

FLOODFORECASTINGCENTRE

a working partnership between



Environment
Agency



Met Office

Providing trusted guidance to help
protect lives and livelihoods from flooding



Annual Review 2013/14

Contents

Foreword	3
Overview of 2013/14 floods	4
Trusted guidance	8
Our performance	8
Overview of activity	9
Delivery time	10
Accuracy and lead time of forecasts	11
Case study – coastal flood forecasting	14
Learning, improving and developing	16
Partnership working	17
Expertise	18
Forward look	19

We welcome your comments on any of the topics in this review.
Please contact us: Tel: 0300 1234501
Email: ffcenquiries@environment-agency.gov.uk

Foreword

The Flood Forecasting Centre (FFC) is a successful working partnership between the Environment Agency and the Met Office. We bring together the sciences of hydrology and meteorology in a jointly staffed specialist centre.

2013/14 was our fifth operational year and is definitely one to remember. After an initial quiet period and below average rainfall for four successive months interspersed with some summer thunderstorms, we then experienced the wettest winter for 250 years across England and Wales, with storm after storm bringing flood after flood. This included the largest coastal surge since 1953.

It was another busy year for team FFC confirming that flood forecasting guidance is now an established and welcome part of the library of risk management information for emergency responders. The partnership between the Environment Agency and Met Office is maturing and this is enabling even closer working to bring a joined-up flood forecasting service to our customers. We demonstrated this during the winter flooding of 2013/14 through our ability to give significant notice of the likely flood impacts of the severe storms.

For me personally this was the second Christmas in a row that the FFC has worked flat out. This commitment and professionalism was recognised at the highest level with an invitation to one of our senior hydrometeorologists, Andy Lane, to meet the Prime Minister at Number 10.

All of this has been through a period of considerable change as the Environment Agency started its transformation to a two tier structure. While disruption to FFC team members employed by the Environment Agency has been minimal as they were all slotted into their existing roles, our contacts and procedures with the organisation are being reviewed and updated to complement the new ways of working.

We have applied our learning from 2012 by recruiting two extra members of staff to boost our hydrometeorology capacity and resilience. This included replacing an FFC team member who gained promotion within the Met Office, a move that endorses the centre as being recognised for its expertise and professionalism internally as well as by our customers.

I feel sure that when reading this review you will agree that during this intense and busy year we have delivered an ambitious programme of work. We look forward to continuing to build our services to match what you need.



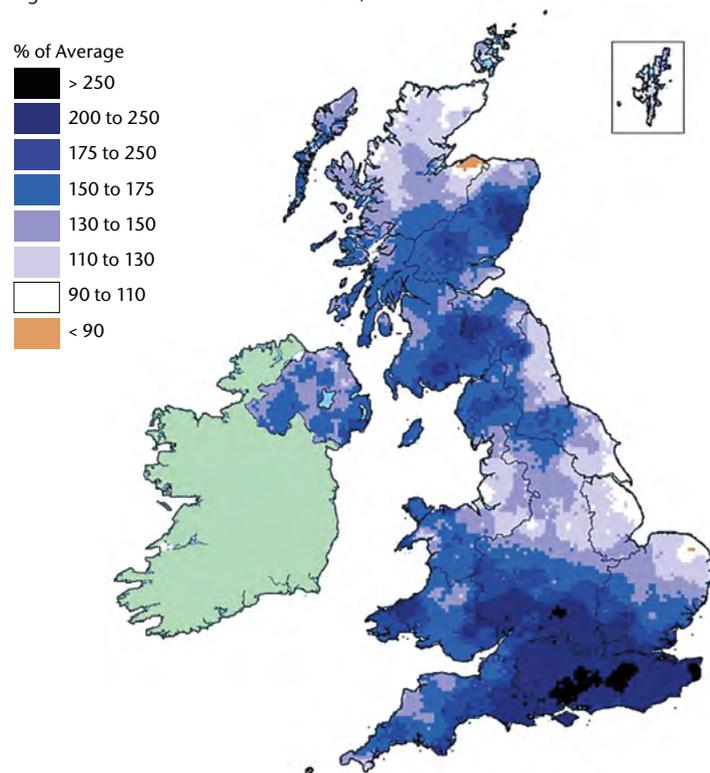
Dr Crystal Moore,
Head of Centre, September 2014

Overview of 2013/14 floods

2013/14 was a year of contrasts. It started off dry and by the end of September 2013 there had been four successive months of below average rainfall. This was broken up by typical summer thunderstorms, which brought periods of intense rain causing significant but localised flood impacts, including travel disruption and property flooding.

