



Environment
Agency

An introduction to the public
consultation on Catchment Flood
Management Plans in East Yorkshire

January 2010

managing flood risk in East Yorkshire



We are the Environment Agency. It's our job to look after your environment and make it a **better place** – for you, and for future generations.

Your environment is the air you breathe, the water you drink and the ground you walk on. Working with business, Government and society as a whole, we are making your environment cleaner and healthier.

The Environment Agency. Out there, making your environment a better place.

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What is this booklet about?

Welcome to this booklet which is one of two that will be produced by the Environment Agency for people who live, work or do business in East Yorkshire. Their purpose is twofold:

- to tell you about the draft plans we are developing to deal with the risks of flooding in East Yorkshire – both now and in the future;
- to invite you to have your say about the approaches and actions that we are suggesting in these plans.

**new challenges
new thinking
stronger partnerships**

Why is East Yorkshire unique?

This booklet is just one part of a larger and more detailed set of plans called 'Catchment Flood Management Plans'. We are developing these high-level plans to help us understand and respond to the current and future risks of flooding across the whole of Yorkshire.

East Yorkshire is unique because it straddles six separate Catchment Flood Management Plans – CFMPs for short.

So why not just have one plan? That's because rivers, and the flood risks they bring with them, don't run neatly or conveniently within council or other organisational boundaries.

When we are looking at flood risk, we look at rivers and their 'catchment' areas. As the map opposite shows, there are six catchment areas within the East Riding of Yorkshire Council boundary.

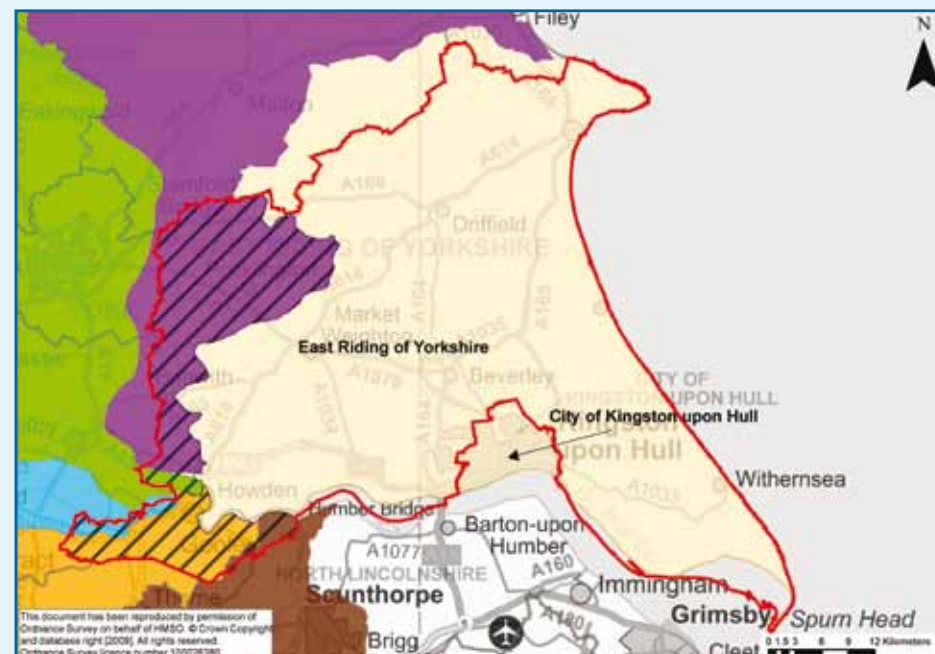
The wider context...


It is important to note that this booklet covers only a small part of East Yorkshire. (See map opposite.)

The bulk of the area within the East Riding of Yorkshire Council boundary, and all of the Hull City Council area, will fall under the draft Hull and Coastal Streams CFMP.

We will be consulting on this draft CFMP separately in spring 2010 and will produce a 'companion' booklet like this one to help people understand more about our proposals for managing flood risk in their area and how they can contribute their views.

→ This booklet tells you more about our proposals for managing flood risk in these parts of the East Yorkshire area.



 East Riding of Yorkshire Council Boundary

 Don

 Area this document covers

 Hull and Coastal Streams

Catchment Flood Management Plans

 Ouse

 Aire

 Trent

 Derwent

Why do we want to involve you?

We started developing CFMPs several years ago. Concerns were raised in 2008 by East Riding of Yorkshire Council that the number of different plans, at different levels, made it harder for local people to get a clear picture of the flood risk in their area, and how we are proposing to tackle it.

We have taken these concerns into account and we are reopening the consultation process (which took place in June 2008) and we are offering additional information to help local people:

- understand the fuller picture about the flood risk and how it affects them
- understand the thinking and evidence that has informed our opinion
- have a further chance of responding to our proposed plans and actions.

What information is there?



- **This booklet:** a companion to the draft CFMPs, this short booklet brings together those parts of the draft CFMPs that affect people on the western side of East Yorkshire. We hope this will raise awareness among local people that the consultation has been reopened, explain what actions are being proposed for your area and how you can respond.
- **Summary versions of the draft Catchment Flood Management Plans:** giving an overview of the flood risk across the whole of each catchment (not just the parts in East Yorkshire) and what actions we believe are needed to manage it.
- **Draft Catchment Flood Management Plans:** the full detailed versions of these high-level plans.

What are we consulting you on?

There are six possible approaches or ‘policies’ that we and our partners can take to manage flood risk (see page 8). Like a sliding scale, these six policies cover the full range of possible responses to the different levels of risk. These policies have been developed and agreed nationally. We go through a very thorough process, testing the feasibility of each policy in turn to make sure the one we finally propose is the most appropriate, in the light of what we know about flood risk in each catchment area.

