

# Dredging and the removal of silt and sand from main rivers as a flood risk activity under the Environmental Permitting Regulations

Helping you maintain your watercourse

1 February 2016

We are the Environment Agency. We protect and improve the environment and make it a better place for people and wildlife.

We operate at the place where environmental change has its greatest impact on people's lives. We reduce the risks to people and properties from flooding; make sure there is enough water for people and wildlife; protect and improve air, land and water quality and apply the environmental standards within which industry can operate.

Acting to reduce climate change and helping people and wildlife adapt to its consequences are at the heart of all that we do.

We cannot do this alone. We work closely with a wide range of partners including government, business, local authorities, other agencies, civil society groups and the communities we serve.

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# 1. Introduction

This document is aimed at individuals, businesses and public bodies planning to carry out any dredging on main river<sup>1</sup> watercourses. Dredging includes the removal of silt or sand or other material from the watercourse. These activities are regulated under the Environmental Permitting Regulations 2010 (as amended) ("the Regulations"). This document will help you comply with the Regulations and maintain your watercourses in an environmentally sensitive way.

The Regulations identify a number of different "flood risk activities", which require a permit and are unlawful if they are carried out without a permit. Dredging is one such flood risk activity, including the removal of any sand, silt, ballast, clay, gravel or other materials from or off the bed or banks of a main river<sup>2</sup>. *[There will be a link from this paragraph to the Regulations]*

The Regulations also exempt some lower risk activities from requiring a permit, provided they are registered. There are four exemptions that may be registered for dredging. These are set out in paragraph 21, 22, 23 or 24 of Part 4 of Schedule 3 to the Regulations. They are referred to in this document collectively as "dredging exemptions", and individually where relevant as "exemption 21" etc.

Your activity is only an exempt flood risk activity if it meets the following requirements:

- it falls within the relevant description of one or more of paragraphs 21 to 24 of Part 4 of Schedule 3 to the Regulations
- it meets the general qualifying conditions relating to location, design and operation set out in paragraph 1 of Part 4 of Schedule 3 to the Regulations
- the activity has been registered with the Environment Agency by the operator (that is, the person responsible for the works)
- the specific conditions of the exemption are met, including complying with the requirements in this document

The requirements in this document are specifically directed to work carried out under the exemptions 21 to 24. It will also be relevant when carrying out other permitted dredging, where it is referred to in a condition in the environmental permit issued by the Environment Agency.

You must follow these requirements when you carry out any dredging work on main river watercourses for which you have registered an exemption. This document doesn't contain a complete explanation of the Regulations or environmental law. You are responsible for ensuring that you comply with the Regulations and other relevant law. To meet the requirements of the condition in each of the dredging exemptions and reduce harm to the environment:

- the minimum you must do to help you comply with the law is expressed in this document as 'you must' or 'you must not'
- recommendations on how you can carry out works and use equipment in a way that helps you comply are expressed in this document as 'you should' or 'you should not'

These requirements are part of a series of documents which accompany the Regulations<sup>3</sup>.

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<sup>1</sup> Main rivers are defined as a watercourse marked as such on a main river map. Main rivers are usually larger streams and rivers, but also include some smaller watercourses. All other watercourses are termed "ordinary watercourses", and are not covered by these regulations. You can see main rivers on our website at <http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=357683&y=355134&scale=1&layerGroups=default&ep=map&textonly=off&lang=en&topic=mainrivers>

<sup>2</sup> Schedule 23ZA Part 1 Para 3(1)(d) The Environmental Permitting (England and Wales) Regulations 2010

<sup>3</sup> <https://www.gov.uk/topic/environmental-management/environmental-permits>

## 2. Before you start maintenance work

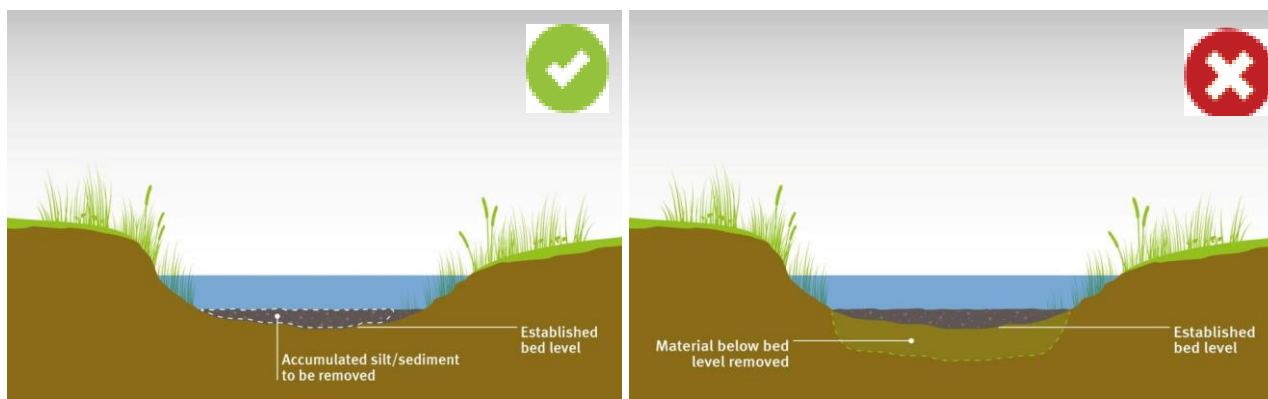
Here are some checks you **must** do.

