



*Note Appendix 1 and Appendix 2 have now been withdrawn.*

River maintenance pilots

Findings report

January 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.

Published by:

Environment Agency  
Horizon House, Deanery Road,  
Bristol BS1 5AH  
Email: [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)  
[www.gov.uk/environment-agency](http://www.gov.uk/environment-agency)

Further copies of this report are available from our publications catalogue:

[www.gov.uk/government/publications](http://www.gov.uk/government/publications)

or our National Customer Contact Centre:  
T: 03708 506506

Email: [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk).

© Environment Agency 2016

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

# Executive summary

Following the floods of summer 2012 we and Defra received a number of concerns and complaints regarding watercourse maintenance.

This focused on 3 main issues:

- River maintenance, particularly in rural areas, had been reduced and in many areas stopped.
- Regulation was perceived to be preventing farmers and landowners from carrying out the work themselves.
- Lack of discussion with local landowners and communities regarding our maintenance plans.

As a response to these concerns, the Secretary of State for Environment, Food and Rural Affairs asked us to pilot an approach to make it easier for farmers and landowners to carry out their own maintenance work and to find out what work we had planned.

In October 2013 we trialled some river maintenance pilots across the country to give farmers, landowners, community and environmental groups an opportunity to be involved in decisions and to carry out their own river maintenance.

To help with this, we simplified our processes in the pilot areas and spent more time talking to farmers, landowners and communities about watercourse maintenance.

The results were:

- Farmers and landowners in the 9 pilot areas now know more about our maintenance work and how it's funded.
- Advice, guidance and support from our local staff have given farmers and landowners more confidence to carry out their own maintenance work in an environmentally sensitive way.
- Across the 9 pilot areas farmers and landowners have carried out, and plan to carry out over the next 3 years, a total of 61km of river maintenance work.
- Many farmers and landowners chose to use our existing flood defence consenting process rather than the simplified approach of the regulatory position statement.
- There remain some concerns about the different regulatory processes that apply and the potential lack of an integrated approach across catchments.

The learning and feedback from the pilots has informed:

- how we can better communicate our maintenance plans and the discussions we need to have when we reduce or stop maintenance
- our advice to Defra on how river maintenance could be regulated in the future (as part of incorporating flood defence consents into the environmental permitting framework)

We have learned from the pilots that:

- farmers and landowners can carry out dredging to remove silt in an environmentally sensitive way
- farmers and landowners wishing to carry out their own maintenance work look to us to provide guidance and support
- regulation was not as big a barrier as perceived to those that wanted to carry out their own maintenance work
- the process of determining where and how maintenance is carried out is most effective when it is discussed and takes place through people working together
- we need to be more active in sharing our maintenance plans and communicating with farmers and landowners, especially where we are reducing or stopping maintenance

# Contents

<b>Executive summary</b> .....	<b>3</b>
<b>1. Background</b> .....	<b>5</b>
1.1. How we make decisions about maintenance .....	5
1.2. How we regulate river maintenance work .....	5
1.3. Public Sector Co-operation Agreements.....	6
<b>2. The river maintenance pilots</b> .....	<b>7</b>
2.1. Objectives.....	7
2.2. The regulatory position statement.....	8
2.3. The pilot areas and why we chose them.....	9
2.4. Environmental good practice guide.....	11
2.5. Changes made during the pilots .....	12
<b>3. What happened during the pilots</b> .....	<b>14</b>
3.1. Alt Crossens .....	14
3.2. Bottesford Beck .....	14
3.3. Brue.....	15
3.4. Duckow .....	15
3.5. East Lytham .....	15
3.6. River Eau .....	15
3.7. River Idle and Isle of Axholme .....	16
3.8. Upper Thames.....	16
3.9. Winestead Drain.....	16
<b>4. Results of the pilots</b> .....	<b>17</b>
4.1. River maintenance work carried out or planned .....	17
4.2. Involving the local community .....	18
<b>5. Lessons learned and feedback received</b> .....	<b>20</b>
5.1. Regulation .....	20
5.2. Working with others .....	21
<b>6. Next steps</b> .....	<b>23</b>
<b>Appendices</b> .....	<b>24</b>
Appendix 1 Regulatory position statement.....	24
Appendix 2 Environmental good practice guide .....	24
Appendix 3 Boundary and environmental maps of each pilot area .....	24
Appendix 4 Pilot area summary factsheets.....	24

Note Appendix 1 and Appendix 2 have now been withdrawn.

# 1. Background

## 1.1. How we make decisions about maintenance

The floods of 2012 and 2013 to 2014 brought the impact of flooding on agriculture and rural communities and our role in watercourse maintenance to the forefront.

In the past, rivers were dredged more often to drain land and support agricultural production. Today, government policy and a focus on value for money means we have to concentrate our work where it helps to reduce the risk of flooding to people and property the most. Our priority is to focus on work that generally manages flood risk rather than work that sustains land drainage.

We assess all of our flood risk management activities using a risk-based approach and following government policy. We invest in those activities that will contribute most to reducing flood risk to people. This has meant reducing or stopping our maintenance work in some areas where it is least effective and the impact of flooding affects fewest people.

We have more understanding and awareness than ever before of how rivers function and the environmental impacts of dredging and sediment removal. Sometimes dredging can either make flooding worse downstream, be ineffective or divert resources away from other flood risk management activities that are far more beneficial to local communities (for example, maintaining pumps, flood defences or sluice gates or raised embankments and clearing vegetation).

