Community Meeting Series Coastal Terminology

Breakwater - a barrier built out into a body of water to protect a coast or harbor from the force of waves.

Dyke – a man-made structure designed to protect land from flooding. Current dyking guidelines require dikes to be substantially wider at the base than many of the earlier dikes that were constructed in the Lower Mainland.

Estuary – where a river drains into the ocean and there is a mix of freshwater and salt water. Depending on the features of the location, and whether industry has already expanded into the area, estuary habitat can be very valuable and productive.

Flood construction level – a level set by provincial guidelines for the underside of the ground floor of a building. It is based on calculations of flood levels; along the coast this includes allowances for wave run up and set up.

King tide – significantly higher than usual high tides that occur several times a year when the moon is closest to the Earth.

Pump station – part of coastal flood management infrastructure, designed to move

Rip rap – loose stone used along the shoreline to resist shoreline erosion.

Sea level rise (SLR) – Because of climate change, the oceans are warming and expanding. At the same time, ice sheets covering Antarctica and Greenland as well as glaciers are melting and adding more water. Provincial estimates for sea level rise in BC are 0.5 metres by 2050, 1.0 metres by 2100 and 2.0 metres by 2200.

Soft shore stabilization – refers to methods of protecting shorelines from erosion that more closely mimic natural shorelines, i.e. not sea walls or rip rap, but sand, gravel, mud, large wood and vegetation are typically used. Connections between land and water and adjacent beaches are protected or restored. These shorelines need to be maintained with periodic deposits of material, unless there is a natural source of sedimentation. Soft shores can provide a flood protection buffer for landward development in some cases.

Storm surge – higher sea water levels, primarily caused by winds and the low pressure from a large storm.

Subsidence – when the land is slowly sinking, a geologic process
water back out to sea.

Wave run-up – the maximum height reached by the uprush of waves breaking onshore.

Wave set-up – waves travelling towards shore cause a local increase in mean water levels.

Wind set-up – the local rise in sea water level caused by wind, i.e. the wind drives more water to the shoreline.

Sources: US National Oceanic and Atmospheric Administration; Dept. of Ecology, State of Washington