So now we are inviting local people and our partners to tell us:

- whether we have used the **best evidence** in order to reach our decision about which of the six policies to propose for each part of East Yorkshire – if not, what other evidence could we have used?
- whether the specific flood management actions we are proposing for each area are **appropriate**
- whether, if you are one of our partner organisations, you can **work with us** because your help is crucial in tackling flood risk now and in the future.

To find out what the six policies are and what they mean see page 8

To find out more about what’s happening in your area see page 10

To find out how you can give us your feedback see page 39

“Past floods remind us of the hardship and devastation that flooding can cause, especially where they impact on homes, livelihoods and even life. They also reveal the challenges we face when confronted by the forces of nature and climate change. It is essential that we work with our partners to plan for the future and to target our joint efforts and precious resources in the most beneficial way.”

Craig McGarvey, Yorkshire Area Manager, Environment Agency

What are the six policy options?

→ Policy 1

Areas of little or no flood risk where we will continue to monitor and advise

This policy will tend to be applied in those areas where there are very few properties at risk of flooding. It reflects a commitment to work with the natural flood processes as far as possible.

→ Policy 2

Areas of low to moderate flood risk where we can generally reduce existing flood risk management actions

This policy will tend to be applied where the overall level of risk to people and property is low to moderate. It may no longer be value for money to focus on continuing current levels of maintenance of existing defences if we can use resources to reduce risk where there are more people at higher risk. We would therefore review the flood risk management actions being taken so that they are proportionate to the level of risk.

→ Policy 3

Areas of low to moderate flood risk where we are generally managing existing flood risk effectively

This policy will tend to be applied where the risks are currently appropriately managed and where the risk of flooding is not expected to increase significantly in the future. However, we keep our approach under review, looking for improvements and responding to new challenges or information as they emerge. We may review our approach to managing flood defences and other flood risk management actions, to ensure that we are managing efficiently and taking the best approach to managing flood risk in the longer term.

→ Policy 4

Areas of low, moderate or high flood risk where we are already managing the flood risk effectively but where we may need to take further actions to keep pace with climate change

This policy will tend to be applied where the risks are currently deemed to be appropriately-managed, but where the risk of flooding is expected to significantly rise in the future. In this case we would need to do more in the future to contain what would otherwise be increasing risk. Taking further action to reduce risk will require further appraisal to assess whether there are socially and environmentally sustainable, technically viable and economically justified options.

→ Policy 5

Areas of moderate to high flood risk where we can generally take further action to reduce flood risk

This policy will tend to be applied to those areas where the case for further action to reduce flood risk is most compelling, for example where there are many people at high risk, or where changes in the environment have already increased risk. Taking further action to reduce risk will require additional appraisal to assess whether there are socially and environmentally sustainable, technically viable and economically justified options.

→ Policy 6

Areas of low to moderate flood risk where we will take action with others to store water or manage run-off in locations that provide overall flood risk reduction or environmental benefits

This policy will tend to be applied where there may be opportunities in some locations to reduce flood risk locally or more widely in a catchment by storing water or managing run-off. The policy has been applied to an area (where the potential to apply the policy exists), but would only be implemented in specific locations within the area, after more detailed appraisal and consultation.

We use the same thorough selection process to arrive at a proposed policy option for each area. Find out more about this in Chapter 6 of the full draft CFMPs.

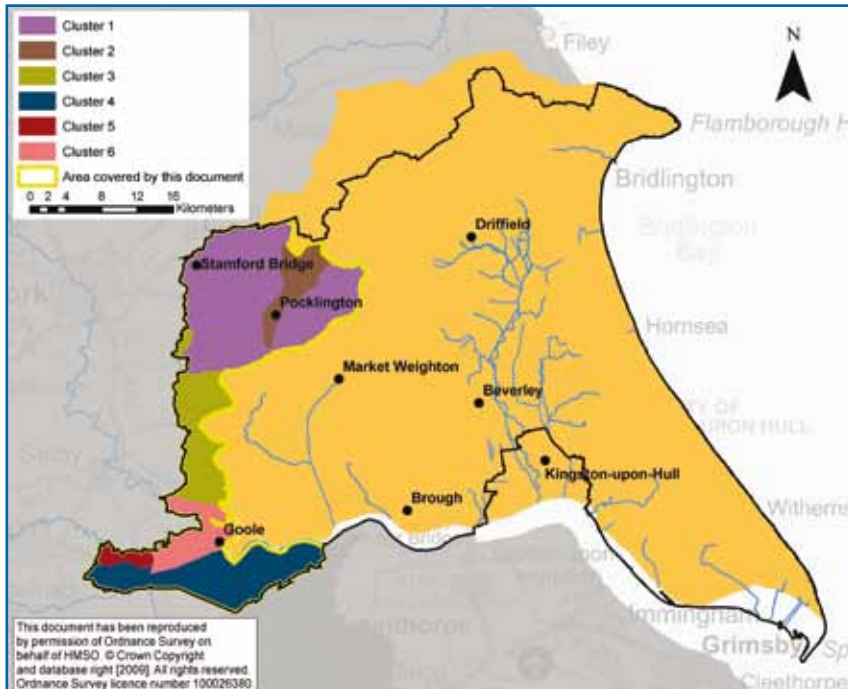
What's happening in your area?

This section will show you:

- which of the six policies we are proposing for your area
- why we're suggesting this option
- some of the actions that will need to be taken now and in the future to ensure that flood risk is managed appropriately.

As you'll see from the map here, we have grouped local areas into 'clusters' (see 'Terminology' opposite). We have explained our proposals for each in the pages that follow.