However, October was very wet (185 per cent of long-term average rainfall in some places) and the storm of 27/28 October brought extremely strong winds and surface water flood risks. Then the storms just kept coming bringing the biggest coastal storm surge since 1953 on 5/6 December and the wettest winter in England and Wales since records began in 1766. In December and January parts of England experienced the wettest two month period since 1910.

Figure 1 Rainfall amounts for Winter 2013/14



Communities faced flooding from rivers, the sea, surface water and groundwater, and sometimes from different sources at the same time, as twelve major storms crossed the UK between December and early February, with the most severe impacts happening on 5/6 December (see case study on page 12).

Between December and March the Environment Agency issued an unprecedented 155 severe flood warnings and protected 1.4 million properties, although 7,100 homes and businesses did flood.

These busy operational periods saw the FFC forecast for significant and severe coastal floods affecting all England and Wales. This included providing tidal information to the Department of Agriculture and Rural Development Northern Ireland (DARDNI) and the Scottish Environment Protection Agency (SEPA) for their coasts.

"The FFC hydrometeorologists were excellent and I was very impressed. Northern Ireland is only a very small part of the complex picture you were dealing with. They had an excellent understanding of what we needed."
Jonathan McKee, DARDNI

There was also widespread and prolonged inland flooding from rivers, for example on the Somerset Levels and Moors and along the Thames, as well as from groundwater. Catchments were completely saturated and overwhelmed by the rain. There were significant surface water impacts in addition.

The Flood Guidance Statement (FGS) highlighted elevated flood risk for a total of 176 days during 2013/14 with the high likelihood of severe impacts (red) forecast for 36 days in the year. The relentless nature of the conditions was such that the flood risk continued at the highest scale (red) for 26 consecutive days from 7 February to 4 March. See Figure 2 for 2013/14 forecast flood risk at a glance.

