feel the pinch. Remember to always be kind and share the beach with others. Keeping personal property such as boats and chairs on your own property will limit damage and inconvenience to those walking the beach.



## THREATS TO OUR COAST

### NEW BUG, WHO'S THIS?

Invasive species pose a threat to shoreline habitats.

With aggressive growth and the ability to outcompete native species for resources, invasive species can cause significant damage to sensitive beach, dune and nearshore ecosystems. They can be introduced to areas accidentally on boats and ATV's that have not been properly sanitized, or by escaping from gardens. Motorized vehicles can expose sensitive ecosystems to plants like European Common Reed (*Phragmites australis*), Spotted Knapweed and Sweet White Clover. Some invasive insect species, like the Emerald Ash Borer are destroying populations of ash trees, causing dramatic changes to sensitive shoreline and inland ecosystems. Invasive species like *Phragmites* can have significant impacts on the financial value of beach front properties. Learning how to identify and remove invasive species is important for protecting coastal environments and private properties.

### VROOM VROOM AWAY!

Using vehicles or heavy machinery on beaches and dunes can be damaging to the ecology and landscape. Many rare species of plants and animals use the dune and beach as habitat, and can be harmed when vehicles are in the area. The weight of motorized vehicles on beaches and dunes can compact the sand, making it difficult for vegetation to grow and potentially destroying sensitive microhabitats that many shorebirds require. Most communities have designated trails for snowmobiles and ATV's that are more fun to ride.



## BEACH RAKING - ALGAE HARVESTER

Grooming is often used as a way to maintain the aesthetics of a beach for tourism and waterfront properties. In Huron-Kinloss, an algae harvester is contracted to remove algae on beaches from June - August. This harvester will work up to 16 feet from the edge of the water. During high water level years, it may not be able to access certain areas of the beach. If you have algae on your property that is not accessible by the harvester, high wave activity will eventually wash it away. Beach grooming should only be done in times of need, such as algae wash-up or high densities of garbage wash-up.



## CH-CH-CH-CHANGES

Climate change is impacting our coastal environments and landowners need to adapt to a new range of conditions. Precipitation trends indicate increased frequency, intensity and quantity of wind, rain and snow. This often leads to flooding and property damage from storms and winter conditions. Gullies and bluffs have a higher risk of erosion under these conditions, making it important to ensure structures are built within the regulation of Saugeen Conservation. Increasing temperatures make winter conditions shorter and increase winter thaw events with more open water through the winter. Increases in water temperature may cause more public health issues on beaches as water borne pathogens spread and algae blooms will become more frequent. Warmer water generates stronger wind conditions across the lake, which can increase wind erosion in beach and dune areas, increasing the need for more preventative conservation strategies.

## WE DIDN'T START THE FIRE

"Beach Fires" are small recreational fires permitted on beach fronts by applying for a permit within the Township of Huron-Kinloss, and must be compliant with the Open Air Burning By-law. Fires must be made in approved fire pits and be no larger than 1-metre in diameter, and no more than 1-metre tall. Recreational fires may only be used for warmth or cooking of food, and only firewood may be used as the fuel, not plastic or garbage. Fires should not be lit within 3-metres of any building or structure, grass, grain field, bush, or woodlot, and should never be lit if winds exceed 16km/hr or if there is a fire ban. Appropriate extinguishing agents should be on hand at all times. Be courteous to neighbours if smoke from fire is blowing towards them. More info. can be found at the Township Office.

## RESILIENT PROPERTY CHECKLIST

- Become familiar with your local by-laws, policies, and regulations and ensure your shoreline adheres to these standards.
- Have a healthy buffer of beach and dune vegetation, including beach grass 15-30 metres wide minimum. Restore dunes using sand fencing and by planting dune grass.
- Many hands make light work! Do a beach clean-up on your morning walk. Keep your shoreline free of garbage that can be harmful to humans and wildlife.
- Create "S" shaped pathways from cottage to shore across dunes, a maximum of 1.2 metres wide.
- Say NO to sprays: use natural alternatives for fertilizers and pesticides, such as epsom salt, diatomaceous earth, and vinegar.
- Winterize your cottage AND beach: In the fall, install sand fencing parallel with your shoreline at the end of pathways and dunes to prevent sand erosion and improve beach quality until spring.
- Participate in "free tree" grant programs (PRWIN), stream restoration (SVCA) and wetland improvements!
- Ensure vehicles (ATV's, boats, sea doo's, kayaks, canoes) are properly stored and not impacting the beach or dunes. ATV's, machines, and heavy equipment should be kept off the beach and out of coastal wetlands and gullies at all times. Township by-laws support the enforcement of this tip.