Remember, the rest of East Yorkshire and Kingston-upon-Hull will be covered in a separate booklet published in spring 2010 to coincide with the public consultation on the draft Hull and Coastal Streams CFMP at the same time as we consult on the draft River Hull Flood Risk Management Strategy.



Terminology:

One of the important aims of this booklet is to offer you a clear picture of what we are proposing for your area. Wherever possible we have tried to avoid using jargon and technical terms without explaining them. However, you will notice that the following sections describe different locations as **catchments**, **policy units** and **clusters**. This is what they mean:

Catchments

These are the wider geographical areas relating to a particular river, covered by each of the high-level draft Catchment Flood Management Plans (CFMPs).



Policy units

These are the smaller zones within each catchment for which we have assigned a specific policy – eg Stamford Bridge policy unit falls within the Derwent catchment and therefore the Derwent CFMP. There can be numerous policy units within a CFMP.



Clusters

This is the term we have used specifically for this booklet to describe those parts of the policy units that fall within the East Riding of Yorkshire Council (ERYC) boundary. For instance, only a very small area of the Lower Don policy unit is within the ERYC boundary and we've called this 'Cluster 4: South of Goole'.

Stamford Bridge and surrounding area

Overview

This cluster brings together a number of areas which, although physically different, are similar in terms of how we need to manage flood risk.

We are proposing policy option 3:

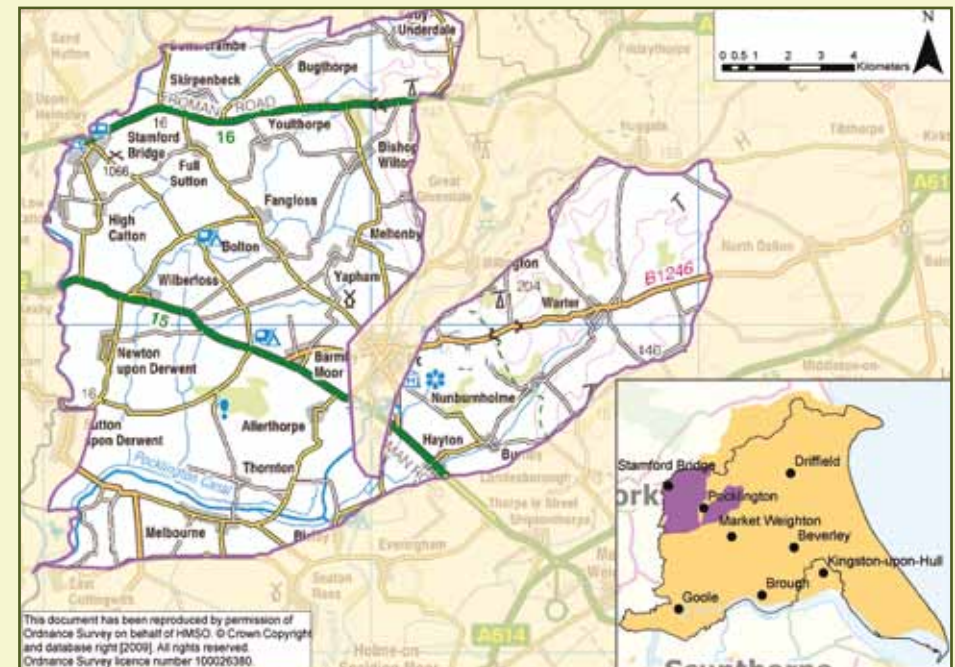
‘Continue with existing or alternative actions to manage flood risk at the current level.’

Why is this our proposed policy?

We believe that policy option 3 is the right approach for these areas because flood risks are already being managed appropriately. For example, many of the larger towns and villages are protected by flood defences that reduce the risk of flood to less than 1 per cent in any one year. Also, the risk of flooding in the future, even with climate change, is not expected to increase significantly.

However, while we will continue our current flood management activities across many parts of the area in the short term – for example making sure existing flood defences are in good working order – we will also:

Quick fact → Following significant flooding in 1999 and 2000, the Environment Agency built new flood defences at Stamford Bridge, reducing flood risk to properties and the main A166 York to Bridlington road.



- explore alternative actions that may offer better long-term protection. This could include doing more to manage river flows upstream, or using floodplains more effectively (eg we will be carrying out a study to see if the washlands within the River Derwent area can be managed and controlled differently to increase the benefit in downstream communities such as Stamford Bridge).
- work with our partners to investigate and understand all the complex factors that contribute to flood risk in this area.

Actions include...

- Improve our mapping of existing flood defences across the area. This will give us a clear picture of the long-term maintenance needed to maintain those structures.
- Carry out a detailed study to find out what benefits existing flood defences provide for local business and residential properties, gas and electricity services, roads and community facilities. This will help ensure money is spent where it can bring most benefit.
- Work with our partners to provide information and advice to local property owners and businesses on the simple steps they can take to make their premises more resilient to floods.
- Improve our understanding of flood risk on the Derwent by further modelling investigations.
- Ensure any changes we are proposing to how flood risk is managed do not endanger the area's numerous designated conservation sites, which are protected under EU law. Any plans to change how flood risk is managed should maintain, or even improve, the current condition of these important places.

Who are our key partners?

- The local community
- East Riding of Yorkshire Council
- Natural England
- Royal Society for the Protection of Birds
- Vale of Pickering Internal Drainage Board
- Yorkshire Wildlife Trust

Where can you find out more?

For more detail about your area, the flood risk and the flood risk approaches we are proposing, see:

Draft Derwent CFMP Summary Report for Consultation January 2010

Derwent Catchment Flood Management Plan – January 2010 Consultation draft

What do you think?

If you would like to contribute your comments and views as part of the Public Consultation process, please see page 39 for more details on how you can take part.

Pocklington and surrounding area

Overview

Our vision for this area is to make the main town of Pocklington a safer place to live.

