

Tackling **flood risk** can take many routes.

From changing the way we use land and building flood defences, right the way through to improving flood warning systems, the Environment Agency works to offer the best possible standard of protection for people living and working in flood risk areas.

One of the questions that we are often asked is why we don't dredge rivers to help reduce flood risk.

This leaflet tells you why we believe that dredging does not tackle flooding.

Produced by:

Environment Agency
Rivers House
21 Park Square South
Leeds LS1 2QG
Tel: 08708 506506
Email: enquiries@environment-agency.gov.uk
www.environment-agency.gov.uk

© Environment Agency

All rights reserved. This document may be reproduced with prior permission of the Environment Agency.

Would you like to find out more about us, or about your environment?

Then call us on
08708 506 506 (Mon-Fri 8-6)

email
enquiries@environment-agency.gov.uk

or visit our website
www.environment-agency.gov.uk

incident hotline 0800 80 70 60 (24hrs)
floodline 0845 988 1188



dredging and flood risk



Your guide to our
views on dredging

What is dredging?

Dredging is the process of removing silt from the bottom and sides of a river channel.

River dredging is normally done when there is a need to increase the depth of the river and straighten channels.

Dredging can also help to improve land drainage by creating artificial channels, and is sometimes done in order to get sand and gravel for construction sites.



We carry out lots of work in and around rivers to reduce flood risk and make sure that they are flowing freely.

From maintenance of weirs, culverts and sluices, removing rubbish and leaves, and clearing blockages such as shrubs, weeds and even trees, we do everything we can to reduce the risk of flooding.

But this doesn't include dredging.

Why doesn't dredging stop rivers from flooding?

Dredging river channels doesn't make them big enough to contain the **huge volumes of water** during a flood. When a major flood occurs, water soon fills the river and enters what we call the '**floodplain**'. The floodplain is an area of land over which water naturally flows during flooding. Even major dredging will not free up enough space in the river channel to stop this from happening.

Floodplains form naturally as a response to **extreme flooding**. The idea of dredging to try and tackle extreme flooding is similar to the thought of trying to squeeze all of the water held in a floodplain back into the river. Since the floodplain volume is usually many times bigger than the river channel volume, this would be a **major engineering project**, and would cause massive environmental change.

Why else don't we dredge?

Dredging is **very expensive**, and presents a massive cost to the taxpayer with very little return. To make matters worse, dredging would need to be repeated after every major flood.

The **impact on the environment** is another reason that we don't recommend dredging. Removing trees and shrubs from the river bank can actually make the bank less stable, as well as disturbing the natural habitat of river dwellers like otters and voles. Removing gravel also means removing spawning grounds for fish.

Dredging around bridges, weirs, culverts and river walls, can also **damage their foundations**, greatly increasing the risk of flooding.

The **land levels of floodplains cannot be raised**, as they are part of the river's natural storage area. Any silt removed would need to be sent to a tip for disposal, costing more money.

Summary

Silt is deposited on the river bed naturally.

During major floods, the river cannot be contained within the normal river channel.

Dredging can be effective for improving land drainage, but very rarely helps to stop flooding