We cannot afford to do all the maintenance work we have done in the past. We will no longer dredge a watercourse if it is not a cost effective method of reducing flood risk compared with other flood risk measures in that location.

We need to work with landowners, communities and local partners to discuss and agree how we can work together to manage flood risk and land drainage in the future.

Where we cannot maintain an asset or watercourse, we will discuss with the land and property owners and help them decide how their flood risk and land drainage can be managed in the future.

Our [asset maintenance protocol](#)<sup>1</sup> sets out our decision-making process and approach to maintaining flood and coastal risk management assets in England. It helps us apply a consistent approach to identifying which flood defences and rivers we should no longer maintain and how we will work with those affected by our decisions.

## 1.2. How we regulate river maintenance work

We recognise the important role that farmers and landowners play in working with us to reduce flood risk by maintaining rivers on their land and doing so in an environmentally sensitive way.

Those that want to carry out certain work on or near main rivers<sup>2</sup> or sea defences that might affect flood risk must first get a flood defence consent from us.

For work on or near ordinary watercourses (non-main rivers) farmers and landowners need permission from either their lead local flood authority or the internal drainage board (IDB) in their area.

There is more information [on permissions and river maintenance](#) on gov.uk or by calling our customer contact centre on 03708 506506.

---

<sup>1</sup> <https://www.gov.uk/flood-and-sea-defences-when-maintenance-stops>

<sup>2</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.

Without regulation, activities might increase flood risk by blocking or changing the flow of the river and making flooding worse for people up and downstream. This could lead to property flooding or damage to flood defence structures.

Through regulation we can make sure that maintenance work does not cause flooding and is carried out in an environmentally sensitive way that avoids harming protected sites and species.

To reduce the burden of regulation on businesses, the UK government announced in November 2011 that it planned to expand the environmental permitting framework to cover flood defence consents. The environmental permitting framework is a risk-based and proportionate approach designed to help regulators focus resources on higher risk activities. It is already used for waste activities, water discharges and regulated industry.

Consenting for ordinary watercourses will not be integrated into the environmental permitting framework and so the existing consenting process through local authorities and internal drainage boards will continue.

### 1.3. Public Sector Co-operation Agreements

We have been working closely with the Association of Drainage Authorities, internal drainage boards (IDBs) and local councils through the Public Sector Co-operation Agreement (PSCA) partnership approach to make it easier for them to do maintenance work on main rivers on our behalf.

The PSCA approach also enables the Environment Agency to do work on ordinary watercourses, where it is more efficient to work in this way and it is in the mutual interests of us and the IDB. This is done through arrangements under the Flood and Water Management Act 2010 which allow one risk management authority (RMA) to carry out flood risk management work on behalf of another at no profit.

The main benefit of these agreements is in finding the most effective local organisation to carry out maintenance work, resulting in more efficient working practices to reduce flood risk to local communities.

A PSCA can cover different types of maintenance such as inspections, removing obstructions, cutting weeds, dredging, controlling vegetation and vermin, and pump operation.

Around 50 agreements are now either in place or being finalised across England for main river maintenance work and to provide mutual assistance during flood events.

We aim to have 60 PSCAs in place with IDBs or other RMAs by 31 March 2016.

Note Appendix 1 and Appendix 2 have now been withdrawn.

## 2. The river maintenance pilots

Following the floods of 2012 and 2013 to 2014, some agricultural and land management organisations raised concerns to Defra and directly to us that they felt our reduction in watercourse maintenance had made flooding and water logging of land worse. They also felt that we and Natural England made it difficult for farmers and landowners to carry out maintenance themselves.

We have worked, and continue to work, with Defra to investigate and address the concerns of interested groups and customers that regulatory requirements are burdensome for people who want to carry out their own river maintenance work.

In October 2013, the Secretary of State for Environment, Food and Rural Affairs announced that the government was setting up 7 river maintenance pilot areas across the country to run for 12 months.

The river maintenance pilots aimed to address the concerns that had been raised and also considered the proposed changes to the legislation under which flood defence consents are issued. The aim was to trial making consenting requirements for removing silt from main rivers easier as well as to give farmers, landowners, community and environmental groups a greater opportunity to be involved in decisions about maintaining rivers and flood defences in their area.

The pilot areas were selected from parts of the country where concerns had been raised and where farmers and landowners had expressed an interest in carrying out maintenance themselves.

We met with farming and rural business organisations to explain the background to the pilots. They provided comments on the associated documents within the tight timescales involved and advised their local staff where pilots were occurring.

We discussed the pilots with nature conservation and angling organisations through the coalition of leading environmental organisations, Blueprint for Water. The organisations expressed serious concern about the potential negative impacts on the environment of any maintenance work being carried out with, as they perceived it, less regulation. They gave us their advice on minimising the environmental impacts of dredging to remove silt, which we incorporated into the environmental good practice guide used during the pilots.

By farmers and landowners notifying us rather than applying for a flood defence consent we made it easier for them to carry out maintenance work. We developed a regulatory position statement (RPS) for dredging to remove silt from main rivers that applied to the 7 pilot areas, as long as certain standards were met.

We produced an environmental good practice guide (EGPG) which was a condition of the RPS, to help make sure people carrying out river maintenance work did so in an environmentally sensitive way and in line with the law.

The pilots were initially for one year but were extended until March 2015 as the 2013 to 2014 winter floods meant some farmers were not able to carry out maintenance work.

### 2.1. Objectives

The pilots were mainly about making it easier for farmers and landowners to carry out maintenance work through reducing regulatory red tape. We wanted to know if farmers and landowners would find this approach easier than the existing flood defence consenting process.