The risk of flooding from rivers in this area is high. It comes from more than one source and is generally located within Pocklington itself. With climate change, we can expect the number of business and residential properties at risk to increase even further.

In June 2007, more than 50 properties were flooded after extreme rainfall overwhelmed local water courses and flowed across the land. Local sewers and drains could not cope with the mix of surface water and river flows, resulting in flooding that caused around £2 million of damage.

We are proposing policy option 5:

‘Take further action to reduce flood risk.’

Why is this our proposed policy?

We believe there are considerable opportunities to reduce the risk of flooding using a combination of techniques. These can take a number of forms; traditional flood banks and walls, bypass channels, the removal or redesign of obstructions such as bridges, upstream flood storage, or a combination of all of these, are options that may be considered.

Quick fact → New monitoring equipment that improves flood forecasting has recently been installed on Pocklington Beck, to the north of the town.



As flooding is also caused by surface water, the proposed policy option might also mean promoting improvements to the drainage system as outlined by a surface water management plan, developed by the local authority.

Overall, our proposed policy option 5 approach will ensure that there is a reduction in the level of flood risk through the town by working with others to ensure that the risk from both Pocklington Beck and surface water is reduced.

Actions include...

- Improve our mapping of all the existing flood defences across the area and carry out a detailed study to identify the best, most sustainable approach to reducing the risk of flooding in Pocklington and Bielby.
- Continue to manage and clean gravel traps (traps that capture sediment and gravel where it poses a flood risk problem).
- Look in detail at the risk flooding presents to roads and transport. Ensure alternative routes and emergency plans are developed and regularly reviewed for any key roads that are at risk.
- Work with local businesses to raise flood awareness and produce property flood plans, as well as significantly raising public awareness about flood risk.
- Undertake a study to help us understand and take action to manage surface water flooding in Pocklington.

Who are our key partners?

- The local community and landowners
- East Riding of Yorkshire Council
- Department for Environment, Food and Rural Affairs (Defra)
- Highways Agency
- Natural England
- Yorkshire Water

Where can you find out more?

For more detail about your area, the flood risk and the flood risk approaches we are proposing, see:

Draft Derwent CFMP Summary Report for Consultation January 2010

Derwent Catchment Flood Management Plan – January 2010 Consultation draft

What do you think?

If you would like to contribute your comments and views as part of the Public Consultation process, please see page 39 for more details on how you can take part.

Lower Derwent and surrounding area

Overview

The Lower Derwent policy unit (in which this cluster sits) covers the final 23km of the downstream end of the River Derwent. As a result, there are large volumes of water flowing into the area and long lengths of the river corridor are protected scientific or conservation sites.

The risk of river flooding is reduced, however, due to extensive defences in the area. In total, there are around 41km of raised, man-made flood defences within the whole policy unit. As well as these, there is Barmby Barrage – a structure that helps prevent the tide going up the river.

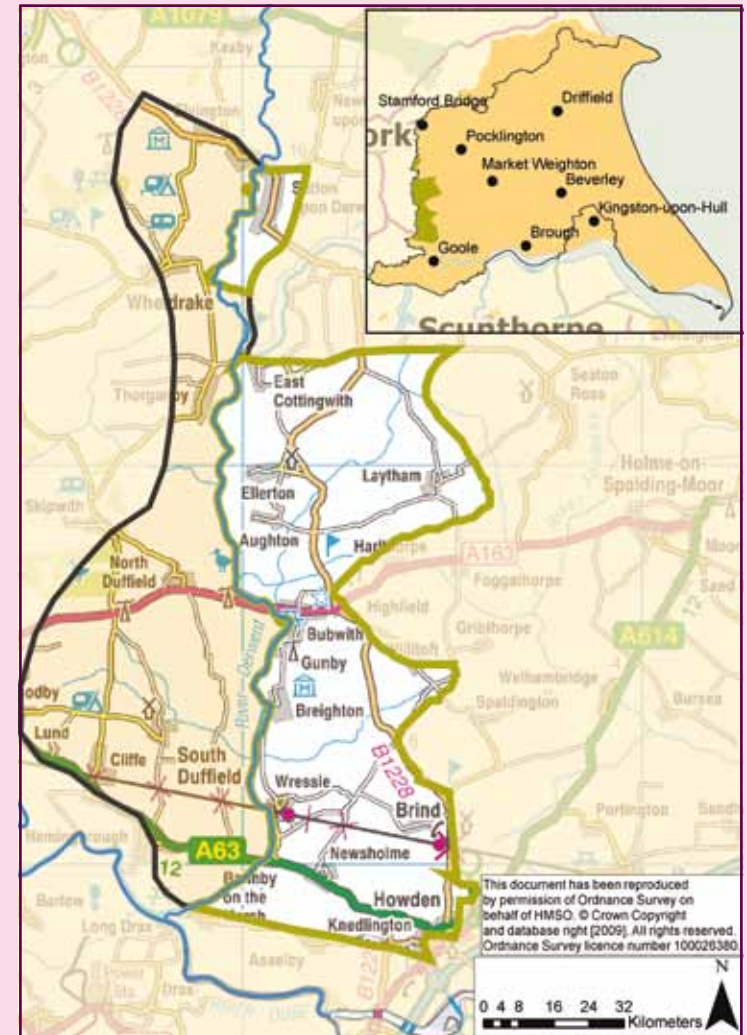
Although flood risk in the wider Lower Derwent policy unit is limited, it is expected to increase in the future as a result of climate change. This will place more properties at risk.

Flood warning systems are extensive and cover a total of 147 properties. However, just 53 properties have registered for this free service and, although this number has increased in recent years, registration is still low.

