



# CONSERVING IPPERWASH BEACH

## BEST MANAGEMENT PRACTICES



### ► DYNAMIC BEACHES EXPLAINED

Beaches are dynamic meaning they undergo continuous change due to the natural processes of erosion and accretion. A beach offers natural protection against flood and erosion damage – dunes absorb wave energy during large storms protecting inland areas, they also provide a reservoir of sand to replace beach material that is carried offshore during a storm.

The width of a dynamic beach changes with water level and wave conditions. When water levels are high, the sand is temporarily transported offshore and the dunes erode – this movement of sand helps to protect the beach by creating a sandbar that reduces incoming wave energy. After a storm event, the waves transport the sand landward back onto the beach where the dunes are gradually rebuilt by wind blown sand that is trapped by the beach vegetation. Development setbacks are applied to dynamic beaches in order to protect property owners. The setbacks recognize the changing nature of the beach and allow for unhindered dynamic beach cycles.

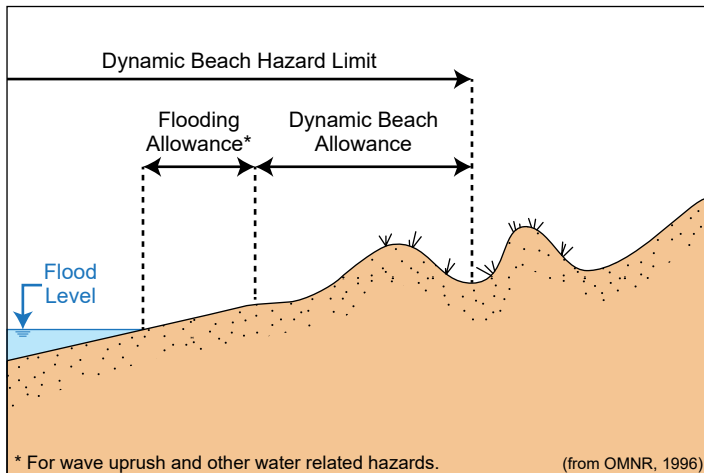


### BACH CONSERVATION TIPS

- Limit disturbance to the natural vegetation on the dune. The roots of these plants hold and help retain sand within the dynamic beach.
- Continuous mechanical grooming is not considered to be best practice. Beach grooming by machines can result in sand loss from the beach. If it is necessary to bring in heavy equipment to groom, more beach sensitive machine groomers should be used. Hand cleaning with a rake is preferred, if grooming must be done, as it will minimize sand loss.
- Long, continuous stretches of dunes and dune grass increase habitat connectivity for the species that live there. Uninterrupted dune habitat has a strong, positive impact on the beach ecology.
- Use of vehicles and heavy equipment on the beach as well as frequent foot traffic interfere with the natural processes of the dune system and should be avoided.
- Use designated pathways to access the beach and avoid trampling vegetation. Paths should be narrow, curve, and be perpendicular to prevailing winds in order to prevent wind erosion that will widen the path and fragment the dunes. Minimize the number of pathways through the dunes by using common paths with neighbours. Remain on the access path, do not create offshoot paths.

## ► WHY SETBACKS ARE IMPORTANT

It is important to observe development setbacks and to develop outside of the dynamic beach hazard limit. This is a proactive rather than reactive approach. It allows the beach to provide natural protection during high water levels and storm events. By observing setbacks, **you reduce the risk to your property.**



## ► PLANTING AND TRANSPLANTING DUNE GRASS

Plants are crucial to dynamic beach processes and the stabilization of coastal dunes. The presence of vegetation reduces wind speeds close to the ground and allows sand to accumulate and form a protective dune. American Beachgrass or Marram Grass (*Ammophila breviligulata*) is an effective stabilizing plant that is native to the Lake Huron region. The Lake Huron Centre for Coastal Conservation (LHCCC) has information on beach and dune stabilization through the use of sand fencing and vegetation, which can be found in the “Links and Other Resources” section.

### LINKS AND OTHER RESOURCES

- **Dune Care Notes**  
[www.lakehuron.ca/beaches-and-dunes](http://www.lakehuron.ca/beaches-and-dunes)
- **Beach and Dune Stabilization**  
[www.lakehuron.ca/beach-and-dune-stabilization](http://www.lakehuron.ca/beach-and-dune-stabilization)
- **Transplanting Dune Grass** (see p.77)  
[www.huronkinloss.com/public\\_docs/documents/Beach-Stewardship-Guide.pdf](http://www.huronkinloss.com/public_docs/documents/Beach-Stewardship-Guide.pdf)
- [www.scrca.on.ca](http://www.scrca.on.ca)



## ► SEAWALLS

The construction of seawalls prevents the beach from behaving dynamically. Seawalls restrict the natural beach response. When seawalls are constructed on a dynamic beach, wave reflection and scour occur when the wall is exposed to wave action. This may ultimately lead to failure of the wall and a reduction in beach width since there is an increased rate of sand loss.