While trialling the approach, we needed also to find out if farmers and landowners carrying out their own maintenance could follow environmental good practice to make sure they complied with the relevant environmental legislation.



At the same time as promoting the pilots, we shared and discussed our maintenance programmes with farmers, landowners and the wider rural community. We wanted to give them more detail about how we reach decisions about our maintenance activities and answer any questions they had.

We asked for their views on how those interested in managing flood risk and land drainage can work together to carry out more effective and efficient river maintenance work with minimal environmental impacts. We also explored avenues for longer term maintenance planning.

## 2.2. The regulatory position statement

We introduced a regulatory position statement (RPS) to operate within the pilot areas so that we would not take enforcement action against farmers and landowners who simply notify us, rather than applying for a flood defence consent (FDC), when they wanted to carry out dredging to remove silt, provided that certain conditions were met. The RPS set out a trial approach to the permissions needed when carrying out this kind of work on main rivers.

Appendix 1 contains the RPS and associated explanatory notes.

The RPS covered 3 activities on main rivers:

1. Dredging to remove fine sediment (silt and sand) from man-made ditches, land drains and previously straightened watercourses, with a limit of 20% or 1,500 metres of an individual's main river watercourse length annually, whichever value was lower. However, if 20% of the main river in an individual's landholding was less than 200 metres, they could work up to a maximum length of 200 metres.
2. Clearing sediment or debris from inside a culvert.
3. Dredging to remove fine sediment within 10 metres upstream or downstream of a bridge or culvert.

When using the RPS a landowner or representative still needed to register for the relevant waste exemptions for spreading any material on land. These waste exemptions are free to register and last for 3 years.

If someone wanted to dredge silt from a longer length of a main river or carry out additional maintenance work such as bank reprofiling, they had to apply for a FDC in the normal way.

Where a farmer or landowner in a pilot area wanted to carry out maintenance work that needed a FDC, we processed the application in no more than 2 to 3 weeks, compared to the statutory time limit of 2 months. The environmental requirements maps we produced for each pilot area helped to reduce the time needed to grant a FDC.

The RPS included some restrictions on where and when dredging to remove silt could be carried out to meet environmental requirements, particularly Water Framework Directive. The RPS only applied to rivers that had been modified or straightened and contained fewer natural characteristics.

If work was in, or close to, a designated nature conservation site the RPS did not apply and the farmer or landowner needed to obtain a FDC. Table 2.1 shows the type of designated sites and the buffer distance that was applied to make sure dredging to remove silt would not harm the designated site.



**Table 2.1 Buffer distance for designated sites**

Designated site type	Buffer distance
Special Protection Area	1km
Special Area of Conservation	1km
Ramsar Wetland	1km
Site of Special Scientific Interest	1km
National Nature Reserve	1km
Local Nature Reserve	200m
Scheduled Monument	50m

We agreed with Natural England that where the work was in a designated nature conservation site or its buffer zone, we would work together to grant the FDC as quickly as possible.

We also agreed with Natural England that if any work carried out using the RPS breached any of the RPS requirements, we would deal with it in the same way as a normal breach of a flood defence consent.

### 2.3. The pilot areas and why we chose them

When choosing areas to pilot this regulatory approach we wanted to use locations where:

- we have stopped or reduced our own maintenance activities over the past few years
- farmers and landowners had raised concerns with us that accumulated silt may be causing flooding and reducing land drainage
- farmers and landowners were keen to do more maintenance themselves

Local flood risk management officers chose the locations as they were best placed to understand the flood risk and land drainage issues and to know which areas would benefit most from trialling this regulatory approach.

As the focus of the pilots was on dredging to remove silt, the locations used were mainly lowland agricultural areas with drainage networks. We made sure that we chose a mix of locations with and without an internal drainage board present so that we could learn how to work better both with other risk management authorities and also with individuals and community groups.

We initially chose 7 locations, but as the pilots progressed the number increased to 9. Figure 2.1 shows the locations we chose and Table 2.2 gives some details of their characteristics and why we selected them as a pilot location.

Note Appendix 1 and Appendix 2 have now been withdrawn.

Figure 2.1 - Location of the 9 river maintenance pilots



Table 2.2. The 9 pilot areas and reasons why we chose them

Pilot area	Characteristics and reasons why chosen as a pilot area
<b>Alt Crossens</b>	<ul style="list-style-type: none"> <li>• a large low-lying catchment, artificially drained by a series of pumping stations that feed two larger stations</li> <li>• mainly rural, the agricultural land is primarily excellent or very good quality (Grade 1 and 2)</li> <li>• our maintenance activity has reduced over the past few years</li> </ul>
<b>Bottesford Beck</b>	<ul style="list-style-type: none"> <li>• flows through an industrialised urban area and across low-lying floodplain before entering the River Trent</li> <li>• farmers have experienced some flooding in recent years</li> <li>• an active community group present</li> </ul>
<b>Brue</b>	<ul style="list-style-type: none"> <li>• a low-lying catchment situated in a large flat-bottomed valley between 2 ranges of high ground (The Polden Hills and the Mendip Hills)</li> <li>• the area is covered by an internal drainage board</li> <li>• mainly rural land use - grazing and forage harvesting/silage making</li> <li>• it is not unusual for most of the Brue pilot area to become flooded</li> <li>• internationally important designated nature conservation sites in the area</li> </ul>