-  Check the conditions in the exemption you want to use, to ensure that you can comply with them. If you can comply with the regulations register your dredging exemption but if not apply for an environmental permit. You may also need to notify us in advance under your permit conditions before you carry out dredging.
-  For exemptions 23 and 24, you must be able to confirm that no dredging has been carried out within a specified time or distance near the location where you are dredging. You must take reasonable steps to find out what other dredging has been taking place in the area. Check with neighbours and check with the Environment Agency to find out. If you can't meet the requirements for timing and location in the exemption, you will have to wait to carry out your works, or apply for an environmental permit.
-  Exemptions 21 to 24 all contain conditions which restrict the locations where dredging can be carried out under these exemptions. These are set out in Schedule 3, Part 4 to the Regulations. Check the conditions of your exemption to see whether these apply in your location. If you can't meet the requirements for location, you will need to apply for an environmental permit.
-  You must check with your local planning authority to make sure that there are no tree preservation orders (TPOs) on the trees you're planning to carry out work on.
-  You must check with [Historic England](#) to make sure that there are no designated historic sites in the area you're planning to carry out work on.
-  You should follow the rules about working in a watercourse less than 1 metre wide that has water voles present. Please refer to the Appendix to find out what you should do.
-  In all cases, you need to comply with waste and water quality requirements to ensure there is no harm to the environment. See <https://www.gov.uk/guidance/waste-exemptions-disposing-of-waste> regarding waste, and <https://www.gov.uk/guidance/water-discharge-exemptions> regarding water discharge activities
-  You must not work in a way which adversely affects protected and priority species, including water voles, white-clawed crayfish, mussels and great crested newts. You should refer to [Natural England's website](#) for more information on protected species. You can also check with your local records centre or other local wildlife groups about which species may be present along your watercourse. You can find contact details for local records centres on the [National Biodiversity Network](#) website. You may have to pay for this information.
-  You must not allow your work to cause invasive non-native species to spread into the wild or to neighbouring land. Check if the watercourse or the surrounding land has any invasive non-native species present. If there are, you need to plan how you'll manage them and dispose of any waste containing them to prevent them spreading. You can find advice telling whether you have an invasive non-native species on the [Great Britain non-native species secreteriat](#) website and there is more information in section 4 of this document.
-  You must not disturb nesting birds or prevent them from returning to their nests. If you need to carry out work in the bird breeding season, which is generally from the beginning of March to the end of July, you must check that no nests are going to be disturbed. If you find a nest, you must delay work until the eggs have hatched and the chicks have left the nest.

# 3. Dredging your watercourse

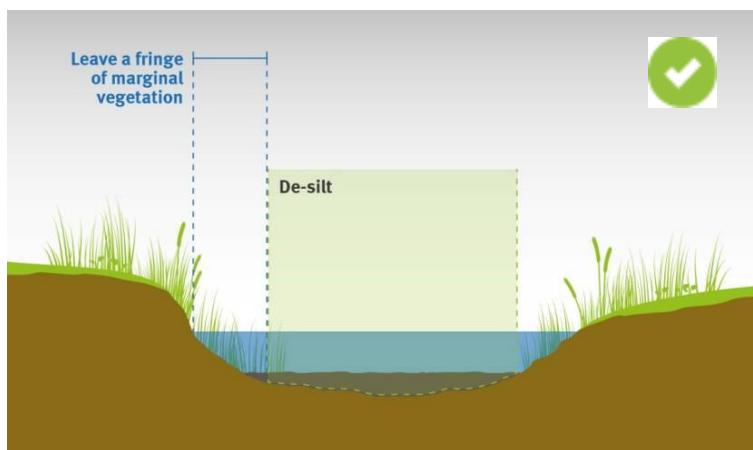
Dredging as defined in the Regulations is a broad term that covers the removal of any sand, silt, ballast, clay, gravel or other materials from or off the bed or banks of a main river. Other than removing material from a culvert, the dredging exemptions only allow you to remove silt and sand that has accumulated on the bed of a river. Exemption 21 allows any accumulated material of any size to be removed from a culvert<sup>4</sup>, but only accumulated silt and sand from a bridge. For any work beyond this, such as to deepen and widen channels, you must apply for an environmental permit.

