North Tyneside Council

Working in partnership with CAPITA

Hartley Cove to the River Tyne Coastal Strategy

Technical Report 10:

Glossary

August 2016

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Quality Management

Job No	CS/062000		
Project	Hartley Cove to the River Tyne Coastal Strategy		
Location	North Tyneside		
Title	Technical Report 10: Glossary		
Document Ref	CS062000-CAP-00-EGN-RP-V-0007	**Issue / Revision**	P01.3 / S4
File reference	\\Cslinffs02\znsh\CS062000 North Tyneside Coastal Strategy\Stage File\Work Packages\WP8_Strategy Documents\CS062000-CAP-00-EGN-RP-V-0007 TR10 Glossary P01_3 S4.docx		
Date	August 2016		
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Revision Status / History

Rev	Date	Issue / Purpose/ Comment	Prepared	Checked	Authorised
P01.1	August 2016	S0 - Preliminary Draft	M. Ellis	-	-
P01.2	August 2016	S3 – Consultation draft for PM approval	M. Ellis	P Woods	P Woods
P01.3	August 2016	S4 –Consultation draft for client approval	M. Ellis	P Woods	P Woods

Contents

1. Structure of Technical Reports

1.1.1 The Coastal Strategy developed for the North Tyneside coastline, between Hartley Cove and the River Tyne, sets out the Council's defence management priorities for the coast.

1.1.2 The Strategy is presented as a series of reports, each dealing with a separate component of the plan along with a number of supporting Appendices

Technical Report No.	Title
1	Executive Summary
2	Background
3	**Coastal Processes**
4	Existing Defences and Historical Expenditure
5	Strategic Environmental Assessment - Environmental Report
6	Options and Economic Assessment
7	Monitoring
8	Risk Assessments
9	Public Consultation and Stakeholder Involvement
10	**Glossary**
Appendices	**Title**
Appendix A	Habitat Regulations Assessment
Appendix B	Water Framework Directive Assessment
Appendix C	Non-Technical Summary for the Strategic Environmental Assessment
Appendix D	Strategic Environmental Assessment Scoping Report

Technical Report 10: Glossary

1.1.3 This technical report provides a glossary of terms used throughout the Strategy documents.

2. Glossary

Beach Nourishment	Use of imported material to widen or raise beach levels
Benefit-cost Ratio	Ratio of economic benefits from implementing a scheme to the costs of its implementation. For a scheme to be economically viable the benefit-cost ratio should be greater than one
Climate Change	Long term changes in climate variability. Generally used in reference to effects that may be human-caused, for example the release of greenhouse gases into the atmosphere
Coastal Defence	Structure or action which protects the coast against either erosion of flooding by the sea
Coast Protection	Structure or action which protects the coast from erosion by the sea
Do Nothing Scenario/No Active Intervention Scenario	An option that is used in options analysis to act as a baseline against which all other options are compared. It assumes that no actions are undertaken to prevent erosion or flooding, including maintenance of any existing defences. The only continuing activities would be monitoring/studies
Economic Appraisal	An appraisal of the costs and benefits that arise from the implementation or otherwise of a particular option. Generally considers those items that can be valued monetarily
Environment	Where environmental issues are referred to this generally includes: flora and fauna, geological and geomorphological features, landscape, buildings, archaeology and social aspects such as communities
Environmental Assessment	The process whereby the effects of an option on natural environmental or heritage sites are identified, measured and assessed to determine their significance.
Extreme Event	An event that occurs rarely, e.g. once every 100 years

Flood Warning	Flood warnings are given when it is expected that certain conditions will be exceeded and that tidal inundation is likely to occur. Warnings are given with sufficient time to allow residents and landowners in areas at risk to react appropriately and save lives and minimise personal injury and loss.
Groynes	Groynes are beach control structures that are typically perpendicular to the shoreline and are designed to trap material that is travelling alongshore. Groynes can be constructed from a range of materials but are typically timber or rock.
Offshore Breakwaters	An offshore breakwater is a structure that is designed to provide protection from wave action by interrupting the wave train as it approaches the shoreline. Wave energy in the lee of the breakwater is less than in open water and spits (or tombolos) will begin to form in the lee. The size of these features will vary depending on the form and closeness of the breakwater to the shore and if the breakwater becomes permanently attached to the shore this can interrupt longshore transport of beach material and starve downdrift frontages. Offshore breakwaters are generally constructed of stone and to be effective their top level needs to be above water, therefore in steeper sloping beaches they can be very costly to construct.
Overtopping	The process of water breaching the top of a structure either by run-up or as airborne spray that may occur during storms or due to high water levels.
Present Value	The value of costs or benefits that will occur in future that are discounted back to compare directly to present day values
Return Period	The average time period between occurrences of a given event. A storm period with a 100 year return period would be expected to occur only once in 100 years.
Revetment	A shore parallel structure designed to protect from erosion and/or flooding. They can be constructed of various materials and are designed to absorb and dissipate wave energy.

Risk	A combination of both the probability of something occurring and the consequences if it does occur.
Risk Assessment	A systematic assessment of risk inherent in a project and the possible methods of mitigating those risks
Sea Defence	A structure that protects against flooding from the sea.
Sea Level Rise	The rise in sea levels relative to the land that is predicted to occur due to climate change.
Seawalls	For the purposes of the Strategy a seawall is defined as a shore parallel structure that is constructed form concrete or masonry and protects against erosion and/or flooding. Seawalls are generally less effective at absorbing wave energy than revetments. If waves reach the seawall in an unbroken state then the energy can be reflected scouring the beach and lowering beach levels at the toe of the wall, thus allowing larger waves to subsequently reach the wall. Due to this possibility seawalls often have additional elements to attenuate waves, such as toe protection.
Sustainability	The extent to which flood and coastal defence solutions avoid tying future generations into inflexible and/or expensive options for defence.
Whole Life Costs	The total costs associated with a scheme for its full design and potential residual life span. This will include all associated costs, such as design, construction and maintenance.

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