<b>Duckow</b>	<ul style="list-style-type: none"> <li>relatively low lying and with gentle gradients in a rural landscape with arable and pasture farmland</li> <li>the River Duckow and tributaries are part of the headwaters of the River Weaver</li> <li>we started to reduce our maintenance activity some years ago</li> <li>there had not been any flood defence consent applications for carrying out maintenance work on the River Duckow in recent years</li> </ul>
<b>East Lytham</b>	<ul style="list-style-type: none"> <li>a low-lying area where water levels are managed by a pumping station and then enter the Ribble Estuary through tidal doors</li> <li>we are currently investigating options for managing the pumping station long term</li> <li>majority of the land is being used for agriculture</li> </ul>
<b>River Eau</b>	<ul style="list-style-type: none"> <li>the River Eau flows through the village of Scotter before passing through the lowland reaches and entering the River Trent</li> <li>a large arable area</li> <li>Scotter suffered from flooding in 2007 and residents have been asking for more maintenance</li> </ul>
<b>River Idle and Isle of Axholme</b>	<ul style="list-style-type: none"> <li>very low-lying area requiring pumped drainage</li> <li>area has high grade agricultural land</li> <li>nationally important designated nature conservation sites in the area</li> <li>farmers have suffered from flooding to their land on several occasions in recent years and have asked for more maintenance to be carried out both to prevent flooding and to improve land drainage</li> <li>we chose the River Idle as the initial pilot area before we extended the boundary to the rest of the Isle of Axholme</li> </ul>
<b>Upper Thames</b>	<ul style="list-style-type: none"> <li>has a combination of natural watercourses and purpose-built drainage channels constructed during the 1940s</li> <li>mostly arable farm land</li> <li>there has been repeated flooding between 2007 and 2013 and also poor land drainage, which has resulted in significant crop damage</li> <li>our local staff were working closely with farmers and landowners before the pilot was proposed</li> </ul>
<b>Winestead Drain</b>	<ul style="list-style-type: none"> <li>a completely man-made system of artificial watercourses draining land that is mainly below high tide level</li> <li>the drainage system relies on 2 pumping stations</li> <li>South Holderness Internal Drainage Board covers some of the catchment and all of the pilot watercourse</li> <li>an arable farming area with a number of small isolated communities</li> </ul>

For each pilot location we produced a map that showed the boundary of the pilot area and the main rivers in it. We published the map online and hard copies were available at all meetings and events during the pilots. The map meant farmers and landowners could quickly see if they were within the pilot area and if they were eligible to use the regulatory position statement.

Appendix 3 contains the boundary maps for each pilot area.

## 2.4. Environmental good practice guide

Dredging and removing sediment can have an adverse impact on the environment, but good working practices can greatly reduce this. Following good practice does not always mean an increase in costs. Simple inexpensive measures include timing work to avoid particularly sensitive times for wildlife, such as the fish spawning seasons and bird nesting season.

We produced an environmental good practice guide to help those dredging to remove silt and managing vegetation do so in an environmentally sensitive way in line with legislation.

We used diagrams to clearly explain how to carry out dredging to remove silt using the RPS and a tick ✓ and cross ✗ illustration showing what to do or not do. The guide was helpful in summarising the relevant legislation into a single document, showing the reader what they needed to do to comply with legal requirements.

**Figure 2.2 Example from environmental good practice guide**

✓ You should use an appropriately-sized machine for the width of the channel with a digger bucket which is suitable for silt removal work (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 leave any silt next to the watercourse for a day or so before you spread it to allow smaller animals to make their way back into the watercourse.
- ✓ You should avoid spreading silt in field hollows or wet areas, as these may be valuable habitat for plants and animals.
- ✓ You should keep a record of the work you've done and the environmental checks you have made.
- ✗ You must not damage bed or banks therefore do not drive a machine in the channel.
- ✗ You must not carry on working if you are removing lots of fish or mussels from the channel. Contact us for advice about how you can continue work.

Appendix 2 contains the environmental good practice guide.

To complement the good practice guide and help people feel more confident about carrying out their own work and meeting the environmental requirements, we produced an environmental sensitivities map for each pilot area. The map showed any designated nature conservation sites and their appropriate buffer zones, the type of fish present and Water Framework Directive (WFD) sensitive areas. We published the maps online and hard copies were available at pilot meetings and events. Appendix 4 contains the maps.

None of the rivers in the pilot areas contained salmon, trout or grayling, therefore only the fish spawning season for species such as chub, dace and roach applied. This meant that no in-channel work could take place between 15 March and 15 June.

## 15. Changes made during the pilots

We reviewed the pilots and the feedback received after 6 months. Generally, the pilots were proving successful, but unfortunately 4 of the pilot areas experienced prolonged flooding in early 2014, with the Brue pilot in Somerset being particularly affected. This affected farmers' and landowners' ability to carry out work due to the high water levels.

As word spread about the pilots in local communities, farmers and landowners close to the existing pilot areas of Alt Crossens and the River Idle also expressed interest in joining.

We made a number of changes using the learning and feedback at that point. These were:

- extending the closing date for the RPS and the pilots until 14 March 2015, giving farmers and landowners affected by the winter floods more time to carry out work
- extending the River Idle pilot boundary to cover a larger area across the Isle of Axholme in North Lincolnshire
- establishing 2 new pilot areas; East Lytham in Lancashire and the River Eau in Lincolnshire

These changes allowed us to apply the trial regulatory approach in more areas and to provide more information to support Defra's work in transferring flood defence consenting into the environmental permitting framework. They also allowed more farmers and landowners to benefit from the simplified process.