APRIL 2013 – MARCH 2014

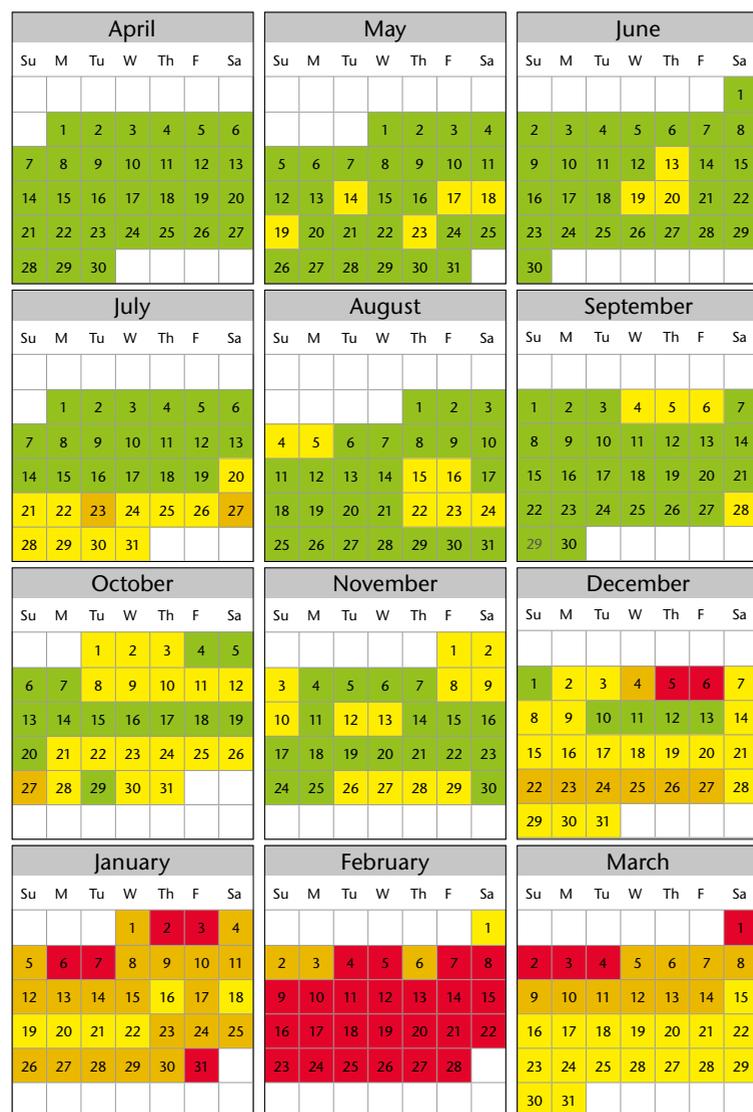


Figure 2: FGS forecast flood risk for 2013/14 – showing the highest risk level, of the five day forecast period, for each day.

As usual, our focus was on ensuring our flood forecasting was as timely and as accurate as possible to enable responders to plan and resource. In response to the complexity of multi-source flooding in the new year we made extra efforts to set out the forecast situation as clearly as possible. This included adapting the area of concern maps at times to show only significant and severe risks.

We engaged early with our key stakeholders to give them as much lead time as possible. For example for the coastal surge of 5/6 December we provided seven days notice of the potential risk through proactive communication. For this flood and throughout the rest of the winter regular briefings were given to the Prime Minister, his ministers and cabinet members. We also worked with Environment Agency and Met Office colleagues to support the Government’s emergency COBR meetings with flood forecasting information and scenario planning to inform the nation’s response.

The expertise and experience of the whole FFC team was put to the test in a sustained and unrelenting way. We remained operationally resilient throughout maintaining double (and sometimes triple) staffing as required.

“Your forecasts have been very accurate. We and the public should really pay attention to you.”
 Owen Paterson, former Secretary of State for Environment, Food and Rural Affairs.

Trusted guidance

Top of our customers' list of needs is the requirement to receive accurate flood forecasts with the longest lead time. Assessing flood risk in England and Wales is complex; with approximately 6 million properties at risk of flooding from four sources that may occur separately or in combination.

The FFC team of specialist hydrometeorologists meet this challenge by providing a range of 19 different products and services for responders. This includes providing the best available information to local Environment Agency and Natural Resources Wales forecasting teams, by making good use of the new range of ensemble and higher resolution rainfall, coastal and river flood models.

With high quality input from the Environment Agency and Natural Resources Wales local teams and the Met Office meteorologists, our national forecasting overview for emergency responders is captured in the daily Flood Guidance Statement (FGS).

Since its introduction in 2009 the FGS has become a firmly established aide to responders and has helped us become the trusted adviser that we are today. We are committed to continually improving the FGS and we use customer feedback and our own performance data to focus this development.

The next section gives an overview of our performance for 2013/14 and helps inform continued customer confidence in the FFC.

Our performance

Part of our improvement work includes getting better at the collection and analysis of performance data. We are striving towards producing a clear set of statistics for our customers that show the accuracy and timeliness of our flood forecasting products.

During 2013/14 we systematically captured more information than ever before to enable us to report more rigorously including data by the different sources of flooding and also by impact. This is still work in progress, so the figures in this review are not directly comparable with previous years, although we hope they will be in future years.



Flooding in Braunton, North Devon, December 2013

Overview of activity

The intensity of 2013/14 is reflected in the number of Flood Guidance Statements that we issued. There were 431 FGSs, which included 66 statements outside of the usual 10:30 hours issue. This shows the FFC's commitment to continually assess and refine the flood forecasting information to ensure it is as accurate as possible at all times. The majority of the extra editions were during December, January and February. This high level of flood forecasting activity is consistent with the previous year (2012/13), when we issued 426 FGSs, including 68 in addition to the 10:30am version.

"I want to thank you and all of your colleagues at the FFC for the tremendous job you are doing in response to the serious flooding in the south of England. Your dedication and professionalism is evident and very much appreciated."
David Dangerfield, Environment Agency duty manager.