Figure 1 illustrates the difference between removing fine silt and sediment and widening and deepening channels.



**Figure 1: Difference between removing accumulated silt and sand, and widening and deepening channels**

- ✓ You must keep a record of the dredging work you've done and when you did it. We advise that you also keep a record of the environmental checks you made.
- ✓ You must take reasonable steps to make sure that you don't harm or kill protected species by removing them from the watercourse when dredging. If you notice that you are removing animals such as fish or mussels then you must stop dredging and contact us for advice. A small number of these animals may be hidden in the silt you remove so we recommend you walk along it regularly (preferably every 30 minutes) and return these to the watercourse immediately.
- ✓ You must leave a fringe of undisturbed vegetation at the edge of the water and at the very foot of the bank (see figure 2) . This is to ensure that you don't remove vegetation from the bed or banks of the main river (as in the example in figure 3), other than vegetation growing in or through the silt and sand. Leaving this fringe will minimise the risk of your work damaging the environment and it will give species food and shelter.






**Figure 2: Leave a fringe of undisturbed vegetation at the edge of the water on both sides**

<sup>4</sup> "Culvert" means a covered channel or pipe which prevents the obstruction of a watercourse or drainage path by an artificial construction."






**Figure 3: Do not remove the fringe of vegetation or leave watercourse banks bare or exposed like this.**

- 
 You must spread the removed silt thinly, away from the slope of the bank and the immediate bank top area. If you cannot do this, you will have to remove the material from the site, treating it as waste.
- 
 You should work in an upstream direction and from one bank of the watercourse only, unless it's unsafe for the driver of the machine. Working in an upstream direction reduces the risk of silt being washed downstream and causing pollution.
- 
 You should use an appropriately-sized machine for the width of the channel with a digger bucket that's suitable for removing silt (see figure 4). If you use a large digger bucket in a small channel you could damage the banks. Some species, such as water voles, could have their burrows crushed if you use heavy machinery along the bank top.







**Figure 4: Use an appropriate sized machine and bucket**

- 
 You should avoid spreading silt in field hollows or wet areas, as these may be valuable habitat for plants and animals.
- 
 You must not damage bed or banks, or drive a machine in the channel.
- 
 You may only remove gravel from culverts under exemption 21, and not under any other exemption. You must have an environmental permit to remove materials other than accumulated silt and sand in any other circumstances. Some culverts contain deliberately placed gravel on the base for environmental reasons and where this is the case you should not remove this.



**Figure 5: Dredging must not remove gravels like these. You must have an environmental permit to remove gravels unless you are working in a culvert.**

-  You must not leave watercourse banks bare or exposed, as they will be more prone to erosion. See an example of bad practice in figure 3.
-  You must not let diesel fuel, petrol or oil from machinery enter the watercourse or groundwater.
-  You should not cut weeds in very hot weather and/or during low river flows as the risk of causing environmental damage, such as killing fish, is much higher. If you are unsure whether to begin work please contact us for advice.
-  You should not wash machinery and wheels within 8 m of a main river, as the washwater could pollute the river.



# 4. Preventing pollution and the spread of invasive non-native species

**It's against the law to pollute a watercourse or spread invasive non-native species.**



You must have a plan to manage and prevent the spread of any invasive non-native species that may be present within your working area, including preventing spread downstream.



You must dispose of invasive non-native plants appropriately. Contact us for advice on disposal because there are regulations that cover composting, burning and burying plant materials on-site and transferring and disposing of material to permitted landfill sites. For more information on disposing of non-native plants, download our leaflet

[http://webarchive.nationalarchives.gov.uk/20140328084622/http://cdn.environment-agency.gov.uk/LIT\\_5001\\_d24b8c.PDF](http://webarchive.nationalarchives.gov.uk/20140328084622/http://cdn.environment-agency.gov.uk/LIT_5001_d24b8c.PDF) .



You should make sure that you dispose of silt and sand and plant material you remove correctly and have silt control measures in place.