As a result of feedback we received from farmers and landowners, we also made some minor amendments to the RPS itself. The RPS originally applied to previously straightened watercourses that had been dredged to remove silt in the past 10 years. This restriction was included to avoid dredging to remove silt taking place in locations where the river had returned to a more natural state that supported a variety of wildlife.

It became clear that the 10-year restriction was unworkable, as in a number of the pilots there were no records to confirm whether maintenance had occurred in the past 10 years. We removed this restriction and added any watercourse stretches that we believed to have significant ecological value to the pilot map as WFD sensitive areas. This meant that flood defence consents would be required in those locations and the ecological value protected.

Note Appendix 1 and Appendix 2 have now been withdrawn.

## 3. What happened during the pilots

Our local teams promoted the pilots as part of their everyday work and encouraged landowners and farmers who wanted to carry out maintenance to become involved. We held meetings with communities, interested agricultural and nature conservation groups in each pilot area.

We also held depot open days and river maintenance demonstrations to help farmers, landowners and communities find out more about carrying out river maintenance work in an environmentally sensitive way.

This section contains a summary of what happened in each pilot. There are more details in the pilot area summary factsheets in Appendix 5.

### 3.1. Alt Crossens

In the Alt Crossens we devised and trialled a whole farm consent to supplement the RPS approach. Our local flood risk management and fisheries, biodiversity and geomorphology staff agreed the approach. A farmer or landowner could apply for a FDC which we would process quicker than the statutory 2-month determination period<sup>3</sup>.

The applicant needed to give details of all maintenance work they would like, or be likely, to carry out in the next few years, for example, removing silt, repairing bank slips and bank reprofiling. We would issue the consent to a single farmer that would be valid for 3 years and apply to all main river watercourses they own. The consent application went through the same procedural and environmental checks as a standard FDC before we could grant it. We also attached a condition to the consent that, if removing silt, the work must be carried out in line with the environmental good practice guide.

We granted whole farm consents to 8 individuals to carry out dredging to remove silt from 40 main river watercourses in the Alt Crossens pilot area over the next 3 years. The total length of the work consented is 43.7km. There were 7 individuals that used the RPS to remove silt from 2.05km of main river.

Working with the local NFU officer, we developed an electronic mapping tool to record locations where landowners were involved in the pilot, so that we and the NFU knew where to target our support.

### 3.2. Bottesford Beck

Working in partnership with North Lincolnshire Council, local businesses and the local community led to investigative work being carried out in advance of maintenance. This meant that the most appropriate work could be targeted in specific areas.

The work led by North Lincolnshire Council as landowner, involved dredging to remove silt from targeted areas along 3km of Bottesford Beck and 9km of weed cutting. We granted a flood defence consent for this. The work, together with other partnership activities, has led to a significant improvement in water quality as well as reducing water levels and increasing flow in the beck.

---

<sup>3</sup> Where consultation with Natural England was required for work in, or near to, designated nature conservation sites this timescale did not apply.



### 3.3. Brue

There was no work carried out in the Brue pilot area. Before the winter flooding in 2013 to 2014 a few landowners were interested in working together to carry out dredging of the River Brue. However, due to the duration and level of flooding and the Rivers Tone and Parrett subsequently being dredged, those landowners did not carry out work during the pilots.

Some landowners felt it was up to us and other public authorities to maintain watercourses across the Somerset Levels and so they were reluctant to carry out work at their own expense.

During the pilots, the Somerset Rivers Authority (SRA) was set up in January 2015 to raise funding from local sources.

Towards the end of the pilot, further funding for maintenance became available in Somerset, and the Axe Brue Internal Drainage Board plans to carry out 8km of silt removal work between 2015 and 2016. We are supporting them with their FDC application process.

### 3.4. Duckow

One landowner carried out maintenance work, including removing silt on a 2.4km stretch of the River Duckow. The work required a FDC due to the length involved. We fast tracked the consent application and did not have to consult with Natural England.

Our pilot lead and local ecologist checked the work and found that it complied with the environmental good practice and the conditions of the flood defence consent.

### 3.5. East Lytham

We included East Lytham as a new pilot area half way through the pilot period, as landowners had expressed an interest in carrying out dredging to remove silt. Two landowners joined together to clear silt from over 2km of the Branch Drain.

There was not a large take-up of the RPS mainly because farmers and landowners felt that the issues around operation of the pumping station outlet and associated siltation problems were causing high water levels. They felt it would not benefit them to dredge their rivers until we had carried out dredging at the pumping station.

We are currently carrying out a study looking at the long-term management of the pumping station and the system. In April 2015, we began a large-scale dredge at the tidal doors to clear the silt and restore the flow into the estuary. This has provided temporary improvements until we can identify longer term improvements and secure funding.

### 3.6. River Eau

In recent years wet weather has caused significant flooding. Since 2007, the residents of Scotter and downstream landowners have called for more maintenance in the lower sections of the River Eau. A partnership was formed to help resolve these issues when we added the River Eau to the list of pilot areas. Dredging the lower River Eau was too costly and complex for individual landowners.

To address this on behalf of the partnership, Scunthorpe and Gainsborough Internal Drainage Board proposed to carry out targeted conveyance improvements that would also benefit water quality, together with a wider study to look at whole catchment improvements. As a result, the partnership successfully bid for £130,000 of local levy funding.

The first stage of work is expected to start late summer 2015. The IDB will manage this under a Public Sector Cooperation Agreement.



### 3.7. River Idle and Isle of Axholme

Farmers on the River Idle have suffered from flooding on their land on several occasions in recent years. Farmers and landowner representatives across the Isle of Axholme have asked for more maintenance to be carried out both to prevent flooding and to improve land drainage.

