



Assessment and Measurement of Asset Deterioration

Project Summary SC060078/S

The Environment Agency has produced new practical guidance for asset managers on ways of assessing deterioration of typical flood and coastal defence assets and their residual life.

The new guidance will help support asset managers in all Flood and Coastal Risk Management operating authorities in assessing the residual risk of assets under different conditions and maintenance regimes. It will also help them to determine the timing of required interventions and eventual replacement of assets.

Flood and Coastal Risk Management (FCRM) assets within England and Wales have an estimated replacement value of approximately £35 billion. Dependant on the asset type, its environment and the load it experiences, an asset will deteriorate. To continue to provide protection to people and properties from flooding and erosion, asset managers need to understand the likely deterioration rates across the asset stock to gauge when appropriate interventions are most effective for maintenance, repair and replacement.

The guidance is based on a wide range of evidence ranging from historic data, targeted monitoring and expert input from practitioners to capture how asset deterioration varies under a range of different maintenance regimes, environmental conditions and loading.

This new evidence and guidance is a valuable resource for asset managers in all operating authorities for

- Assessing the residual risk of assets under different conditions and maintenance regimes
- Determining the timing of required interventions and eventual replacement of assets

It has also benefits for other applications, such as assessing changes to a wider stock of assets as part of strategic assessments of future investment and funding needs.

As deterioration can vary from asset to asset, it is essential to use engineering judgement and practical experience alongside this guidance to apply and adapt the deterioration curves appropriately.

The guidance is supported by a technical report that describes the methods, tools and data used during the development of this guidance.

This summary relates to information from project SC060078, reported in detail in the following output:

Report: SC060078/R3 Guidance Document

Report: SC060078/R4 Technical report

June 2013

Internal Status: Released to all regions

External Status: Publicly available

This project was commissioned by the Environment Agency's Evidence Directorate, as part of the joint Environment Agency/Defra Flood and Coastal Erosion Risk Management Research and Development Programme.

Email: fcrm.evidence@environment-agency.gov.uk.

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E: enquiries@environment-agency.gov.uk.

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