Alongside production of the FGS there was a range of activities that helped to keep key decision makers in England and Wales informed of forecast flood risk. In 2013/14 the FFC team:

- took part in 132 Environment Agency and Met Office Incident Management Team telephone conference calls;
- chaired eight National Flood Advisory Service (NFAS) calls when flood risk was escalated with the Department for Environment, Food and Rural Affairs (Defra). These included the Cabinet Office and Department for Communities and Local Government (DCLG) and the Welsh Government when applicable;
- supported Defra, the Environment Agency and Met Office briefings at 50 Lead Government Department calls as the flood situation developed;
- participated in DCLG Resilience and Emergencies Division (RED) protocols which were used for the first time;
- produced long-range flood risk assessments for the Scientific Advisory Group for Emergencies (SAGE) meetings;
- joined seven COBR meetings and supported 35 in total;
- provided multiple briefings to ministers including two directly to the Prime Minister.

Delivery time

The delivery time of our flood forecasting products is important to our customers as they use the information to make planning, resourcing and response decisions.

Our target for this key performance indicator is for the morning edition to be received by our customers before 11am 95 per cent of the time. Analysis of our performance during 2013/14 showed we were slightly below our timeliness target at 91 per cent overall. This was a slight dip from our 92 per cent performance in 2012/13.

Our analysis revealed that issues with late delivery of the Flood Guidance Statement in 2013/14 were mainly linked to the scale and complexity of the flood risk situation. In particular during the busy winter months when we experienced concurrent risks from multiple sources, there was a need for more and longer consultancy and discussion, and the inclusion of many short notice amendments – all of these increased the production time.

Most of the late FGSs were delivered within ten minutes of our 11am target time, however this is an ongoing challenge to the centre as we strive to be on time, every time. We recognise these busy periods are exactly when our customers need our flood forecasting guidance the most.

We have already made changes to improve

our timeliness including implementing recommendations from the Environment Agency's continuous improvement team who worked with us following the 2012 flooding to:

- ensure there is better awareness of and adherence to our agreed FGS delivery deadlines by all FFC team members;
- streamline our FGS production process to make it simpler and quicker;
- update our guidance for all users of the daily telephone conference to keep discussion relevant and effective.



The Thames at Chertsey, February 2014

Accuracy and lead time of forecasts

The accuracy and amount of lead time provided by our flood risk assessment is vital. We know that emergency responders trust our guidance to make their resourcing and planning decisions, which reduce the risk to people, their homes and businesses.

It is a matter of record that 2013/14 was a particularly challenging year for severe weather and flooding. The Flood Guidance Statement is our primary flood forecasting product and, since its introduction in 2009 when the Flood Forecasting Centre was set up, it has become an essential part of the flood information suite available to responders. Our most recent market research (February 2013) confirms 93 per cent satisfaction with the FGS.

Over 2,750 emergency responders are registered for the FGS.

We verify the accuracy of our Flood Guidance Statements by monitoring flood impacts and checking that they did occur at the forecast level of either minimal, minor, significant or severe (as defined in figure 3 below) at a county or unitary authority level.

Flood impacts table			
Minimal impacts	Minor impacts	Significant impacts	Severe impacts
<ul style="list-style-type: none"> • Generally no impact, however there may still be. • Isolated and minor flooding of low-lying land and roads. • Isolated instances of spray/wave overtopping on coastal promenades. • Little or no disruption to travel although wet road surfaces could lead to difficult driving conditions. 	<ul style="list-style-type: none"> • Localised flooding of land and roads – risk of aquaplaning. • Localised flooding could affect individual properties. • Individual properties in coastal locations affected by spray and/or wave overtopping. • Localised disruption to key sites identified in flood plans (e.g. railways, utilities). • Local disruption to travel – longer journey times. 	<ul style="list-style-type: none"> • Flooding affecting properties and parts of communities. • Damage to buildings/structures is possible. • Possible danger to life due to fast flowing/deep water/wave overtopping/wave inundation. • Disruption to travel is expected. A number of roads are likely to be closed. 	<ul style="list-style-type: none"> • Widespread flooding affecting significant numbers of properties and whole communities. • Collapse of buildings/structures is possible. • Danger to life due to fast flowing/deep water/wave overtopping/wave inundation. • Widespread disruption or loss of infrastructure identified in flood plans (e.g. railways, utilities, hospitals). • Severe disruption to travel. Risk of motorists becoming stranded.