We chose the River Idle in North Nottinghamshire as the initial pilot area before we extended the boundary to the rest of the Isle of Axholme, which covers parts of North Lincolnshire and Yorkshire.

The Isle of Axholme and North Nottinghamshire Water Level Management Board carried out an initial appraisal of dredging activity for the River Idle. It estimated that this work could cost more than £4 million and would be very complex for individual farmers to carry out.

Following this, we have brought forward survey work across the Isle of Axholme, which we will use to understand the extent of silt in the catchment. The River Idle Partnership, which includes local councillors, the Wildlife Trust, angling groups and local landowners and businesses, will use this information to assess the likely costs of dredging. The partnership is developing a funding strategy for future work to benefit farmers, the local community and the environment.

### 3.8. Upper Thames

Our West Thames Area had already introduced a low-risk consenting process to help process flood defence consents (FDCs) quicker. Our local officers have played an important role in making sure people applying for FDCs protect the environment. The low-risk consenting process is used where watercourses are maintained using hand tools, and the natural bed and banks are not altered.

Local community groups cleared vegetation from a 400 metre stretch of Clanfield Brook, Kelmscott using only hand tools.

Local landowners and West Oxfordshire District Council carried out approximately 1km of dredging to remove silt under a FDC.

We developed an electronic mapping tool showing where we would be carrying out maintenance work during the pilot period. This tool allows easy postcode or town searches so that members of the public can see what work is planned in their area. We have shared this with Oxford City Council, and they plan to use this as part of their own maintenance work. This demonstrates our professional partner approach to watercourse maintenance.

### 3.9. Winestead Drain

The Winestead Drain was affected by tidal flooding in December 2013. Damage to a number of tidal defences in the area led to material being washed into and completely filling some of the drainage ditches.

We completed a PSCA with South Holderness Internal Drainage Board so that they could do maintenance work on our behalf. The work included mechanical weed cutting and dredging to remove silt. Our local fisheries, biodiversity and geomorphology staff spent time with the IDB to make sure that it carried out work in line with the environmental good practice.

## 4. Results of the pilots

### 4.1. River maintenance work carried out or planned

There were 2 pilot areas where landowners used the regulatory position statement (RPS). Work was carried out or proposed in 6 pilot areas using a flood defence consent (FDC).

In the Winestead Drain pilot a Public Sector Co-operation Agreement (PSCA) was used to carry out dredging to remove silt and weed cutting. In the River Eau pilot we have had discussions with Scunthorpe and Gainsborough internal Drainage Board about using a PSCA in 2015.

**Table 4.1 Approach taken to work carried out or planned in the pilot areas**

Pilot area	Regulatory position statement	Flood defence consent	Public sector co-operation agreement
Alt Crossens	✓	✓	
Bottesford Beck		✓	
Duckow		✓	
East Lytham		✓	
River Eau		✓	✓ <sup>4</sup>
Upper Thames	✓		
Winestead Drain			✓

There was no dredging to remove silt carried out in the Brue or River Idle and Isle of Axholme pilot areas.

**Table 4.2 Length of dredging to remove silt carried out or planned to be carried out**

Regulatory approach taken	Length of dredging
Regulatory position statement - work completed	4 km
Flood defence consent - work completed	7 km
Flood defence consent - granted for dredging to be carried out over the next 3 years	51 km
Flood defence consent - potential future application for dredging work	3 km
<b>Total</b>	<b>65 km</b>

The pilots were focused on dredging to remove silt but also identified other maintenance activities that could be more cost effective. In some pilot areas, other maintenance activities were carried out such as weed cutting in Bottesford Beck and Winestead Drain.

<sup>4</sup> The Scunthorpe and Gainsborough Internal Drainage Board is expected to carry out maintenance work in 2015 using a PSCA.

We are satisfied that those who carried out work using the RPS understood and complied with the environmental good practice guide (EGPG). We checked the 4km of silt clearance work carried out using the RPS to make sure individuals could comply with the EGPG and not harm the environment.

Our local fisheries, biodiversity and geomorphology staff provided advice, attended drop-ins or open days and compliance checked work throughout the pilot period to help minimise the risk of environmental damage.

## 4.2. Involving the local community

Each pilot area had a local flood risk management officer coordinating activity. The officer leading the pilots firstly made contact with their local NFU and IDB officers (where in an IDB district). Having those discussions at an early stage of the pilot helped share messages locally and made farmers and landowners feel involved in the pilots.

We talked to people about our planned maintenance work in their area and answered any questions they had about doing maintenance work themselves. We listened to their concerns and issues.

Individual farmers, landowners and members of the community attended meetings, depot open days and similar events to find out about the pilots and our maintenance activities (Table 4.3).

**Table 4.3 People who interacted with the pilots**

	Total number of individuals who attended an open invitation meeting or event	Total number of individuals who attended a direct invitation meeting	Total number of individuals contacted via email / newsletter / mail shot
<b>Alt Crossens</b>	191	150	150
<b>Bottesford Beck</b>	0	3	0
<b>Brue</b>	0	2	25
<b>Duckow</b>	20	20	40
<b>East Lytham</b>	40	40	40
<b>River Eau</b>	0	3	0
<b>River Idle and Isle of Axholme</b>	0	4	0
<b>Upper Thames</b>	95	50	50
<b>Winestead Drain</b>	30	5	200
<b>Total</b>	366	277	505

Nearly 50 other organisations supported or took an interest in the pilots (Table 4.4). National organisations that represent rural communities' interests were involved in the majority of the pilots. These included the NFU, Country Land and Business Association (CLA), IDBs, the Wildlife Trusts, the Royal Society for the Protection of Birds (RSPB), the Angling Trust, water companies and local authorities.