We are proposing policy option 3:

‘Continue with existing or alternative actions to manage flood risk at the current level.’

Quick fact → We are confident that current flood risk can be adequately managed through the continued maintenance of Barmby Barrage and other local defences.



Why is this our proposed policy?

We are proposing policy option 3 because flood risk is limited within the policy unit due to the protection offered by raised defences. Although we are confident that current flood risk can be adequately managed through the continued maintenance of Barmby Barrage and other local defences, we need to understand more about how these defences will perform in the future to inform future revisions of the CFMP.

The current role of the defences in the downstream parts of the area is crucial in reducing flood risk to the surrounding local land and properties. Specifically, Barmby Barrage prevents salt water from the Humber Estuary passing from the Ouse and into the Derwent at high tide. While the barrage is closed, the water levels in the Derwent naturally rise behind it, but are normally contained by embankments.

Without these defences, the potential disruption to local residents, businesses, roads, the rail network and designated Sites of Special Scientific Interest would be significant. However, we believe that a change to the current arrangement of flood banks along the river network may provide a better, long-term approach to flood risk management.

Before we can do this we need to investigate the role of the flood banks in this Policy Unit. In the short-term we will continue with the current arrangements.

Actions include...

- Produce a detailed map of all the existing flood defences across the area to establish a clear picture of the long-term maintenance needed to sustain the current standard of flood protection.

- Continue to maintain Barmby Barrage to ensure that flood risk does not increase.
- Gain a detailed understanding, using modelling, of the benefits of existing flood defences within the Lower Derwent area, including Barmby Barrage. This will guide our long-term plans, ensuring we are prepared for the effects of climate change and are investing in the right defences in the right places.

Who are our key partners?

- The local community
- Natural England
- Royal Society for the Protection of Birds
- Yorkshire Wildlife Trust

Where can you find out more?

For more detail about your area, the flood risk and the flood risk approaches we are proposing, see:

Draft Derwent CFMP Summary Report for Consultation January 2010

Derwent Catchment Flood Management Plan – January 2010 Consultation draft

What do you think?

If you would like to contribute your comments and views as part of the Public Consultation process, please see page 39 for more details on how you can take part.

South of Goole

Overview

This cluster includes small areas of the Lower Don policy unit (in the Don CFMP) and the Axholme and North West Lincolnshire policy unit (from within the Trent CFMP). The cluster stretches from Pollington in the west to Reedness and Ousefleet in the east. The tidal Ouse flows eastwards along the top of the cluster; this is covered in the Humber Flood Risk Management Strategy which was published in March 2008.

The cluster is a low lying flat area, mostly with artificial drainage. It is an important agricultural area where the majority of the land is classed as Grade 1 (very good).

The risk of river flooding in this low-lying location is less significant, with the tides of the Humber Estuary posing the greatest flood risk. In addition, the area from the Dutch River over to the River Trent has extensive pumped drainage to lower water levels. Without continued maintenance of both the pumping stations and the channels, this area would be prone to permanent and extensive flooding. Compared with the immediate impacts of tidal flooding, flooding due to the loss of pumping stations on the River Torne and River Idle systems which feed into the River Trent would take a long time to develop, but nonetheless provide the justification for managing flood risk at the existing level.

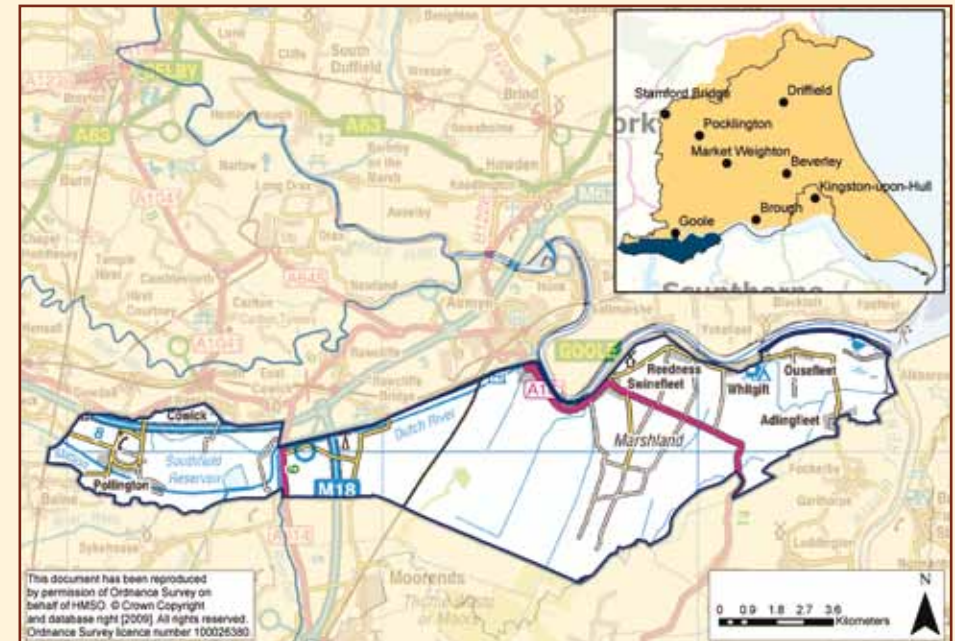
We are proposing policy option 3:

‘Continue with existing or alternative actions to manage flood risk at the current level.’

Why is this our proposed policy?

At present, flood risk within the Lower Don area is largely managed using washlands (floodplains that can store water) and raised man-made defences.

Quick fact → We are carrying out important new studies to gain an even more detailed understanding of the flood risk in Goole and its surrounding areas (clusters 4, 5 and 6). See page 36 for more details.



However, as well as being extremely expensive, these defences are getting older and the flood risk will increase because of climate change and the expected rise in sea levels.