Figure 3 Flood impacts table

We know from our customer research that responder activity is generally triggered when significant or severe impacts are forecast. As a result we focus our measurements on our ability to reliably forecast these flood impacts.

The figures below show our 2013/14 level of performance at county level for all FGSs, issued at 10:30am, when significant and severe flood impacts were forecast. A hit is when we forecast flooding and it happened at the impact level forecast. A miss is when either flooding occurred that was not forecast or the flooding was at different level of severity to our forecast.

- Day 1 – 86 per cent hits (14 per cent misses)
- Day 2 – 82 per cent hits (18 per cent misses)
- Day 3 – 76 per cent hits (24 per cent misses)
- Day 4 – 70 per cent hits (30 per cent misses)
- Day 5 – 55 per cent hits (45 per cent misses)

Our 2013/14 statistics demonstrate that we are more likely to forecast flooding and it happen than not. However, it is important to take into account some of the factors influencing our forecasting assessments. These included sustained periods of river flooding on the Somerset Levels and Moors and along the Thames, an adjustment of the risk evaluation for coastal forecasting to reflect degraded or damaged defences particularly in Cornwall, Devon and Dorset and ongoing groundwater flooding in a large part of the south of England.

So, the high level of accuracy across the five day forecasting period during 2013/14 should be viewed with a note of caution due to the unusual flooding conditions experienced.

Having recognised a need to improve our forecast accuracy for days 3, 4 and 5 we concentrated on this during 2013/14. One of the ways of measuring our performance and improving customer confidence is to look at the ratio of false alarms for the FGS at day 3.

Our analysis shows that the probability of a false alarm, which is when we forecast flooding on day 3 but impacts were not recorded on day 1, varies depending on the flood source. False alarm ratios based on FGS day 3 forecasts for significant and severe impacts for 2013/14 were as follows (under 30 per cent is good performance):

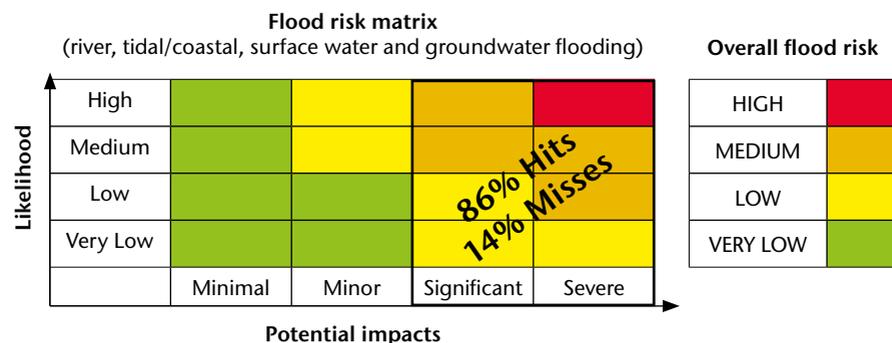
- River flooding – 27 per cent
- Coastal flooding – 85 per cent (reflects precautionary adjusted risk evaluation due to degraded/damaged flood defences)
- Surface water flooding – 74 per cent (reflects challenge of county scale forecasting for scattered and localised impacts)
- Groundwater – 22 per cent
- All flood sources – 25 per cent

It should be noted that at day 3 there is often uncertainty in the flood risk forecast, particularly in the location of impacts. This means that the areas of concern are often changed as the forecast flood approaches and our confidence increases.

We know from our customer engagement and insight that an important trigger point for emergency responder activity is when the FGS is amber indicating significant or severe flood impacts.

A valuable finding from our performance data analysis is that 92 per cent of all FGSs that indicated significant flood impacts on Day 3, were yellow reflecting the assessment of likelihood as low or even very low at that time. This means that responders who wait to see an amber colour on the FGS before taking action are missing out on important lead time.