Partnership groups made up of interested parties were set up in 7 of the pilot areas to explain what maintenance work on watercourses, flood defences and pumping stations is planned over the coming years.

**Table 4.4 Partner organisations involved in the pilots**

	Total number of partner organisations who attended events	Total number of partner organisations who took part in the pilots
<b>Alt Crossens</b>	2	1
<b>Bottesford Beck</b>	7	3
<b>Brue</b>	12	6
<b>Duckow</b>	5	5
<b>East Lytham</b>	1	0
<b>River Eau</b>	6	2
<b>River Idle and Isle of Axholme</b>	8	1
<b>Upper Thames</b>	3	3
<b>Winestead Drain</b>	3	2
<b>Total</b>	47	23

Some pilots also had input and support from local community and volunteer groups such as Friends of Bottesford Beck and the Bottesford Beck Improvement Group.

A particular success of the pilots is that many of the relationships and partnerships developed have continued.

Note Appendix 1 and Appendix 2 have now been withdrawn.

# 5. Lessons learned and feedback received

## 5.1. Regulation

**a) There was low uptake of the RPS (only 4km out of 65km), with the majority of work carried out through the existing flood defence consenting process.**

In many pilot areas, farmers felt that the RPS approach was difficult to apply and awkward to interpret. One farmer informed the Upper Thames pilot lead that the RPS document was too long and did not really appear to reduce bureaucracy.

Across all 9 pilots we consistently received feedback that farmers and landowners were unwilling to take part because of the restriction on the amount of dredging they could do under the RPS (20% of main river on their land).

This was because they initially wanted to carry out work on a longer length of a river to ensure conveyance through all their land (as opposed to taking 5 years to do it under the RPS) or because they wished to carry out other maintenance work at the same time.

One landowner in the Alt Crossens commented that there was no benefit in carrying out dredging to remove silt on a small length of ditch. This view was echoed by some national organisations including the NFU.

The requirement relating to 'previously dredged in the past 10 years' was found to be unworkable, as often there were no definitive or accessible records to confirm when dredging last took place. We removed the restriction part way through the pilots.

In many pilot areas we received feedback that due to the amount of time that had passed since silt was last removed, the size of the task was often felt to be too costly or complicated compared to simple routine maintenance for farmers and landowners to carry out themselves. The NFU, Country Land and Business Association (CLA), and Tenant Farmers' Association (TFA) also expressed this view nationally. They commented that often more extensive dredging work is required first, which they believe is beyond the capability of farmers and landowners. They felt that farmers and landowners would not be confident enough to carry out this work due to the availability and cost of hiring specialist machinery, health and safety concerns, volume of silt to be disposed of and environmental sensitivities.

The NFU expressed the view that if farmers and landowners need to do more maintenance on main rivers in the future, then regulation and engagement will need to take account of this and, therefore, be appropriate and proportionate.

**b) Before the pilots started, farmers and landowners said that they would carry out work if the regulatory process was made easier. However, in 2 pilot areas no work was carried out.**

Landowners within the Brue catchment were reluctant to carry out work at their own cost when government funded dredging was being carried out on the Rivers Tone and Parrett.

Farmers and landowners have welcomed the formation of the Somerset Rivers Authority, and the Axe Brue Internal Drainage Board will be carrying out dredging on the River Brue in the future.

In the River Idle and Isle of Axholme work was not carried out, as more information was needed about the extent of siltation and the associated environmental requirements because it is a designated SSSI. The pilot led to a local partnership being set up, which has carried out a silt

survey and is developing a funding strategy for future work to benefit farmers, the local community and the environment.

**c) Farmers and landowners welcomed the guidance and support from our local staff to help them carry out maintenance work in an environmentally sensitive way. They said they felt more confident as a result.**

Farmers and landowners had been unclear about the work they could or could not do on a main river without our consent. They felt the specialist advice and support from our local officers, internal drainage boards and the NFU helped to clarify the regulatory process and make sure work they carried out was efficient and effective.

The advice and support of NFU regional advisors and particularly the jointly funded Environment Agency/NFU officer in the Alt Crossens made a real difference in encouraging farmers to take part in the pilot.

Farmers also raised concerns that where there are different species with different seasonal requirements there may only be a short period of time to carry out maintenance and that may not suit the farming year. National and regional NFU colleagues said that the environmental good practice guide and advice from our local officers had helped with this.

All work carried out using the RPS complied with environmental legislation.

**d) Where a flood defence consent (FDC) was required, farmers and landowners found the existing FDC process was not as burdensome as some had initially thought.**

Some farmers and landowners had not carried out work or applied for a FDC prior to the pilots, since they felt the process would be burdensome. We used events and meetings in the pilots to explain the consenting process and demonstrate that it was not the complicated process some had perceived it to be.

We were also able to determine the consent quicker than the statutory time limit of 2 months, as we had identified and mapped the environmental sensitivities at the start of each pilot. We also attached a condition to the consent that the work had to comply with the environmental good practice guide.

We will continue to assess FDC applications within the statutory time limit but will endeavour to determine them quicker wherever possible.

**e) Some farmers and landowners feel that we can be difficult to do business with because of the different regulatory processes that apply to their business activities.**

We will continue to work to simplify regulatory processes across all sectors that we regulate. We will continue discussions with agricultural organisations such as the NFU, the CLA, and the TFA on the role that they can play in supporting farmers and landowners. We will also work closely with IDBs to find ways of carrying out maintenance more effectively.