Due to the rural nature of the area, we believe there are significant opportunities to have a more naturalised system and making the best possible use of the existing washlands.

We are currently exploring the best long-term approaches to flood risk and are carrying out a detailed study of the tidal River Don.

In the area between the Dutch River and the River Trent we have identified that we need to continue with our current level of flood risk management, particularly in relation to the pumped drainage on the Rivers Idle and Torne. Without this we believe that extensive and permanent flooding would occur in the Isle of Axholme area which could ultimately spread as far as the Dutch River and the Humber. We are currently working on a more detailed flood risk management strategy for the Isle of Axholme. (see page 37).

Implementation of the Humber Flood Risk Management Strategy includes options for the management of flood risk from the tidal Ouse.

Actions include...

- Continue to work with our partners to develop a flood risk management strategy for the Isle of Axholme.
- Develop a study into flood risk on the tidal River Don, to identify the long term approach to managing flood risk between Went Outfall and Goole, including Coal Authority drainage assets.
- Clarify the implications of flooding and climate change on the area's homes and businesses, gas and electricity installations, agricultural sector and the transport network and waste disposal sites.
- Work with our partners to significantly improve flood awareness throughout the area where local registration for the Flood Warning Direct (FWD) service

is generally low. Potential measures to improve awareness include Flood Action Groups and a local flood website and ensure that Local Authority Emergency Plans are regularly updated.

- Strengthen relationships and work with Internal Drainage Boards operating in the area and Local Authorities.

Who are our key partners?

- The local community and landowners
- Local Authorities
- Department for Environment, Food and Rural Affairs (Defra)
- The Coal Authority
- Highways Agency
- Internal Drainage Boards
- Natural England
- Network Rail
- Royal Society for the Protection of Birds
- Yorkshire Water
- Yorkshire Wildlife Trust

Where can you find out more?

For more detail about your area, the flood risk and the flood risk approaches we are proposing, see:

Draft Don and Trent CFMP Summary Reports for Consultation January 2010

Don and Trent Catchment Flood Management Plan – January 2010 Consultation drafts

What do you think?

If you would like to contribute your comments and views as part of the Public Consultation process, please see page 39 for more details on how you can take part.

Snaith and surrounding area

Overview

The Lower Aire Tidal policy unit (in which this cluster sits) includes a large length of the River Aire. As a result, river flood risk is high and affects significant sections of agricultural land, as well as small rural communities.

We are proposing policy option 6:

‘Take action with others to store water or manage run-off in locations that provide overall flood risk reduction or environmental benefits, locally or elsewhere in the catchment.’

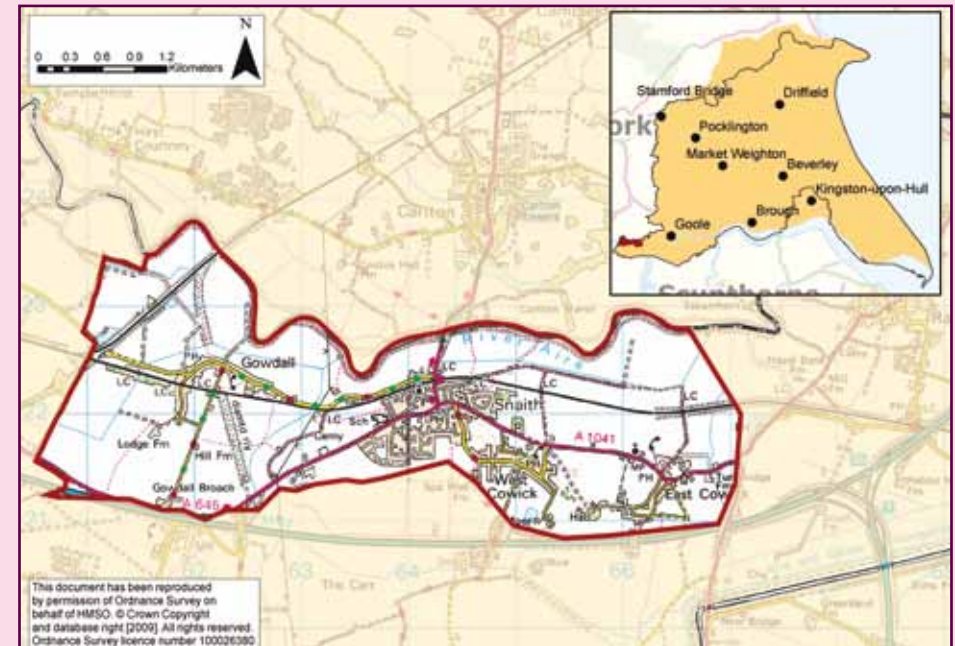
Why is this our proposed policy?

Our vision is to make this area safer by developing a greater shared knowledge of the risks flooding poses to local communities.

A large part of our work will also be about improving the condition and function of the washlands – floodplain areas that offer vital water storage and protection in the event of river or tidal flooding.

Maintaining and making the best possible use of these washlands will help us:

- reduce the frequency of local flooding
- tackle the effects of climate change which is expected to significantly increase the already high flood risk in the area.



This is why we are proposing policy option 6. It will mean working closely with all our partners to maintain and repair the washlands where necessary so they deliver the maximum benefit and ongoing protection to local people and communities.

It will also mean working together to understand more fully what will be involved in the long-term management of the washland system. That's why we are developing a more detailed flood management strategy for the Lower Aire (see page 37).

But, while the washlands are the key focus for future flood risk management in the area, it is also vital that communities are aware of what they can do to help manage flood risk – including signing up to the flood warning service.

Actions include...

