

# science summary



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SCHO0509BQAU-E-P

## Guidance on determining asset deterioration and the use of condition grade deterioration curves

Science summary: SC060078/SR1

A new guide published by the Environment Agency explains how to assess the remaining lifetime of natural and manmade flood defence systems.

The guide provides asset deterioration curves and explains how to use them to establish the residual life of different types of flood defence assets. Vertical walls, embankments, culverts, dunes and shingle beaches are covered.

The curves are based on the five condition grades defined in the Environment Agency's Condition Assessment Manual. The deterioration curves consider the type of environment (fluvial or coastal) the asset is based in, type of material it was built with, width of the asset, whether maintenance is carried out and whether the asset has rear protection.

The report includes a table listing deterioration rates for different condition grades and different asset types, based on information taken from the deterioration curves. The time (in years) to move between different condition grades is obtained from the difference between figures corresponding to those conditions grades.

A step-by-step guide - supported with two examples of composite structures assessed for their condition grade and remaining lifespan - is also provided.

This summary relates to information from Science Project SC060078, reported in detail in the following output(s):

### Science Report: SC060078/SR1

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**Project manager:** Tim Hopkins/Stefan Laeger

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