You should follow the Great Britain non-native species secretariat biosecurity guidance:

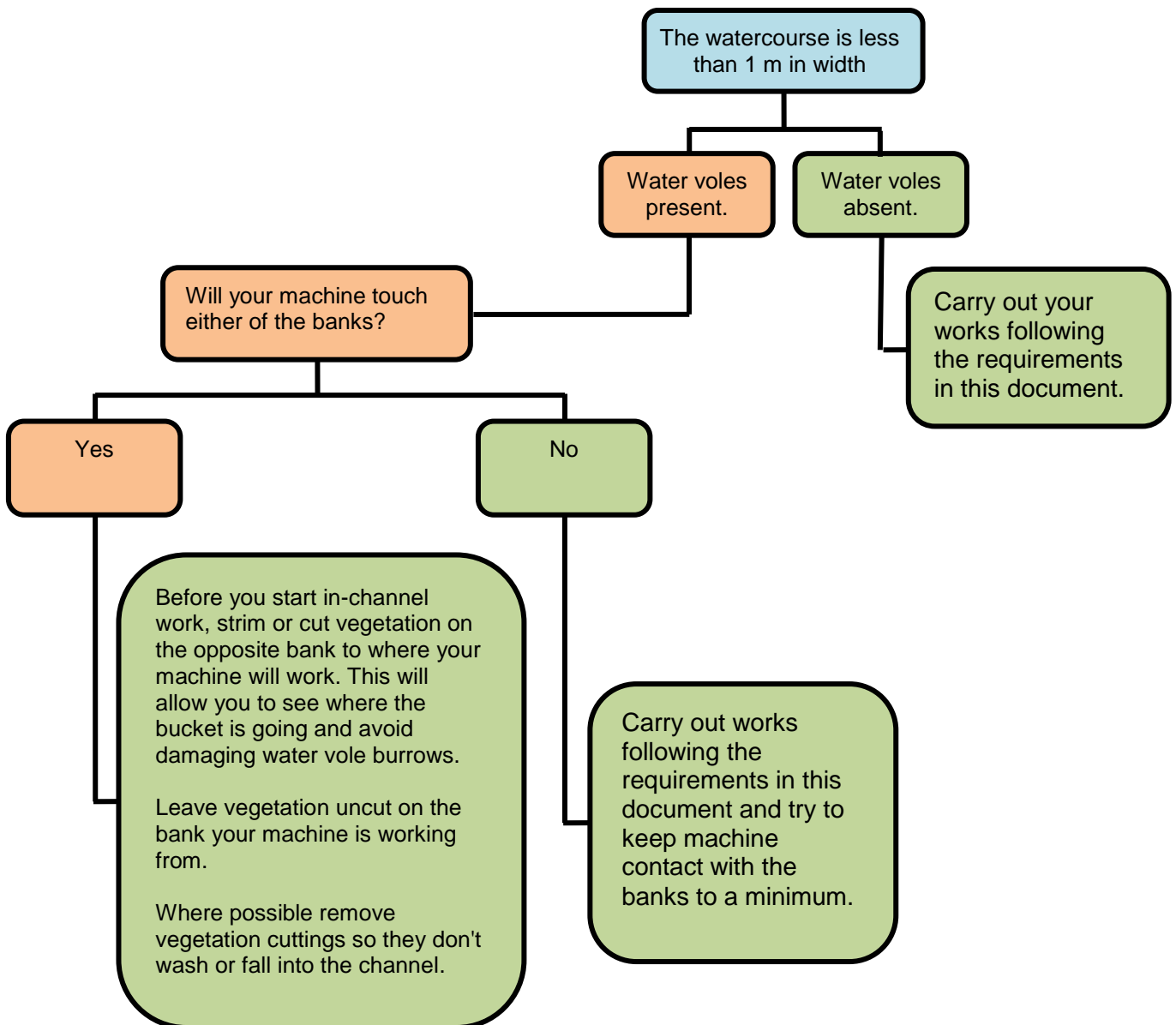
- Check your equipment and clothing for live organisms and plant fragments, particularly in areas that are damp or hard to inspect.
- Clean and wash all equipment, footwear and clothing thoroughly. If you do come across any plants or animals, leave them at the watercourse where you found them and report them to us.
- Dry all your equipment and clothing - some species can live for many days in moist conditions. Make sure you don't transfer water elsewhere.

Read more about the check, clean, dry procedures at the [Great Britain non-native species secretariat](#) website.

# Appendix: Working in a watercourse with water voles present

This flowchart explains what you should do if water voles are present when working in channels less than one metre wide. For channels greater than one metre wide, there are no specific measures you need to take in relation to water voles, other than following the general requirements in this document.

Following this flowchart will help reduce the risk of your work damaging water voles or their habitat. Water voles and their habitats are protected under the Wildlife and Countryside Act 1981 (as amended). Find out more about water voles and how you can help protect them in Natural England's leaflet, ['Water voles – the law in practice'](#).



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**03708 506 506** (Monday to Friday, 8am to 6pm)

**email**

**enquiries@environment-agency.gov.uk**

**or visit our website**

**[www.gov.uk/environment-agency](http://www.gov.uk/environment-agency)**

**incident hotline 0800 807060** (24 hours)

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