- Work with our partners to complete the Lower Aire Flood Risk Management Strategy. We have already started this important work and are developing a much better understanding of the role of the washland network in reducing both river and tidal flood risk.
- Produce a detailed map of all the existing flood defences across the area to establish a clear picture of the long-term maintenance needed to sustain the current standard of flood protection.
- Carry out flood awareness workshops within high-risk communities.
- Work with our partners to improve our understanding of the risk of flooding from all sources.
- Significantly increase the percentage of properties registered with the Flood Warning Direct (FWD) service.

- During a flood, the transport infrastructure can play a vital role in emergency response and recovery. A number of key transport links are highlighted as at risk of flooding within this cluster. It is important that emergency plans consider the impact of this flooding and that we determine in greater detail the risk flooding poses to road and rail facilities in the area.

Who are our key partners?

- The local community
- East Riding of Yorkshire Council
- British Waterways
- The Coal Authority
- The Highways Agency
- Natural England
- Network Rail
- Yorkshire Electricity Distribution Ltd
- Yorkshire Water

Where can you find out more?

For more detail about your area, the flood risk and the flood risk approaches we are proposing, see:

**Draft Aire CFMP Summary Report for Consultation
January 2010**

**Aire Catchment Flood Management Plan – January 2010
Consultation draft**

What do you think?

If you would like to contribute your comments and views as part of the Public Consultation process, please see page 39 for more details on how you can take part.

Goole and surrounding area

Overview

The Upper Humber policy unit (of which this cluster is a small part) is generally rural with a large number of small communities and considerable areas of highly-productive agricultural land. It also includes the town of Goole. There are several main roads, including the M62.

Most of the area lies below the high tide level and is consistently low-lying throughout. The agricultural land is maintained by pumping and other drainage activities – requiring substantial expenditure.

Although there is a significant risk of surface water flooding (especially in Goole), flood risk within the cluster is primarily from extreme tides in the Humber Estuary.

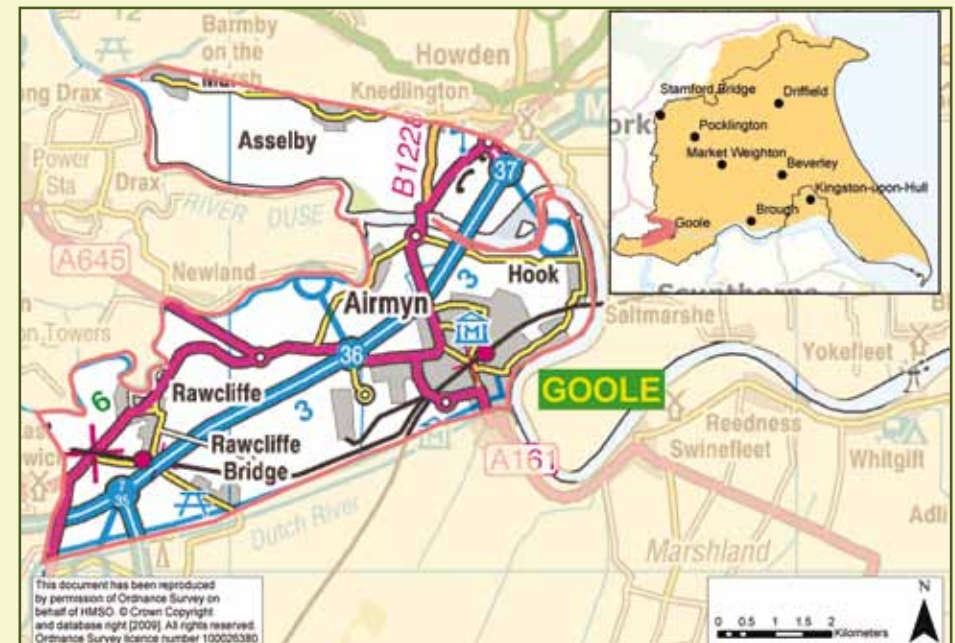
The area is particularly complex, with three major river systems merging here. The River Derwent joins the tidal River Ouse near Long Drax, while the River Aire joins the River Ouse near Airmyn. As a result, detailed work has already been done to further understand flood risk across the Upper Humber area. (See page 36).

We are proposing policy option 4:

‘Take further action to sustain the current level of flood risk into the future.’

Why is this our proposed policy?

There is currently a high standard of flood protection to communities in this area including Rawcliffe and Airmyn on the River Aire, Barmby on the Marsh on the River Ouse, as well as Goole and Hook on the Humber Estuary. Without these flood defences in place the whole area would be very vulnerable to flooding.



The flood risk is likely to increase significantly due to rising sea levels and storminess, as well as heavier river flows on the rivers Aire, Ouse and Derwent. This may lead to an increased risk of tidal locking, when rivers and drains are unable to discharge into the Humber Estuary because water levels in the estuary remain higher for longer.

Our vision, therefore, for the Upper Humber policy unit is to ensure flood risk does not increase in the future, despite the anticipated effects of climate change. The Humber Flood Risk Management Strategy already includes actions to make sure the standard of protection from the tides is sustained into the future.

There is an extensive and free flood warning system that operates across the policy unit, only a relatively small number of properties have registered for the service. In such a complex area, it is crucial that we work closely with the public and our partners to identify a strategic approach to managing flood risk from these multiple sources.

Actions include...

- Produce a plan to set out long term maintenance and financial requirements to sustain existing defences. This work has already been started for the tidal defences as part of the Humber Flood Risk Management Strategy.
- Review the Humber Flood Risk Management Strategy and the Upper Humber Study to establish the feasibility of further investigations into all sources of flooding in the Policy unit.
- Investigate the risk of erosion of flood banks including a detailed assessment of stability.
- Continue to carry out annual flood warning campaigns to highlight the risk of flooding from river and tidal sources. A specific aim should be to increase the number of households using the Flood Warning Direct (FWD) service, and working with property owners in Goole to raise flood awareness.
- Work with our partners to complete the Lower Aire Flood Risk Management Strategy. We are already working on this important study which will help us sustain the current level of flood risk in line with climate change.