Using this learning we will be making further improvements to the Flood Guidance Statement during 2014/15 to provide greater emphasis on the forecast impact levels, as well as differentiating between new and continuing flooding.



	All sources Hit/Miss%		River Hit/Miss%		Coastal Hit/Miss%		Surfacewater Hit/Miss%		Groundwater Hit/Miss%	
	Hit	Miss	Hit	Miss	Hit	Miss	Hit	Miss	Hit	Miss
Day 1	86	14	89	11	72	28	56	44	98	2
Day 2	82	18	89	11	60	40	56	44	94	6
Day 3	76	24	81	19	57	43	52	48	89	11
Day 4	70	30	72	28	57	43	42	58	85	15
Day 5	55	45	64	36	12	88	21	79	80	20

Figure 4 Flood risk matrix and probability of detection (hits and misses) for 2013/14 by source.

Case study coastal flood forecasting – 5 and 6 December 2013

The first week of December 2013 saw the largest coastal flood for 60 years on the east coast and for 30 years on the west coast. The FFC had a key role in accurately forecasting the risk, and this together with the wider forecasting and warning services provided by the Environment Agency, Natural Resources Wales and Met Office underpinned the preparation and response to the situation.

A deep Atlantic storm brought severe gale force winds with gusts up to 100mph forcing a huge surge down both the west and east coasts of the UK. The storm and winds joined forces with high spring tides and low pressure to increase both water levels and wave heights over three successive tides starting on the afternoon of Thursday, 5 December until Saturday, 7 December.

The potential surge was first spotted seven days ahead. FFC hydrometeorologists worked with the Environment Agency, Natural Resources Wales and Met Office teams to assess how the dynamic interaction between the surge, waves and tides translated into flood risk. As confidence and detail in the forecasting models increased, and the extra risk of coastal defences being overtopped was evaluated, it became clear that significant and possibly severe impacts were likely.

The risk level in the Flood Guidance Statement was escalated during that week up to high likelihood of severe flooding (red), alerting all Category 1 and 2 emergency responders of the danger to life from widespread flooding.

Early telephone conference briefings ensured that government contacts and emergency responders were given good notice of the developing situation. This also included FFC joining the top level COBR telephone briefings.

Coastal surge and wave models developed through the UK Coastal Monitoring and Forecasting Service (UKCMF) are hosted on the Met Office supercomputer. It was good data from these models that helped inform critical decision-making on forecasts and severe flood warnings at the FFC, Environment Agency and Natural Resources Wales. As the surge moved down the North Sea the FFC maintained a round the clock commentary on live observations against the forecast. During this period, for the first time, a Chief Fire Officers Association liaison officer sat in the Flood Forecasting Centre providing a two-way exchange of forecast and impact information as it was happening.

Along the west coast, Merseyside, Blackpool and in Wales, Conwy, Flintshire and Denbighshire all experienced significant and locally severe coastal flooding. And down the east side of the country severe flooding affected the East Riding of Yorkshire, Kingston upon Hull, North Yorkshire and Lincolnshire with widespread significant impacts experienced from Northumberland all the way down to Kent. There was also some local flooding along the south coast including West Sussex and the Isle of Wight, as well as in Scotland and Northern Ireland.

In 1953 a huge surge left 307 people dead and 24,000 properties flooded along the East Coast. Sixty years later, there were no flood related deaths and one tenth of the level of property flooding. While still frightening and devastating for those who were affected, this clearly shows the huge improvement in forecasting and warning for severe weather and flooding as well as the value of constructing flood defences and providing quicker, direct ways to warn and inform those at risk.