## 2. Working with others

**a) Farmers and landowners in the 9 pilot areas are now more knowledgeable about our maintenance work and the rules on how it is funded.**

The pilots have helped us communicate better and improved understanding about our maintenance decisions and planning.

Involving the local farming community in each pilot area has been a major success of the pilots. East Midlands NFU commented that the river maintenance pilots have been a great success at being a catalyst to get people together to talk about the flood problems in certain areas.

Farmers and landowners welcomed being able to liaise locally with named members of staff and this certainly helped improve communication.

The pilots have helped to establish partnerships and improved good working relationships with a range of risk management authorities, interested groups and local farmers and landowners, which will continue in the future.

Using existing local partnerships between us and other organisations we were able to tackle a wide range of issues. This was an efficient approach that resulted in achieving longer term sustainable solutions, particularly in relation to securing funding to carry out work. The River Idle and Isle of Axholme was one area that benefitted from having an existing partnership group established as partners had already identified issues and had started to devise solutions.

Across all pilots it was felt that where we are reducing or stopping maintenance work, everyone involved needs to share understanding and communicate better.

**b) Farmers and landowners in some pilot areas expressed concerns about the potential lack of an integrated approach to maintenance on a river or across a catchment.**

Farmers and landowners were worried that they could maintain their section of river but that someone downstream might not maintain theirs, leading to those upstream being flooded. Our role in these cases was often queried at drop-in sessions and open days. Some farmers and landowners wanted assurance that their downstream neighbours would maintain their sections of river before they would carry out maintenance on their own section.

We have legal powers to require landowners to do work on rivers where there are obstructions, but our resources are focused on reducing flood risk to people and property. We would hope that if farmers go ahead and maintain their section of river, their neighbours, when seeing the benefits, would then go on to maintain their section.

It appears that farmers and landowners would be more interested in joining together to carry out maintenance across a whole river or catchment rather than individuals just carrying out work in their own area.

**c) Holding local depot open days and river maintenance demonstrations encouraged people to get involved, as they were more accessible and flexible than a formal meeting at an office.**

In all pilot areas we now have a better relationship with the local community. The communication events proved to be very useful in facilitating discussions between the right people and starting conversations that should continue into the future.

Our staff leading the pilots locally felt that these conversations were one of the best things to come out of the pilots. Several of the pilot leads also noted that if a respected or influential farmer or landowner was supportive of the pilot, it helped encourage others to get involved.

We are sharing the tools and good practice from the pilots on involving communities in our maintenance planning across the country.



## 6. Next steps

Throughout the pilots we have been gathering feedback and considering how that learning can help us improve how we regulate river maintenance activities and work better with rural communities.

Defra have carried out a consultation on integrating flood defence consents into the Environmental Permitting regime and proposed exemptions and exclusions from these. We have carried out a separate, though linked, consultation on proposals for standard rules that would apply to permits for standard activities in England. You can find out more about these changes here <https://consult.environment-agency.gov.uk/portal/ho/flood/risk/sr13>.

The pilots were supported by clear guidance to make sure that farmers and landowners know how to carry out maintenance in an effective way that did not harm the environment. We will review the feedback we received on the environmental good practice guide and amend the document to support farmers and landowners that want to carry out their own in-channel maintenance work. This is planned to tie in with flood defence consenting transferring into the environmental permitting framework.

We will work together with Natural England to be a more efficient regulator when we deal with river maintenance activities that could potentially impact on designated nature conservation sites. Over the next few months we will be working with them to consider the appropriate level of regulation for protected species and habitats. This will further reduce the burden on farmers and landowners carrying out maintenance on main river watercourses.

We will continue to publish our maintenance plans and work closely with interested parties, particularly in areas where we are reducing or stopping maintenance activity. We will continue to spend public money in line with government guidance which is based on achieving agreed outcomes that reduce flood damages that reflect risk.

These outcomes include the number of households protected, the extent to which their flood damages are reduced and, separately, the benefits to habitat (where there is a clear legal obligation). Wider economic damages are also considered when making the funding decisions. The priority for maintenance activities are determined based on their contribution to these results.

When deciding where to fund maintenance activities, we consider the full need across all of our assets and systems.

There are other local funding sources which landowners and communities can seek funding from for additional maintenance work such as Countryside Stewardship.

Although the pilot areas were all mainly lowland farmland areas, we learned different lessons from each area. Factors such as when the river was last dredged, how easy maintenance was to carry out, and if we had worked with landowners and the local community previously led to different challenges and issues. We are currently considering how best to respond to these challenges to make sure that we can share any lessons learned with other areas.

We will be notifying interested groups involved with the pilots that this report has been published. We will encourage them to provide feedback on this report so that we can learn even more and apply the lessons across the country.

# Appendices

Appendix 1 Regulatory position statement

Appendix 2 Environmental good practice guide

Appendix 3 Boundary and environmental maps of each pilot area

Appendix 4 Pilot area summary factsheets

*Note Appendix 1 and Appendix 2 have now been withdrawn.*

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

**Then call us on**

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

**email**

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

**or visit our website**

**www.gov.uk/environment-agency**

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

**floodline 0345 988 1188** (24 hours)

Find out about call charges: [www.gov.uk/call-charges](http://www.gov.uk/call-charges)



Environment first: Are you viewing this on screen? Please consider the environment and only print if absolutely necessary. If you are reading a paper copy, please don't forget to reuse and recycle if possible.