- Ensure that the emergency response procedures for the area are up to date and regularly reviewed.
- Make sure that flood-resilient design and construction is used in all new developments and obtain contributions from developers towards future flood risk management works.
- Investigate the provision of localised improvements to defences between Barmby and Boothferry, on the left bank of the River Ouse and Rawcliffe on the River Aire.

Who are our key partners?

- The Local community and landowners
- Natural England
- East Riding of Yorkshire Council
- Network Rail
- Highways Agency
- Yorkshire Water
- Local Resilience Forum

Where can you find out more?

For more detail about your area, the flood risk and the flood risk approaches we are proposing, see:

Draft Ouse CFMP Summary Report for Consultation January 2010

Ouse Catchment Flood Management Plan – January 2010 Consultation draft

What do you think?

If you would like to contribute your comments and views as part of the Public Consultation process, please see page 39 for more details on how you can take part.

More about the Goole area

Why we're looking more closely at clusters 4, 5 and 6.

These clusters and the policy units in which they sit represent a complex area where a number of different rivers converge.

Goole sits at the head of the Humber and near to where the rivers Aire, Don, Ouse, Trent and Derwent merge before flowing into the Humber Estuary. The town of Goole itself is situated on low-lying land and is certainly vulnerable to flooding during extreme tides. It is also likely to be vulnerable to flooding from extreme rainfall of the sort that struck Hull in 2007.

Because of these complexities, in 2009 the Environment Agency carried out a detailed study of the area to look at cumulative effects of flood risk – for example, what would happen in the area if high tides coincide with high flows in one or more of the rivers?

The study, called the Upper Humber study, reviews the river, rain and tidal flooding risk currently faced by Goole and its outlying areas. It assesses whether there is a realistic chance of these flood risks occurring together, and if so, what the impact would be.

The information from the study has been used to check the recommended policies and actions in the Catchment Flood Management Plans. The new information will also be fed into our more detailed strategy work to develop a fuller understanding of the best ways to manage flood risk in this complex area, now and in the future.

Other work in the Goole area

We are also working on three Flood Risk Management Strategies in the area: the Lower Aire; the Isle of Axholme; the Humber as a whole.

Floods in 2000 and 2007 affected a number of local homes and businesses around the lower stretches of the River Aire. This has highlighted the challenge we face in ensuring that flood risk management is sustainable.

The Isle of Axholme Flood Risk Management Strategy is looking at the low-lying land which is bounded by the Humber and Trent, and the high ground around Doncaster and south of the River Idle. The strategy is mainly concerned with drainage and the maintenance of pumping stations, and we will be consulting on broad options for managing flood risk in the area at the same time as the CFMPs. This work will continue until we have a draft strategy available in late 2010.

The Government approved Humber Flood Risk Management Strategy will continue to be reviewed and modified to reflect improved understanding of the issues.



↑ A tributary to the Humber Estuary

Why do we need Flood Risk Management Strategies and CFMPs?

Flood Risk Management Strategies are more detailed plans that greatly improve our understanding of flooding in specific areas. While the Catchment Flood Management Plans (CFMPs) set out broad policies, the strategies dig deeper and enable us to develop a fuller understanding of the best ways to manage flood risk in some of the most complex areas of a catchment. We do not need to prepare strategies everywhere, and our CFMPs help us understand where they are needed.

Importantly, we can use strategies to review CFMPs, informing our high-level thinking and proposals.

As with CFMPs, we involve local people in the development of the strategies, consulting widely with residents, businesses, landowners and other partners. Once agreed, these strategies set out our future investment for flood risk management over the next 100 years.

How to have your say on the CFMPs

We want to hear your views about the plans and approaches we have outlined here and in the draft Catchment Flood Management Plans.

The public consultation will run for 12 weeks from **January 29 to April 23, 2010**.

For more info on the consultation, or to download a copy of the Summary documents, see: www.environment-agency.gov.uk/cfmp

You can view the full draft Catchment Flood Management Plans at:

- Libraries at Goole, Stamford Bridge and Snaith.
 - Environment Agency offices at:
 - Albion Mills, Great Gutter Lane, Willerby, Kingston Upon Hull, HU10 6DN
 - 21 Park Square South, Leeds, LS1 2QG
 - Or by calling 08708 506 506 and requesting a copy of the plans on CD.
-

You can make a response by:

- Writing to the CFMP Team, Environment Agency, 21 Park Square South, Leeds, LS1 2QG
 - Or emailing necfmps@environment-agency.gov.uk
-

You can comment on the draft CFMP for the Trent using the details above or:

- Write to the CFMP Team, Environment Agency, Sapphire East, 550 Streetsbrook Road, Solihull, West Midlands, B91 1QT
- Or emailing CFMP_Midlands@environment-agency.gov.uk

What happens next?

The draft Catchment Flood Management Plans for the Trent, Don, Aire, Calder, Ouse and Derwent will be published for consultation on **29 January, 2010**.

The finalised plans will be published in summer 2010 and will include a summary of the consultation responses. You will be able to download a copy of the Summary documents from our website or obtain a copy of the full plans by contacting us using any of the methods above.

A consultation for the draft Hull and Coastal Streams CFMP and the draft Flood Risk Management Strategy for the River Hull Catchment will be carried out simultaneously, starting in spring 2010. If you are interested in receiving information on this consultation, please get in touch with us using any of the contact methods above.

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or about your environment?**

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email

enquiries@environment-agency.gov.uk

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