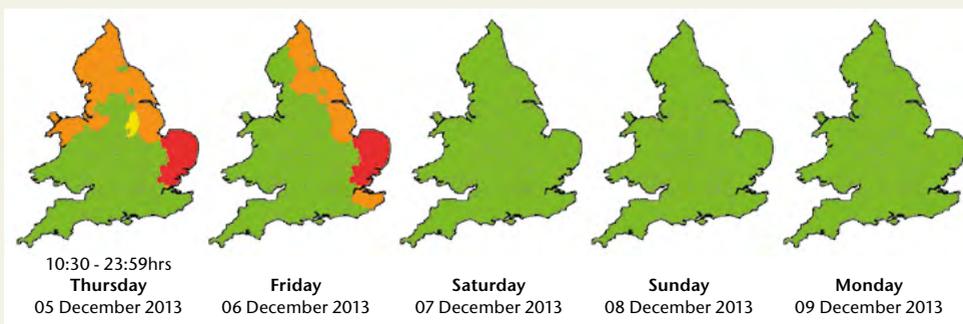


Figure 5: Maps from Flood Guidance Statement on 5 Dec 2013

"We have complete faith in what you share - and we appreciate you sharing the uncertainty too. You are unfailingly accurate. Embedding an officer with you was invaluable for this event."
Roy Harold, Fire and Rescue Service



Above: Boston, Lincolnshire
Left: Chiswell village, near Chesil beach, Dorset

Learning, improving and developing

As well as providing a consistent professional flood forecasting service throughout this busy operational period, we also made the most of the year to embed our learning and apply improvements as we continue to develop and improve our products and services to meet customer needs. In 2013/14 these included:

- Bringing to life our learning from flooding in 2012 to deliver enhancements to the FGS and also to our guidance service for the Environment Agency. These included improving detail, clarity and presentation as well as simplifying the production process.

“Just to say thanks for your efforts, the new style and format looks very good and is definitely an improvement on the original.”
Steve Barnes, Cabinet Office

- Producing an e-learning package ‘Making Better Decisions with the Flood Guidance Statement’ through Defra’s capacity building programme. This complements the Joint Responder Training materials.
- Working closely with Met Office colleagues to define FFC user requirements for Hazard Manager improvements to be delivered in 2014/15.
- Improving flood forecasting capability by pulling-through the Met Office new high resolution rainfall models into the FFC suite of systems.

- Through the Natural Hazard Partnership (NHP), working with the Health and Safety Laboratory (HSL), Centre for Ecology and Hydrology (CEH), Environment Agency and Met Office to study surface water impacts and start to develop an integrated surface water flooding Hazard Impact Model. This work aims to prove the concept and provide additional evidence to support the approach, with a view to developing a capability that can improve our guidance and alerting systems for surface water flooding.
- Successfully managing the set-up of Grid-to-Grid (G2G), the national forecasting system used by the FFC, to run on the Met Office high performance computer opening the way for improved integration of weather and hydrological hazard forecasting.
- Applying the learning from our structured analysis of G2G into the FFC assessment of river flood risk for the FGS.
- Embedding operational learning from hot debriefs and post-flood reviews, sharing expertise across the team.
- Working with the National Oceanographic Centre (NOC) to improve FFC understanding of coastal surge models to help improve this specialist type of flood forecasting.
- Scoping and recommending improvements to FGS verification – an important tool in managing the quality and accuracy of our advice. Progress is planned for 2014/15.

Partnership working

The strong partnership between the Environment Agency and Met Office ensures the FFC is credible and trusted by its customers.

We continue to hone our development programme. Feedback from customers and partners helps to ensure our forecasting products and services are fit for purpose.

Our Stakeholder User Group meets twice a year and in 2013/14 we shared key learning from our experiences of coastal, surface water and groundwater flooding. Discussions with group members helped improve our knowledge of how responders use our flood risk matrix and we are using this insight to review and refine the Flood Guidance Statement.

2013/14 was another strong year for visitors to the FFC starting with the then Defra Secretary of State, Owen Paterson and Defra Director General, Peter Unwin, who were both full of praise for the centre and the Defra Minister Dan Rogerson, who came to the FFC to personally thank staff over the new year period. We also welcomed Peter Matthews and Dr Emyr Roberts the Chairman and Chief Executive of Natural Resources Wales, hosted the Environment Agency’s Regional Flood and Coastal Committee (RFCC) chairmen, presented to 20 flood resilience managers from lead local flood authorities in the south west, held a workshop for the Department of Communities and Local Government (DCLG) Red team, exhibited at the International Conference on Flood Resilience at Exeter University and opened our doors to 80 of the conference delegates at the FFC and Met Office.

