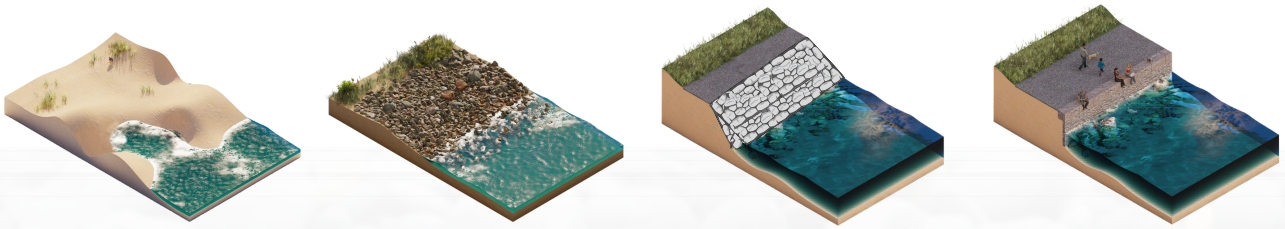
How do different shorelines behave?

Cobble berms differ from other types of naturally occurring and engineered shorelines. Here are some examples of differences in storm response, performance over time and potential benefits.

	Sandy Beach	Cobble Berm	Revetment	Seawall
During Storms	• Sand is transported offshore to form sand bars • Dissipates wave energy • Can help limit flooding	• Shifts with wave energy, generally moving landward • Dissipates wave energy • Can help limit flooding	• Remains static • Dissipates *some* wave energy • Can help limit flooding	• Remains static • Reflects wave energy • Causes increased erosion nearby • Limits flooding
Over Time	• Seasonally grows or shrinks • Can gradually migrate along the coast	• Individual cobbles slowly move over time	• Stays in place • Beach lowers in front of structure • End-effect erosion occurs	• Stays in place • Beach lowers in front of structure • End-effect erosion occurs
Maintenance	• May have to be renourished about every 5-10 years	• May have to be renourished about every 10-20 years	• Will need repair or replacement about every 40-50 years	• Will need repair or replacement about every 50-60 years
Ecological Benefits	• Maintains natural coastline features • Increases habitat area	• Maintains natural coastline features • Increases habitat area	• No significant ecological benefits	• No significant ecological benefits
Human Benefits	• Provides ocean access for recreation and enjoyment	• Maintains aesthetic views and coastal access • Prevents erosion	• Maintains ocean views and prevents erosion	• Provides upland flood protection for coastal communities



Stone Living Lab

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