- Minimize runoff across your property by using permeable pavements (gravel instead of asphalt or concrete) and rain-barrels on down-spouts. Letting water flow quickly over your property can increase erosion in some areas.
- Remove hardened shoreline structures to improve natural sediment flow and beach aesthetics.
- Supporting each other and sharing solutions helps everyone down the line. Form an environmental committee or shoreline health committee in your cottage association or neighborhood!
- Trees and shrubs present on beach and dunes are maintained through hand trimming only, and only on your property.
- Remove invasive species that can impact other sensitive coastal areas.
- Inspect your septic system regularly: (every 3-5 years) and have it pumped out every 5 years, with holding tanks being pumped out multiple times per year depending on use.
- Shoreline structures should be within regulation limits on your property, reducing potential for destruction during storms.
- Structures on public property should be re-located to your own property. All structures on public property are subject to removal without warning and are subject to Municipal and Conservation Authority regulations.
- All fire pits must be approved with a permit by the Township of Huron Kinloss and be in accordance with the Open Air Burning By-law.

**\* Weren't able to check many items off the list and don't know where to start? We are here to help! Contact the Lake Huron Centre for Coastal Conservation for assistance.**

## WHERE TO START

If you want to learn more about your shoreline, and what you can do to protect your investment, all you have to do is ask! There are lots of resources available through the Coastal Centre, the Conservation Authority and the Municipality.

### CONTACTS

#### Township of Huron – Kinloss

Tel: 519-395-3735

E: [info@huronkinloss.com](mailto:info@huronkinloss.com)

[www.huronkinloss.com](http://www.huronkinloss.com)

#### Saugeen Conservation

Tel: 519-367-3040

[www.svca.on.ca](http://www.svca.on.ca)

#### Lake Huron Centre for Coastal Conservation

Tel: 226-421-3029

E: [coastalcentre@lakehuron.ca](mailto:coastalcentre@lakehuron.ca)

[www.lakehuron.ca](http://www.lakehuron.ca)

#### Pine River Watershed Initiative Network

Tel: 519-395-5538

E: [pineriverwin@yahoo.ca](mailto:pineriverwin@yahoo.ca)

[www.pineriverwatershed.ca](http://www.pineriverwatershed.ca)

#### Grey Bruce Health Unit

Tel: 519-376-9420

E: [publichealth@publichealthgreybruce.on.ca](mailto:publichealth@publichealthgreybruce.on.ca)

[www.publichealthgreybruce.on.ca](http://www.publichealthgreybruce.on.ca)

#### Ministry of Natural Resources and Forestry Owen Sound Office

Tel: (519) 376-3860

[www.ontario.ca/page/ministry-natural-resources-and-forestry](http://www.ontario.ca/page/ministry-natural-resources-and-forestry)





## **COASTAL CENTRE RESOURCES**

*(available at [www.lakehuron.ca](http://www.lakehuron.ca))*

### **Beach Stewardship Guide for the Township of Huron-Kinloss (2007)**

An in-depth guide describing shoreline management techniques for Huron-Kinloss in detail.

### **Dune Planting Guide: Wise Stewardship of Lake Huron Coastal Dunes**

A step-by-step guide on how to plan, implement and maintain a dune on your property.

### **Lake Huron Coastal Dune Plants Guide: The Good, the Bad, and the Ugly**

Provides pictures, identification and habitat information for over 100 native, non-native, and invasive species found along the Lake Huron shore. Use this guide to plan your native species garden.

### **Stewardship Guide for Lake Huron Dunes**

A comprehensive guide to dune stewardship, this publication includes information on dune ecology, dune species, and some guidance on how to use sand fencing and dune grasses to restore a dune.

### **Lake Huron Beach & Dune Ecosystems**

A newspaper-style tabloid with general information on Lake Huron dunes.

### **Value and Function of Coastal Vegetation**

If you are still not convinced that vegetation is important to the health of the shoreline, this factsheet is for you.

### **Trouble with Beach Grooming**

Outlines the reasons why removing beach debris is harmful to the beach-dune ecosystems and the species that use these areas as habitat.

## **ADDITIONAL RESOURCES**

### **NOAA Great Lakes Water Level Dashboard**

Check the lake levels online and in real-time at:  
[www.glerl.noaa.gov/data/dashboard/GLWLD.html](http://www.glerl.noaa.gov/data/dashboard/GLWLD.html)



**The Lake Huron Centre for Coastal Conservation**



Was this helpful? Contact Us!

**Lake Huron Centre for Coastal Conservation**

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