“It was a great visit, very informative and well organised. The feedback from RFCC chairs has been very positive and I am sure that our individual and collective levels of understanding of forecasting issues and developments have risen sharply.”
Jeremy Walker, board member
Environment Agency

Other guests included the Government Chief Science Adviser, Sir Mark Walport, labour leader Ed Milliband with Exeter constituency MP Ben Bradshaw, Paul McCloghrie from the Civil Contingency Secretariat and many more. The total number of visitors to the FFC in 2013/14 was 375.

Despite the busy operational year we also got out and about to Environment Agency local forecasting teams to share best practice and fine tune how we work with each other. We went to the AA Special Operations Response Team and the Fire Service Training college, and presented at a wide range of events including the Public Health England health and flood research workshop and the Storm Surge Networking Forum in Venice. Finally, we joined Met Office colleagues in internal roadshow sessions where we showcased the FFC as a great career option.

The public 3 day flood forecast continued to be well used. Based on customer comment we improved the language and style of the text prior to it moving to .GOV.UK with the rest of the Environment Agency web pages. There is still work to do on the layout to make the information easier to read and we hope to make progress with this during 2014/15.

Expertise

The FFC remains a small team of 24 evenly split between Met Office and Environment Agency staff. During 2013/14, as well as improving our forecasting tools, systems, products and services, we have continued to further develop our team members through technical training. This has been reflected by the increasing number of our people who have successfully completed their professional qualifications. These include:

- five of our staff attaining chartered accreditation with the Chartered Institute of Water and Environment Management (CIWEM), Chartered Scientist (CSci) or making Chartered Meteorologist (CMet) status with the Royal Meteorological Society;
- two successfully completing the Diploma in Flood Forecasting, with many others within the team working towards this qualification.

We recruited two new people to boost our forecasting capacity and build resilience. This provided cover for maternity leave and staff development such as secondments to other locations.



Thames Barrier closure, December 2013

During the winter flooding our chief hydrometeorologist worked closely with the Scientific Advisory Group for Emergencies (SAGE) to produce scenario based flood risk assessments for COBR. This was a great opportunity to draw on the capabilities we developed with the British Geological Survey (BGS), Centre for Ecology and Hydrology (CEH) and other partners to produce and publish the Hydrological Outlook, with a particular emphasis on groundwater flood forecasting.

Into Europe, we presented our work at the European Flood Awareness System annual conference in Bratislava, joined workshops at the European Centre for Medium Range Weather Forecasting (ECMWF), presented at the European Meteorological Society, the eSurge Storm Surge Networking Forum in Venice and the Forecasting Early Warning System (FEWS) meeting in Delft. We were also invited, and presented, as an expert in the World Meteorological Organization (WMO) Coastal Inundation Forecasting Demonstration Project.

Forward look

We will continue to build on our experience and the learning we gained during 2013/14 to develop and improve our products and services. In 2014/15 our focus will be:

- to keep our operational forecasting at the top of our priority list to ensure our customers get the best possible forecasts with the longest lead times and most targeted information;
- to build on our improved performance reporting and give a clearer and quicker picture of our capabilities;
- to encourage and enable team members to develop and gain professional qualifications;
- to focus flood forecast information and how our customers use it on impacts (particularly significant and severe) rather than the colours (red, amber, yellow and green);
- to work more closely with our customers to understand and explore their specific flood forecasting requirements.

We will also be looking further ahead by working closely with our partners to consider and decide on the future evolution of the Flood Forecasting Centre from the strong base that currently exists.



Egham, February 2014



Flooding on the Somerset Levels, February 2014

We welcome your comments on any of the topics in this review.
Please contact us: Tel: 0300 1234501
Email: ffcenquiries@environment-agency.gov.uk

Flood Forecasting Centre
Met Office
FitzRoy Road, Exeter
Devon, EX1 3PB
United Kingdom

Tel: 0300 1234501
Email: ffcenquiries@environment-agency.gov.uk
www.ffc.environment-agency.metoffice.gov.uk
Produced by the Met Office
© Crown copyright 2014 14/0607
Met Office and the Met Office logo are registered trademarks